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# Product Selection Guide

Amplifiers

Data Converters

Linear Regulators

Switching Regulators

µModule DC/DC Converters

Battery Chargers

LED Drivers

Hot Swap

Interface

Filters

High Frequency

Silicon Oscillators

Comparators

µP Supervisor

References

Datasheet.Cloud



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

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Regarding 1K Quantity Pricing: Price shown is unit price (lowest cost package version) when purchased in quantities of 1000.

C.F. = Contact Factory for pricing.

**TRADEMARKS**

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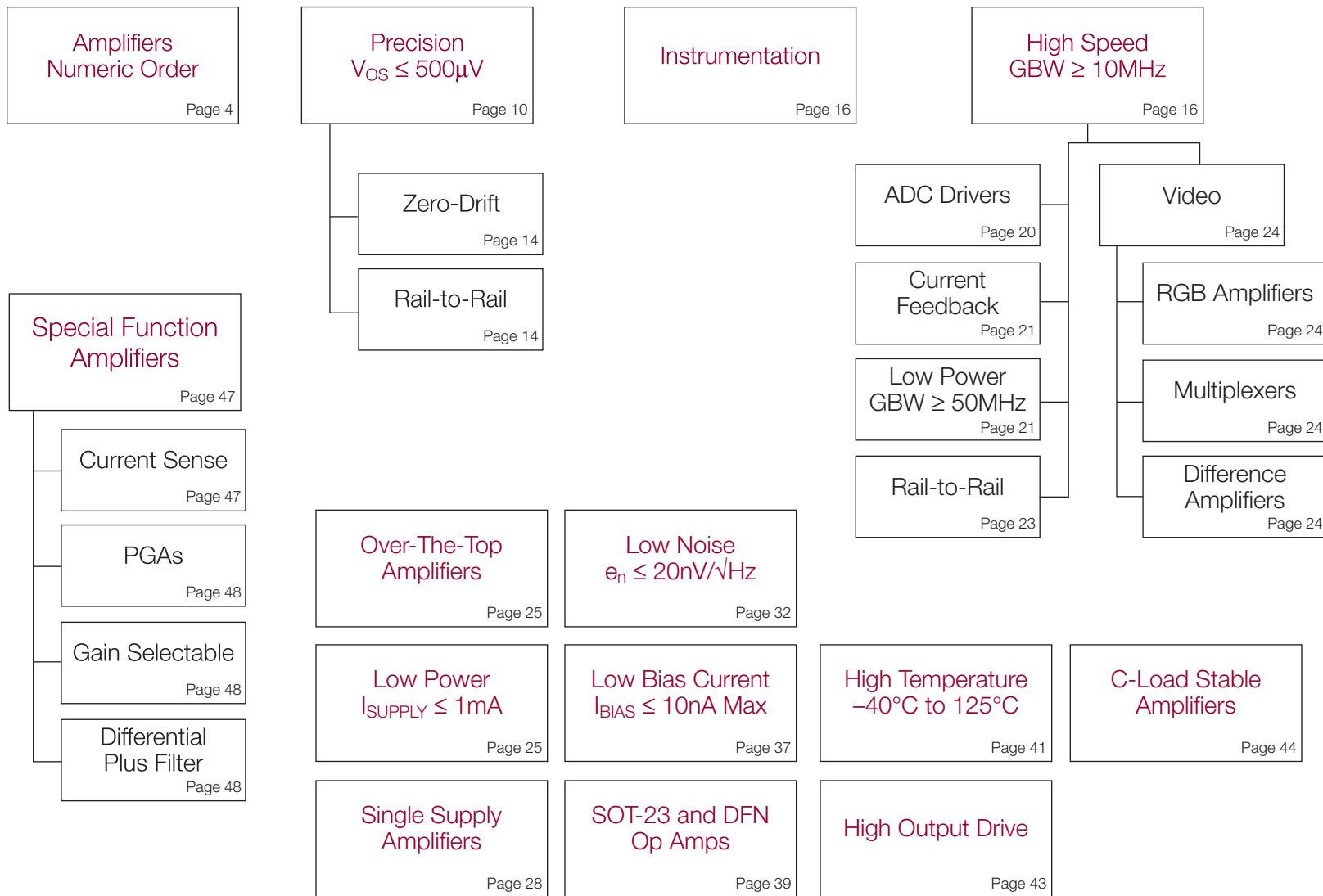


# Linear Technology High Performance Analog ICs

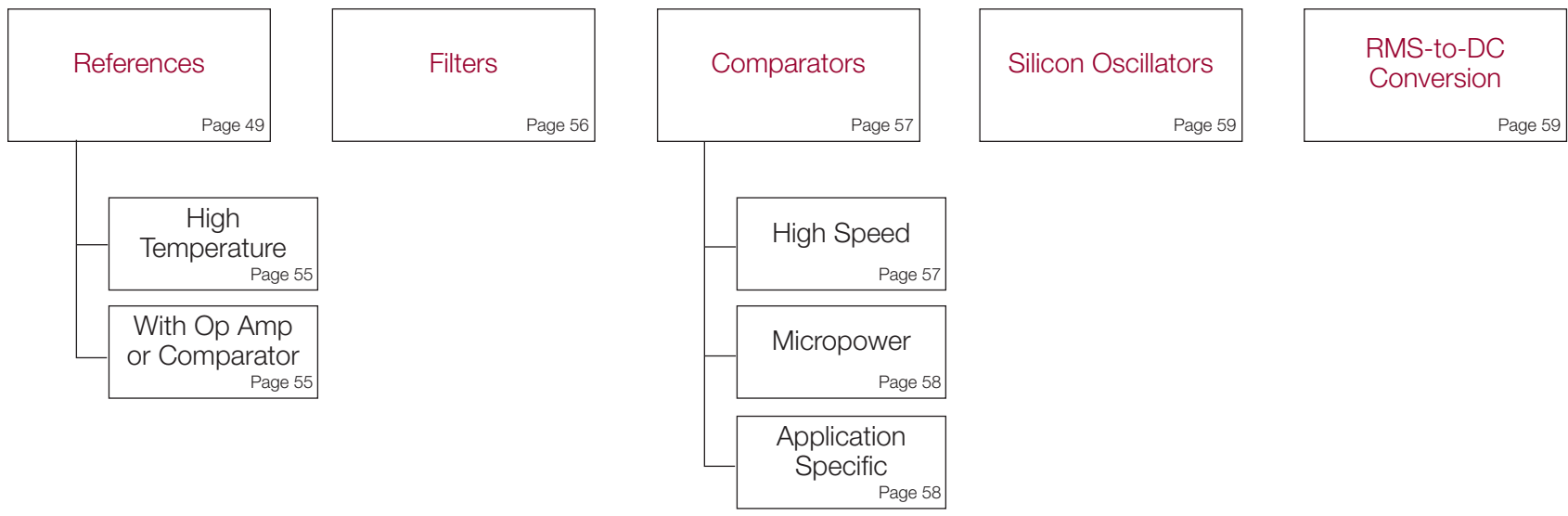
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Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# Amplifiers



# References, Filters, Comparators, Oscillators, RMS-to-DC





# AMPLIFIERS NUMERIC ORDER

† Part Number	Amplifiers Per Package	V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Av Min Stable Typ 25°C (V/V)	Price 1K Qty
LT1001	1	25	0.6	2	0.8	0.25		800	9.6	0.1	12	2.5	6	44		DIP-8/SO-8	20000	VFB	1	\$1.65
LT1002	2	60	0.9	3	0.8	0.25		800	9.6	0.1	12	2.5	6	44		DIP-14	20000	VFB	1	\$2.85
LT1006	1	50	1.3	15	0.6	0.4		25000	22	0.07	6.5	0.52	4	44	ss	DIP-8/SO-8	10	VFB	1	\$1.55
LT1007	1	25	0.6	35	8	2.5		20000	2.5	0.04	18.3	4	4	44		DIP-8/SO-8	100	VFB	1	\$1.90
LT1008	1	120	1.5	0.1	1	0.2		2000	14	0.02	1.3	0.6	4	40		DIP-8/SO-8	600	VFB	1	\$2.95
LT1010	1	150000		250000	30	200		1000	20		150	9	4.5	44		DIP-8/T-5/DFN-10	330000	BUF	1	\$2.40
LT1012	1	25	0.6	0.1	1	0.2		2000	14	0.02	1.3	0.5	2.4	40		DIP-8/SO-8	1000	VFB	1	\$1.60
LT1013	2	150	2	20	0.8	0.4		8000	22	0.07	6.5	0.5	4	44	ss	SO-8/DIP-8	100	VFB	1	\$1.90
LT1014	4	150	2	20	0.8	0.4		8000	22	0.07	6.5	0.5	4	44	ss	DIP-14/SOW-16	100	VFB	1	\$3.45
LT1022	1	250	5	0.05	8.5	26	900	400	14	0.0018	6	7	8	40		DIP-8	100	JFET	1	\$2.80
LT1024	2	50	1.5	0.12	1	0.2		2000	14	0.02	10 Typ	0.6	4	40		DIP-14	1000	VFB	1	\$4.75
LT1028	1	40	0.8	90	75	15		30000	0.85	1	18.3	9.5	8	44		DIP-8/SO-8/SOW-16	300	VFB	2	\$4.75
LT1037	1	25	0.6	35	60	15		20000	2.5	0.4	18.3	4.3	8	44		DIP-8/SO-8	100	VFB	5	\$1.90
LT1055	1	700	12	0.05	4.5	12	600	400	15	0.0018	30 Typ	4	8	40		DIP-8/SO-8	100	JFET	1	\$1.90
LT1056	1	800	12	0.05	5.5	14	400	400	15	0.0018	30 Typ	7	8	40		DIP-8/SO-8	100	JFET	1	\$1.90
LT1057	2	450	10	0.05	5	14	600	350	13	0.0015	20 Typ	2.5	8	40		DIP-8/SO-8/SOW-16	8000	JFET	1	\$2.45
LT1058	4	600	15	0.05	5	14	600	350	13	0.0015	20 Typ	2.5	8	40		DIP-14/SOW-16	8000	JFET	1	\$4.20
LT1077	1	40	1.6	9	0.23	0.08		1000	27	0.065	5.5	0.06	2.2	44	ss	DIP-8/SO-8	1500	VFB	1	\$1.60
LT1078	2	70	1.8	8	0.2	0.07		1000	28	0.06	5.5	0.05	2.2	44	ss	DIP-8/SO-8	1800	VFB	1	\$2.70
LT1079	4	100	1.8	8	0.2	0.07		1000	28	0.06	5.5	0.05	2.2	44	ss	DIP-14/SOW-16	1800	VFB	1	\$3.40
LT1097	1	50	1.2	0.25	0.7	0.2		2500	14	0.008	5.75	0.56	2	40		DIP-8/SO-8	10000	VFB	1	\$1.75
LT1101	1	160	2	8	0.37	0.1			43	0.06	5.5	0.13	1.8	44		DIP-8/SOW-16	30000	IA	10	\$4.75
LT1102	1	600	8	0.04	3.5	30	1800		19	1.5	6	5	18	40		DIP-8	50000	IA	10	\$4.75
LT1112	2	60	0.5	0.25	0.75	0.3		5000	14	0.0008	5.5	0.4	2	40		DIP-8/SO-8	All	VFB	1	\$2.35
LT1113	2	1500	1.5	0.45	5.6	3.9		4800	4.5	0.01	12	6.25	9	40		DIP-8/SO-8	10000	JFET	1	\$3.15
LT1114	4	60	1.1	0.25	0.75	0.3		5000	14	0.008	5.5	0.4	2	40		DIP-14/SO-16	All	VFB	1	\$4.40
LT1115	1	200	8.5 Typ	380	70	15		20000	0.9	1.2	18.3	11.5	8	44		DIP-8/SOW-16	4000	VFB	1	\$2.90
LT1122	1	600	18	0.075	14	80	340	500	14	0.002	19.1	10	20	40		DIP-8/SO-8	500	JFET	1	\$2.45
LT1124	2	70	1	20	12.5	4.5		17000	2.7	0.3	6.25	2.75	8	44		DIP-8/SO-8	15	VFB	1	\$3.50
LT1125	4	90	1	20	12.5	4.5		17000	2.7	0.3	6.25	2.75	8	44		DIP-14/SOW-16	15	VFB	1	\$5.70
LT1126	2	70	1	20	65	11		17000	2.7	0.3	6.25	3.1	8	44		SO-8/DIP-8	15	VFB	10	\$3.50
LT1127	4	90	1	20	65	11		17000	2.7	0.3	6.25	3.1	8	44		DIP-14/SOW-16	15	VFB	10	\$5.70
LT1128	1	40	0.8	90	20	6		30000	0.85	1	18.3	9.5	8	44		DIP-8/SO-8	500	VFB	1	\$4.75
LT1167	1	40	0.3	0.35	1	1.2	14000		7.5	0.124	20	1.3	4.6	40		DIP-8/SO-8	1000	IA	1	\$3.20
LT1168	1	40	0.3	0.25	0.4	0.5	30000		10	0.074	20	0.53	4.6	40		DIP-8/SO-8	1000	IA	1	\$3.70
LT1169	2	2000	50	0.02	5.3	4.2		4500	6	0.001	12	6.5	9	40		DIP-8/SO-8	1000	VFB	1	\$3.85
LT1178	2	70	3	5	0.085	0.04		2500	49	0.00001	5.5	0.017	2	44	ss	DIP-8/SO-8/SOW-16	2500	VFB	1	\$2.95
LT1179	4	100	0.3	5	0.085	0.04		2500	49	0.00001	5.5	0.017	2	44	ss	DIP-14/SOW-16	2500	VFB	1	\$3.70
LT1187	1	10000	13 Typ	2000	50	165	100	5.5	65	1.5	21.3	16	4	18		DIP-8/SO-8	10	VIDEO	2	\$2.90
LT1189	1	3000	13 Typ	2000	180	220	1000	14	30	1.25	21.3	16	4	18		DIP-8/SO-8	10	VIDEO	10	\$2.90
LT1190	1	10000	16 Typ	2500	50	450	140	22	50	4	50	38	4	18		DIP-8/SO-8	10	VFB	1	\$1.70
LT1191	1	5000	8 Typ	2500	90	450	110	45	25	4	50	38	4	18		DIP-8/SO-8	30	VFB	1	\$1.70
LT1192	1	2500	2 Typ	2500	350	450	90	180	9	4	50	38	4	18		DIP-8/SO-8	50	VFB	5	\$1.70
LT1193	1	12000	20 Typ	3500	80	500	180	17	50	4	64	40	4	18		DIP-8/SO-8	30	VIDEO	2	\$2.90
LT1194	1	6000	6 Typ	3500	350	500	200		15	4	64	40	4	18		DIP-8/SO-8	50	VIDEO	10	\$2.90
LT1195	1	8000	12 Typ	2000	50	165	220	11	70	2	20	16	4	18		DIP-8/SO-8	10	VFB	1	\$1.70
LT1203	1	30000	10 Typ	5000	150	300	85	1			4.5	14	9	36		DIP-8/SO-8	100	VIDEO	1	\$1.50
LT1204	1	14000	19 Typ		95	1000	70		7	1.5	35	24	9	36		DIP-16/SOW-16	4000	VIDEO	1	\$4.80
LT1205	2	30000	10 Typ	5000	150	300	85	1			4.5	14	9	36		SO-16	100	VIDEO	1	\$2.60
LT1206	1	10000	20 Typ		66	900			3.6	2	250	30	10	36		DDPAK-7/DIP-8/SO-8/TO-220	10000	CFA	1	\$3.40
LT1207	2	10000	20 Typ		66	900			3.6	2	250	30	10	36		SO-16	10000	CFA	1	\$6.90
LT1208	2	3000	7 Typ	8000	45	400	90	7	22	1.1	24	9	8	36		DIP-8/SO-8	All	VFB	1	\$4.25
LT1209	4	3000	7 Typ	8000	45	400	90	7	22	1.1	24	9	8	36		DIP-14/SO-16	All	VFB	1	\$6.65

† Primary Sort Column

# AMPLIFIERS NUMERIC ORDER

† Part Number	Amplifiers Per Package	V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Av Min Stable Typ 25°C (V/V)	Price 1K Qty
LT1210	1	15000	35 Typ		66	900			3	2	1100	50	8	36		DDPAK-7/SO-16/TO-220	10000	CFA	1	\$6.40
LT1211	2	150	1.5	100	13	7	900	560	12	0.2	20	1.8	2.5	36	ss	DIP-8/SO-8	8000	VFB	1	\$2.85
LT1212	4	275	3	125	13	7	900	560	12	0.2	20	1.8	2.5	36	ss	DIP-14/SO-16	8000	VFB	1	\$5.10
LT1213	2	150	1.5	160	28	8.5	500	850	10	0.2	30	3.8	2.5	36	ss	DIP-8/SO-8	1000	VFB	1	\$2.85
LT1214	4	275	3	200	28	8.5	500	250	10	0.2	30	3.8	2.5	36	ss	DIP-14/SO-16	1000	VFB	1	\$5.10
LT1215	2	300	2.5	500	23	30	250	150	12	0.5	30	6.6	2.5	36	ss	DIP-8/SO-8	1000	VFB	1	\$2.85
LT1216	4	450	5	600	23	30	250	600	12	0.5	30	6.6	2.5	36	ss	DIP-14/SO-16	1000	VFB	1	\$5.10
LT1217	1	3000			10	500	280	177	6.5	0.7	50	2	10	36		DIP-8/SO-8	5000	CFA	1	\$3.20
LT1218	1	90	3	70	0.3	0.1		1000	33	0.09	5	0.42	2	36	yes	SO-8/DIP-8	1000	VFB	1	\$4.75
LT1218L	1	90	3	70	0.3	0.1		1000	33	0.09	5	0.42	2	16	yes	SO-8/DIP-8	1000	VFB	1	\$2.90
LT1219	1	90	3	70	0.15	0.05		1000	33	0.09	5	0.42	2	36	yes	SO-8/DIP-8	100000	VFB	1	\$4.75
LT1219L	1	90	3	70	0.15	0.05		1000	33	0.09	5	0.42	2	16	yes	SO-8/DIP-8	100000	VFB	1	\$2.90
LT1220	1	1000	8 Typ	300	45	250	75		17	2	24	10.5	5	36		SO-8/DIP-8	100000	VFB	1	\$3.40
LT1221	1	1000	8 Typ	300	150	250	90	100	6	2	24	10.5	5	36		SO-8/DIP-8	1000	VFB	4	\$3.30
LT1222	1	300	8 Typ	300	500	200	75	200	3	2	24	10.5	5	36		SO-8/DIP-8	1000	VFB	10	\$3.40
LT1223	1	3000			100	1000	75	5000	33	2.2	50	10	5	36		SO-8/DIP-8	1800	CFA	1	\$2.85
LT1224	1	2000	7 Typ	8000	45	400	90		22	1.5	24	9	5	36		SO-8/DIP-8	1000	VFB	1	\$2.85
LT1225	1	1000	7 Typ	8000	150	400	90	20	7.5	1.5	24	9	5	36		SO-8/DIP-8	1000	VFB	5	\$2.85
LT1226	1	1000	7 Typ	8000	1000	400	100	150	2.6	1.5	24	9	5	36		SO-8/DIP-8	1000	VFB	25	\$2.85
LT1227	1	10000	10 Typ		140	1100	50		3.2	1.7	30	15	4	36		DIP-8/SO-8	2000	CFA	1	\$2.40
LT1228	1	5000	9 Typ	1000	100	500	45		20	1.4	30	15	4	36		DIP-8/SO-8	2000	CFA	1	\$3.75
LT1229	2	10000	6 Typ		100	700	45		3.2	1.4	30	9.5	4	36		DIP-8/SO-8	2000	CFA	1	\$3.75
LT1230	4	10000	6 Typ		100	700	45		3.2	1.4	30	9.5	4	36		DIP-14/SO-14	2000	CFA	1	\$7.00
LT1251	1	5000	13.5 Typ	30000	40	300	65		2.7	1.5	30	17	5	36		DIP-14/SO-14	100	CFA	1	\$5.85
LT1252	1	15000			250	250		1.5	3	1.5	30	18	4	28		DIP-8/SO-8	100	CFA	1	\$1.70
LT1253	2	15000			250	250		1.5	3	1.5	30	11	4	28		DIP-8/SO-8	100	CFA	1	\$2.45
LT1254	4	15000			250	250		1.5	3	1.5	30	11	4	28		SO-14/DIP-14	100	CFA	1	\$4.40
LT1256	1	5000	13.5 Typ		40	300	65		2.7	1.5	30	17	5	36		DIP-14/SO-14	100	CFA	1	\$5.85
LT1259	2	12000	5 Typ		130	1600	75	3.98	3.6	1.3	30	7.5	4	36		DIP-14/SO-14	1000	CFA	1	\$2.45
LT1260	3	12000	5 Typ		130	1600	75	3.98	3.6	1.3	30	7.5	4	36		DIP-16/SO-16	1000	CFA	1	\$2.60
LT1351	1	600	8	50	3	200	700	80	14	0.5	30	0.33	5	36		SO-8/MS-8/DIP-8	All	VFB	1	\$2.45
LT1352	2	600	8	50	3	200	700	80	14	0.5	30	0.33	5	36		SO-8	All	VFB	1	\$3.80
LT1353	4	600	8	50	3	200	700	80	14	0.5	30	0.33	5	36		SO-14	All	VFB	1	\$6.70
LT1354	1	800	8	300	12	400	230	36	10	0.6	30	1.25	5	36		SO-8/DIP-8	All	VFB	1	\$2.30
LT1355	2	800	8	300	12	400	230	36	10	0.6	25	1.25	5	36		SO-8/DIP-8	All	VFB	1	\$3.80
LT1356	4	800	8	300	12	400	230	36	10	0.6	25	1.25	5	36		SO-16/DIP-14	All	VFB	1	\$6.45
LT1357	1	600	8	500	25	600	115	65	8	0.8	24	2.5	5	36		SO-8/DIP-8	All	VFB	1	\$2.45
LT1358	2	600	8	500	25	600	115	65	8	0.8	24	2.5	5	36		SO-8/DIP-8	All	VFB	1	\$3.90
LT1359	4	600	8	500	25	600	115	65	8	0.8	24	2.5	5	36		SO-16/SO-14/DIP-14	All	VFB	1	\$6.50
LT1360	1	1000	12	1000	50	800	60	9	9	0.9	26	4.8	3	36		SO-8/DIP-8	All	VFB	1	\$2.20
LT1361	2	1000	12	1000	50	800	60	9	9	0.9	26	4.8	5	36		SO-8/DIP-8	All	VFB	1	\$3.40
LT1362	4	1000	12	1000	50	800	60	9	9	0.9	26	4.8	5	36		SO-16/DIP-14	All	VFB	1	\$6.00
LT1363	1	1500	13	2000	70	1000	50	9	9	1	50	7.5	3	36		SO-8/DIP-8	All	VFB	1	\$2.40
LT1364	2	1500	13	1000	70	1000	60	9	9	1	50	7.2	3	36		SO-8/DIP-8	All	VFB	1	\$3.70
LT1365	4	1500	13	2000	70	1000	50	9	9	1	50	7.2	3	36		DIP-14/SO-16	All	VFB	1	\$6.45
LT1366	2	475	6	35	0.4	0.13	30000	2000	29	0.07	30	0.52	2	36	yes	DIP-8/SO-8	1000	VFB	1	\$3.50
LT1367	4	800	6	35	0.4	0.13	30000	2000	29	0.07	30	0.52	2	36	yes	SO-14	1000	VFB	1	\$6.10
LT1368	2	475	6	35	0.16	0.065		2000	29	0.07	30	0.52	2	36	yes	DIP-8/SO-8	100000	VFB	1	\$3.45
LT1369	4	800	6	35	0.16	0.065		2000	29	0.07	30	0.52	2	36	yes	SO-14	100000	VFB	1	\$6.10
LT1395	1	10000	15		400	800	25		4.5	6	80	6.5	3	12.6		SO-8/SOT23-5/SOT23-6	1000	CFA	1	\$1.30
LT1396	2	10000	15		400	800	25		4.5	6	80	6.5	3	12.6		DFN-8/MS-8/SO-8	1000	CFA	1	\$1.95
LT1397	4	10000	15		400	800	25		4.5	6	80	6.5	3	12.6		DFN-14/SO-14/SSOPN-16	1000	CFA	1	\$2.75

† Primary Sort Column

Amplifiers, Refs, Filters, Comps  
Power Management  
Data Conversion  
Interface  
High Frequency  
Space, Military, Harsh Envir.  
Reference Material



# AMPLIFIERS NUMERIC ORDER

† Part Number	Amplifiers Per Package	V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Av Min	Price	
																			Stable Typ 25°C (V/V)	1K Qty	
LT1398	2	10000	15		300	800	25		4.5	6	80	6.5	3	12.6		SO-16	1000	CFA	1	\$2.25	
LT1399	3	10000	15		300	800	25		4.5	6	80	6.5	3	12.6		SSOPN-16/SO-16	1000	CFA	1	\$2.45	
LT1399HV	3	10000	15		300	800	25		4.5	6	80	7	3	15.5		SO-16	1000	CFA	1	\$3.05	
LT1413	2	150	2	15	0.95	0.3		1400	23	0.02	2	0.45	3	22	ss	DIP-8/SO-8	100	VFB	1	\$2.00	
LT1457	2	450	10	0.05	1.7	4		350	13	0.0015	6	3	9	40		DIP-8/SO-8	10000	JFET	1	\$2.35	
LT1462	2	800	20	0.002	0.175	0.13		600	76	0.0005	13	0.045	10	40		DIP-8/SO-8	1000	JFET	1	\$2.50	
LT1463	4	800	20	0.002	0.125	0.13		600	76	0.0005	13	0.045	10	40		DIP-14/SO-14	1000	JFET	1	\$4.30	
LT1464	2	800	20	0.002	1	0.9		1000	24	0.0004	6.65	0.2	10	40		DIP-8/SO-8	1000	JFET	1	\$2.50	
LT1465	4	800	20	0.002	1	0.9		900	24	0.0004	6.65	0.2	10	40		DIP-14/SO-14	1000	JFET	1	\$4.30	
LT1466L	2	390	7	14	0.12	0.04		1500	45	0.05	10	0.075	2	16	yes	DIP-8/SO-8	300	VFB	1	\$4.15	
LT1467L	4	390	7	14	0.12	0.04		1500	45	0.05	10	0.075	2	16	yes	SO-16	300	VFB	1	\$7.20	
LT1468	1	75	2	40	90	22	760	9000	5	0.6	15	5	9	36		DFN-8/DIP-8/SO-8	300	VFB	1	\$2.95	
<b>LT1468-2</b>	<b>1</b>	<b>75</b>	<b>2</b>	<b>40</b>	<b>200</b>	<b>30</b>	<b>760</b>	<b>9000</b>	<b>5</b>	<b>0.6</b>	<b>15</b>	<b>5</b>	<b>9</b>	<b>36</b>		<b>DFN-8/SO-8</b>	<b>300</b>	<b>VFB</b>	<b>2</b>	<b>\$2.95</b>	
LT1469	2	125	3	40	90	22	760	2000	5	0.6	15	5.2	9	36		DFN-12/DIP-8/SO-8	300	VFB	1	\$4.95	
<b>LT1469-2</b>	<b>2</b>	<b>125</b>	<b>3</b>	<b>40</b>	<b>200</b>	<b>30</b>	<b>760</b>	<b>2000</b>	<b>5</b>	<b>0.6</b>	<b>15</b>	<b>5.2</b>	<b>9</b>	<b>36</b>		<b>DFN-12/SO-8</b>	<b>300</b>	<b>VFB</b>	<b>2</b>	<b>\$4.95</b>	
LT1490A	2	500	4	8	0.18	0.06	35000	1500	50	0.015	15	0.055	2	44	yes	DFN-8/DIP-8/MS-8/SO-8	300	VFB	1	\$1.75	
LT1491A	4	1000	4	8	0.18	0.06	35000	1500	50	0.015	15	0.055	2	44	yes	DIP-14/SO-14/DFN-16	300	VFB	1	\$3.00	
LT1492	2	180	3	100	4.5	1.8	2600	350	16.5	0.14	20	0.55	2.1	36	ss	SO-8/DIP-8	150	VFB	1	\$3.45	
LT1493	4	130	3	100	4.5	1.8	2600	350	16.5	0.14	20	0.55	2.1	36	ss	SO-16	150	VFB	1	\$6.40	
LT1494	1	375	2	1	0.0027	0.001		500	185	0.01	0.7	0.0015	2.1	36	yes	DIP-8/MS-8/SO-8	8000	VFB	1	\$1.65	
LT1495	2	375	2	1	0.0027	0.001		500	185	0.01	0.7	0.0015	2.1	36	yes	DIP-8/SO-8	1000	VFB	1	\$2.45	
LT1496	4	375	2	1	0.0027	0.001		500	185	0.01	0.7	0.0015	2.1	36	yes	DIP-14/SO-14	1000	VFB	1	\$3.25	
LT1497	2	10000	10		59	900	50	10	3	2	125	7	4	36		SO-8/SO-16	2000	CFA	1	\$3.35	
LT1498	2	475	2.5	650	10.5	4.5		3800	12	0.3	12.5	2.2	2.2	36	yes	DIP-8/SO-8	30000	VFB	1	\$2.96	
LT1499	4	475	2.5	650	10.5	4.5		3800	12	0.3	12.5	2.2	2.2	36	yes	SO-14	30000	VFB	1	\$5.60	
LT1630	2	525	5.5	1000	30	9.2	520	3500	6	0.9	20	4.4	2.6	36	yes	DIP-8/SO-8	300	VFB	1	\$2.96	
LT1631	4	525	5.5	1000	30	9.2	520	3500	6	0.9	20	4.4	2.6	36	yes	SO-14	300	VFB	1	\$5.60	
LT1632	2	1350	15	2200	45	27	400	2000	12	1.6	20	5.2	2.6	36	yes	DIP-8/SO-8	10	VFB	1	\$3.05	
LT1633	4	1350	15	2200	45	27	400	2000	12	1.6	20	5.2	2.6	36	yes	SO-14	10	VFB	1	\$5.70	
LT1635	1	1300	7	4.5	0.175	0.045		450	50	0.05	20	0.2	1.1	14	out	DIP-8/SO-8	1000	VFB	1	\$1.75	
LT1636	1	225	5	8	0.2	0.07	40000	2000	52	0.035	12	0.055	2.6	44	yes	DFN-8/DIP-8/MS-8/SO-8	10000	VFB	1	\$1.45	
LT1637	1	350	3	50	1	0.35	9000	800	27	0.08	15	0.25	1.8	44	yes	DFN-8/DIP-8/MS-8/SO-8	2000	VFB	1	\$1.45	
LT1638	2	600	6	50	1.2	0.38	10000	1500	20	0.3	15	0.23	2.2	44	yes	DFN-8/DIP-8/MS-8/SO-8	6000	VFB	1	\$1.95	
LT1639	4	600	6	50	1.075	0.38	10000	1500	20	0.3	15	0.23	2.2	44	yes	DIP-14/SO-14	6000	VFB	1	\$3.30	
LT1672	1	375	2	1	0.012	0.005		500	185	0.01	0.7	0.002	2.1	36	yes	DIP-8/MS-8/SO-8	10000	VFB	5	\$1.65	
LT1673	2	375	2	1	0.012	0.005		500	185	0.01	0.7	0.002	2.1	36	yes	DIP-8/SO-8	10000	VFB	5	\$2.45	
LT1674	4	375	2	1	0.012	0.005		500	185	0.01	0.7	0.002	2.1	36	yes	DIP-14/SO-14	10000	VFB	5	\$3.25	
LT1675	3	40000		30000	250	1100		50	14	5.2	12.6					SSOPN-16	5	VIDEO	2	\$1.95	
LT1675-1	1	40000		30000	250	1100		50	14	5.2	12.6					MS-8/SO-8	5	VIDEO	2	\$1.95	
LT1677	1	60	1.5	20	7.2	2.5	5000	19000	3.2	0.3	25	3.5	2.5	44	yes	DIP-8/SO-8	1000	VFB	1	\$2.15	
LT1678	2	100	3	20	20	6		3000	3.9	0.3	15	3.4	3	36	yes	SO-8	500	VFB	1	\$2.50	
LT1679	4	100	3	20	20	6		3000	3.9	0.3	15	3.4	3	36	yes	SO-14	500	VFB	1	\$3.85	
LT1722	1	400	7	300	200	70	91	17	3.8	1.2	35	4.5	4.6	12.6		SO-8/SOT23-5	100	VFB	1	\$0.88	
LT1723	2	400	7	300	200	70	91	17	3.8	1.2	35	4.5	4.6	12.6		MS-8/SO-8	100	VFB	1	\$1.15	
LT1724	4	400	7	300	200	70	91	17	3.8	1.2	35	4.5	4.6	12.6		SO-14	100	VFB	1	\$2.19	
LT1739	2	5000	10	7	4000	200	600		6.3	8	0.8	500	13.5	8	27		DFN-12/TSSOP-20	30	VFB	10	\$3.55
LT1782	1	800	5	15	0.2	0.07	45000	1500	50	0.05	20	0.055	2.2	18	yes	SOT23-5/SOT23-6	10000	VFB	1	\$1.10	
LT1783	1	800	5	80	1.25	0.42	12000	1500	20	0.14	20	0.3	2.2	18	yes	SOT23-5/SOT23-6	3000	VFB	1	\$1.10	
LT1784	1	3500	15	500	2.5	2.1	3700	1000	25	0.3	20	0.75	2	18	yes	SOT23-5/SOT23-6	1000	VFB	1	\$1.00	
LT1787	1	75	2								0.05 Typ	0.12	2.5	36		SO-8/MS-8		CSA		\$2.05	
LT1787HV	1	75	2								0.05 Typ	0.12	2.5	60		SO-8/MS-8		CSA		\$2.90	
LT1789-1	1	100	0.7	40	0.06	0.026	240000		48	0.062	2.2	0.095	2.2	36	out	SO-8	600	IA	1	\$3.20	
LT1789-10	1	160	0.7	40	0.025	0.026	190000		52	0.062	2.2	0.095	2.2	36	out	SO-8	2000	IA	10	\$3.20	
LT1792	1	600	10	0.8	5.6	3.4		4800	4.2	0.01	12	5.2	10	40		DIP-8/SO-8	10000	JFET	1	\$2.25	

† Primary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO



# AMPLIFIERS NUMERIC ORDER

† Part Number	Amplifiers Per Package	V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	A <sub>VO</sub> L Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Av Min Stable Typ 25°C (V/V)	Price 1K Qty
LT1793	1	800	13	0.01	4.2	3.4		4500	6	0.0008	12	5.2	10	40		DIP-8/SO-8	10000	JFET	1	\$2.25
LT1794	2	5000	10 Typ	4000	200	600		12.5	8	0.8	500	13.5	8	36		SOW-20/TSSOP-20	30	VFB	10	\$4.95
LT1795	2	13000	29 Typ		65	900		2.51	3.6	2	500	34	10	36		SOW-20/TSSOP-20	1000	CFA	1	\$4.95
LT1797	1	1500	20	300	10	2.25	1600	1000	20	0.15	25	1.5	2.1	12.6	yes	SOT23-5	10000	VFB	1	\$1.00
LT1800	1	350	5	250	80	25	250	85	8.5	1	20	2	2.3	12.6	yes	SO-8/SOT23-5	1000	VFB	1	\$1.30
LT1801	2	350	5	250	80	25	250	85	8.5	1	20	2	2.3	12.6	yes	DFN-8/MS-8/SO-8	1000	VFB	1	\$1.95
LT1802	4	350	5	250	80	25	250	85	8.5	1	20	2	2.3	12.6	yes	SO-14	1000	VFB	1	\$3.50
LT1803	1	2000	35	750	83	100	350	60	21	2.5	20	3	2.3	12.6	yes	SO-8/SOT23-5	1000	VFB	1	\$1.30
LT1804	2	2000	35	750	83	100	350	60	21	2.5	20	3	2.3	12.6	yes	DFN-8/SO-8	1000	VFB	1	\$1.95
LT1805	4	2000	35	750	85	100	350	60	21	2.5	20	3	2.3	12.6	yes	SO-14	1000	VFB	1	\$3.50
LT1806	1	550	5	4000	325	125	60	220	3.5	1.5	35	13	2.5	12.6	yes	SO-8/SOT23-6	1000	VFB	1	\$2.10
LT1807	2	550	5	4000	325	125	60	220	3.5	1.5	35	13	2.5	12.6	yes	MS-8/SO-8	1000	VFB	1	\$3.40
LT1809	1	2500	25	8000	160	300	27	80	16	5	45	17	2.5	12.6	yes	SO-8/SOT23-6	1000	VFB	1	\$1.75
LT1810	2	2500	25	8000	160	300	27	80	16	5	45	17	2.3	12.6	yes	MS-8/SO-8	1000	VFB	1	\$2.65
LT1812	1	1500	15	4000	100	750	30	3	8	1	40	3.6	2.5	12.6		SO-8/SOT23-5/SOT23-6	100	VFB	1	\$0.88
LT1813	2	1500	15	4000	100	750	30	3	8	1	40	3.6	2.5	12.6		MS-8/SO-8/DFN-8	100	VFB	1	\$0.99
LT1813HV	2	1500	15	4000	100	750	30	3	8	1	40	4	2.5	13.5		SO-8	100	VFB	1	\$1.19
LT1814	4	1500	15	4000	100	750	30	3	8	1	40	3.6	2.5	12.5		SO-14/SSOPN-16	100	VFB	1	\$1.95
LT1815	1	1500	15	8000	220	1500	15	3	6	1.3	50	7.8	4	12.6		SO-8/SOT23-5/SOT23-6	10	VFB	1	\$0.88
LT1816	2	1500	15	8000	220	1500	15	3	6	1.3	50	7.8	2.5	12.6		DFN-8/MS-8/MS-10/SO-8	10	VFB	1	\$1.50
LT1817	4	1500	15	8000	220	1500	15	3	6	1.3	50	7	2.5	12.6		SO-14/SSOPN-16	10	VFB	1	\$2.05
LT1818	1	1500	15	8000	400	2500	10	2.5	6	1.2	40	10	3.5	12.6		SO-8/SOT23-5	20	VFB	1	\$0.95
LT1819	2	1500	15	8000	400	2500	10	2.5	6	1.2	40	10	3.5	12.6		MS-8/SO-8	20	VFB	1	\$1.60
LT1880	1	150	1.2	0.9	1.1	0.55	10000	1600	13	0.07	1	1.9	2.4	40	out	SOT23-5	1000	VFB	1	\$1.75
LT1881	2	50	0.8	0.2	1	0.35	30000	1600	14	0.03	5	0.9	2.4	40	out	DIP-8/SO-8	1000	VFB	1	\$2.75
LT1882	4	80	0.8	0.5	1	0.35	30000	1600	14	0.3	5	0.9	2.4	40	out	SO-14	1000	VFB	1	\$4.85
LT1884	2	50	0.8	0.4	2	0.9	10000	1600	9.5	0.05	15	0.9	2.4	40	out	DIP-8/SO-8	500	VFB	1	\$2.75
LT1885	4	80	0.8	0.9	2	0.9	10000	1600	9.5	0.05	15	0.9	2.4	40	out	SO-14	500	VFB	1	\$4.85
LT1886	2	4000	17	4000	700	200	50	12	6	2	200	8.25	4	13.2		SO-8	1000	VFB	10	\$2.80
LT1920	1	125	1	2	0.8	1.2	50000		7.5	0.124	20	1.3	4.6	40		DIP-8/SO-8	1000	IA	1	\$3.05
LT1969	2	4000	17	4000	700	200	50	12	6	2	200	8.25	4	13.2		MS-10	1000	VFB	10	\$2.95
LT1970	1	600	10	600	3.6	1.6	8000	150	15	3	500	13	5	36		TSSOP-20	10000	VFB	1	\$4.95
LT1990	1	5200	22		0.1	0.55	45000		1000		6	0.18	2.4	36	yes	SO-8	3000	SGA	1	\$1.35
LT1991	1	50	1	5	0.56	0.12	42000		46		8	0.11	2.4	40	yes	MS-10/DFN-10	100	SGA	1	\$1.39
LT1993-10	1	6500	100 Typ		700	1100		4	1.7		40	112	4	5.5		QFN-16	5	DIFF	10	\$2.95
LT1993-2	1	6500			800	1100		4	3.5		40	112	4	5.5		QFN-16	5	DIFF	2	\$2.95
LT1993-4	1	6500	100 Typ		900	1100		4	2.15		40	112	4	5.5		QFN-16	5	DIFF	4	\$2.95
LT1994	1	2000	13.3 Typ	45000	70	65	90	100	3	2.5	45	18.5	2.375	12.6	out	MS-8/DFN-8	25	DIFF	1	\$1.65
LT1995	1	5000	26	600 Typ	24	1000	100		14		70	8.5	2.5	36		MS-10/DFN-10	200	SGA	1	\$1.89
LT1996	1	50	1	5	0.56	0.12	85000		18		8	0.11	2.7	36	yes	MS-10/DFN-10	100	SGA	1	\$1.39
LT2078	2	70	1.8	8	0.2	0.07	10000	1000	28	0.02	5.5	0.05	2.3	44	ss	SO-8	300	VFB	1	\$3.50
LT2079	4	110	3	8	0.2	0.07	10000	1000	28	0.02	5.5	0.05	2.3	44	ss	SO-14	300	VFB	1	\$5.95
LT2178	2	70	1.8	5	0.06	0.025		700	49	0.01	5.5	0.018	2.2	44	ss	SO-8	200	VFB	1	\$3.50
LT2179	4	100	3	5	0.06	0.025		700	49	0.01	5.5	0.018	2.2	44	ss	SO-14	200	VFB	1	\$6.30
LT5514	1			20000	850		500				33	148	4.75	5.25	ss	TSSOP-20		DIFF/ PGA	11.2	\$5.20
LT5524	1			30000	540		500				17	75	4.75	5.25	ss	TSSOP-20		DIFF/ PGA	2.8	\$4.40
<b>LT5554</b>	<b>1</b>				<b>1000</b>		<b>5</b>		<b>1.4</b>		<b>40</b>	<b>190</b>	<b>4.75</b>	<b>5.25</b>		<b>QFN-32</b>		<b>DIFF/ PGA</b>	<b>1.6</b>	<b>\$4.40</b>
LT6000	1	750	5	5	0.05	0.015		65	75	0.025	4 Typ	0.016	1.8	18	yes	DFN-6	800	VFB	1	\$0.80
LT6001	2	600	5	5	0.05	0.015		65	75	0.025	2	0.016	1.8	18	yes	MS-8/DFN-10	800	VFB	1	\$1.25
LT6002	4	750	5	5	0.05	0.015		65	75	0.025	2	0.016	1.8	18	yes	SSOP-16/DFN-16	800	VFB	1	\$2.00
LT6003	1	500	5	0.09	0.002	0.0008		500	325	0.012	2	0.001	1.6	16	yes	SOT23-5/DFN-4	900	VFB	1	\$0.72
LT6004	2	500	5	0.09	0.002	0.0008		500	325	0.012	2	0.001	1.6	16	yes	DFN-8/MS-8	900	VFB	1	\$1.10

† Primary Sort Column

Amplifiers, Refs, Filters, Comps  
Power Management  
Data Conversion  
Interface  
High Frequency  
Space, Military, Harsh Envir.  
Reference Material



# AMPLIFIERS NUMERIC ORDER

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Space, Military,  
Harsh Envir.

Reference  
Material

† Part Number	Amplifiers Per Package	V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Av Min Stable Typ 25°C (V/V)	Price 1K Qty
LT6005	4	650	5	0.09	0.002	0.0008		500	325	0.012	2	0.001	1.6	16	yes	DFN-16/TSSOP-16	900	VFB	1	\$1.75
LT6010	1	35	0.8	0.11	0.33	0.09	45000	2000	14	0.1	1	0.15	2.7	40	out	DFN-8/SO-8	500	VFB	1	\$1.10
LT6011	2	60	0.8	0.3	0.33	0.09	45000	2000	14	0.1	1	0.15	2.4	40	out	DFN-8/SO-8/MS-8	500	VFB	1	\$1.65
LT6012	4	60	0.8	0.3	0.33	0.09	45000	2000	14	0.1	1	0.15	2.4	40	out	SO-14/SSOPN-16	500	VFB	1	\$2.95
LT6013	1	35	0.8	0.25	1.6	0.2	20000	2000	9.5	0.15	8	0.165	2.7	40	out	DFN-8/SO-8	500	VFB	5	\$1.10
LT6014	2	60	0.8	0.4	1.6	0.2	20000	2000	9.5	0.15	8	0.165	2.7	40	out	DFN-8/SO-8	500	VFB	5	\$1.65
LT6100	1	300	3	10000	0.15	0.05	15000		8	0.13	4.1	48	48	out	DFN-8/MS-8		CSA		\$1.18	
LT6105	1	300	0.5 Typ	25000	0.1		5000		1	0.3	2.85	36	36	in	DFN-6/MS-8		CSA		\$0.99	
LT6106	1	250	1 Typ	40	0.2				1	0.095	2.7	36	36		SOT23-5		CSA		\$0.82	
LT6200	1	1000	24	40000	165	50	140	200	0.95	2.2	60	23	2.5	12.6	yes	SO-8/SOT23-6	1000	VFB	1	\$2.15
LT6200-10	1	1000	24	40000	1600	450		200	0.95	2.2	60	23	2.5	12.6	yes	SO-8/SOT23-6	1000	VFB	10	\$1.50
LT6200-5	1	1000	24	40000	800	250		200	0.95	2.2	60	23	2.5	12.6	yes	SO-8/SOT23-6	1000	VFB	5	\$1.50
LT6201	2	1000	24	40000	165	50	140	200	0.95	2.2	60	23	2.5	12.6	yes	DFN-8/SO-8	1000	VFB	1	\$3.65
LT6202	1	500	24	7000	100	25	78	200	1.9	0.75	30	3.5	2.5	12.6	yes	SO-8/SOT23-5	1000	VFB	1	\$1.45
LT6203	2	500	24	7000	100	25	78	200	1.9	0.75	30	3.5	2.5	12.6	yes	DFN-8/MS-8/SO-8	1000	VFB	1	\$2.45
LT6204	4	500	24	7000	100	25	78	200	1.9	0.75	30	3.5	2.5	12.6	yes	SO-14/SSOPN-16	1000	VFB	1	\$4.50
LT6205	1	4500	18	30000	100	600	25	133	9	4	25	5.6	3	12.6	out	SOT23-5	1000	VFB	1	\$0.88
LT6206	2	4500	18	30000	100	600	25	133	9	4	25	5.6	3	12.6	out	MS-8	1000	VFB	1	\$1.05
LT6207	4	4500	18	30000	100	600	25	133	9	4	25	5.6	3	12.6	out	SSOPN-16	1000	VFB	1	\$1.55
LT6210	1	6000			200	700	20		6.5	4.5	75	8.3	3	13.2	out	SOT23-6	10000	CFA	1	\$1.20
LT6211	2	6000			200	700	20		6.5	4.5	75	8.3	3	13.2	out	DFN-10/MS-10	10000	CFA	1	\$1.60
LT6220	1	350	5	150	60	20	300	100	10	0.8	20	1	2.2	12.6	yes	SO-8/SOT23-5	7000	VFB	1	\$1.20
LT6221	2	350	5	150	60	20	300	100	10	0.8	20	1	2.2	12.6	yes	DFN-8/SO-8	7000	VFB	1	\$1.85
LT6222	4	350	5	150	60	20	300	100	10	0.8	20	1	2.2	12.6	yes	SSOP-16	7000	VFB	1	\$2.95
LT6230	1	500	3	10000	215	70	50	260	1.1	1	30	3.75	3	12.6	out	SOT23-6	1000	VFB	1	\$1.25
LT6230-10	1	500	3	10000	1450	320		260	1.1	1	30	3.75	3	12.6	out	SOT23-6	2000	VFB	10	\$1.50
LT6231	2	350	3	10000	215	70	50	260	1.1	1	30	3.75	3	12.6	out	DFN-8/SO-8	1000	VFB	1	\$1.95
LT6232	4	350	3	10000	215	70	50	260	1.1	1	30	3.75	3	12.6	out	SSOP-16	1000	VFB	1	\$3.30
LT6233	1	500	3	3000	60	17	170	180	1.9	0.43	40	1.25	3	12.6	out	SOT23-6	1000	VFB	1	\$1.45
LT6233-10	1	500	3	3000	375	115		180	1.9	0.43	40	1.25	3	12.6	out	SOT23-6	1000	VFB	10	\$1.90
LT6234	2	350	3	3000	60	17	170	180	1.9	0.43	40	1.25	3	12.6	out	DFN-8/SO-8	1000	VFB	1	\$2.45
LT6235	4	350	3	3000	60	17	170	180	1.9	0.43	40	1.25	3	12.6	out	SSOP-16	1000	VFB	1	\$4.15
LT6300	2	5000	4 Typ	4000	200	600		76	8	0.8	500	13.5	8	27		SSOP-16	30	VFB	10	\$2.85
LT6301	4	5000	4 Typ	4000	200	600		76	8	0.8	500	13.5	8	27		TSSOP-28	30	VFB	10	\$6.20
LT6402-12	1	6500	30 Typ		300	400	10		2.7		30	37	4	5.5	ss	QFN-16	5	DIFF	4	\$2.39
LT6402-20	1	6500	30 Typ		300	1000	8		1.85		30	37	4	5.5	ss	QFN-16	5	DIFF	10	\$2.39
LT6402-6	1	6500	30 Typ		300	400	10		3.8		30	37	4	5.5	ss	QFN-16	5	DIFF	2	\$2.39
LT6411	2	10000			650	3300	6		8		50	22	4.5	12.6		QFN-16	12	VFB/DIFF	1	\$2.39
LT6550	3	35000		65000	110	340	35		12	8	45	11.5	3	12.6	out	MS-10	150	VIDEO	2	\$1.75
LT6551	4	35000		65000	110	340	35		12	8	45	11.5	3	12.6	out	MS-10	150	VIDEO	2	\$1.95
LT6552	1	20000	12.5 Typ	50000	75	600	35		55	0.7	35	13.5	3	12.6	out	DFN-8/SO-8	1000	VFB	2	\$1.10
LT6553	3	10000		50000	650	2500	6		9	4	50	11	4	13.2		SSOP-16	10	VIDEO	2	\$2.50
LT6554	3	35000		50000	650	2500	6		20	3.5	50	10	4	13.2		SSOP-16	12	VIDEO	1	\$2.50
LT6555	3	16000		650	2200	6.5		9	3.5	50	12	4.5	12.6		SSOP-24/QFN-24	10	VIDEO	2	\$2.75	
LT6556	3	67000		750	2100	6.5		11	3.5	50	13	4.5	12.6		SSOP-24/QFN-24	10	VIDEO	1	\$2.75	
LT6557	3	40000		70000	500	2200	7		12	20	70	25	7.5		SSOP-16/DFN-16		VIDEO	2	\$2.50	
LT6558	3	45000		70000	550	2200	7		20	15	60	24	3	7.5		SSOP-16/DFN-16		VIDEO	1	\$2.50
LT6559	3	10000	3.9 Typ		300	500	25		4.5	6	80 Typ	6.1	4	12		QFN-16	1000	VIDEO	1	\$0.95
LT6600-10	1	13000	35 Typ	85000	10				14			39	2.7	11	ss	SO-8/DFN-12	50	DIFF	1	\$2.95
LT6600-15	1	15000	42 Typ	90000	15				19			46	2.7	11	ss	SO-8	50	DIFF	1	\$2.95
LT6600-2.5	1	13000	26 Typ	35000	2.5				23			30	2.7	11	ss	SO-8/DFN-12	50	DIFF	1	\$2.95
LT6600-20	1	15000	42 Typ	95000	20				15			46	2.7	11	ss	SO-8	50	DIFF	1	\$2.95
LT6600-5	1	25000	28 Typ	70000	5				16			31	2.7	11	ss	SO-8	50	DIFF	1	\$2.95
LTC1047	2	10	0.05	0.03	0.2	0.2		31622		0.0015	0.5	0.275	4.75	16	out	DIP-8/SOW-16	50	ZD	1	\$4.85

† Primary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

# AMPLIFIERS NUMERIC ORDER

† Part Number	Amplifiers Per Package	V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Av Min Stable Typ 25°C (V/V)	Price 1K Qty	
																					10
LTC1049	1	10	0.1	0.05	0.8	0.8		31622	80	0.002	0.5	0.3	4.75	18	out	DIP-8/SO-8	50	ZD	1	\$2.15	
LTC1050	1	5	0.05	0.03	2.5	4		100000	90	0.0018	6 Typ	1.5	4.75	18	out	DIP-8/DIP-14/SO-8	100	ZD	1	\$2.15	
LTC1051	2	5	0.05	0.065	2.5	4		100000	70	0.0022	0.5	2	4.75	16.5	out	DIP-8/SOW-16	100	ZD	1	\$4.05	
LTC1052	1	5	0.05	0.03	1.2	4		100000	30	0.0006	0.5	2	4.75	18	out	DIP-8/DIP-14/SOW-16	100	ZD	1	\$4.10	
LTC1053	4	5	0.05	0.065	2.5	4		100000	70	0.0022	0.5	2	4.75	16.5	out	DIP-14/SOW-18	100	ZD	1	\$7.50	
LTC1100	1	10	0.1	0.05	1.8	3			38			2.8	4	18	out	DIP-8/SOW-16	10	IA	10	\$6.15	
LTC1150	1	10	0.05	0.1	2.5	3		1000000		0.0018	1.35	1.5	4.75	32	ss	DIP-8/SO-8	100	ZD	1	\$3.70	
LTC1151	2	5	0.05	0.1	2	2.5		10000		0.0022	1.35	1.5	4.75	36	ss	DIP-8/SOW-16	100	ZD	1	\$5.80	
LTC1152	1	10	0.1	0.1	0.7	0.5		3162	130	0.6	35 Typ	3	3	14	yes	DIP-8/SO-8	All	ZD	1	\$3.15	
LTC1250	1	10	0.05	0.2	1.5	10		316227	15	0.004	4	4	4.75	18		DIP-8/SO-8	50	ZD	1	\$2.85	
LTC1541	1	1000			0.012							0.01	2.5	12.6	ss	MS-8/SO-8/DFN-8		REF/VFB	1	\$1.50	
LTC1542	1	1000			0.012	8		1000				1.3	0.01	2.5	12.6	out	MS-8/SO-8/DFN-8	1000	REF/VFB	1	\$1.20
LTC1564	1	13000			0.15							17	2.7	10.5	yes	SSOP-16		PGA		\$8.95	
LTC1992	1	2500	0.65 Typ	0.25	4	0.75		10	18	1	10	1	2.4	12	out	MS-8	10000	DIFF	1	\$1.65	
LTC1992-1	1	2500	0.65 Typ	0.25	4	0.75			45		10	1	2.7	12	out	MS-8	10000	DIFF	1	\$3.95	
LTC1992-10	1	2500	0.65 Typ	0.25	4	0.75			45		10	1	2.7	12	out	MS-8	10000	DIFF	1	\$3.95	
LTC1992-2	1	2500	0.65 Typ	0.25	4	0.75			45		10	1	2.7	12	out	MS-8	10000	DIFF	1	\$3.95	
LTC1992-5	1	2500	0.65 Typ	0.25	4	0.75			45		10	1	2.7	12	out	MS-8	10000	DIFF	1	\$3.95	
LTC2050	1	3	0.03	0.075	3	2	1000	10000		0.003	2.4	1.2	2.7	7	out	SO-8/SOT23-5/SOT23-6	50	ZD	1	\$1.15	
LTC2050HV	1	3	0.03	0.05	3	2	1000	10000		0.003	2.4	1.5	2.7	12	out	SO-8/SOT23-5/SOT23-6	50	ZD	1	\$1.45	
LTC2051	2	3	0.03	0.075	3	2	2000	10000			10 Typ	1.2	2.7	7	out	DFN-8/MS-8/MS-10/SO-8	100	ZD	1	\$2.00	
LTC2051HV	2	3	0.03	0.15	3	2	2000	10000			10 Typ	1.5	2.7	12	out	DFN-8/MS-8/MS-10/SO-8	100	ZD	1	\$2.50	
LTC2052	4	3	0.03	0.075	3	2	2000	10000			10 Typ	1.2	2.7	7	out	SO-14/SSOP-16	100	ZD	1	\$3.65	
LTC2052HV	4	3	0.03	0.15	3	2	2000	10000			10 Typ	1.5	2.7	12	out	SO-14/SSOP-16	100	ZD	1	\$4.55	
LTC2053	1	10	0.05	10	0.2	0.2			50		2.4	1.3	2.7	11	yes	DFN-8/MS-8	30	ZD/IA	1	\$3.20	
LTC2053-SYNC	1	10	0.05	10	0.2	0.2			50		2.4	1.3	2.7	11	yes	MS-8	30	ZD/IA	1	\$3.40	
LTC2054	1	3	0.03	0.15	0.5	0.5	5000	10000			1	0.18	2.7	7	out	SOT23-5	50	ZD	1	\$1.00	
LTC2054HV	1	5	0.03	0.15	0.5	0.5	5000	10000			1	0.21	2.7	12	out	SOT23-5	50	ZD	1	\$1.25	
LTC2055	2	3	0.03	0.15	0.5	0.5	5000	10000			1	0.15	2.7	7	out	DFN-8/MS-8	50	ZD	1	\$1.60	
LTC2055HV	2	5	0.03	0.15	0.5	0.5	5000	10000			1	0.18	2.7	12	out	DFN-8/MS-8	50	ZD	1	\$2.00	
LTC6078	2	25	0.7	0.001	0.75	0.05	24000	3162	18		5	0.07	2.7	6	yes	MS-8/DFN-10	200	VFB	1	\$1.49	
LTC6079	4	25	1.4	0.001	0.75	0.05	24000	3162	18		5	0.07	2.7	6	yes	DFN-16/SSOP-16	200	VFB	1	\$2.53	
LTC6081	2	70	0.8	0.001	3.6	1	6000	1000	13	0.0005	5	0.43	2.7	5.5	yes	DFN-10/MS-8	200	VFB	1	\$1.74	
LTC6082	4	70	0.8	0.001	3.6	1	6000	1000	13	0.0005	5	0.43	2.7	5.5	yes	DFN-16/SSOP-16	200	VFB	1	\$2.97	
LTC6084	2	750	5	0.001 Typ	1.5	0.5	6000	5000	31	0.00056	5	0.13	2.5	5.5	yes	DFN-8/MS-8	300	VFB	1	\$0.91	
LTC6085	4	750	5	0.001 Typ	1.5	0.5	6000	5000	31	0.00056	5	0.13	2.5	5.5	yes	DFN-16/SSOP-16	300	VFB	1	\$1.40	
LTC6087	2	750	5	0.001 Typ	14	7.2	800	6000	12	0.00056	5	1.3	2.7	5.5	yes	MS-8/DFN-10	100	VFB	1	\$0.91	
LTC6088	4	750	5	0.001 Typ	14	7.2	800	6000	12	0.00056	5	1.3	2.7	5.5	yes	SSOP-16/DFN-16	100	VFB	1	\$1.40	
LTC6101	1	300	1 Typ	170	0.02						1	0.45	4	60		SOT-23-5/MS-8		CSA		\$1.04	
LTC6101HV	1	300	1 Typ	170	0.02						1	0.45	5	100		SOT-23-5/MS-8		CSA		\$1.30	
LTC6102	1	10	0.05 Typ	3	0.2						1	0.45	4	60	no	DFN-8/MS-8		CSA		\$1.72	
LTC6102HV	1	10	0.05 Typ	3	0.2						1	0.45	5	100	no	DFN-8/MS-8		CSA		\$2.06	
LTC6103	2	450	1.5 Typ	170	0.12						1	0.45	4	60		MS-8		CSA		\$1.66	
LTC6104	1	450	1.5 Typ	170	0.14						1	0.73	4	60		MS-8		CSA		\$1.38	
LTC6240	1	175	2.5	0.001	18	10		1600	7	0.00056	15	2.4	2.8	6	out	SOT-23/SO-8	200	VFB	1	\$0.77	
LTC6240HV	1	250	2.5	0.001	18	10		2700	7	0.00056	15	3.3	2.8	11	out	SOT-23/SO-8	200	VFB	1	\$1.40	
LTC6241	2	125	2.5	0.075	18	10	900	1600	7	0.00056	15	2.2	2.8	6	out	DFN-8/SO-8	200	VFB	1	\$1.25	
LTC6241HV	2	175	2.5	0.075	18	10	900	1600	7	0.00056	15	2.2	2.8	11	out	DFN-8/SO-8	200	VFB	1	\$2.20	
LTC6242	4	150	2.5	0.075	18	10	900	1600	7	0.00056	15	2.2	2.8	6	out	DFN-16/SSOP-16	200	VFB	1	\$2.25	
LTC6242HV	4	200	2.5	0.075	18	10	900	1600	7	0.00056	15	2.2	2.8	11	out	DFN-16/SSOP-16	200	VFB	1	\$3.30	
LTC6244	2	100	2.5	0.075	50	35	535	2500	8	0.00056	25	7.4	2.8	6	out	DFN-8/MSOP-8	200	VFB	1	\$1.65	
LTC6244HV	2	100	2.5	0.075	50	35	535	2500	8	0.00056	25	7.4	2.8	10.5	out	DFN-8/MSOP-8	200	VFB	1	\$2.35	
LTC6400-8	1	5000	2 Typ		2200	3810	1.8 (1%)		3.7		20	95	2.85	3.5		3×3 QFN-16		DIFF	2.5	\$3.20	
LTC6400-14	1	3000	0.7 Typ		2370	6000	1.7 (1%)		2.5		20	96	2.85	3.5		3×3 QFN-16		DIFF	5	\$3.20	
LTC6400-20	1	2000	1.2 Typ		1840	4500	0.8 (1%)		2.1		20	105	2.85	3.5		3×3 QFN-16		DIFF	10	\$3.20	
LTC6400-26	1	2000	1 Typ		1900	6670	2 (1%)		1.5		20	102	2.85	3.5		3×3 QFN-16		DIFF	20	\$3.20	

† Primary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# AMPLIFIERS NUMERIC ORDER

† Part Number	Amplifiers Per Package	V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Av Min Stable Typ 25°C (V/V)	Price 1K Qty
LTC6401-8	1	4000	3 Typ		2220	3400	2.3 (1%)		3.2		10	60	2.85	3.5		3×3 QFN-16		DIFF	2.5	\$2.95
LTC6401-14	1	3000	1.2 Typ		1950	3600	1.8 (1%)		2.5		10	60	2.85	3.5		3×3 QFN-16		DIFF	5	\$2.95
LTC6401-20	1	2000	1.4 Typ		1250	4500	2 (1%)		2.1		10	62	2.85	3.5		3×3 QFN-16		DIFF	10	\$2.95
LTC6401-26	1	2500	1 Typ		1600	3300	3.3		1.5		10	60	2.85	3.5		3×3 QFN-16		DIFF	20	\$2.95
LTC6403-1	1	1500	1 Typ	25000	200	200	30	32	2.8	1.8	30	11.8	2.7	5.25	out	3×3 QFN-16		DIFF	1	\$1.79
LTC6404-1	1	2000	1 Typ		500	450	13	32	1.5	3	40	35.5	2.7	5.25	out	3×3 QFN-16		DIFF	1	\$3.44
LTC6404-2	1	2000	1 Typ	60000	900	700	12	32	1.5	3	40	38.5	2.7	5.25	out	3×3 QFN-16		DIFF	2	\$3.44
LTC6404-4	1	2000	1 Typ	60000	1700	1200	11	32	1.5	3	40	39	2.7	5.25	out	3×3 QFN-16		DIFF	4	\$3.44
LTC6405	1	3500	1 Typ	24000	2700	690	11	32	1.6	2.4	40	23	4.5	5.5	in	3×3 QFN-16		DIFF	1	\$3.44
LTC6406	1	3500	1 Typ		3000	630	11	32	1.6	2.5	35	22	2.7	3.5	in	3×3 QFN-16		DIFF	1	\$3.44
LTC6410-6	1	2000	-0.3 Typ		1400	1500	3 (1%)				38	130	2.8	5.25		3×3 QFN-16		DIFF	2	\$2.89
<b>LTC6412</b>	<b>1</b>				<b>800</b>				<b>2.5</b>		<b>17</b>	<b>120</b>	<b>3</b>	<b>3.6</b>		<b>4×4 QFN-24</b>		<b>VGA/DIFF</b>	<b>1</b>	<b>C.F.</b>
LTC6416	1	5000		15000	2000	3400	1.8		1.8	6.5	20	51	2.7	3.9		3×2 DFN-10		DIFF	1	\$3.50
LTC6420-20	2	2000	1.2 Typ		1800	4500	0.8 (1%)		2.2		20	95	2.85	3.5	out	3×4 QFN-20		DIFF	10	\$5.17
LTC6421-20	2	2000	1.4 Typ		1300	4500	2 (1%)		2.2		10	50	2.85	3.5	out	3×4 QFN-20		DIFF	10	\$4.77
LTC6800	1	100	0.25	10	0.2	0.2			50		2.4	1.2	2.7	5.5	yes	DFN-8/MS-8	30	IA	1	\$1.55
LTC6910-1	1	15000			11	16			8.6		9.5	3	2.7	11	yes	SOT23-8	50	PGA	1	\$1.10
LTC6910-2	1	15000			13	16			9.1		9.5	3	2.7	11	yes	SOT23-8	50	PGA	1	\$1.10
LTC6910-3	1	15000			11	16			10.6		9.5	3	2.7	11	yes	SOT23-8	50	PGA	1	\$1.10
LTC6911-1	2	22000	2.1 Typ		11	16			9.9		35 Typ	3.15	2.7	10.5	yes	MS-10	50	PGA	1	\$2.00
LTC6911-2	2	22000	2.1 Typ		11	16			10.9			3.15	2.7	10.5	yes	MS-10	50	PGA	1	\$2.00
LTC6912-1	2	22000	1.75 Typ		30	16			15.1		35 Typ	2.75	2.7	10.5	yes	DFN-12/SSOP-16	50	PGA	1	\$2.15
LTC6912-2	2	22000	1.75 Typ		30	16			15.1		35 Typ	2.75	2.7	10.5	yes	DFN-12/SSOP-16	50	PGA	1	\$2.15
LTC6915	1	10	0.05	10	0.2	0.2			50		2	1.6	2.7	11	yes	DFN-12/SSOP-16	30	IA/ZD/PGA	1	\$2.44

† Primary Sort Column

Notes:

1. ss = Input common mode range includes negative supply rail
2. Topology: VFB = Voltage Feedback, CFA = Current Feedback, ZD = Zero-Drift Amplifier, IA = Instrumentation Amplifier, JFET = JFET Input Stage, BUF = Buffer, MUX = Multiplexer, VIDEO = Optimized for Video Applications, DIFF = Fully Differential Amplifier, SGA = Selectable Gain Difference Amplifier, CSA = Current Sense Amplifier, PGA = Programmable Gain Amplifier, VGA = Variable Gain Amplifier

## PRECISION OP AMPS (V<sub>OS</sub> ≤ 500μV MAX)

† Amplifiers Per Package	Part Number	†† V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	CMRR Min (dB)	A <sub>VOL</sub> Typ 25°C (V/mV)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Features	Price 1K Qty
1	LTC2050	3	0.03	0.075	120	10000	3	2		0.003	1.2	2.7	7	out	SO-8/SOT23-5/SOT23-6	Zero-Drift Op Amp 3V/5V Operation	\$1.15
1	LTC2050HV	3	0.03	0.05	120	10000	3	2		0.003	1.5	2.7	12	out	SO-8/SOT23-5/SOT23-6	Zero-Drift 3V/5V/±5V Operation	\$1.45
1	LTC2054	3	0.03	0.15	120	10000	0.5	0.5		0.175	2.7	7	7	out	SOT23-5	Micropower Zero-Drift/3V/5V Operation	\$1.00
1	LTC2054HV	5	0.03	0.15	120	10000	0.5	0.5		0.21	2.7	12	12	out	SOT23-5	Micropower Zero-Drift ±5V Operation	\$1.25
1	LTC1050	5	0.05	0.03	114	100000	2.5	4	90	0.0018	1.5	4.75	18	out	DIP-8/DIP-14/SO-8	Zero-Drift No External Capacitors	\$2.15
1	LTC1052	5	0.05	0.03	120	100000	1.2	4	30	0.0006	2	4.75	18	out	DIP-8/DIP-14/SOW-16	Low Noise Zero-Drift	\$4.10
1	LTC1150	10	0.05	0.1	110	1000000	2.5	3		0.0018	1.5	4.75	32	ss	DIP-8/SO-8	Auto Zero Amplifier Works on 30V+	\$3.70
1	LTC1250	10	0.05	0.2	110	316227	1.5	10	15	0.004	4	4.75	18		DIP-8/SO-8	Low Noise/Zero-Drift Bridge Amp	\$2.85
1	LTC2053	10	0.05	10	105		0.2	0.2	50		1.3	2.7	11	yes	DFN-8/MS-8	Zero-Drift IA	\$3.20
1	LTC2053-SYNC	10	0.05	10	105		0.2	0.2	50		1.3	2.7	11	yes	MS-8	Zero-Drift IA/Frequency Set with Ext. Clock	\$3.40
1	LTC6915	10	0.05	10	105		0.2	0.2	50		1.6	2.7	11	yes	DFN-12/SSOP-16	Serial or Parallel PGA/A <sub>V</sub> =0 to 4096 V/V	\$3.95
1	LTC1100	10	0.1	0.05	104		1.8	3	38		2.8	4	18	out	DIP-8/SOW-16	Zero-Drift/Fixed Gain Of 10 And 100	\$6.15
1	LTC1049	10	0.1	0.05	110	31622	0.8	0.8	80	0.002	0.3	4.75	18	out	DIP-8/SO-8	Zero-Drift No External Capacitors	\$2.15
1	LTC1152	10	0.1	0.1	115	3162	0.7	0.5	130	0.6	3	3	14	yes	DIP-8/SO-8	Zero-Drift C-Load Stable with Ext. RC	\$3.15
1	LT1012	25	0.6	0.1	114	2000	1	0.2	14	0.02	0.5	2.4	40		DIP-8/SO-8	Low V <sub>OS</sub> Stable with Any C-Load	\$1.60
1	LT1001	25	0.6	2	114	800	0.8	0.25	9.6	0.1	2.5	6	44		DIP-8/SO-8	General Purpose/High Precision	\$1.65

† Primary Sort Column

†† Secondary Sort Column

PRECISION OP AMPS ( $V_{OS} \leq 500\mu V$  MAX)

† Amplifiers Per Package	Part Number	‡‡ $V_{OS}$ Max 25°C ( $\mu V$ )	TC of $V_{OS}$ Max ( $\mu V/^\circ C$ )	$I_{BIAS}$ Max 25°C (nA)	CMRR Min 25°C (dB)	$A_{VOL}$ Typ 25°C (V/mV)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/ $\mu s$ )	$E_{NOISE}$ Typ 25°C (nV/ $\sqrt{Hz}$ )	$I_{NOISE}$ Typ 25°C (pA/ $\sqrt{Hz}$ )	$I_{SUPPLY}$ Per Ampl Max 25°C (mA)	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Features	Price 1K Qty
1	LT1037	25	0.6	35	117	20000	60	15	2.5	0.4	4.3	8	44		DIP-8/SO-8	Extremely Low Noise	\$1.90
1	LT1007	25	0.6	35	117	20000	8	2.5	2.5	0.04	4	4	44		DIP-8/SO-8	Extremely Low Noise	\$1.90
1	LT6010	35	0.8	0.11	107	2000	0.33	0.09	14	0.1	0.15	2.7	40	out	DFN-8/SO-8	Micropower/Precision/RRIO	\$1.10
1	LT6013	35	0.8	0.25	107	2000	1.6	0.2	9.5	0.15	0.165	2.7	40	out	DFN-8/SO-8	Micropower/Precision/RRIO/ $A_V > 5$	\$1.10
1	LT1168	40	0.3	0.25	126		0.4	0.5	10	0.074	0.53	4.6	40		DIP-8/SO-8	Precision IA/Low Bias Current/Low Power	\$3.70
1	LT1167	40	0.3	0.35	126		1	1.2	7.5	0.124	1.3	4.6	40		DIP-8/SO-8	Precision/Low Bias Current IA	\$3.20
1	LT1028	40	0.8	90	114	30000	75	15	0.85	1	9.5	8	44		DIP-8/SO-8/SOW-16	Lowest Noise Low Drift/Unity Gain Stable	\$4.75
1	LT1128	40	0.8	90	114	30000	20	6	0.85	1	9.5	8	44		DIP-8/SO-8	Lowest Noise High Speed	\$4.75
1	LT1077	40	1.6	9	97	1000	0.23	0.08	27	0.065	0.06	2.2	44	ss	DIP-8/SO-8	High Precision Micropower Single Supply	\$1.60
1	LT1996	50	1	5	80		0.56	0.12	18		0.11	2.7	36	yes	MS-10/DFN-10	Precision/ $A_V = 9$ to 117	\$1.39
1	LT1991	50	1	5	80		0.56	0.12	46		0.11	2.4	40	yes	MS-10/DFN-10	Precision/Gain Select Range -13 to 14	\$1.39
1	LT1097	50	1.2	0.25	115	2500	0.7	0.2	14	0.008	0.56	2	40		DIP-8/SO-8	Low Cost/C-Load Stable	\$1.75
1	LT1006	50	1.3	15	100	2500	0.6	0.4	22	0.07	0.52	4	44	ss	DIP-8/SO-8	Single Supply Precision Op Amp	\$1.55
1	LT1677	60	1.5	20	109	19000	7.2	2.5	3.2	0.3	3.5	2.5	44	yes	DIP-8/SO-8	High Loop Gain/Low Noise/RRIO	\$2.15
1	LT1787	75	2								0.12	2.5	36	ss	SO-8/MS-8	Precision/High Side Current Sense	\$2.05
1	LT1787HV	75	2								0.12	2.5	60	ss	SO-8/MS-8	Precision/Current Sense/60V $V_{IH}$	\$2.90
1	LT1468	75	2	40	96	9000	90	22	5	0.6	5	9	36		DFN-8/DIP-8/SO-8	16-Bit Accuracy/760ns to 0.01% Settling	\$2.95
1	<b>LT1468-2</b>	<b>75</b>	<b>2</b>	<b>40</b>	<b>96</b>	<b>9000</b>	<b>200</b>	<b>30</b>	<b>5</b>	<b>0.6</b>	<b>5</b>	<b>9</b>	<b>36</b>		<b>DFN-8/SO-8</b>	<b>16-Bit Accuracy/760ns to 0.01% Settling/<math>A_V &gt; 2</math></b>	<b>\$2.95</b>
1	LT1218	90	3	70	92	1000	0.3	0.1	33	0.09	0.42	2	36	yes	SO-8/DIP-8	Low $V_{OS}$ Across Entire R-R Input Range	\$4.75
1	LT1218L	90	3	70	92	1000	0.3	0.1	33	0.09	0.42	2	16	yes	SO-8/DIP-8	Low $V_{OS}$ Across Entire R-R Input Range	\$2.90
1	LT1219	90	3	70	92	1000	0.15	0.05	33	0.09	0.42	2	36	yes	SO-8/DIP-8	Low $V_{OS}$ Across Entire R-R Input Range	\$4.75
1	LT1219L	90	3	70	92	1000	0.15	0.05	33	0.09	0.42	2	16	yes	SO-8/DIP-8	Low $V_{OS}$ Across Entire R-R Input Range	\$2.90
1	LTC6800	100	0.25	10	90		0.2	0.2	50		1.2	2.7	5.5	yes	DFN-8/MS-8	Zero-Drift RRIO IA	\$1.55
1	LT1789-1	100	0.7	40	100		0.06	0.026	48	0.062	0.095	2.2	36	out	SO-8	Micropower/Precision IA/Single Supply	\$3.20
1	LT1008	120	1.5	0.1	114	2000	1	0.2	14	0.02	0.6	4	40		DIP-8/SO-8	Low Bias Current/External Compensation	\$2.95
1	LT1920	125	1	2	110		0.8	1.2	7.5	0.124	1.3	4.6	40		DIP-8/SO-8	Resistor Programmable IA	\$3.05
1	LT1880	150	1.2	0.9	116	1600	1.1	0.55	13	0.07	1.9	2.4	40	out	SOT23-5	Picoamp Input Current/Precision	\$1.75
1	LT1789-10	160	0.7	40	98		0.025	0.026	52	0.062	0.095	2.2	36	out	SO-8	Micropower/Precision IA/ $A_V > 10$	\$3.20
1	LT1101	160	2	8	100		0.37	0.1	43	0.06	0.13	1.8	44		DIP-8/SOW-16	$\mu$ Power Single Supply IA/ $A_V = 10$ or 100	\$4.75
1	LTC6240	175	2.5	0.001	80	1600	18	10	7	0.00056	2.4	2.8	6	out	SOT-23/SO-8	18MHz/Low Noise/RRIO/CMOS	\$0.77
1	LT1115	200	8.5 Typ	380	104	20000	70	15	0.9	1.2	11.5	8	44		DIP-8/SOW-16	Low Noise/Ultralow Distortion	\$2.90
1	LT1636	225	5	8	84	2000	0.2	0.07	52	0.035	0.055	2.6	44	yes	DFN-8/DIP-8/MS-8/SO-8	Over-The-Top Micropower Op Amp	\$1.45
1	LTC6240HV	250	2.5	0.001	83	2700	18	10	7	0.00056	3.3	2.8	11	out	SOT-23/SO-8	18MHz/Low Noise/RRIO/CMOS	\$1.40
1	LT1022	250	5	0.05	86	400	8.5	26	14	0.0018	7	20	40		DIP-8	High speed JFET Input	\$2.80
1	LT6100	300	3	10000	100		0.15	0.05			0.13	4.1	48	ss	DFN-8/MS-8	Precision/Gain Selectable Current Sense	\$1.18
1	LTC6101	300	1 Typ	170	118		0.02				0.45	4	60		SOT-23-5/MS-8	High Voltage/High Side Current Sense	\$1.04
1	LTC6101HV	300	1 Typ	170	118		0.02				0.45	5	100		SOT-23-5/MS-8	High Voltage/High Side Current Sense	\$1.30
1	LT1222	300	8 Typ	300	100	200	500	200	3	2	10.5	5	36		SO-8/DIP-8	Fast Setting Time/High Speed/Gain > 10	\$3.40
1	LT1637	350	3	50	88	800	1	0.35	27	0.08	0.25	1.8	44	yes	DFN-8/DIP-8/MS-8/SO-8	High Voltage/Over-The-Top/Low Power	\$1.45
1	LT6220	350	5	150	85	100	60	20	10	0.8	1	2.2	12.6	yes	SO-8/SOT23-5	Precision/Low Power/RRIO	\$1.20
1	LT1800	350	5	250	85	85	80	25	8.5	1	2	2.3	12.6	yes	SO-8/SOT23-5	High Speed/Power/Precision/RRIO	\$1.30
1	LT1672	375	2	1	90	500	0.012	0.005	185	0.01	0.002	2.1	36	yes	DIP-8/MS-8/SO-8	Ultralow Power/Over-The-Top Inputs	\$1.65
1	LT1494	375	2	1	100	500	0.0027	0.001	185	0.01	0.0015	2.1	36	yes	DIP-8/MS-8/SO-8	Ultralow Power/Rail-to-Rail/Precision	\$1.65
1	LT1722	400	7	300	80	17	200	70	3.8	1.2	4.5	4.6	12.6		SO-8/SOT23-5	Low Noise at Video Speed/Precision	\$0.88
1	LTC6104	450	1.5 Typ	170	116		0.14				0.73	4	60		MS-8	High Voltage/High Side/Bidirectional Current Sense Amplifier	\$1.38
1	LT6233	500	3	3000	90	180	60	17	1.9	0.43	1.25	3	12.6	out	SOT23-6	Ultralow Noise/Low Power/High Speed	\$1.45
1	LT6233-10	500	3	3000	90	180	375	115	1.9	0.43	1.25	3	12.6	out	SOT23-6	Low Noise/Low Power/ $A_V > 10$	\$1.90
1	LT6230	500	3	10000	95	260	215	70	1.1	1	3.75	3	12.6	out	SOT23-6	Ultralow Noise/Low Power/High Speed	\$1.25
1	LT6230-10	500	3	10000	95	260	1450	320	1.1	1	3.75	3	12.6	out	SOT23-6	Ultralow Noise/Low Power/ $A_V > 10$	\$1.50
1	LT6003	500	5	0.09	88	500	0.002	0.0008	325	0.012	0.001	1.6	16	yes	DFN-4/SOT23-5	Low Power, 1.8V Precision Op Amp	\$0.72
1	LT6202	500	24	7000	65	200	100	25	1.9	0.75	3.5	2.5	12.6	yes	SO-8/SOT23-5	Low Noise/Low Power/RRIO	\$1.45
2	LTC2051	3	0.03	0.075	120	10000	3	2			1.2	2.7	7	out	DFN-8/MS-8/MS-10/SO-8	Zero-Drift/3V/5V Operation	\$2.00

† Primary Sort Column  
 ‡‡ Secondary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



PRECISION OP AMPS ( $V_{OS} \leq 500\mu V$  MAX)

† Amplifiers Per Package	Part Number	‡‡ $V_{OS}$ Max 25°C (μV)	TC of $V_{OS}$ Max (μV/°C)	$I_{BIAS}$ Max 25°C (nA)	CMRR Min 25°C (dB)	$A_{VOL}$ Typ 25°C (V/mV)	GBW Typ 25°C (MHz)	Slew Rate (V/μs)	$E_{NOISE}$ Typ 25°C (nV/√Hz)	$I_{NOISE}$ Typ 25°C (pA/√Hz)	$I_{SUPPLY}$ Per Ampl (mA)	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Features	Price 1K Qty
2	LTC2051HV	3	0.03	0.15	125	10000	3	2			1.5	2.7	12	out	DFN-8/MS-8/MS-10/SO-8	Zero-Drift 3V/5V/±5V Operation	\$2.50
2	LTC2055	3	0.03	0.15	120	10000	0.5	0.5			0.15	2.7	7	out	DFN-8/MS-8	Micropower Zero-Drift/3V/5V Operation	\$1.60
2	LTC2055HV	5	0.03	0.15	120	10000	0.5	0.5			0.18	2.7	12	out	DFN-8/MS-8	Micropower Zero-Drift ±5V Operation	\$2.00
2	LTC1051	5	0.05	0.065	106	100000	2.5	4	70	0.0022	2	4.75	16.5	out	DIP-8/SOW-16	Zero-Drift No External Capacitors	\$4.05
2	LTC1151	5	0.05	0.1	106	10000	2	2.5		0.0022	1.5	4.75	36	ss	DIP-8/SOW-16	Auto Zero Amplifier Works On 30V+	\$5.80
2	LTC1047	10	0.05	0.03	110	31622	0.2	0.2		0.0015	0.275	4.75	16	out	DIP-8/SOW-16	Zero-Drift No External Capacitors	\$4.85
2	LTC6078	25	0.7	0.001	95	3162	0.75	0.05	18		0.072	2.7	6	yes	MS-8/DFN-10	Micropower/Precision/RRIO	\$1.49
2	LT1881	50	0.8	0.2	106	1600	1	0.35	14	0.03	0.9	2.4	40	out	DIP-8/SO-8	Picoamp Input Current/Precision	\$2.75
2	LT1884	50	0.8	0.4	108	1600	2	0.9	9.5	0.05	0.9	2.4	40	out	DIP-8/SO-8	Picoamp Input Current/Precision	\$2.75
2	LT1024	50	1.5	0.12	112	2000	1	0.2	14	0.02	0.6	4	40		DIP-14	Low $V_{OS}$ /Low Power	\$4.75
2	LT1112	60	0.5	0.25	120	5000	0.75	0.3	14	0.0008	0.4	2	40		DIP-8/SO-8	Low Power/Matching Specs/C-Load Stable	\$2.35
2	LT6011	60	0.8	0.3	107	2000	0.33	0.09	14	0.1	0.15	2.4	40	out	DFN-8/SO-8/MS-8	Micropower/Precision/RRIO	\$1.65
2	LT6014	60	0.8	0.4	107	2000	1.6	0.2	9.5	0.15	0.165	2.7	40	out	DFN-8/SO-8	Micropower/Precision/RRIO/ $A_V > 5$	\$1.65
2	LT1002	60	0.9	3	110	800	0.8	0.25	9.6	0.1	2.5	6	44		DIP-14	High CMRR and PSRR	\$2.85
2	LT1126	70	1	20	112	17000	65	11	2.7	0.3	3.1	8	44		SO-8/DIP-8	Low Noise/65MHz GBW/Precision	\$3.50
2	LT1124	70	1	20	112	17000	12.5	4.5	2.7	0.3	2.75	8	44		DIP-8/SO-8	Low Noise/Low 1/f Corner/Precision	\$3.50
2	LT2178	70	1.8	5	93	700	0.06	0.025	49	0.01	0.018	2.2	44	ss	SO-8	Micropower Single Supply	\$3.50
2	LT2078	70	1.8	8	95	1000	0.2	0.07	28	0.02	0.05	2.3	44	ss	SO-8	Micropower/Single Supply/Std Pinout	\$3.50
2	LT1078	70	1.8	8	97	1000	0.2	0.07	28	0.06	0.05	2.2	44	ss	DIP-8/SO-8	Precision/Micropower/Single Supply	\$2.70
2	LT1178	70	3	5	97	2500	0.085	0.04	49	0.00001	0.017	2	44	ss	DIP-8/SO-8/SOW-16	Precision/Micropower/Single Supply	\$2.95
2	LTC6081	70	0.8	0.001	110	120	3.5	1	13	0.0005	0.425	2.7	5.5	yes	DFN-10/MS-8	Precision/RRIO/Low Bias Current	\$1.74
2	LTC6244	100	2.5	0.075	74	2500	50	35	8	0.00056	7.4	2.8	6	out	DFN-8/MSOP-8	50MHz/Low Noise/RRIO/CMOS	\$1.65
2	LTC6244HV	100	2.5	0.075	74	2500	50	35	8	0.00056	7.4	2.8	10.5	out	DFN-8/MSOP-8	50MHz/Low Noise/RRIO/CMOS	\$2.35
2	LT1678	100	3	20	98	3000	20	6	3.9	0.3	3.4	3	36	yes	SO-8	Very Low 1/f Corner Frequency	\$2.50
2	LTC6241	125	2.5	0.075	80	1600	18	10	7	0.00056	2.2	2.8	6	out	DFN-8/SO-8	1pA Input Bias Current CMOS Amp	\$1.25
2	LT1469	125	3	40	96	2000	90	22	5	0.6	5.2	9	36		DFN-12/DIP-8/SO-8	16-Bit Accuracy/760ns to 0.01% Settling	\$4.95
2	<b>LT1469-2</b>	<b>125</b>	<b>3</b>	<b>40</b>	<b>96</b>	<b>2000</b>	<b>200</b>	<b>30</b>	<b>5</b>	<b>0.6</b>	<b>5.2</b>	<b>9</b>	<b>36</b>		<b>DFN-12/SO-8</b>	<b>16-Bit Accuracy/760ns to 0.01% Settling/<math>A_V &gt; 2</math></b>	<b>\$4.95</b>
2	LT1211	150	1.5	100	90	560	13	7	12	0.2	1.8	2.5	36	ss	DIP-8/SO-8	Precision/Single Supply/Wide $V_{SUPPLY}$	\$2.85
2	LT1213	150	1.5	160	90	850	28	8.5	10	0.2	3.8	2.5	36	ss	DIP-8/SO-8	Precision/Fast/CM to $V^-$	\$2.85
2	LT1413	150	2	15	100	1400	0.95	0.3	23	0.02	0.45	3	22	ss	DIP-8/SO-8	Single Supply/Optimized for 5V	\$2.00
2	LT1013	150	2	20	100	8000	0.8	0.4	22	0.07	0.5	4	44	ss	SO-8/DIP-8	Single Supply Precision Op Amps	\$1.90
2	LTC6241HV	175	2.5	0.075	80	1600	18	7	0.00056	2.2	2.8	11	out	DFN-8/SO-8	1pA Input Bias Current CMOS Amp	\$2.20	
2	LT1492	180	3	100	86	350	4.5	1.8	16.5	0.14	0.55	2.1	36	ss	SO-8/DIP-8	Single Supply/Low Power/Precision	\$3.45
2	LT1215	300	2.5	500	90	150	23	30	12	0.5	6.6	2.5	36	ss	DIP-8/SO-8	Precision/Fast/CM to $V^-$	\$2.85
2	LT6234	350	3	3000	90	180	60	17	1.9	0.43	1.25	3	12.6	out	DFN-8/SO-8	Ultralow Noise/Low Power	\$2.45
2	LT6231	350	3	10000	95	260	215	70	1.1	1	3.75	3	12.6	out	DFN-8/SO-8	Ultralow Noise/Low Power/High Speed	\$1.95
2	LT6221	350	5	150	85	100	60	20	10	0.8	1	2.2	12.6	yes	DFN-8/SO-8	Precision/Low Power/RRIO	\$1.85
2	LT1801	350	5	250	85	85	80	25	8.5	1	2	2.3	12.6	yes	DFN-8/MS-8/SO-8	High Speed/Power/Precision/RRIO	\$1.95
2	LT1673	375	2	1	90	500	0.012	0.005	185	0.01	0.002	2.1	36	yes	DIP-8/SO-8	Ultralow Power/Over-The-Top Inputs	\$2.45
2	LT1495	375	2	1	100	500	0.0027	0.001	185	0.01	0.0015	2.1	36	yes	DIP-8/SO-8	Ultralow Power/Rail-to-Rail/Precision	\$2.45
2	LT1466L	390	7	14	88	1500	0.12	0.04	45	0.05	0.075	2	16	yes	DIP-8/SO-8	Precision Rail-to-Rail Micropower	\$4.15
2	LT1723	400	7	300	80	17	200	70	3.8	1.2	4.5	4.6	12.6		MS-8/SO-8	Low Noise at Video Speed/Precision	\$1.15
2	LTC6103	450	1.5 Typ	170	110		0.12				0.45	4	60		MS-8	Dual High Voltage/High Side Current Sense Amp	\$1.66
2	LT1057	450	10	0.05	86	350	5	14	13	0.0015	2.5	8	40		DIP-8/SO-8/SOW-16	High Speed JFET Input	\$2.45
2	LT1457	450	10	0.05	86	300	1.7	4	13	0.0015	3	9	40		DIP-8/SO-8	JFET with Excellent C-Load Stability	\$2.35
2	LT1498	475	2.5	650	93	3800	10.5	4.5	12	0.3	2.2	2.2	36	yes	DIP-8/SO-8	Stable with Large C-Load	\$2.96
2	LT1366	475	6	35	95	2000	0.4	0.13	29	0.07	0.52	2	36	yes	DIP-8/SO-8	C-Load Stable up to 1000pF	\$3.50
2	LT1368	475	6	35	95	2000	0.16	0.065	29	0.07	0.52	2	36	yes	DIP-8/SO-8	Stable with 100nF C-Load	\$3.45
2	LT1490A	500	4	8	84	1500	0.18	0.06	50	0.015	0.055	2	44	yes	DFN-8/DIP-8/MS-8/SO-8	RRIO/Over-The-Top	\$1.75
2	LT6004	500	5	0.09	88	500	0.002	0.0008	325	0.012	0.001	1.6	16	yes	DFN-8/MS-8	1.6V/1μA Precision RRIO Op Amp	\$1.10
2	LT6203	500	24	7000	65	200	100	25	1.9	0.75	3.5	2.5	12.6	yes	DFN-8/MS-8/SO-8	Low Noise/Low Power/RRIO	\$2.45
4	LTC2052	3	0.03	0.075	120	10000	3	2			1.2	2.7	7	out	SO-14/SSOP-16	Zero-Drift Op Amp 3V/5V Operation	\$3.65

† Primary Sort Column  
 ‡‡ Secondary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO



† Amplifiers Per Package	Part Number	†† $V_{OS}$ Max 25°C ( $\mu V$ )	TC of $V_{OS}$ Max ( $\mu V/^{\circ}C$ )	$I_{BIAS}$ Max 25°C (nA)	CMRR Min 25°C (dB)	$A_{VOL}$ Typ 25°C (V/mV)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/ $\mu s$ )	$E_{NOISE}$ Typ 25°C (nV/ $\sqrt{Hz}$ )	$I_{NOISE}$ Typ 25°C (pA/ $\sqrt{Hz}$ )	$I_{SUPPLY}$ Per Ampl Max 25°C (mA)	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Features	Price 1K Qty
4	LTC2052HV	3	0.03	0.15	125	10000	3	2			1.5	2.7	12	out	SO-14/SSOP-16	Zero-Drift 3V/5V/ $\pm 5V$ Operation	\$4.55
4	LTC1053	5	0.05	0.065	106	100000	2.5	4	70	0.0022	2	4.75	16.5	out	DIP-14/SOW-18	Zero-Drift No External Capacitors	\$7.50
4	LTC6079	25	1.4	0.001	95	3162	0.75	0.05	18		0.072	2.7	6	yes	DFN-16/SSOP-16	Micropower/Precision/RRIO	\$2.53
4	LT6012	60	0.8	0.3	107	2000	0.33	0.09	14	0.1	0.15	2.4	40	out	SO-14/SSOPN-16	Micropower/Precision/RRIO	\$2.95
4	LT1114	60	1.1	0.25	120	5000	0.75	0.3	14	0.008	0.4	2	40		DIP-14/SO-16	Low Power/Matching Specs/C-Load Stable	\$4.40
4	LTC6082	70	0.8	0.001	110	120	3.5	1	13	0.0005	0.425	2.7	5.5	yes	DFN-16/SSOP-16	Precision/RRIO/Low Bias Current	\$2.97
4	LT1882	80	0.8	0.5	106	1600	1	0.35	14	0.3	0.9	2.4	40	out	SO-14	Picoamp Input Current/Precision	\$4.85
4	LT1885	80	0.8	0.9	108	1600	2	0.9	9.5	0.05	0.9	2.4	40	out	SO-14	Picoamp Input Current/Precision	\$4.85
4	LT1127	90	1	20	112	17000	65	11	2.7	0.3	3.1	8	44		DIP-14/SOW-16	Low Noise/65MHz GBW/Precision	\$5.70
4	LT1125	90	1	20	112	17000	12.5	4.5	2.7	0.3	2.75	8	44		DIP-14/SOW-16	Low Noise/Low 1/f Corner/Precision	\$5.70
4	LT1179	100	0.3	5	97	2500	0.085	0.04	49	0.00001	0.017	2	44	ss	DIP-14/SOW-16	Precision/Micropower/Single Supply	\$3.70
4	LT1079	100	1.8	8	97	1000	0.2	0.07	28	0.06	0.05	2.2	44	ss	DIP-14/SOW-16	Precision/Micropower/Single Supply	\$3.40
4	LT2179	100	3	5	93	700	0.06	0.025	49	0.01	0.018	2.2	44	ss	SO-14	Micropower Single Supply	\$6.30
4	LT1679	100	3	20	98	3000	20	6	3.9	0.3	3.4	3	36	yes	SO-14	Very Low 1/f Corner Frequency	\$3.85
4	LT2079	110	3	8	95	1000	0.2	0.07	28	0.02	0.05	2.3	44	ss	SO-14	Micropower Single Supply	\$5.95
4	LT1493	130	3	100	86	350	4.5	1.8	16.5	0.14	0.55	2.1	36	ss	SO-16	Single Supply/Low Power/Precision	\$6.40
4	LT1014	150	2	20	100	8000	0.8	0.4	22	0.07	0.5	4	44	ss	DIP-14/SOW-16	Single Supply Precision Op Amp	\$3.45
4	LTC6242	150	2.5	0.075	80	1600	18	10	7	0.00056	2.2	2.8	6	out	DFN-16/SSOP-16	1pA Input Bias Current CMOS Amp	\$2.25
4	LTC6242HV	200	2.5	0.075	80	1600	18	10	7	0.00056	2.2	2.8	11	out	DFN-16/SSOP-16	1pA Input Bias Current CMOS Amp	\$3.30
4	LT1212	275	3	125	86	560	13	7	12	0.2	1.8	2.5	36	ss	DIP-14/SO-16	Precision/Single Supply/Wide $V_{SUPPLY}$	\$5.10
4	LT1214	275	3	200	86	250	28	8.5	10	0.2	3.8	2.5	36	ss	DIP-14/SO-16	Precision/Fast CM to $V^-$	\$5.10
4	LT6235	350	3	3000	90	180	60	17	1.9	0.43	1.25	3	12.6	out	SSOP-16	Ultralow Noise/Low Power	\$4.15
4	LT6232	350	3	10000	95	260	215	70	1.1	1	3.75	3	12.6	out	SSOP-16	Ultralow Noise/Low Power/High Speed	\$3.30
4	LT6222	350	5	150	85	100	60	20	10	0.8	1	2.2	12.6	yes	SSOP-16	Precision/Low Power/RRIO	\$2.95
4	LT1802	350	5	250	85	85	80	25	8.5	1	2	2.3	12.6	yes	SO-14	High Speed/Power/Precision/RRIO	\$3.50
4	LT1674	375	2	1	90	500	0.012	0.005	185	0.01	0.002	2.1	36	yes	DIP-14/SO-14	Ultralow Power/Over-The-Top Inputs	\$3.25
4	LT1496	375	2	1	100	500	0.0027	0.001	185	0.01	0.0015	2.1	36	yes	DIP-14/SO-14	Ultralow Power/Precision/RRIO	\$3.25
4	LT1467L	390	7	14	88	1500	0.12	0.04	45	0.05	0.075	2	16	yes	SO-16	Precision Micropower Rail-to-Rail	\$7.20
4	LT1724	400	7	300	80	17	200	70	3.8	1.2	4.5	4.6	12.6		SO-14	Low Noise at Video Speed/Precision	\$2.19
4	LT1216	450	5	600	90	600	23	30	12	0.5	6.6	2.5	36	ss	DIP-14/SO-16	Precision/Fast/CM to $V^-$	\$5.10
4	LT1499	475	2.5	650	93	3800	10.5	4.5	12	0.0003	2.2	2.2	36	yes	SO-14	Stable with Large C-Load	\$5.60
4	LT6204	500	24	7000	65	200	100	25	1.9	0.75	3.5	2.5	12.6	yes	SO-14/SSOPN-16	Low Noise/Low Power/RRIO	\$4.50

† Primary Sort Column  
 †† Secondary Sort Column

Note:

1. ss = Input common mode range includes negative supply rail

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# ZERO-DRIFT OP AMPS

† Amplifiers Per Package	Part Number	V <sub>OS</sub> Max 25°C (μV)	‡‡ TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	CMRR Min 25°C (dB)	A <sub>VOL</sub> Typ 25°C (V/mV)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Features	Price 1K Qty
1	LTC2050	3	0.03	0.075	120	10000	3	2	1.2	2.7	7	out	SO-8/SOT23-5/SOT23-6	Zero-Drift Op Amp, 3V/5V Operation	\$1.15	
1	LTC2050HV	3	0.03	0.05	120	10000	3	2	1.5	2.7	12	out	SO-8/SOT23-5/SOT23-6	Zero-Drift 3V/5V/±5V Operation	\$1.45	
1	LTC2054	3	0.03	0.15	120	10000	0.5	0.5	0.175	2.7	7	out	SOT23-5	Micropower Zero-Drift 3V/5V Operation	\$1.00	
1	LTC2054HV	5	0.03	0.15	120	10000	0.5	0.5	0.21	2.7	12	out	SOT23-5	Micropower Zero-Drift ±5V Operation	\$1.25	
1	LTC1050	5	0.05	0.03	114	100000	2.5	4	90	1.5	4.75	18	out	DIP-8/DIP-14/SO-8	Zero-Drift No External Capacitors	\$2.15
1	LTC1052	5	0.05	0.03	120	100000	1.2	4	30	2	4.75	18	out	DIP-8/DIP-14/SOW-16	Low Noise Zero-Drift	\$4.10
1	LTC1150	10	0.05	0.1	110	1000000	2.5	3	1.5	4.75	32	ss	DIP-8/SO-8	Auto-Zero Amplifier Works on 30V+	\$3.70	
1	LTC1250	10	0.05	0.2	110	316227	1.5	10	15	4	4.75	18		DIP-8/SO-8	Low Noise/Zero-Drift Bridge Amp	\$2.85
1	LTC2053	10	0.05	10	105		0.2	0.2	50	1.3	2.7	11	yes	DFN-8/MS-8	Zero-Drift IA	\$3.20
1	LTC2053-SYNC	10	0.05	10	105		0.2	0.2	50	1.3	2.7	11	yes	MS-8	Zero-Drift IA/Freq. Set with Ext. Clock	\$3.40
1	LTC6915	10	0.05	10	105		0.2	0.2	50	1.6	2.7	11	yes	DFN-12/SSOP-16	Serial or Par. PGA/A <sub>V</sub> =0 to 4096 V/V	\$2.44
1	LTC1100	10	0.1	0.05	104		1.8	3	38	2.8	4	18	out	DIP-8/SOW-16	Zero-Drift/fixed Gain of 10 and 100	\$6.15
1	LTC1049	10	0.1	0.05	110	31622	0.8	0.8	80	0.3	4.75	18	out	DIP-8/SO-8	Zero-Drift No External Capacitors	\$2.15
1	LTC1152	10	0.1	0.1	115	3162	0.7	0.5	130	3	3	14	yes	DIP-8/SO-8	Zero-Drift C-Load Stable with Ext. RC	\$3.15
2	LTC2051	3	0.03	0.075	120	10000	3	2	1.2	2.7	7	out	DFN-8/MS-8/MS-10/SO-8	Zero-Drift 3V/5V Operation	\$2.00	
2	LTC2051HV	3	0.03	0.15	125	10000	3	2	1.5	2.7	12	out	DFN-8/MS-8/MS-10/SO-8	Zero-Drift 3V/5V/±5V Operation	\$2.50	
2	LTC2055	3	0.03	0.15	120	10000	0.5	0.5	0.15	2.7	7	out	DFN-8/MS-8	Micropower Zero-Drift 3V/5V Operation	\$1.60	
2	LTC2055HV	5	0.03	0.15	120	10000	0.5	0.5	0.18	2.7	12	out	DFN-8/MS-8	Micropower Zero-Drift ±5V Operation	\$2.00	
2	LTC1051	5	0.05	0.065	106	100000	2.5	4	70	2	4.75	16.5	out	DIP-8/SOW-16	Zero-Drift No External Capacitors	\$4.05
2	LTC1151	5	0.05	0.1	106	10000	2	2.5	1.5	4.75	36	ss	DIP-8/SOW-16	Auto-Zero Amplifier Works on 30V+	\$5.80	
2	LTC1047	10	0.05	0.03	110	31622	0.2	0.2	0.275	4.75	16	out	DIP-8/SOW-16	Zero-Drift No External Capacitors	\$4.85	
4	LTC2052	3	0.03	0.075	120	10000	3	2	1.2	2.7	7	out	SO-14/SSOP-16	Zero-Drift Op Amp, 3V/5V Operation	\$3.65	
4	LTC2052HV	3	0.03	0.15	125	10000	3	2	1.5	2.7	12	out	SO-14/SSOP-16	Zero-Drift 3V/5V/±5V Operation	\$4.55	
4	LTC1053	5	0.05	0.065	106	100000	2.5	4	70	2	4.75	16.5	out	DIP-14/SOW-18	Zero-Drift No External Capacitors	\$7.50

† Primary Sort Column  
‡‡ Secondary Sort Column

Note:  
1. ss = Input common mode range includes negative supply rail

# PRECISION RAIL-TO-RAIL INPUT/OUTPUT OP AMPS (V<sub>OS</sub> MAX ≤ 1mV)

† Amplifiers Per Package	Part Number	‡‡ V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	CMRR Min 25°C (dB)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	V <sub>OH</sub> <sup>(1)</sup> Typ 25°C (V)	V <sub>OL</sub> <sup>(1)</sup> Typ 25°C (V)	Package	Features	Price 1K Qty
1	LTC2053	10	0.05	10	0.2	0.2	105		50	1.3	no	2.7	11	0.06	0.02	DFN-8/MS-8	Zero-Drift IA	\$3.20
1	LTC2053-SYNC	10	0.05	10	0.2	0.2	105		50	1.3	no	2.7	11	0.06	0.02	MS-8	Zero-Drift IA/Freq. Set with Ext. Clock	\$3.40
1	LTC6915	10	0.05	10	0.2	0.2	105		50	1.6	yes	2.7	11	0.01	0.017	DFN-12/SSOP-16	Serial or Par. PGA/A <sub>V</sub> =0 to 4096 V/V	\$2.44
1	LTC1152	10	0.1	0.1	0.7	0.5	115	3162	130	3	yes	3	14	0.01	0.01	DIP-8/SO-8	Zero-Drift C-Load Stable with Ext. RC	\$3.15
1	LT1991	50	1	5	0.56	0.12	80		46	0.11	no	2.4	40	0.04	0.04	MS-10/DFN-10	Precision/Gain Select Range -13 to 14	\$1.39
1	LT1996	50	1	5	0.56	0.12	80		18	0.11	no	2.7	36	0.04	0.04	MS-10/DFN-10	Precision/A <sub>V</sub> =9 to 117	\$1.39
1	LT1677	60	1.5	20	7.2	2.5	109	19000	3.2	3.5	no	2.5	44	0.11	0.11	DIP-8/SO-8	High Loop Gain/Low Noise/RRIO	\$2.15
1	LT1218	90	3	70	0.3	0.1	92	1000	33	0.42	yes	2	36	0.004	0.003	SO-8/DIP-8	Low V <sub>OS</sub> Across Entire R-R Input Range	\$4.75
1	LT1218L	90	3	70	0.3	0.1	92	1000	33	0.42	yes	2	16	0.004	0.003	SO-8/DIP-8	Low V <sub>OS</sub> Across Entire R-R Input Range	\$2.90
1	LT1219	90	3	70	0.15	0.05	92	1000	33	0.42	yes	2	36	0.004	0.003	SO-8/DIP-8	Low V <sub>OS</sub> Across Entire R-R Input Range	\$4.75
1	LT1219L	90	3	70	0.15	0.05	92	1000	33	0.42	yes	2	16	0.004	0.003	SO-8/DIP-8	Low V <sub>OS</sub> Across Entire R-R Input Range	\$2.90
1	LTC6800	100	0.25	10	0.2	0.2	90		50	1.2	no	2.7	5.5	0.02	0.02	DFN-8/MS-8	Zero-Drift RRIO IA	\$1.55
1	LT1636	225	5	8	0.2	0.07	84	2000	52	0.055	yes	2.6	44	0.015	0.002	DFN-8/DIP-8/MS-8/SO-8	Over-The-Top Micropower Op Amp	\$1.45
1	LT1637	350	3	50	1	0.35	88	800	27	0.25	yes	1.8	44	0.025	0.003	DFN-8/DIP-8/MS-8/SO-8	High Voltage/Over-The-Top/Low Power	\$1.45
1	LT1800	350	5	250	80	25	85	85	8.5	2	no	2.3	12.6	0.016	0.012	SO-8/SOT23-5	High Speed/Power/Precision/RRIO	\$1.30
1	LT6220	350	5	150	60	20	85	100	10	1	no	2.2	12.6	0.005	0.005	SO-8/SOT23-5	Precision/Low Power/RRIO	\$1.20
1	LT1672	375	2	1	0.012	0.005	90	500	185	0.002	no	2.1	36	0.035	0.05	DIP-8/MS-8/SO-8	Ultralow Power/Over-The-Top Inputs	\$1.65
1	LT1494	375	2	1	0.0027	0.001	100	500	185	0.0015	no	2.1	36	0.035	0.05	DIP-8/MS-8/SO-8	Ultralow Power/Rail-to-Rail/Precision	\$1.65

† Primary Sort Column  
‡‡ Secondary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

PRECISION RAIL-TO-RAIL INPUT/OUTPUT OP AMPS (V<sub>OS</sub> MAX ≤ 1mV)

† Amplifiers Per Package	Part Number	‡ V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	CMRR Min 25°C (dB)	A <sub>VDL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	V <sub>OH</sub> (1) Typ 25°C (V)	V <sub>OL</sub> (1) Typ 25°C (V)	Package	Features	Price 1K Qty
1	LT6003	500	5	0.09	0.002	0.0008	88	500	325	0.001	no	1.6	16	0.045	0.015	SOT23-5/DFN-4	1.6V/1μA Precision RRIO	\$0.72
1	LT6202	500	24	7000	100	25	65	200	1.9	3.5	no	2.5	12.6	0.04	0.005	SO-8/SOT23-5	Low Noise/Low Power/RRIO	\$1.45
1	LT1806	550	5	4000	325	125	79	220	3.5	13	yes	2.5	12.6	0.015	0.008	SO-8/SOT23-6	High Speed/Precision/Low Noise	\$2.10
1	LT6000	750	5	5	0.05	15	90	65	75	0.016	no	1.8	18	0.03	0.03	DFN-6	1.8V/13μA Precision Op Amp	\$0.80
1	LT1783	800	5	80	1.25	0.42	90	1500	20	0.3	yes	2.2	18	0.06	0.003	SOT23-5/SOT23-6	Over-The-Top/Micropower/RRIO/C-Load	\$1.10
1	LT1782	800	5	15	0.2	0.07	90	1500	50	0.055	yes	2.2	18	0.06	0.003	SOT23-5/SOT23-6	Over-The-Top/Micropower/RRIO/C-Load	\$1.10
1	LT6200	1000	24	40000	165	50	68	200	0.95	23	yes	2.5	12.6	0.07	0.012	SO-8/SOT23-6	Low Noise/RRIO/High Speed	\$2.15
1	LT6200-5	1000	24	40000	800	250	68	200	0.95	23	yes	2.5	12.6	0.07	0.012	SO-8/SOT23-6	Low Noise/RRIO/High Speed/A <sub>V</sub> >5	\$1.50
1	LT6200-10	1000	24	40000	1600	450	68	200	0.95	23	yes	2.5	12.6	0.07	0.012	SO-8/SOT23-6	Low Noise/RRIO/High Speed/A <sub>V</sub> >10	\$1.50
2	LTC6078	25	0.7	0.001	0.75	0.05	95	3162	18	0.072	yes	2.7	6	0.001	0.001	MS-8/DFN-10	Micropower/Precision/RRIO	\$1.49
2	LTC6081	70	0.8	1	3.5	1	110	120	13	425	yes	2.7	5.5	0.001	0.001	Precision-10/MS-8	Precision/RRIO/Low Bias Current	\$1.74
2	LTC6244	100	2.5	0.075	50	35		2500	8	7.4	no	2.8	7	0.015	0.015	DFN-8/MSOP-8	50MHz Precision CMOS Op Amp	\$1.65
2	LTC6244HV	100	2.5	0.075	50	35		2500	8	7.4	no	2.8	12	0.015	0.015	DFN-8/MSOP-8	50MHz Precision CMOS Op Amp	\$2.35
2	LT1678	100	3	20	20	6	98	3000	3.9	3.4	no	3	36	0.075	0.08	SO-8	Very Low 1/f Corner Frequency	\$2.50
2	LT1801	350	5	250	80	25	85	85	8.5	2	no	2.3	12.6	0.018	0.016	DFN-8/MS-8/SO-8	High Speed/Power/Precision/RRIO	\$1.95
2	LT6221	350	5	150	60	20	85	100	10	1	no	2.2	12.6	0.005	0.005	DFN-8/SO-8	Precision/Low Power/RRIO	\$1.85
2	LT1673	375	2	1	0.012	0.005	90	500	185	0.002	no	2.1	36	0.035	0.05	DIP-8/SO-8	Ultralow Power/Over-The-Top Inputs	\$2.45
2	LT1495	375	2	1	0.0027	0.001	100	500	185	0.0015	no	2.1	36	0.035	0.05	DIP-8/SO-8	Ultralow power/Rail-to-Rail/Precision	\$2.45
2	LT1466L	390	7	14	0.12	0.04	88	1500	45	0.075	no	2	16	0.026	0.032	DIP-8/SO-8	Precision Rail-to-Rail Micropower	\$4.15
2	LT1498	475	2.5	650	10.5	4.5	93	3800	12	2.2	no	2.2	36	0.0025	0.014	DIP-8/SO-8	Stable with Large C-Load	\$2.96
2	LT1366	475	6	35	0.4	0.13	95	2000	29	0.52	no	2	36	0.004	0.006	DIP-8/SO-8	C-Load Stable up to 1000pF	\$3.50
2	LT1368	475	6	35	0.16	0.065	95	2000	29	0.52	no	2	36	0.004	0.012	DIP-8/SO-8	Stable with 100nF C-Load	\$3.45
2	LT1490A	500	4	8	0.18	0.06	84	1500	50	0.055	no	2	44	0.022	0.003	DFN-8/DIP-8/MS-8/SO-8	RRIO/Over-The-Top	\$1.75
2	LT6004	500	5	0.09	0.002	0.0008	88	500	325	0.001	no	1.6	16	0.045	0.015	DFN-8/MS-8	1.6V/1μA Precision RRIO	\$1.10
2	LT6203	500	24	7000	100	25	65	200	1.9	3.5	no	2.5	12.6	0.04	0.005	DFN-8/MS-8/SO-8	Low Noise/Low Power/RRIO	\$2.45
2	LT1630	525	5.5	1000	30	9.2	79	3500	6	4.4	no	2.6	36	0.015	0.014	DIP-8/SO-8	Low Distortion/High Speed/RRIO	\$2.96
2	LT1807	550	5	4000	325	125	79	220	3.5	13	no	2.5	12.6	0.015	0.008	MS-8/SO-8	High Speed/Precision/Low Noise	\$3.40
2	LT6001	600	5	5	0.05	0.015	90	65	75	0.016	yes	1.8	18	0.03	0.03	MS-8/DFN-10	1.8V/13μA Precision RRIO	\$1.25
2	LT1638	600	6	50	1.2	0.38	88	1500	20	0.23	no	2.2	44	0.02	0.003	DFN-8/DIP-8/MS-8/SO-8	High Voltage/Over-The-Top/Low Power	\$1.95
2	LTC6084	750	5	0.001 Typ	1.5	0.5	64	2000	31	0.13	no	2.5	5.5	0.0005	0.0005	3x3 DFN-8/MS-8	Precision/1.5MHz/RRIO/Low Bias Current	\$0.91
2	LTC6087	750	5	0.001 Typ	14	7.2	70	6000	12	1.3	yes	2.7	5.5	0.015	0.25	MS-8/DFN-10	Precision/14MHz/RRIO/Low Bias Current	\$0.91
2	LT6201	1000	24	40000	165	50	68	200	0.95	23	no	2.5	12.6	0.07	0.012	DFN-8/SO-8	Low Noise/RRIO/High Speed	\$3.65
4	LTC6079	25	1.4	0.001	0.75	0.05	95	3162	18	0.072	no	2.7	6	0.001	0.001	DFN-16/SSOP-16	Micropower/Precision/RRIO	\$2.53
4	LTC6082	70	0.8	1	3.5	1	110	120	13	425	yes	2.7	5.5	0.001	0.001	DFN-16/SSOP-16	Precision/RRIO/Low Bias Current	\$2.97
4	LT1679	100	3	20	20	6	98	3000	3.9	3.4	no	3	36	0.075	0.08	SO-14	Very Low 1/f Corner Frequency	\$3.85
4	LT1802	350	5	250	80	25	85	85	8.5	2	no	2.3	12.6	0.018	0.016	SO-14	High Speed/Power/Precision/RRIO	\$3.50
4	LT6222	350	5	150	60	20	85	100	10	1	no	2.2	12.6	0.005	0.005	SSOP-16	Precision/Low Power/RRIO	\$2.95
4	LT1674	375	2	1	0.012	0.005	90	500	185	0.002	no	2.1	36	0.035	0.05	DIP-14/SO-14	Ultralow Power/Over-The-Top Inputs	\$3.25
4	LT1496	375	2	1	0.0027	0.001	100	500	185	0.0015	no	2.1	36	0.035	0.05	DIP-14/SO-14	Ultralow Power/Precision/RRIO	\$3.25
4	LT1467L	390	7	14	0.12	0.04	88	1500	45	0.075	no	2	16	0.026	0.032	SO-16	Precision Micropower Rail-to-Rail	\$7.20
4	LT1499	475	2.5	650	10.5	4.5	93	3800	12	2.2	no	2.2	36	0.0025	0.014	SO-14	Stable with Large C-Load	\$5.60
4	LT6204	500	24	7000	100	25	65	200	1.9	3.5	no	2.5	12.6	0.04	0.005	SO-14/SSOPN-16	Low Noise/Low Power/RRIO	\$4.50
4	LT1631	525	5.5	1000	30	9.2	79	3500	6	4.4	no	2.6	36	0.015	0.014	SO-14	Low Distortion/High Speed/RRIO	\$5.60
4	LT1639	600	6	50	1.075	0.38	88	1500	20	0.23	no	2.2	44	0.02	0.003	DIP-14/SO-14	High Voltage/Over-The-Top/Low Power	\$3.30
4	LTC6085	750	5	0.001 Typ	1.5	0.5	64	2000	31	0.13	no	2.5	5.5	0.0005	0.0005	5x3 DFN-16/SSOP-16	Precision/1.5MHz/RRIO/Low Bias Current	\$1.40
4	LT6005	650	5	0.09	0.002	0.0008	88	500	325	0.001	no	1.6	16	0.045	0.015	DFN-16/TSSOP-16	1.6V/1μA Precision RRIO	\$1.75
4	LT6002	750	5	5	0.05	0.015	90	65	75	0.016	no	1.8	18	0.03	0.03	SSOP-16/DFN-16	1.8V/13μA Precision RRIO	\$2.00
4	LTC6088	750	5	0.001 Typ	14	7.2	70	6000	12	1.3	yes	2.7	5.5	0.015	0.25	SSOP-16/DFN-16	Precision/14MHz/RRIO/Low Bias Current	\$1.40
4	LT1367	800	6	35	0.4	0.13	93	2000	29	0.52	no	2	36	0.004	0.006	SO-14	C-Load Stable up to 1000pF	\$6.10
4	LT1369	800	6	35	0.16	0.065	93	2000	29	0.52	no	2	36	0.004	0.006	SO-14	Stable with 100nF C-Load	\$6.10
4	LT1491A	1000	4	8	0.18	0.06	84	1500	50	0.055	no	2	44	0.022	0.003	DIP-14/SO-14/DFN-16	RRIO/Over-The-Top	\$3.00

† Primary Sort Column  
‡ Secondary Sort Column

Note:

- 1. V<sub>OH</sub> = How close the output swings to the positive rail
- V<sub>OL</sub> = How close the output swings to the negative rail



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# INSTRUMENTATION AMPS

Part Number	V <sub>OS</sub> Max 25°C (μV)	Av Min Stable Typ 25°C (V/V)	Av Max Typ 25°C (V/V)	Gain Error Max 25°C (%)	Gain Drift Max 25°C (ppm/°C)	CMRR Min 25°C (dB)	TC of V <sub>OS</sub> Max 25°C (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>SUPPLY</sub> Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Package	Features	Price 1K Qty
LTC6915	10	1	4088	0.075	1	105	0.05	10	50	1.6	2.7	11	0.2	0.2	DFN-12/SSOP-16	Serial or Par. PGA/A <sub>v</sub> =0 to 4096 V/V	\$2.44
LTC2053	10	1		0.01		105	0.05	10	50	1.3	2.7	11	0.2	0.2	DFN-8/MS-8	Zero-Drift IA	\$3.20
LTC2053-SYNC	10	1		0.01		105	0.05	10	50	1.3	2.7	11	0.2	0.2	MS-8	Zero-Drift IA/Freq. Set with Ext. Clock	\$3.40
LTC1100	10	10	100	0.05		104	0.1	0.05	38	2.8	4	18	1.8	3	DIP-8/SOW-16	Zero-Drift/Fixed Gain of 10 and 100	\$6.15
LT1167	40	1	10000	0.02	50	126	0.3	0.35	7.5	1.3	4.6	40	1	1.2	DIP-8/SO-8	Precision/Low Bias Current IA	\$3.20
LT1168	40	1	10000	0.02	200	126	0.3	0.25	10	0.53	4.6	40	0.4	0.5	DIP-8/SO-8	Precision IA/Low Bias Current/Low Power	\$3.70
LTC6800	100	1		0.1		90	0.25	10	50	1.2	2.7	5.5	0.2	0.2	DFN-8/MS-8	Zero-Drift RRIO IA	\$1.55
LT1789-1	100	1	1000	0.2	50	100	0.7	40	48	0.095	2.2	36	0.06	0.026	SO-8	Micropower/Precision IA/Single Supply	\$3.20
LT1920	125	1	10000	0.1	50	110	1	2	7.5	1.3	4.6	40	0.8	1.2	DIP-8/SO-8	Resistor Programmable IA	\$3.05
LT1789-10	160	10	1000	0.25	50	98	0.7	40	52	0.095	2.2	36	0.025	0.026	SO-8	Micropower/Precision IA/A <sub>v</sub> >10	\$3.20
LT1101	160	10	100	0.04	4	100	2	8	43	0.13	1.8	44	0.37	0.1	DIP-8/SOW-16	Micropower Single Supply IA/A <sub>v</sub> =10 or 100	\$4.75
LT1102	600	10	100	0.05	10	84	8	0.04	19	5	18	40	3.5	30	DIP-8	JFET Input IA/Gain of 10 or 100	\$4.75

† Primary Sort Column

## HIGH SPEED OP AMPS (GAIN BANDWIDTH PRODUCT ≥10MHz)

Amplifiers Per Package	Part Number	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	V <sub>OS</sub> Max 25°C (μV)	I <sub>BIAS</sub> Max 25°C (nA)	A <sub>VOL</sub> Typ 25°C (V/mV)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Av Min Stable Typ 25°C (V/V)	Type <sup>(2)</sup>	Price 1K Qty
1	LTC6406	3000	630	11	1.6		3500	6000 Typ		38	22	yes	2.7	3.5	in	3×3 QFN-16		1	DIFF	\$3.44
1	LTC6405	2700	690	6	1.6	2.4	15000	8000 Typ	31.6		23	no	4.5	5.5	ss	3×3 QFN-16		1	DIFF	\$3.44
1	LTC6401-8	2200	3400	3	3.2		4000			10	60		2.85	3.5		3×3 QFN-16		2.5	DIFF	\$2.95
1	LTC6400-8	2200	3810		1		5000			20	95	no	2.85	3.5	ss	3×3 QFN-16		2.5	DIFF	\$3.20
1	LTC6416	2000	3400	1.8	1.8	6.5	5000	15000		20	51	no	2.7	3.9	ss	3×2 DFN-10		1	DIFF	\$3.50
1	LTC6401-14	1950	3600	2.8	2.5		3000			10	60	yes	2.85	3.5		3×3 QFN-16		5	DIFF	\$2.95
1	LTC6400-26	1900	6670	3	1.5		2000			20	102		2.85	3.5		3×3 QFN-16		20	DIFF	\$3.20
1	LTC6400-14	1860	4800		2.5		3000			20	96	no	2.85	3.5		3×3 QFN-16		5	DIFF	\$3.50
1	LTC6400-20	1840	4500	0.8	2.1		2000			20	105	yes	2.85	3.5		3×3 QFN-16		10	DIFF	\$2.95
1	LTC6404-4	1700	1200	11	1.5	3	2000	-23000	32	40	39	yes	2.7	5.25	out	3×3 QFN-16		4	DIFF	\$3.44
1	LTC6401-26	1610	3300	3.6	1.5		2500			10	60	yes	2.85	3.5		3×3 QFN-16		20	DIFF	\$2.95
1	LT6200-10	1600	450		0.95	2.2	1000	40000	200	60	23	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	10	VFB	\$1.50
1	LT6230-10	1450	320		1.1	1	500	10000	260	30	3.75	yes	3	12.6	out	SOT23-6	2000	10	VFB	\$1.50
1	LTC6410-6	1400	1500		3		2000			38	130	yes	2.8	5.25		3×3 QFN-16		2	DIFF	\$2.89
1	LTC6401-20	1250	4500	3.2	2.1		2000			10	62	yes	2.85	3.5		3×3 QFN-16		10	DIFF	\$2.95
1	LT1226	1000	400	100	2.6	1.5	1000	8000	150	24	9	no	5	36		SO-8/DIP-8	1000	25	VFB	\$2.85
1	LTC6404-2	900	700	12	1.5	3	2000	-23000	32	40	39	yes	2.7	5.25	out	3×3 QFN-16		2	DIFF	\$3.44
1	LT1993-4	900	1100	4	2.15		6500			40	112	yes	4	5.5		3×3 QFN-16	5	4	DIFF	\$2.95
1	LT5514	850		500			20000			33	0.1	yes	4.75	5.25		TSSOP-20		1	DIFF/PGA	\$5.20
1	<b>LTC6412</b>	<b>800</b>								<b>17</b>	<b>120</b>	<b>yes</b>	<b>3</b>	<b>3.6</b>		<b>4×4 QFN-24</b>		<b>1</b>	<b>DIFF/VGA</b>	<b>C.F.</b>
1	LT1993-2	800	1100	4	3.5		6500			40	112	yes	4	5.5		3×3 QFN-16	5	2	DIFF	\$2.95
1	LT6200-5	800	250		0.95	2.2	1000	40000	200	60	23	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	5	VFB	\$1.50
1	LT1993-10	700	1100	4	1.7		6500			40	112	yes	4	5.5		3×3 QFN-16	5	10	DIFF	\$2.95
1	LT5524	540		500				30000		24	0.1	yes	4.75	5.25		TSSOP-20		1	DIFF, PGA	\$4.40
1	LTC6404-1	500	450	13	1.5	3	2000		32	40	35.5	yes	2.7	5.25	out	3×3 QFN-16			DIFF	\$3.44
1	LT1222	500	200	75	3	2	300	300	200	24	10.5	no	5	36		SO-8/DIP-8	1000	10	VFB	\$3.40
1	LT1818	400	2500	10	6	1.2	1500	8000	2.5	40	10	no	3.5	12.6		SO-8/SOT23-5	20	1	VFB	\$0.95
1	LT1395	400	800	25	4.5	6	10000			80	6.5	yes	3	12.6		SO-8/SOT23-5/SOT23-6	1000	1	CFA	\$1.30
1	LT6233-10	375	115		1.9	0.43	500	3000	180	40	1.25	yes	3	12.6	out	SOT23-6	1000	10	VFB	\$1.90
1	LT1192	350	450	90	9	4	2500	2500	180	50	38	yes	4	18		DIP-8/SO-8	50	5	VFB	\$1.70
1	LT1194	350	500	200	15	4	6000	3500		64	40	no	4	18		DIP-8/SO-8	50	10	VIDEO	\$2.90
1	LT1806	325	125	60	3.5	1.5	550	4000	220	35	13	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	1	VFB	\$2.10
1	LT6402-6	300	400	10	3.8		6500			30	37	yes	4	5.5	ss	3×3 QFN-16	5	2	DIFF	\$2.39

† Primary Sort Column  
 †† Secondary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

# HIGH SPEED OP AMPS (GAIN BANDWIDTH PRODUCT ≥10MHz)

†	Amplifiers Per Package	Part Number	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	V <sub>OS</sub> Max 25°C (μV)	I <sub>BIAS</sub> Max 25°C (nA)	A <sub>VL</sub> Typ 25°C (V/mV)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Av Min Stable Typ 25°C (V/V)	Type <sup>(2)</sup>	Price 1K Qty
1	1	LT6402-12	300	400	10	2.7		6500			30	37	yes	4	5.5	ss	3×3 QFN-16	5	4	DIFF	\$2.39
1	1	LT6402-20	300	1000	8	1.85		6500			30	37	yes	4	5.5	ss	3×3 QFN-16	5	10	DIFF	\$2.39
1	1	LT1675-1	250	1100				40000	30000		50	14	yes	5.2	12.6		MS-8/SO-8	5	2	VIDEO	\$1.95
1	1	LT1252	250	250		3	1.5	15000		1.5	30	18	no	4	28		DIP-8/SO-8	100	1	CFA	\$1.70
1	1	LT1815	220	1500	15	6	1.3	1500	8000	3	50	7.8	no	4	12.6		SO-8/SOT23-5/SOT23-6	10	1	VFB	\$0.88
1	1	LT6230	215	70	50	1.1	1	500	10000	260	30	3.75	yes	3	12.6	out	SOT23-6	1000	1	VFB	\$1.25
1	1	LTC6403-1	200	200	30	2.8	1.8	1500	2500	32	30	11.8	yes	2.7	5.25	out	3×3 QFN-16		1	DIFF	\$1.79
1	1	LT6210	200	700	20	6.5	4.5	6000			75	8.3	no	3	13.2	out	SOT23-6	10000	1	CFA	\$1.20
1	1	LT1722	200	70	91	3.8	1.2	400	300	17	35	4.5	no	4.6	12.6		SO-8/SOT23-5	100	1	VFB	\$0.88
1	1	<b>LT1468-2</b>	<b>200</b>	<b>30</b>	<b>760</b>	<b>5</b>	<b>0.6</b>	<b>75</b>	<b>40</b>	<b>9000</b>	<b>15</b>	<b>5</b>	<b>no</b>	<b>9</b>	<b>36</b>		<b>DFN-8/SO-8</b>	<b>300</b>	<b>2</b>	<b>VFB</b>	<b>\$2.95</b>
1	1	LT1189	180	220	1000	30	1.25	3000	2000	14	21.3	16	yes	4	18		DIP-8/SO-8	10	10	VIDEO	\$2.90
1	1	LT6200	165	50	140	0.95	2.2	1000	40000	200	60	23	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	1	VFB	\$2.15
1	1	LT1809	160	300	27	16	5	2500	8000	80	45	17	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	1	VFB	\$1.75
1	1	LT1225	150	400	90	7.5	1.5	1000	8000	20	24	9	no	5	36		SO-8/DIP-8	1000	5	VFB	\$2.85
1	1	LT1203	150	300	85			30000	5000	1	4.5	14	yes	9	36		DIP-8/SO-8	100	1	VIDEO	\$1.50
1	1	LT1221	150	250	90	6	2	1000	300	100	24	10.5	no	5	36		SO-8/DIP-8	1000	4	VFB	\$3.30
1	1	LT1227	140	1100	50	3.2	1.7	10000			30	15	yes	4	36		DIP-8/SO-8	2000	1	CFA	\$2.40
1	1	LT1223	100	1000	75	33	2.2	3000		5000	50	10	yes	5	36		SO-8/DIP-8	1800	1	CFA	\$2.85
1	1	LT1812	100	750	30	8	1	1500	4000	3	40	3.6	yes	2.5	12.6		SO-8/SOT23-5/SOT23-6	100	1	VFB	\$0.88
1	1	LT6205	100	600	25	9	4	4500	30000	133	25	5.6	no	3	12.6	out	SOT23-5	1000	1	VFB	\$0.88
1	1	LT1228	100	500	45	20	1.4	5000	1000		30	15	no	4	36		DIP-8/SO-8	2000	1	CFA	\$3.75
1	1	LT6202	100	25	78	1.9	0.75	500	7000	200	30	3.5	no	2.5	12.6	yes	SO-8/SOT23-5	1000	1	VFB	\$1.45
1	1	LT1204	95	1000	70	7	1.5	14000			35	24	no	9	36		DIP-16/SOW-16	4000	1	VIDEO	\$4.80
1	1	LT1191	90	450	110	25	4	5000	2500	45	50	38	yes	4	18		DIP-8/SO-8	30	1	VFB	\$1.70
1	1	LT1468	90	22	760	5	0.6	75	40	9000	15	5	no	6	36		DFN-8/DIP-8/SO-8	300	1	VFB	\$2.95
1	1	LT1803	83	100	350	21	2.5	2000	750	60	20	3	no	2.3	12.6	yes	SO-8/SOT23-5	1000	1	VFB	\$1.30
1	1	LT1193	80	500	180	50	4	12000	3500	17	64	40	yes	4	18		DIP-8/SO-8	30	2	VIDEO	\$2.90
1	1	LT1800	80	25	250	8.5	1	350	250	85	20	2	no	2.3	12.6	yes	SO-8/SOT23-5	1000	1	VFB	\$1.30
1	1	LT6552	75	600	35	55	0.7	20000	50000		35	13.5	yes	3	12.6	out	DFN-8/SO-8	1000	2	VFB	\$1.10
1	1	LT1028	75	15		0.85	1	40	90	30000	18.3	9.5	no	8	44		DIP-8/SO-8/SOW-16	300	2	VFB	\$4.75
1	1	LT1363	70	1000	50	9	1	1500	2000	9	50	7.5	no	3	36		SO-8/DIP-8	All	1	VFB	\$2.40
1	1	LT1994	70	65	90	3	2.5	2000	45000	100	45	18.5	yes	2.375	12.6	out	MS-8/DFN-8	25	1	DIFF	\$1.65
1	1	LT1115	70	15		0.9	1.2	200	380	20000	18.3	11.5	no	8	44		DIP-8/SOW-16	4000	1	VFB	\$2.90
1	1	LT1210	66	900		3	2	15000			1100	50	yes	8	36		DDPAK-7/SO-16/TO-220	10000	1	CFA	\$6.40
1	1	LT1206	66	900		3.6	2	10000			250	30	yes	10	36		DDPAK-7/DIP-8/SO-8/TO-220	10000	1	CFA	\$3.40
1	1	LT6220	60	20	300	10	0.8	350	150	100	20	1	no	2.2	12.6	yes	SO-8/SOT23-5	7000	1	VFB	\$1.20
1	1	LT6233	60	17	170	1.9	0.43	500	3000	180	40	1.25	yes	3	12.6	out	SOT23-6	1000	1	VFB	\$1.45
1	1	LT1037	60	15		2.5	0.4	25	35	20000	18.3	4.3	no	8	44		DIP-8/SO-8	100	5	VFB	\$1.90
1	1	LT1360	50	800	60	9	0.9	1000	1000	9	26	4.8	no	3	36		SO-8/DIP-8	All	1	VFB	\$2.20
1	1	LT1190	50	450	140	50	4	10000	2500	22	50	38	yes	4	18		DIP-8/SO-8	10	1	VFB	\$1.70
1	1	LT1187	50	165	100	65	1.5	10000	2000	5.5	21.3	16	yes	4	18		DIP-8/SO-8	10	2	VIDEO	\$2.90
1	1	LT1195	50	165	220	70	2	8000	2000	11	20	16	yes	4	18		DIP-8/SO-8	10	1	VFB	\$1.70
1	1	LT1224	45	400	90	22	1.5	2000	8000		24	9	no	5	36		SO-8/DIP-8	1000	1	VFB	\$2.85
1	1	LT1220	45	250	75	17	2	1000	300		24	10.5	no	5	36		SO-8/DIP-8	100000	1	VFB	\$3.40
1	1	LT1256	40	300	65	2.7	1.5	5000			30	17	no	5	36		DIP-14/SO-14	100	1	CFA	\$5.85
1	1	LT1251	40	300	65	2.7	1.5	5000	30000		30	17	no	5	36		DIP-14/SO-14	100	1	CFA	\$5.85
1	1	LT1010	30	200		20		150000	250000	1000	150	9	no	4.5	44		DIP-8/T-5/DFN-10	330000	1	BUF	\$2.40
1	1	LT1357	25	600	115	8	0.8	600	500	65	24	2.5	no	5	36		SO-8/DIP-8	All	1	VFB	\$2.45
1	1	LT1995	24	1000	100	14		5000	600 Typ		70	8.5	no	2.5	36		MS-10/DFN-10	200	1	SGA	\$1.89
1	1	LT6600-20	20			15		15000	95000			46	no	2.7	11	ss	SO-8	50	1	DIFF	\$2.95
1	1	LT1128	20	6		0.85	1	40	90	30000	18.3	9.5	no	8	44		DIP-8/SO-8	500	1	VFB	\$4.75
1	1	LTC6240	18	10		7	0.00056	175	0.001	1600	15	2.4	no	2.8	6	out	SOT-23/SO-8	200	1	VFB	\$0.77

† Primary Sort Column  
 †† Secondary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amplifiers, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# HIGH SPEED OP AMPS (GAIN BANDWIDTH PRODUCT ≥10MHz)

† Amplifiers Per Package	Part Number	††	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	V <sub>OS</sub> Max 25°C (μV)	I <sub>BIAS</sub> Max 25°C (nA)	A <sub>VOL</sub> Typ 25°C (V/mV)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	A <sub>v</sub> Min Stable Typ 25°C (V/V)	Type <sup>(2)</sup>	Price 1K Qty
		GBW Typ 25°C (MHz)																		
1	LTC6240HV	18	10		7	0.00056	250	0.001	2700	15	3.3	no	2.8	11	out	SOT-23/SO-8	200	1	VFB	\$1.40
1	LT6600-15	15			19		15000	90000			46	no	2.7	11	ss	SO-8	50	1	DIFF	\$2.95
1	LT1122	14	80	340	14	0.002	600	0.075	500	19.1	10	no	20	40		DIP-8/SO-8	500	1	JFET	\$2.45
1	LTC6910-2	13	16		9.1		15000			9.5	3	no	2.7	11	yes	SOT23-8	50	1	PGA	\$1.10
1	LT1354	12	400	230	10	0.6	800	300	36	30	1.25	no	5	36		SO-8/DIP-8	All	1	VFB	\$2.30
1	LTC6910-1	11	16		8.6		15000			9.5	3	no	2.7	11	yes	SOT23-8	50	1	PGA	\$1.10
1	LTC6910-3	11	16		10.6		15000			9.5	3	no	2.7	11	yes	SOT23-8	50	1	PGA	\$1.10
1	LT6600-10	10			14		13000	85000			39	no	2.7	11	ss	SO-8/DFN-12	50	1	DIFF	\$2.95
1	LT1217	10	500	280	6.5	0.7	3000		177	50	2	yes	10	36		DIP-8/SO-8	5000	1	CFA	\$3.20
1	LT1797	10	2.25	1600	20	0.15	1500	300	1000	25	1.5	no	2.1	12.6	yes	SOT23-5	10000	1	VFB	\$1.00
2	LTC6420-20	1800	4500		2.2		2000			20	95	yes	2.85	3.5	out	3×4 QFN-20		10	DIFF	\$5.17
2	LTC6421-20	1300	4500		2.2		2000			10	50	yes	2.85	3.5	out	3×4 QFN-20		10	DIFF	\$4.77
2	LT1886	700	200	50	6	2	4000	4000	12	200	8.25	no	4	13.2		SO-8	1000	10	VFB	\$2.80
2	LT1969	700	200	50	6	2	4000	4000	12	200	8.25	no	4	13.2		MS-10	1000	10	VFB	\$2.95
2	LT6411	650	3300	6	8		10000			50	22	yes	4.5	12.6		QFN-16	12	1	VFB	\$2.39
2	LT1819	400	2500	10	6	1.2	1500	8000	2.5	40	10	no	3.5	12.6		MS-8/SO-8	20	1	VFB	\$1.60
2	LT1396	400	800	25	4.5	6	10000			80	6.5	no	3	12.6		DFN-8/MS-8/SO-8	1000	1	CFA	\$1.95
2	LT1807	325	125	60	3.5	1.5	550	4000	220	35	13	no	2.5	12.6	yes	MS-8/SO-8	1000	1	VFB	\$3.40
2	LT1398	300	800	25	4.5	6	10000			80	6.5	yes	3	12.6		SO-16	1000	1	CFA	\$2.25
2	LT1253	250	250		3	1.5	15000		1.5	30	11	no	4	28		DIP-8/SO-8	100	1	CFA	\$2.45
2	LT1816	220	1500	15	6	1.3	1500	8000	3	50	7.8	no	2.5	12.6		DFN-8/MS-8/MS-10/SO-8	10	1	VFB	\$1.50
2	LT6231	215	70	50	1.1	1	350	10000	260	30	3.75	no	3	12.6	out	DFN-8/SO-8	1000	1	VFB	\$1.95
2	LT6211	200	700	20	6.5	4.5	6000			75	8.3	no	3	13.2	out	DFN-10/MS-10	10000	1	CFA	\$1.60
2	LT6300	200	600		8	0.8	5000	4000	76	500	13.5	yes	8	27		SSOP-16	30	10	VFB	\$2.85
2	LT1794	200	600		8	0.8	5000	4000	12.5	500	13.5	yes	8	36		SOW-20/TSSOP-20	30	10	VFB	\$4.95
2	LT1739	200	600		8	0.8	5000	4000	6.3	500	13.5	yes	8	27		DFN-12/TSSOP-20	30	10	VFB	\$3.55
2	LT1723	200	70	91	3.8	1.2	400	300	17	35	4.5	no	4.6	12.6		MS-8/SO-8	100	1	VFB	\$1.15
<b>2</b>	<b>LT1469-2</b>	<b>200</b>	<b>30</b>	<b>760</b>	<b>5</b>	<b>0.6</b>	<b>125</b>	<b>40</b>	<b>2000</b>	<b>15</b>	<b>5.2</b>	<b>no</b>	<b>9</b>	<b>36</b>		<b>DFN-12/SO-8</b>	<b>300</b>	<b>2</b>	<b>VFB</b>	<b>\$4.95</b>
2	LT6201	165	50	140	0.95	2.2	1000	40000	200	60	23	no	2.5	12.6	yes	DFN-8/SO-8	1000	1	VFB	\$3.65
2	LT1810	160	300	27	16	5	2500	8000	80	45	17	no	2.3	12.6	yes	MS-8/SO-8	1000	1	VFB	\$2.65
2	LT1205	150	300	85			30000	5000	1	4.5	14	yes	9	36		SO-16	100	1	VIDEO	\$2.60
2	LT1259	130	1600	75	3.6	1.3	12000		3.98	30	7.5	yes	4	36		DIP-14/SO-14	1000	1	CFA	\$2.45
2	LT1229	100	700	45	3.2	1.4	10000			30	9.5	no	4	36		DIP-8/SO-8	2000	1	CFA	\$3.75
2	LT1813	100	750	30	8	1	1500	4000	3	40	3.6	no	2.5	12.6		MS-8/SO-8/DFN-8	100	1	VFB	\$0.99
2	LT1813HV	100	750	30	8	1	1500	4000	3	40	4	no	2.5	13.5		SO-8	100	1	VFB	\$1.19
2	LT6203	100	25	78	1.9	0.75	500	7000	200	30	3.5	no	2.5	12.6	yes	DFN-8/MS-8/SO-8	1000	1	VFB	\$2.45
2	LT6206	100	600	25	9	4	4500	30000	133	25	5.6	no	3	12.6	out	MS-8	1000	1	VFB	\$1.05
2	LT1469	90	22	760	5	0.6	125	40	2000	15	5.2	no	6	36		DFN-12/DIP-8/SO-8	300	1	VFB	\$4.95
2	LT1804	83	100	350	21	2.5	2000	750	60	20	3	no	2.3	12.6	yes	DFN-8/SO-8	1000	1	VFB	\$1.95
2	LT1801	80	25	250	8.5	1	350	250	85	20	2	no	2.3	12.6	yes	DFN-8/MS-8/SO-8	1000	1	VFB	\$1.95
2	LT1364	70	1000	60	9	1	1500	1000	9	50	7.2	no	3	36		SO-8/DIP-8	All	1	VFB	\$3.70
2	LT1795	65	900		3.6	2	13000		2.51	500	34	yes	10	36		SOW-20/TSSOP-20	1000	1	CFA	\$4.95
2	LT1207	66	900		3.6	2	10000			250	30	yes	10	36		SO-16	10000	1	CFA	\$6.90
2	LT1126	65	11		2.7	0.3	70	20	17000	6.25	3.1	no	8	44		SO-8/DIP-8	15	10	VFB	\$3.50
2	LT6221	60	20	300	10	0.8	350	150	100	20	1	no	2.2	12.6	yes	DFN-8/SO-8	7000	1	VFB	\$1.85
2	LT6234	60	17	170	1.9	0.43	350	3000	180	40	1.25	no	3	12.6	out	DFN-8/SO-8	1000	1	VFB	\$2.45
2	LT1497	59	900	50	3	2	10000		10	125	7	no	4	36		SO-8/SO-16	2000	1	CFA	\$3.35
2	LT1361	50	800	60	9	0.9	1000	1000	9	26	4.8	no	5	36		SO-8/DIP-8	All	1	VFB	\$3.40
2	LTC6244	50	35	535	8	0.00056	100	0.075	2500	25	7.4	no	2.8	6	out	DFN-8/MSOP-8	200	1	VFB	\$1.65
2	LTC6244HV	50	35	535	8	0.00056	100	0.075	2500	25	7.4	no	2.8	10.5	out	DFN-8/MSOP-8	200	1	VFB	\$2.35
2	LT1208	45	400	90	22	1.1	3000	8000	7	24	9	no	8	36		DIP-8/SO-8	All	1	VFB	\$4.25
2	LT1632	45	27	400	12	1.6	1350	2200	2000	20	5.2	no	2.6	36	yes	DIP-8/SO-8	10	1	VFB	\$3.05

† Primary Sort Column  
†† Secondary Sort Column



# HIGH SPEED OP AMPS (GAIN BANDWIDTH PRODUCT ≥10MHz)

†	Amplifiers Per Package	Part Number	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	V <sub>OS</sub> Max 25°C (μV)	I <sub>BIAS</sub> Max 25°C (nA)	A <sub>VOL</sub> Typ 25°C (V/mV)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Av Min Stable Typ 25°C (V/V)	Type <sup>(2)</sup>	Price 1K Qty
2	LTC6912-1	30	16		15.1			22000			35 Typ	2.75	yes	2.7	10.5	yes	DFN-12/SSOP-16	50	1	PGA	\$2.15
2	LTC6912-2	30	16		15.1			22000			35 Typ	2.75	yes	2.7	10.5	yes	DFN-12/SSOP-16	50	1	PGA	\$2.15
2	LT1630	30	9.2	520	6	0.9	525	1000	3500	20	4.4	no	2.6	36	yes	DIP-8/SO-8	300	1	VFB	\$2.96	
2	LT1213	28	8.5	500	10	0.2	150	160	850	30	3.8	no	2.5	36	ss	DIP-8/SO-8	1000	1	VFB	\$2.85	
2	LT1358	25	600	115	8	0.8	600	500	65	24	2.5	no	5	36		SO-8/DIP-8	All	1	VFB	\$3.90	
2	LT1215	23	30	250	12	0.5	300	500	150	30	6.6	no	2.5	36	ss	DIP-8/SO-8	1000	1	VFB	\$2.85	
2	LT1678	20	6		3.9	0.3	100	20	3000	15	3.4	no	3	36	yes	SO-8	500	1	VFB	\$2.50	
2	LTC6241	18	10	900	7	0.00056	125	0.075	1600	15	2.2	no	2.8	6	out	DFN-8/SO-8	200	1	VFB	\$1.25	
2	LTC6241HV	18		900	7	0.00056	175	0.075	1600	15	2.2	no	2.8	11	out	DFN-8/SO-8	200	1	VFB	\$2.20	
2	LT1211	13	7	900	12	0.2	150	100	560	20	1.8	no	2.5	36	ss	DIP-8/SO-8	8000	1	VFB	\$2.85	
2	LT1124	12.5	4.5		2.7	0.3	70	20	17000	6.25	2.75	no	8	44		DIP-8/SO-8	15	1	VFB	\$3.50	
2	LT1355	12	400	230	10	0.6	800	300	36	25	1.25	no	5	36		SO-8/DIP-8	All	1	VFB	\$3.80	
2	LTC6911-1	11	16		9.9			22000			35 Typ	3.15	no	2.7	10.5	yes	MS-10	50	1	PGA	\$2.00
2	LTC6911-2	11	16		10.9			22000				3.15	no	2.7	10.5	yes	MS-10	50	1	PGA	\$2.00
2	LT1498	10.5	4.5		12	0.3	475	650	3800	12.5	2.2	no	2.2	36	yes	DIP-8/SO-8	30000	1	VFB	\$2.96	
3	LT6556	750	2100	6.5	11	3.5	67000			50	13	yes	4.5	12.6		SSOP-24/QFN-24	10	1	VIDEO	\$2.75	
3	LT6554	650	2500	6	20	3.5	35000	50000		50	10	yes	4	13.2		SSOP-16	12	1	VIDEO	\$2.50	
3	LT6553	650	2500	6	9	4	10000	50000		50	11	no	4	13.2		SSOP-16	10	2	VIDEO	\$2.50	
3	LT6555	650	2200	6.5	9	3.5	16000			50	12	yes	4.5	12.6		SSOP-24/QFN-24	10	2	VIDEO	\$2.75	
3	LT6557	500	2200	7	12	20	40000	70000 Typ		70	25	yes		7.5		SSOP-16/DFN-16		2	VIDEO	\$2.50	
3	LT1399	300	800	25	4.5	6	10000			80	6.5	yes	3	12.6		SSOPN-16/SO-16	1000	1	CFA	\$2.45	
3	LT1399HV	300	800	25	4.5	6	10000			80	7	yes	3	15.5		SO-16	1000	1	CFA	\$3.05	
3	LT6559	300	500	25	4.5	6	10000			80 Typ	6.1	yes	4	12		QFN-16			CFA	\$0.95	
3	LT1675	250	1100				40000	30000		50	14	yes	5.2	12.6		SSOPN-16	5	2	VIDEO	\$1.95	
3	LT1260	130	1600	75	3.6	1.3	12000		3.98	30	7.5	yes	4	36		DIP-16/SO-16	1000	1	CFA	\$2.60	
3	LT6550	110	340	35	12	8	35000	65000		45	11.5	no	3	12.6	out	MS-10	150	2	VIDEO	\$1.75	
4	LT1397	400	800	25	4.5	6	10000			80	6.5	no	3	12.6		DFN-14/SO-14/SSOPN-16	1000	1	CFA	\$2.75	
4	LT1254	250	250		3	1.5	15000		1.5	30	11	no	4	28		SO-14/DIP-14	100	1	CFA	\$4.40	
4	LT1817	220	1500	15	6	1.3	1500	8000	3	50	7	no	2.5	12.6		SO-14/SSOPN-16	10	1	VFB	\$2.05	
4	LT6232	215	70	50	1.1	1	350	10000	260	30	3.75	no	3	12.6	out	SSOP-16	1000	1	VFB	\$3.30	
4	LT6301	200	600		8	0.8	5000	4000	76	500	13.5	yes	8	27		TSSOP-28	30	10	VFB	\$6.20	
4	LT1724	200	70	91	3.8	1.2	400	300	17	35	4.5	no	4.6	12.6		SO-14	100	1	VFB	\$2.19	
4	LT6551	110	340	35	12	8	35000	65000		45	11.5	no	3	12.6	out	MS-10	150	2	VIDEO	\$1.95	
4	LT1814	100	750	30	8	1	1500	4000	3	40	3.6	no	2.5	12.5		SO-14/SSOPN-16	100	1	VFB	\$1.95	
4	LT1230	100	700	45	3.2	1.4	10000			30	9.5	no	4	36		DIP-14/SO-14	2000	1	CFA	\$7.00	
4	LT6207	100	600	25	9	4	4500	30000	133	25	5.6	no	3	12.6	out	SSOPN-16	1000	1	VFB	\$1.55	
4	LT6204	100	25	78	1.9	0.75	500	7000	200	30	3.5	no	2.5	12.6	yes	SO-14/SSOPN-16	1000	1	VFB	\$4.50	
4	LT1805	85	100	350	21	2.5	2000	750	60	20	3	no	2.3	12.6	yes	SO-14	1000	1	VFB	\$3.50	
4	LT1802	80	25	250	8.5	1	350	250	85	20	2	no	2.3	12.6	yes	SO-14	1000	1	VFB	\$3.50	
4	LT1365	70	1000	50	9	1	1500	2000	9	50	7.2	no	3	36		DIP-14/SO-16	All	1	VFB	\$6.45	
4	LT1127	65	11		2.7	0.3	90	20	17000	6.25	3.1	no	8	44		DIP-14/SOW-16	15	10	VFB	\$5.70	
4	LT6222	60	20	300	10	0.8	350	150	100	20	1	no	2.2	12.6	yes	SSOP-16	7000	1	VFB	\$2.95	
4	LT6235	60	17	170	1.9	0.43	350	3000	180	40	1.25	no	3	12.6	out	SSOP-16	1000	1	VFB	\$4.15	
4	LT1362	50	800	60	9	0.9	1000	1000	9	26	4.8	no	5	36		SO-16/DIP-14	All	1	VFB	\$6.00	
4	LT1209	45	400	90	22	1.1	3000	8000	7	24	9	no	8	36		DIP-14/SO-16	All	1	VFB	\$6.65	
4	LT1633	45	27	400	12	1.6	1350	2200	2000	20	5.2	no	2.6	36	yes	SO-14	10	1	VFB	\$5.70	
4	LT1631	30	9.2	520	6	0.9	525	1000	3500	20	4.4	no	2.6	36	yes	SO-14	300	1	VFB	\$5.60	
4	LT1214	28	8.5	500	10	0.2	275	200	250	30	3.8	no	2.5	36	ss	DIP-14/SO-16	1000	1	VFB	\$5.10	
4	LT1359	25	600	115	8	0.8	600	500	65	24	2.5	no	5	36		SO-16/SO-14/DIP-14	All	1	VFB	\$6.50	
4	LT1216	23	30	250	12	0.5	450	600	600	30	6.6	no	2.5	36	ss	DIP-14/SO-16	1000	1	VFB	\$5.10	
4	LT1679	20	6		3.9	0.3	100	20	3000	15	3.4	no	3	36	yes	SO-14	500	1	VFB	\$3.85	
4	LTC6242	18	10	900	7	0.00056	150	0.075	1600	15	2.2	no	2.8	6	out	DFN-16/SSOP-16	200	1	VFB	\$2.25	

† Primary Sort Column  
 †† Secondary Sort Column

Amplifiers, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# HIGH SPEED OP AMPS (GAIN BANDWIDTH PRODUCT ≥10MHz)

†	Amplifiers Per Package	Part Number	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	e <sub>NOISE</sub> Typ 25°C (nV/√Hz)	i <sub>NOISE</sub> Typ 25°C (pA/√Hz)	V <sub>OS</sub> Max 25°C (μV)	I <sub>BIAS</sub> Max 25°C (nA)	A <sub>VOL</sub> Typ 25°C (V/mV)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Av Min Stable Typ 25°C (V/V)	Type <sup>(2)</sup>	Price 1K Qty
	4	LTC6242HV	18	10	900	7	0.00056	200	0.075	1600	15	2.2	no	2.8	11	out	DFN-16/SSOP-16	200	1	VFB	\$3.30
	4	LT1212	13	7	900	12	0.2	275	125	560	20	1.8	no	2.5	36	ss	DIP-14/SO-16	8000	1	VFB	\$5.10
	4	LT1125	12.5	4.5		2.7	0.3	90	20	17000	6.25	2.75	no	8	44		DIP-14/SOW-16	15	1	VFB	\$5.70
	4	LT1356	12	400	230	10	0.6	800	300	36	25	1.25	no	5	36		SO-16/DIP-14	All	1	VFB	\$6.45
	4	LT1499	10.5	4.5		12	0.3	475	650	3800	12.5	2.2	no	2.2	36	yes	SO-14	30000	1	VFB	\$5.60

† Primary Sort Column  
 †† Secondary Sort Column

Notes:

1. ss = Input common mode range includes negative supply rail
2. Topology: VFB = Voltage Feedback, CFA = Current Feedback, ZD = Zero-Drift Amplifier, IA = Instrumentation Amplifier, JFET = JFET Input Stage, BUF = Buffer, MUX = Multiplexer, VIDEO = Optimized for Video Applications, DIFF = Fully Differential Amplifier, SGA = Selectable Gain Difference Amplifier, CSA = Current Sense Amplifier, PGA = Programmable Gain Amplifier, VGA = Variable Gain Amplifier

# HIGH SPEED DIFFERENTIAL IN/OUT ADC DRIVERS

Part Number	†	Number of Amplifiers	†† GBW Typ (MHz)	Slew Rate Typ (V/μs)	e <sub>NOISE</sub> (1MHz) Typ (nV/√Hz)	HD2/HD3 Typ (dBc)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	I <sub>SUPPLY</sub> Per Ampl Max (mA)	Package	Features	Price 1K Qty
LTC6406	1	3000	630	1.6	-85/-72@50MHz	2.7	3.5	22	3×3 QFN-16	3GHz Low Noise/Distortion ADC Driver	\$3.44	
LTC6405	1	2700	690	1.6	-91/-85@30MHz	4.5	5.5	23	3×3 QFN-16	2.7GHz, 5V, Low Noise, Rail-to-Rail Input Differential Amplifier/Driver	\$3.44	
LTC6401-8	1	2220	3400	3.2	-100/-87@70MHz	2.85	3.5	60	3×3 QFN-16	A <sub>v</sub> =2.5V, Low Noise/Distortion ADC Driver, 140MHz IF	\$2.95	
LTC6400-8	1	2200	3810	1	-91/-81@140MHz	2.85	3.5	95	3×3 QFN-16	2.2GHz Low Noise/Distortion Differential ADC Driver for DC to 300MHz	\$3.20	
LTC6416	1	2000	3400	1.8	-88.5/-83@70MHz	2.7	3.9	51	3×2 DFN-10	16-Bit, 2GHz Differential ADC Buffer	\$3.50	
LTC6401-14	1	1950	3600	2.5	-101/-89@70MHz	2.85	3.5	39	3×3 QFN-16	2GHz Low Noise/Distortion Diff ADC Driver, A <sub>v</sub> =5	\$2.95	
LTC6400-26	1	1900	6670	1.5	-81/-83@140MHz	2.85	3.5	102	3×3 QFN-16	A <sub>v</sub> =20, Low Noise/Distortion ADC Driver, 140MHz IF	\$3.20	
LTC6400-14	1	1860	4800	2.5	-81/-71@140MHz	2.85	3.5	96	3×3 QFN-16	1.9GHz Low Noise/Low Distortion Differential ADC Driver for 300MHz IF	\$3.20	
LTC6400-20	1	1840	4500	2.1	-73/-83@10MHz	2.85	3.5	105	3×3 QFN-16	A <sub>v</sub> =10, Low Noise/Distortion ADC Driver	\$3.20	
LTC6404-4	1	1700	1200	1.5	-100/-101@10MHz	2.85	3.5	39	3×3 QFN-16	1.7GHz Low Noise/Distortion Diff ADC Driver, A <sub>v</sub> ≥4	\$3.44	
LTC6401-26	1	1610	3300	1.5	-86/-81@70MHz	2.85	3.5	60	3×3 QFN-16	A <sub>v</sub> =20, Low Noise/Distortion ADC Driver, 140MHz IF	\$2.95	
LTC6410-6	1	1400	1500	3	-80/-62@140MHz	2.8	5.25	130	3×3 QFN-16	A <sub>v</sub> =2, Low Noise IF Amp, Configurable Input Impedance	\$2.89	
LTC6401-20	1	1250	4500	2.1	-95/-88@70MHz	2.85	3.5	62	3×3 QFN-16	A <sub>v</sub> =10, Low Noise, Low Distortion ADC Driver	\$2.95	
<b>LT5554</b>	<b>1</b>	<b>1000</b>		<b>1.34</b>	<b>-80/-56@140MHz</b>	<b>4.75</b>	<b>5.25</b>	<b>190</b>	<b>5×5 QFN-32</b>	<b>Digitally Prog. Gain from 1.7dB to 17.6dB, 0.125dB per Step</b>	<b>\$4.40</b>	
LTC6404-2	1	900	700	1.5	-98/-99@10MHz	2.7	5.25	39	3×3 QFN-16	0.9GHz Low Noise/Distortion Diff ADC Driver, A <sub>v</sub> ≥2	\$3.44	
LT1993-4	1	900	1100	2.15	-82/-80@50MHz	4	5.5	112	3×3 QFN-16	12dB Fixed Gain	\$2.95	
LT5514	1	850			-82/-72@50MHz	4.75	5.25	75	TSSOP-20	UltraLow Distortion with Digitally Controlled Gain from 10.5dB to 33dB, 1.5dB per Step	\$5.20	
<b>LTC6412</b>	<b>1</b>	<b>800</b>		<b>2.5</b>		<b>3</b>	<b>3.6</b>	<b>120</b>	<b>4×4 QFN-24</b>	<b>Differential In/Out, 31dB Range, Analog VGA</b>	<b>C.F.</b>	
LTC6406	1	800	630	1.6	-80/-69@50MHz	2.7	3.5	22	3×3 QFN-16	3GHz GBP, Low Noise/Distortion Diff. ADC Driver	\$3.44	
LT1993-2	1	800	1100	3.5	-80/-77@50MHz	4	5.5	112	3×3 QFN-16	6dB Fixed Gain	\$2.95	
LT1993-10	1	700	1100	1.7	-80/-77@50MHz	4	5.5	112	3×3 QFN-16	20dB Fixed Gain	\$2.95	
LT6411	1	650	3300	8	-82/-77@30MHz	4.5	12.5	11	3×3 QFN-16	Gain Selectable 1, 2 or -1	\$2.39	
LT5524	1	540			-76/-72@50MHz	4.75	5.25	43	TSSOP-20	Low Power Digitally Controlled Gain from 4.5dB to 27dB, 1.5dB per Step	\$4.40	
LTC6404-1	1	500	450	1.5	-94/-92@10MHz	2.7	5.25	35.5	3×3 QFN-16	600MHz, Low Noise Op Amp/Driver	\$3.44	
LT6402-6	1	300	400	3.6(10MHz)	-83/-83@10MHz	4	5.5	37	3×3 QFN-16	Low Noise, Low Distortion, A <sub>v</sub> =6dB	\$2.39	
LT6402-12	1	300	400	2.7(10MHz)	-80/-80@25MHz	4	5.5	37	3×3 QFN-16	Low Noise, Low Distortion, A <sub>v</sub> =12dB	\$2.39	
LT6402-20	1	300	400	1.85(10MHz)	-84/-84@10MHz	4	5.5	37	3×3 QFN-16	Low Noise, Low Distortion, A <sub>v</sub> =20dB	\$2.39	
LTC6403-1	1	200	200	2.8	-106/-94@3MHz	2.7	5.25	11.8	3×3 QFN-16	Low Noise, Low Power Op Amp/Driver	\$1.79	
LT1994	1	70	65	3	-94/-108@1MHz	2.375	12.6	18.5	3×3 DFN-8/ MSOP-8	Adjustable Gain	\$1.65	
LT6600-20	1	20	n/a	15	-83/-83@2.5MHz	3	±5	46	SO-8	Integrated 20MHz Filter	\$2.95	
LT6600-15	1	15	n/a	15	-86/-90@1MHz	3	±5	39	SO-8	Integrated 15MHz Filter	\$2.95	
LT6600-10	1	10	n/a	14	-88/-97@1MHz	3	±5	39	SO-8/4×4 DFN-12	Integrated 10MHz Filter	\$2.95	
LT6600-5	1	5	n/a	16	-93/-96@1MHz	3	±5	31	SO-8/4×4 DFN-12	Integrated 5MHz Filter	\$2.95	
LT6600-2.5	1	2.5	n/a	25	-95/-88@1MHz	3	±5	30	SO-8	Integrated 2.5MHz Filter	\$2.95	
LTC6420-20	2	1800	4500	2.2	-80/-88@100MHz	2.85	3.5	95	3×4 QFN-20	Dual Matched Differential In/Out, A <sub>v</sub> =10	\$5.17	
LTC6421-20	2	1300	4500	2.2	-74/-78@100MHz	2.85	3.5	50	3×4 QFN-20	Dual Matched Differential In/Out, A <sub>v</sub> =10	\$4.77	

† Primary Sort Column  
 †† Secondary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

# HIGH SPEED CURRENT FEEDBACK AMPLIFIERS

† Amplifiers Per Package	Part Number	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	V <sub>OS</sub> Max 25°C (μV)	A <sub>VOL</sub> Typ 25°C (V/mV)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Features	Price 1K Qty
1	LT1395	400	800	25	4.5	6	10000		80	6.5	yes	3	12.6		SO-8/SOT23-5/SOT23-6	1000	CFA/100MHz 0.1dB Bandwidth	\$1.30
1	LT1252	250	250		3	1.5	15000	1.5	30	18	no	4	28		DIP-8/SO-8	100	High Voltage Video Amp	\$1.70
1	LT6210	200	700	20	6.5	4.5	6000		75	8.3	no	3	13.2	out	SOT23-6	10000	Adjustable Speed and Power CFA	\$1.20
1	LT1227	140	1100	50	3.2	1.7	10000		30	15	yes	4	36		DIP-8/SO-8	2000	High Voltage CFA	\$2.40
1	LT1223	100	1000	75	33	2.2	3000	5000	50	10	yes	5	36		SO-8/DIP-8	1800	High Slew Rate/High I <sub>OUT</sub>	\$2.85
1	LT1228	100	500	45	20	1.4	5000		30	15	no	4	36		DIP-8/SO-8	2000	CFA with Gain Control	\$3.75
1	LT1206	66	900		3.6	2	10000		250	30	yes	10	36		DDPAK-7/DIP-8/SO-8/TO-220	10000	High I <sub>OUT</sub> /Adj. Supply Current/C-Load	\$3.40
1	LT1210	66	900		3	2	15000		1100	50	yes	8	36		DDPAK-7/SO-16/TO-220	10000	1A Output Current	\$6.40
2	LT6411	650	3300	6	8		10000		50	22	yes	4.5	12.6		QFN-16	12	650MHz Diff ADC Driver/Dual Amp	\$2.39
2	LT1396	400	800	25	4.5	6	10000		80	6.5	no	3	12.6		DFN-8/MS-8/SO-8	1000	Dual CFA/100MHz 0.1dB BW	\$1.95
2	LT1398	300	800	25	4.5	6	10000		80	6.5	yes	3	12.6		SO-16	1000	0.1dB Gain Flatness to 150MHz	\$2.25
2	LT1253	250	250		3	1.5	15000	1.5	30	11	no	4	28		DIP-8/SO-8	100	High Voltage Dual Video Amp	\$2.45
2	LT6211	200	700	20	6.5	4.5	6000		75	8.3	no	3	13.2	out	DFN-10/MS-10	10000	Adjustable Speed and Power CFA	\$1.60
2	LT1259	130	1600	75	3.6	1.3	12000	3.98	30	7.5	yes	4	36		DIP-14/SO-14	1000	Low Cost High Voltage CFA/Shutdown	\$2.45
2	LT1229	100	700	45	3.2	1.4	10000		30	9.5	no	4	36		DIP-8/SO-8	2000	General Purpose High Voltage CFA	\$3.75
2	LT1207	66	900		3.6	2	10000		250	30	yes	10	36		SO-16	10000	High Current/Prog. Supply/C-Load	\$6.90
2	LT1795	65	900		3.6	2	13000	2.51	500	34	yes	10	36		SOW-20/TSSOP-20	1000	High I <sub>OUT</sub> /High Speed	\$4.95
2	LT1497	59	900	50	3	2	10000	10	125	7	no	4	36		SO-8/SO-16	2000	125mA Output CFA	\$3.35
3	LT6558	550	2200	4			45000		60	24	no	3	7.5	ss	SSOP-16/ DFN-16		550MHz/ 2200V/us AV=1/ Single Supply Triple Video Amp w/ Input Bias Control	\$2.50
3	LT1399	300	800	25	4.5	6	10000		80	6.5	yes	3	12.6		SSOPN-16/SO-16	1000	0.1dB Gain Flatness to 150MHz	\$2.45
3	LT1399HV	300	800	25	4.5	6	10000		80	7	yes	3	15.5		SO-16	1000	0.1dB Gain Flatness to 150MHz	\$3.05
3	LT6559	300	500	25	4.5	6	10000		80 Typ	6.1	yes	4	12		QFN-16	1000	Low Cost 5V/±5V 300MHz Triple Video Amplifier	\$0.95
3	LT1260	130	1600	75	3.6	1.3	12000	3.98	30	7.5	yes	4	36		DIP-16/SO-16	1000	Low Cost High Voltage CFA/Shutdown	\$2.60
4	LT1397	400	800	25	4.5	6	10000		80	6.5	no	3	12.6		DFN-14/SO-14/SSOPN-16	1000	Quad CFA/100MHz 0.1dB BW	\$2.75
4	LT1254	250	250		3	1.5	15000	1.5	30	11	no	4	28		SO-14/DIP-14	100	High Voltage Quad Video Amp	\$4.40
4	LT1230	100	700	45	3.2	1.4	10000		30	9.5	no	4	36		DIP-14/SO-14	2000	General Purpose High Voltage CFA	\$7.00

† Primary Sort Column  
†† Secondary Sort Column

Note:  
1. ss = Input common mode range includes negative supply rail

# HIGH SPEED LOW POWER OP AMPS (I<sub>S</sub> ≤ 8mA/AMP)

† Amplifiers Per Package	Part Number	†† I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	V <sub>OS</sub> Max 25°C (μV)	I <sub>OUT</sub> Min 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Features	Price 1K Qty
1	LT6220	1	no	60	20	300	10	0.8	350	20	2.2	12.6	yes	SO-8/SOT23-5	7000	VFB	Precision/Low Power/RRIO	\$1.20
1	LT6233	1.25	yes	60	17	170	1.9	0.43	500	40	3	12.6	out	SOT23-6	1000	VFB	Ultralow Noise/Low Power/High Speed	\$1.45
1	LT6233-10	1.25	yes	375	115		1.9	0.43	500	40	3	12.6	out	SOT23-6	1000	VFB	Low Noise/Low Power/A <sub>V</sub> >10	\$1.90
1	LT1800	2	no	80	25	250	8.5	1	350	20	2.3	12.6	yes	SO-8/SOT23-5	1000	VFB	High Speed/Power/Precision/RRIO	\$1.30
1	LT1803	3	no	83	100	350	21	2.5	2000	20	2.3	12.6	yes	SO-8/SOT23-5	1000	VFB	RRIO/High Speed	\$1.30
1	LT6202	3.5	no	100	25	78	1.9	0.75	500	30	2.5	12.6	yes	SO-8/SOT23-5	1000	VFB	Low Noise/Low Power/RRIO	\$1.45
1	LT1812	3.6	yes	100	750	30	8	1	1500	40	2.5	12.6		SO-8/SOT23-5/SOT23-6	100	VFB	High Speed/Power/Low Noise	\$0.88
1	LT6230	3.75	yes	215	70	50	1.1	1	500	30	3	12.6	out	SOT23-6	1000	VFB	Ultralow Noise/Low Power/High Speed	\$1.25
1	LT6230-10	3.75	yes	1450	320		1.1	1	500	30	3	12.6	out	SOT23-6	2000	VFB	Ultralow Noise/Low Power/A <sub>V</sub> >10	\$1.50
1	LT1037	4.3	no	60	15		2.5	0.4	25	18.3	8	44		DIP-8/SO-8	100	VFB	Extremely Low Noise	\$1.90
1	LT1722	4.5	no	200	70	91	3.8	1.2	400	35	4.6	12.6		SO-8/SOT23-5	100	VFB	Low Noise at Video Speed/Precision	\$0.88
1	LT1360	4.8	no	50	800	60	9	0.9	1000	26	3	36		SO-8/DIP-8	All	VFB	High Speed/Precision/C-Load	\$2.20
1	LT1468-2	5	no	200	30	760	5	0.6	75	15	9	36		3x3 DFN-8/SO-8	300	VFB	16-Bit Accuracy, 760ns to 0.01% Settling/A <sub>V</sub> >2	\$2.95
1	LT1468	5	no	90	22	760	5	0.6	75	15	6	36		3x3 DFN-8/DIP-8/SO-8	300	VFB	16-Bit Accuracy/760ns to 0.01% Settling	\$2.95

† Primary Sort Column  
†† Secondary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Space, Military,  
Harsh Envir.

Reference  
Material

# HIGH SPEED LOW POWER OP AMPS ( $I_S \leq 8\text{mA/AMP}$ )

† Amplifiers Per Package	Part Number	‡‡ I <sub>SSUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	V <sub>OS</sub> Max 25°C (μV)	I <sub>OUT</sub> Min 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Features	Price 1K Qty
1	LT6205	5.6	no	100	600	25	9	4	4500	25	3	12.6	out	SOT23-5	1000	VFB	3V 100MHz Single Supply Video Amp	\$0.88
1	LT1395	6.5	yes	400	800	25	4.5	6	10000	80	3	12.6		SO-8/SOT23-5/SOT23-6	1000	CFA	CFA/100MHz 0.1dB Bandwidth	\$1.30
1	LT1363	7.5	no	70	1000	50	9	1	1500	50	3	36		SO-8/DIP-8	All	VFB	High Speed/Precision/C-Load	\$2.40
1	LT1815	7.8	no	220	1500	15	6	1.3	1500	50	4	12.6		SO-8/SOT23-5/SOT23-6	10	VFB	High SR VFB with Prog. Supply Current	\$0.88
2	LT6221	1	no	60	20	300	10	0.8	350	20	2.2	12.6	yes	DFN-8/SO-8	7000	VFB	Precision/Low Power/RRIO	\$1.85
2	LT6234	1.25	no	60	17	170	1.9	0.43	350	40	3	12.6	out	DFN-8/SO-8	1000	VFB	Ultralow Noise/Low Power	\$2.45
2	LT1801	2	no	80	25	250	8.5	1	350	20	2.3	12.6	yes	DFN-8/MS-8/SO-8	1000	VFB	High Speed/Power/Precision/RRIO	\$1.95
2	LT1804	3	no	83	100	350	21	2.5	2000	20	2.3	12.6	yes	DFN-8/SO-8	1000	VFB	RRIO/High Speed	\$1.95
2	LT1126	3.1	no	65	11		2.7	0.3	70	6.25	8	44		SO-8/DIP-8	15	VFB	Low Noise/65MHz GBW/Precision	\$3.50
2	LT6203	3.5	no	100	25	78	1.9	0.75	500	30	2.5	12.6	yes	DFN-8/MS-8/SO-8	1000	VFB	Low Noise/Low Power/RRIO	\$2.45
2	LT1813	3.6	no	100	750	30	8	1	1500	40	2.5	12.6		MS-8/SO-8/DFN-8	100	VFB	High Speed/Power/Low Noise	\$0.99
2	LT6231	3.75	no	215	70	50	1.1	1	350	30	3	12.6	out	DFN-8/SO-8	1000	VFB	Ultralow Noise/Low Power/High Speed	\$1.95
2	LT1813HV	4	no	100	750	30	8	1	1500	40	2.5	13.5		SO-8	100	VFB	High Speed/Power/ V <sub>S</sub> up to 13.5V	\$1.19
2	LT1723	4.5	no	200	70	91	3.8	1.2	400	35	4.6	12.6		MS-8/SO-8	100	VFB	Low Noise at Video Speed/Precision	\$1.15
2	LT1361	4.8	no	50	800	60	9	0.9	1000	26	5	36		SO-8/DIP-8	All	VFB	High Speed/Precision/C-Load	\$3.40
2	<b>LT1469-2</b>	<b>5.2</b>	<b>no</b>	<b>200</b>	<b>30</b>	<b>760</b>	<b>5</b>	<b>0.6</b>	<b>125</b>	<b>15</b>	<b>9</b>	<b>36</b>		<b>4x4 DFN-12/SO-8</b>	<b>300</b>	<b>VFB</b>	<b>16-Bit Accuracy, 760ns to 0.01% Settling/Av&gt;2</b>	<b>\$4.95</b>
2	LT1469	5.2	no	90	22	760	5	0.6	125	15	6	36		4x4 DFN-12/DIP-8/SO-8	300	VFB	16-Bit Accuracy/760ns to 0.01% Settling	\$4.95
2	LT6206	5.6	no	100	600	25	9	4	4500	25	3	12.6	out	MS-8	1000	VFB	3V 100MHz Single Supply Video Amp	\$1.05
2	LT1396	6.5	no	400	800	25	4.5	6	10000	80	3	12.6		DFN-8/MS-8/SO-8	1000	CFA	Dual CFA/100MHz 0.1dB BW	\$1.95
2	LT1398	6.5	yes	300	800	25	4.5	6	10000	80	3	12.6		SO-16	1000	CFA	0.1dB Gain Flatness to 150MHz	\$2.25
2	LT1497	7	no	59	900	50	3	2	10000	125	4	36		SO-8/SO-16	2000	CFA	125mA Output CFA	\$3.35
2	LT1364	7.2	no	70	1000	60	9	1	1500	50	3	36		SO-8/DIP-8	All	VFB	High Speed/Precision/C-Load	\$3.70
2	LTC6244	7.4	no	50	35	535	8	0.00056	100	25	2.8	6	out	DFN-8/MS-8	200	VFB	Dual 50MHz/Low Noise/RRIO/CMOS	\$1.65
2	LTC6244HV	7.4	no	50	35	535	8	0.00056	100	25	2.8	10.5	out	DFN-8/MS-8	200	VFB	Dual 50MHz/Low Noise/RRIO/CMOS	\$2.35
2	LT1259	7.5	yes	130	1600	75	3.6	1.3	12000	30	4	36		DIP-14/SO-14	1000	CFA	Low Cost High Voltage CFA/Shutdown	\$2.45
2	LT1816	7.8	no	220	1500	15	6	1.3	1500	50	2.5	12.6		DFN-8/MS-8/MS-10/SO-8	10	VFB	High SR VFB with Prog Supply Current	\$1.50
3	LT6559	6.1	yes	300	500	25	4.5	6	10000	80 Typ	4	12		QFN-16	1000	CFA	Triple 5V/±5V 300MHz/3x3 QFN	\$0.95
3	LT1399	6.5	yes	300	800	25	4.5	6	10000	80	3	12.6		SSOPN-16/SO-16	1000	CFA	0.1dB Gain Flatness to 150MHz	\$2.45
3	LT1399HV	7	yes	300	800	25	4.5	6	10000	80	3	15.5		SO-16	1000	CFA	0.1dB Gain Flatness to 150MHz	\$3.05
3	LT1260	7.5	yes	130	1600	75	3.6	1.3	12000	30	4	36		DIP-16/SO-16	1000	CFA	Low Cost High Voltage CFA/Shutdown	\$2.60
4	LT6222	1	no	60	20	300	10	0.8	350	20	2.2	12.6	yes	SSOP-16	7000	VFB	Precision/Low Power/RRIO	\$2.95
4	LT6235	1.25	no	60	17	170	1.9	0.43	350	40	3	12.6	out	SSOP-16	1000	VFB	Ultralow Noise/Low Power	\$4.15
4	LT1802	2	no	80	25	250	8.5	1	350	20	2.3	12.6	yes	SO-14	1000	VFB	High Speed/Power/Precision/RRIO	\$3.50
4	LT1805	3	no	85	100	350	21	2.5	2000	20	2.3	12.6	yes	SO-14	1000	VFB	RRIO/High Speed	\$3.50
4	LT1127	3.1	no	65	11		2.7	0.3	90	6.25	8	44		DIP-14/SOW-16	15	VFB	Low Noise/65MHz GBW/Precision	\$5.70
4	LT6204	3.5	no	100	25	78	1.9	0.75	500	30	2.5	12.6	yes	SO-14/SSOPN-16	1000	VFB	Low Noise/Low Power/RRIO	\$4.50
4	LT1814	3.6	no	100	750	30	8	1	1500	40	2.5	12.5		SO-14/SSOPN-16	100	VFB	High Speed/Power/Low Offset	\$1.95
4	LT6232	3.75	no	215	70	50	1.1	1	350	30	3	12.6	out	SSOP-16	1000	VFB	Ultralow Noise/Low Power/High Speed	\$3.30
4	LT1724	4.5	no	200	70	91	3.8	1.2	400	35	4.6	12.6		SO-14	100	VFB	Low Noise at Video Speed/Precision	\$2.19
4	LT1362	4.8	no	50	800	60	9	0.9	1000	26	5	36		SO-16/DIP-14	All	VFB	High Speed/Precision/C-Load	\$6.00
4	LT6207	5.6	no	100	600	25	9	4	4500	25	3	12.6	out	SSOPN-16	1000	VFB	3V 100MHz Single Supply Video Amp	\$1.55
4	LT1397	6.5	no	400	800	25	4.5	6	10000	80	3	12.6		DFN-14/SO-14/SSOPN-16	1000	CFA	Quad CFA/100MHz 0.1dB BW	\$2.75
4	LT1817	7	no	220	1500	15	6	1.3	1500	50	2.5	12.6		SO-14/SSOPN-16	10	VFB	High Slew Rate VFB	\$2.05
4	LT1365	7.2	no	70	1000	50	9	1	1500	50	3	36		DIP-14/SO-16	All	VFB	High Speed/Precision/C-Load	\$6.45

† Primary Sort Column  
‡‡ Secondary Sort Column

Notes:

- ss = Input common mode range includes negative supply rail
- Topology: VFB = Voltage Feedback, CFA = Current Feedback, ZD = Zero-Drift Amplifier, IA = Instrumentation Amplifier, JFET = JFET Input Stage, BUF = Buffer, MUX = Multiplexer, VIDEO = Optimized for Video Applications, DIFF = Fully Differential Amplifier, CSA = Current Sense Amplifier, PGA = Programmable Gain Amplifier, VGA = Variable Gain Amplifier

# HIGH SPEED RAIL-TO-RAIL INPUT/OUTPUT OP AMPS (GAIN BANDWIDTH PRODUCT ≥ 10MHz)

†	Amplifiers Per Package	Part Number	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1% Typ 25°C (ns)	V <sub>OS</sub> Max 25°C (μV)	A <sub>VL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	V <sub>OH</sub> <sup>(1)</sup> Typ 25°C (V)	V <sub>OL</sub> <sup>(1)</sup> Typ 25°C (V)	Package	C-Load Stable (pF)	Features	Price 1K Qty
1	1	LT6200-10	1600	450		1000	200	0.95	60	23	yes	2.5	12.6	0.07	0.012	SO-8/SOT23-6	1000	Low Noise/RRIO/High Speed/A <sub>v</sub> >10	\$1.50
1	1	LT6200-5	800	250		1000	200	0.95	60	23	yes	2.5	12.6	0.07	0.012	SO-8/SOT23-6	1000	Low Noise/RRIO/High Speed/A <sub>v</sub> >5	\$1.50
1	1	LT1806	325	125	60	550	220	3.5	35	13	yes	2.5	12.6	0.015	0.008	SO-8/SOT23-6	1000	High Speed/Precision/Low Noise	\$2.10
1	1	LT6200	165	50	140	1000	200	0.95	60	23	yes	2.5	12.6	0.07	0.012	SO-8/SOT23-6	1000	Low Noise/RRIO/High Speed	\$2.15
1	1	LT1809	160	300	27	2500	80	16	45	17	yes	2.5	12.6	0.02	0.012	SO-8/SOT23-6	1000	Low Distortion/High Speed/Low Noise	\$1.75
1	1	LT6202	100	25	78	500	200	1.9	30	3.5	no	2.5	12.6	0.04	0.005	SO-8/SOT23-5	1000	Low Noise/Low Power/RRIO	\$1.45
1	1	LT1803	83	100	350	2000	60	21	20	3	no	2.3	12.6	0.017	0.017	SO-8/SOT23-5	1000	RRIO/High Speed	\$1.30
1	1	LT1800	80	25	250	350	85	8.5	20	2	no	2.3	12.6	0.016	0.012	SO-8/SOT23-5	1000	High Speed/Power/Precision/RRIO	\$1.30
1	1	LT6220	60	20	300	350	100	10	20	1	no	2.2	12.6	0.005	0.005	SO-8/SOT23-5	7000	Precision/Low Power/RRIO	\$1.20
1	1	LTC6910-2	13	16		15000		9.1	9.5	3	no	2.7	11	0.01	0.012	SOT23-8	50	3-Bit Gain Control/0 to 64 V/V	\$1.10
1	1	LTC6910-1	11	16		15000		8.6	9.5	3	no	2.7	11	0.01	0.012	SOT23-8	50	3-Bit Gain Control/0 to 100 V/V	\$1.10
1	1	LTC6910-3	11	16		15000		10.6	9.5	3	no	2.7	11	0.01	0.012	SOT23-8	50	3-Bit Gain Control/0 to 7 V/V	\$1.10
1	1	LT1797	10	2.25	1600	1500	1000	20	25	1.5	no	2.1	12.6	0.05	0.008	SOT23-5	10000	RRIO/Low Noise/C-Load Stable	\$1.00
2	2	LT1807	325	125	60	550	220	3.5	35	13	no	2.5	12.6	0.015	0.008	MS-8/SO-8	1000	High Speed/Precision/Low Noise	\$3.40
2	2	LT6201	165	50	140	1000	200	0.95	60	23	no	2.5	12.6	0.07	0.012	DFN-8/SO-8	1000	Low Noise/RRIO/High Speed	\$3.65
2	2	LT1810	160	300	27	2500	80	16	45	17	no	2.3	12.6	0.02	0.012	MS-8/SO-8	1000	Low Distortion/High Speed/Low Noise	\$2.65
2	2	LT6203	100	25	78	500	200	1.9	30	3.5	no	2.5	12.6	0.04	0.005	DFN-8/MS-8/SO-8	1000	Low Noise/Low Power/RRIO	\$2.45
2	2	LT1804	83	100	350	2000	60	21	20	3	no	2.3	12.6	0.017	0.017	DFN-8/SO-8	1000	RRIO/High Speed	\$1.95
2	2	LT1801	80	25	250	350	85	8.5	20	2	no	2.3	12.6	0.018	0.016	DFN-8/MS-8/SO-8	1000	High Speed/Power/Precision/RRIO	\$1.95
2	2	LT6221	60	20	300	350	100	10	20	1	no	2.2	12.6	0.005	0.005	DFN-8/SO-8	7000	Precision/Low Power/RRIO	\$1.85
2	2	LT1632	45	27	400	1350	2000	12	20	5.2	no	2.6	36	0.016	0.015	DIP-8/SO-8	10	Low Distortion/High Speed/RRIO	\$3.05
2	2	LTC6912-1	30	16		22000		15.1	35 Typ	2.75	yes	2.7	10.5	0.01	0.012	DFN-12/SSOP-16	50	Dual PGA/Serial SPI/A <sub>v</sub> =0 to 100V/V	\$2.15
2	2	LTC6912-2	30	16		22000		15.1	35 Typ	2.75	yes	2.7	10.5	0.01	0.012	DFN-12/SSOP-16	50	Dual PGA/Serial SPI/A <sub>v</sub> =1 to 64V/V	\$2.15
2	2	LT1630	30	9.2	520	525	3500	6	20	4.4	no	2.6	36	0.015	0.014	DIP-8/SO-8	300	Low Distortion/High Speed/RRIO	\$2.96
2	2	LT1678	20	6		100	3000	3.9	15	3.4	no	3	36	0.075	0.08	SO-8	500	Very Low 1/f Corner Frequency	\$2.50
2	2	LTC6911-1	11	16		22000		9.9	35 Typ	3.15	no	2.7	10.5	0.01	0.012	MS-10	50	Dual/3-Bit Gain Control/0 to 100 V/V	\$2.00
2	2	LTC6911-2	11	16		22000		10.9		3.15	no	2.7	10.5	0.01	0.012	MS-10	50	Dual/3-Bit Gain Control/0 to 64 V/V	\$2.00
2	4	LT1498	10.5	4.5		475	3800	12	12.5	2.2	no	2.2	36	0.0025	0.014	DIP-8/SO-8	30000	Stable with Large C-Load	\$2.96
4	4	LT6204	100	25	78	500	200	1.9	30	3.5	no	2.5	12.6	0.04	0.005	SO-14/SSOPN-16	1000	Low Noise/Low Power/RRIO	\$4.50
4	4	LT1805	85	100	350	2000	60	21	20	3	no	2.3	12.6	0.017	0.017	SO-14	1000	RRIO/High Speed	\$3.50
4	4	LT1802	80	25	250	350	85	8.5	20	2	no	2.3	12.6	0.018	0.016	SO-14	1000	High Speed/Power/Precision/RRIO	\$3.50
4	4	LT6222	60	20	300	350	100	10	20	1	no	2.2	12.6	0.005	0.005	SSOP-16	7000	Precision/Low Power/RRIO	\$2.95
4	4	LT1633	45	27	400	1350	2000	12	20	5.2	no	2.6	36	0.016	0.015	SO-14	10	Low Distortion/High Speed/RRIO	\$5.70
4	4	LT1631	30	9.2	520	525	3500	6	20	4.4	no	2.6	36	0.015	0.014	SO-14	300	Low Distortion/High Speed/RRIO	\$5.60
4	4	LT1679	20	6		100	3000	3.9	15	3.4	no	3	36	0.075	0.08	SO-14	500	Very Low 1/f Corner Frequency	\$3.85
4	4	LT1499	10.5	4.5		475	3800	12	12.5	2.2	no	2.2	36	0.0025	0.014	SO-14	30000	Stable with Large C-Load	\$5.60

† Primary Sort Column  
 †† Secondary Sort Column

Note:

1. V<sub>OH</sub> = How close the output swings to the positive rail; V<sub>OL</sub> = How close the output swings to the negative rail

Amplifiers, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

Space, Military, Harsh Envir.

Reference Material



## VIDEO RGB AMPLIFIERS

Part Number	Configuration	† BW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time Typ 25°C (ns) to 0.1%	Diff Gain (%)	Diff Phase (Deg)	e <sub>n</sub> Typ (nV/√Hz)	i <sub>n</sub> Typ (pA/√Hz)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown (yes/no)	Supply Voltage		C-Load Stable (pF)	Type	Unity Gain Stable	Important Features	Price 1K Qty
											Min (V)	Max (V)					
LT6556	Triple A <sub>V</sub> =1	750	2100	6.5	0.056	0.028			13	yes	4.5	12.6	SSOP-24/QFN-24	12	CFA	A <sub>V</sub> =1 with 2:1 Input MUX	\$2.75
LT6555	Triple A <sub>V</sub> =2	650	2200	6.5	0.022	0.033			12	yes	4.5	12.6	SSOP-24/QFN-24	12	CFA	A <sub>V</sub> =2 with 2:1 Input MUX	\$2.75
LT6554	Triple A <sub>V</sub> =1	650	2500	6	0.022	0.06	20	3.5	10	no	4.5	13.2	SSOP-16	12	CFA	A <sub>V</sub> =1 Fixed Gain of 1	\$2.50
LT6553	Triple A <sub>V</sub> =2	650	2500	6	0.022	0.06	9	5	11	yes	4.5	13.2	SSOP-16	10	CFA	A <sub>V</sub> =2 Fixed Gain of 2	\$2.50
LT6558	Triple A <sub>V</sub> =1	550	2200	4	0.02	0.02			25	yes	3	7.5	SSOP-16/DFN	12	VFB	A <sub>V</sub> =1 Fixed Gain of 1	\$2.50
LT6557	Triple A <sub>V</sub> =2	500	2200	4	0.02	0.05			25	yes	3	7.5	SSOP-16/DFN	12	VFB	A <sub>V</sub> =2 Fixed Gain of 2	\$2.50
LT6559	Triple A <sub>V</sub> =1,2,-1	300	800	25	0.13	0.1	4.5	6	6.1	yes	4	12.6	QFN-16	1000	CFA	A <sub>V</sub> =1 0.1dB Gain Flatness: 150MHz	\$0.95
LT1399	Triple A <sub>V</sub> =1,2,-1	300	800	25	0.13	0.1	4.5	6	6.5	yes	4	12.6	SO-16/SSOP-16	1000	CFA	A <sub>V</sub> =1 0.1dB Gain Flatness: 150MHz	\$2.45
LT1260	Triple	130	1600	75	0.016	0.075	3.6	1.3	7.5	yes	4	36	DIP-16/SO-16	1000	CFA	A <sub>V</sub> =1 ±12V Operation	\$2.60
LT6550	Triple A <sub>V</sub> =2	110	340	20 (to 3%)	0.05	0.05	12	8	10	no	3	12.6	MSOP-10	300	VFB	A <sub>V</sub> =2 Operates on 3.3V	\$1.75
LT6551	Quad A <sub>V</sub> =2	110	340	20 (to 3%)	0.05	0.05	12	8	10	no	3	12.6	MSOP-10	300	VFB	A <sub>V</sub> =2 Operates on 3.3V	\$1.95

† Primary Sort Column

## VIDEO MULTIPLEXERS

Part Number	Configuration	Cable Driver Amplifiers On Chip	† BW Typ 25°C (MHz)	0.1 dB Gain Flatness	Slew Min 0-70°C (V/μs)	Settling Time (ns) to 0.1%	Diff Gain %	Diff Phase Deg	I <sub>SUPPLY</sub> Max 25°C (mA)	Shutdown (yes/no)	Supply Voltage		Package	Unity Gain Stable	Important Features	Price 1K Qty
											Min (V)	Max (V)				
LT6556	3×2:1	yes 3	750	120	1200	6.5	0.056	0.028	13	yes	4.5	12.6	SSOP-24/QFN	yes	RGB Amplifier, 2:1 MUX, A <sub>V</sub> =1V/V	\$2.75
LT6555	3×2:1	yes 3	650	120	1600	6.5	0.03	0.02	12	yes	4.5	12.6	SSOP-24/QFN	yes	RGB Amplifier, 2:1 MUX, A <sub>V</sub> =2V/V	\$2.75
LT1675	3×2:1	yes 3	250	70	1100		0.07	0.05	14	yes	5.2	12.6	SSOP-16	yes	CFA has Fixed Gain=2	\$3.25
LT1675-1	2:1	yes 1	250	70	1100		0.07	0.05	14	yes	5.2	12.6	SO-8/MSOP-8	yes	CFA has Fixed Gain=2	\$1.95
LT1203	2:1	no	150	30	180	30	0.02	0.02	14	yes	9	36	DIP-8/SO-8	yes	150MHz 2:1 Video Multiplexer	\$1.50
LT1205	2×2:1 or 4:1	no	150	30	180	30	0.02	0.02	14	yes	9	36	SO-16	yes	Dual of LT1203, 2:1 Video Mux	\$2.60
LT1204	4:1	yes 1	95	66	500	70	0.04	0.06	24	yes	9	36	DIP-16/SO(W)-16	yes	4-Input Video Mux with 75MHz CFA	\$4.80
LT1251	2:1 fader	no	40	1212	150	65	0.02	0.02	7.5	no	5	30	DIP-14/SO-14	yes	DC Controlled Video Fader	\$5.85
LT1256	2:1 fader	no	40	1212	150	65	0.02	0.02	7.5	no	5	30	DIP-14/SO-14	yes	DC Controlled Video Fader	\$5.85

† Primary Sort Column

## VIDEO DIFFERENCE AMPLIFIERS

Part Number	BW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time Typ 25°C (ns) to 0.1%	Diff Gain (%)	Diff Phase (Deg)	e <sub>n</sub> Typ (nV/√Hz)	i <sub>n</sub> Typ (pA/√Hz)	I <sub>SUPPLY</sub> Max 25°C (mA)	Shutdown (yes/no)	Supply Voltage		Package	Unity Gain Stable	Important Features	Price 1K Qty
										Min (V)	Max (V)				
LT1193	9 (@A <sub>V</sub> =10)		180	0.2	0.08	50	4	40	yes	4.75	18	DIP-8/SO-8	A <sub>V</sub> =2	Color Video Difference Amp	\$2.90
LT6552	75 (@A <sub>V</sub> =2)	600	30	0.2	0.15	55	0.7	13.5	yes	3	12.6	SO-8/DFN	A <sub>V</sub> =2	Low Power Video Difference Amp	\$1.10
LT1189	35 (@A <sub>V</sub> =10)	220	1000	0.6	0.75	30	1.25	16	yes	4.75	18	DIP-8/SO-8	A <sub>V</sub> =10	Low Power Video Difference Amp	\$2.90
LT1194	35 (@A <sub>V</sub> =10)	500	200	0.2	0.08	15	4	40	yes	4.75	18	DIP-8/SO-8	A <sub>V</sub> =10	Color Video Difference Amp	\$2.90
LT1995	32 (@A <sub>V</sub> =1)	1000	110	0.06	0.15	14		8.5	no	5	36	MSOP-10/DFN	A <sub>V</sub> =1	Gain-Selectable Difference Amp	\$1.89
LT1187	5.7 (@A <sub>V</sub> =10)	165	100	0.6	0.8	65	1.5	16	yes	4.75	18	DIP-8/SO-8	A <sub>V</sub> =2	Low Power Video Difference Amp	\$2.90



† Channels	Part Number	††		TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	CMRR Min 25°C (dB)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	V <sub>OH</sub> <sup>(1)</sup> Typ 25°C (V)	V <sub>OL</sub> <sup>(1)</sup> Typ 25°C (V)	Package	Features	Price 1K Qty
		V <sub>OS</sub> Max 25°C (μV)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)																
1	LT1636	225	5	8	0.2	0.07	84	2000	52	0.055	yes	2.6	44	0.015	0.002	DFN-8/DIP-8/MS-8/SO-8	Over-The-Top Micropower Op Amp	\$1.45	
1	LT6105	300	0.5 Typ	25000			100			0.3	no	2.85	36			DFN-8/MS-8	Precision Extended Input Current Sense	\$0.99	
1	LT1637	350	3	50	1	0.35	88	800	27	0.25	yes	1.8	44	0.025	0.003	DFN-8/DIP-8/MS-8/SO-8	High Voltage/Over-The-Top/Low Power	\$1.45	
1	LT1672	375	2	1	0.012	0.005	90	500	185	0.002	no	2.1	36	0.035	0.05	DIP-8/MS-8/SO-8	Ultralow Power/Over-The-Top Inputs	\$1.65	
1	LT1494	375	2	1	0.0027	0.001	100	500	185	0.0015	no	2.1	36	0.035	0.05	DIP-8/MS-8/SO-8	Ultralow Power/Rail-to-Rail/Precision	\$1.65	
1	LT1783	800	5	80	1.25	0.42	90	1500	20	0.3	yes	2.2	18	0.06	0.003	SOT23-5/SOT23-6	Over-The-Top/Micropower/RRIO/C-Load	\$1.10	
1	LT1782	800	5	15	0.2	0.07	90	1500	50	0.055	yes	2.2	18	0.06	0.003	SOT23-5/SOT23-6	Over-The-Top/Micropower/RRIO/C-Load	\$1.10	
1	LT1784	3500	15	500	2.5	2.1	84	1000	25	0.75	yes	2	18	0.07	0.004	SOT23-5/SOT23-6	Low Power/RRIO/Shutdown	\$1.00	
1	LT1990	5200	22		0.1	0.55	70		1000	0.18	no	2.4	36	0.21	0.21	SO-8	±250V Diff Amp and Integrated Resistors	\$1.35	
2	LT1673	375	2	1	0.012	0.005	90	500	185	0.002	no	2.1	36	0.035	0.05	DIP-8/SO-8	Ultralow Power/Over-The-Top Inputs	\$2.45	
2	LT1495	375	2	1	0.0027	0.001	100	500	185	0.0015	no	2.1	36	0.035	0.05	DIP-8/SO-8	Ultralow Power/Rail-to-Rail/Precision	\$2.45	
2	LT1490A	500	4	8	0.18	0.06	84	1500	50	0.055	no	2	44	0.022	0.003	DFN-8/DIP-8/MS-8/SO-8	RRIO/Over-The-Top	\$1.75	
2	LT1638	600	6	50	1.2	0.38	88	1500	20	0.23	no	2.2	44	0.02	0.003	DFN-8/DIP-8/MS-8/SO-8	High Voltage/Over-The-Top/Low Power	\$1.95	
4	LT1674	375	2	1	0.012	0.005	90	500	185	0.002	no	2.1	36	0.035	0.05	DIP-14/SO-14	Ultralow Power/Over-The-Top Inputs	\$3.25	
4	LT1496	375	2	1	0.0027	0.001	100	500	185	0.0015	no	2.1	36	0.035	0.05	DIP-14/SO-14	Ultralow Power/Rail-to-Rail/Precision	\$3.25	
4	LT1639	600	6	50	1.075	0.38	88	1500	20	0.23	no	2.2	44	0.02	0.003	DIP-14/SO-14	High Voltage/Over-The-Top/Low Power	\$3.30	
4	LT1491A	1000	4	8	0.18	0.06	84	1500	50	0.055	no	2	44	0.022	0.003	DIP-14/SO-14/DFN-16	RRIO/Over-The-Top	\$3.00	

† Primary Sort Column  
 †† Secondary Sort Column

Note:

1. V<sub>OH</sub> = How close the output swings to the positive rail; V<sub>OL</sub> = How close the output swings to the negative rail

LOW POWER OP AMPS (I<sub>SUPPLY</sub> ≤ 1mA/AMP)

† Amplifiers Per Package	Part Number	††		Shutdown	V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	CMRR Min 25°C (dB)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Features	Price 1K Qty
		I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)																
1	LT6003	0.001	no	500	5	0.09	0.002	0.0008	88	150	325	1.6	16	yes	SOT23-5/2×2 DFN-4	2000	Low Power, 1.8V Precision Op Amp	\$0.72	
1	LT1494	0.0015	no	375	2	1	0.0027	0.001	100	500	185	2.1	36	yes	DIP-8/MS-8/SO-8	8000	Ultralow Power/Rail-to-Rail/Precision	\$1.65	
1	LT1672	0.002	no	375	2	1	0.012	0.005	90	500	185	2.1	36	yes	DIP-8/MS-8/SO-8	10000	Ultralow Power/Over-The-Top Inputs	\$1.65	
1	LTC1541	0.01	no	1000			0.012					2.5	12.6	ss	MS-8/SO-8/3×3 DFN-8		Micropower Amp/Comparator and Ref	\$1.50	
1	LTC1542	0.01	no	1000			0.012	8	0.5	1000		2.5	12.6	out	MS-8/SO-8/3×3 DFN-8	1000	Micropower Amp/Comparator and Ref	\$1.20	
1	LT6000	0.016	no	750	5	5	0.05	15	82	65	75	1.8	18	yes	2×3 DFN-6	800	Single 1.8V/13μA Precision RRIO	\$0.80	
1	LT1636	0.055	yes	225	5	8	0.2	0.07	84	2000	52	2.6	44	yes	3×3 DFN-8/DIP-8/MS-8/SO-8	10000	Over-The-Top Micropower Op Amp	\$1.45	
1	LT1782	0.055	yes	800	5	15	0.2	0.07	90	1500	50	2.2	18	yes	SOT23-5/SOT23-6	10000	Over-The-Top/Micropower/RRIO/C-Load	\$1.10	
1	LT1077	0.06	no	40	1.6	9	0.23	0.08	97	1000	27	2.2	44	ss	DIP-8/SO-8	1500	High Precision Micropower Single Supply	\$1.60	
1	LT1789-1	0.095	no	100	0.7	40	0.06	0.026	100		48	2.2	36	out	SO-8	600	Micropower/Precision IA/Single Supply	\$3.20	
1	LT1789-10	0.095	no	160	0.7	40	0.025	0.026	98		52	2.2	36	out	SO-8	2000	Micropower/Precision IA/A <sub>V</sub> >10	\$3.20	
1	LT1991	0.11	no	50	1	5	0.56	0.12	80		46	2.4	40	yes	MS-10/3×3 DFN-10	100	Precision/Gain Select Range -13 to 14	\$1.39	
1	LT1996	0.11	no	50	1	5	0.56	0.12	80		18	2.7	36	yes	MS-10/3×3 DFN-10		Precision/A <sub>V</sub> =9 to 117	\$1.39	
1	LT1787	0.12	no	75	2						2.5	36	ss	SO-8/MS-8			Precision/High Side Current Sense	\$2.05	
1	LT1787HV	0.12	no	75	2						2.5	60	ss	SO-8/MS-8			Precision/Current Sense/60V V <sub>IN</sub>	\$2.90	
1	LT1101	0.13	no	160	2	8	0.37	0.1	100		43	1.8	44		DIP-8/SOW-16	30000	Micropower Single Supply IA/A <sub>V</sub> =10 or 100	\$4.75	
1	LT6100	0.13	no	300	3	10000	0.15	0.05	100			4.1	48	ss	3×3 DFN-8/MS-8		Precision/Gain Selectable Current Sense	\$1.18	
1	LT6010	0.15	yes	35	0.8	0.11	0.33	0.09	107	2000	14	2.7	40	out	3×3 DFN-8/SO-8	500	Micropower/Precision/RRIO	\$1.10	
1	LT6013	0.165	no	35	0.8	0.25	1.6	0.2	107	2000	9.5	2.7	40	out	3×3 DFN-8/SO-8	500	Micropower/Precision/RRIO/A <sub>V</sub> >5	\$1.10	
1	LTC2054	0.175	no	3	0.03	0.15	0.5	0.5	120	10000		2.7	7	out	SOT23-5	50	Micropower Zero-Drift/3V/5V Operation	\$1.00	
1	LT1990	0.18	no	5200	22		0.1	0.55	70		1000	2.4	36	yes	SO-8	3000	±250V Diff Amp and Integrated Resistors	\$1.35	
1	LT1635	0.2	no	1300	7	4.5	0.175	0.045	94	450	50	1.1	14	out	DIP-8/SO-8	1000	Op Amp and Reference/LM10 Pinout	\$1.75	
1	LTC2054HV	0.21	no	5	0.03	0.15	0.5	0.5	120	10000		2.7	12	out	SOT23-5	50	Micropower Zero-Drift ±5V Operation	\$1.25	

† Primary Sort Column  
 †† Secondary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

LOW POWER OP AMPS ( $I_{SUPPLY} \leq 1mA/AMP$ )

†	Amplifiers Per Package	Part Number	†† $I_{SUPPLY}$ Per Amplifier Max 25°C (mA)	Shutdown	$V_{OS}$ Max 25°C (μV)	TC of $V_{OS}$ Max (μV/°C)	$I_{BIAS}$ Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	CMRR Min 25°C (dB)	$A_{VOL}$ Typ 25°C (V/mV)	$E_{NOISE}$ Typ 25°C (nV/√Hz)	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Features	Price 1K Qty
1	1	LT1637	0.25	yes	350	3	50	1	0.35	88	800	27	1.8	44	yes	3x3 DFN-8/DIP-8/MS-8/SO-8	2000	High Voltage/Over-The-Top/Low Power	\$1.45
1	1	LTC1049	0.3	no	10	0.1	0.05	0.8	0.8	110	31622	80	4.75	18	out	DIP-8/SO-8	50	Zero-Drift No External Capacitors	\$2.15
1	1	LT1783	0.3	yes	800	5	80	1.25	0.42	90	1500	20	2.2	18	yes	SOT23-5/SOT23-6	3000	Over-The-Top/Micropower/RRIO/C-Load	\$1.10
1	1	LT1351	0.33	yes	600	8	50	3	200	80	80	14	5	36		SO-8/MS-8/DIP-8	All	High Speed/Precision/C-Load	\$2.45
1	1	LT1218	0.42	yes	90	3	70	0.3	0.1	92	1000	33	2	36	yes	SO-8/DIP-8	1000	Low $V_{OS}$ Across Entire R-R Input Range	\$4.75
1	1	LT1218L	0.42	yes	90	3	70	0.3	0.1	92	1000	33	2	16	yes	SO-8/DIP-8	1000	Low $V_{OS}$ Across Entire R-R Input Range	\$2.90
1	1	LT1219	0.42	yes	90	3	70	0.15	0.05	92	1000	33	2	36	yes	SO-8/DIP-8	100000	Low $V_{OS}$ Across Entire R-R Input Range	\$4.75
1	1	LT1219L	0.42	yes	90	3	70	0.15	0.05	92	1000	33	2	16	yes	SO-8/DIP-8	100000	Low $V_{OS}$ Across Entire R-R Input Range	\$2.90
1	1	LTC6101	0.45	no	450	1 Typ		0.2					4	60	ss	SOT-23-5/MS-8		High Voltage/High Side Current Sense	\$1.04
1	1	LTC6101HV	0.45	no	300	1 Typ		0.2					5	100	ss	SOT-23-5/MS-8		High Voltage/High Side Current Sense	\$1.30
1	1	LT1012	0.5	no	25	0.6	0.1	1	0.2	114	2000	14	2.4	40		DIP-8/SO-8	1000	Low $V_{OS}$ Stable with Any C-Load	\$1.60
1	1	LT1006	0.52	no	50	1.3	15	0.6	0.4	100	2500	22	4	44	ss	DIP-8/SO-8	10	Single Supply Precision Op Amp	\$1.55
1	1	LT1168	0.53	no	40	0.3	0.25	0.4	0.5	126		10	4.6	40		DIP-8/SO-8	1000	Precision IA/Low Bias Current/Low Power	\$3.70
1	1	LT1097	0.56	no	50	1.2	0.25	0.7	0.2	115	2500	14	2	40		DIP-8/SO-8	10000	Low Cost/C-Load Stable	\$1.75
1	1	LT1008	0.6	no	120	1.5	0.1	1	0.2	114	2000	14	4	40		DIP-8/SO-8	600	Low Bias Current/External Compensation	\$2.95
1	1	LTC6104	0.73	no	450	1.5 Typ	170	0.14					4	60		MS-8		High Voltage/ High Side/ Bi-Directional Current Sense Amplifier	\$1.38
1	1	LT1784	0.75	yes	3500	15	500	2.5	2.1	84	1000	25	2	18	yes	SOT23-5/SOT23-6	1000	Low Power/RRIO/Shutdown	\$1.00
1	1	LT6220	1	no	350	5	150	60	20	85	100	10	2.2	12.6	yes	SO-8/SOT23-5	7000	Precision/Low Power/RRIO	\$1.20
1	1	LTC1992	1	no	2500	0.65 Typ	0.25	4	0.75	69	10	18	2.4	12	out	MS-8	10000	Fully Differential In/Out	\$1.65
1	1	LTC1992-1	1	no	2500	0.65 Typ	0.25	4	0.75	55		45	2.7	12	out	MS-8	10000	Fully Differential In/Out/ $A_v=1$	\$3.95
1	1	LTC1992-2	1	no	2500	0.65 Typ	0.25	4	0.75	55		45	2.7	12	out	MS-8	10000	Fully Differential In/Out/ $A_v=2$	\$3.95
1	1	LTC1992-5	1	no	2500	0.65 Typ	0.25	4	0.75	55		45	2.7	12	out	MS-8	10000	Fully Differential In/Out/ $A_v=5$	\$3.95
1	1	LTC1992-10	1	no	2500	0.65 Typ	0.25	4	0.75	55		45	2.7	12	out	MS-8	10000	Fully Differential In/Out/ $A_v=10$	\$3.95
2	2	LT6004	0.001	yes	500	5	0.09	0.002	0.0008		150	325	1.6	16	yes	3x3 DFN-8/MS-8	2000	Dual 1.6V/1μA Precision Rail-to-Rail Input and Output Op Amp	\$1.10
2	2	LT1495	0.0015	no	375	2	1	0.0027	0.001	100	500	185	2.1	36	yes	DIP-8/SO-8	1000	Ultralow Power/Rail-to-Rail/Precision	\$2.45
2	2	LT1673	0.002	no	375	2	1	0.012	0.005	90	500	185	2.1	36	yes	DIP-8/SO-8	10000	Ultralow Power/Over-The-Top Inputs	\$2.45
2	2	LT6001	0.016	yes	600	5	5	0.05	0.015	82	65	75	1.8	18	yes	MS-8/3x3 DFN-10	800	1.8V/13μA Precision RRIO	\$1.25
2	2	LT1178	0.017	no	70	3	5	0.085	0.04	97	2500	49	2	44	ss	DIP-8/SO-8/SOW-16	2500	Precision/Micropower/Single Supply	\$2.95
2	2	LT2178	0.018	no	70	1.8	5	0.06	0.025	93	700	49	2.2	44	ss	SO-8	200	Micropower Single Supply	\$3.50
2	2	LT1462	0.045	no	800	20	0.002	0.175	0.13	76	600	76	10	40		DIP-8/SO-8	1000	JFET with Excellent C-Load Stability	\$2.50
2	2	LT1078	0.05	no	70	1.8	8	0.2	0.07	97	1000	28	2.2	44	ss	DIP-8/SO-8	1800	Precision/Micropower/Single Supply	\$2.70
2	2	LT2078	0.05	no	70	1.8	8	0.2	0.07	95	1000	28	2.3	44	ss	SO-8	300	Micropower/Single Supply/Std Pinout	\$3.50
2	2	LT1490A	0.055	no	500	4	8	0.18	0.06	84	1500	50	2	44	yes	3x3 DFN-8/DIP-8/MS-8/SO-8	300	RRIO/Over-The-Top	\$1.75
2	2	LTC6078	0.072	yes	25	0.7	0.001	0.75	0.05	95	3162	18	2.7	6	yes	MS-8/3x3 DFN-10	200	Micropower/Precision/RRIO	\$1.49
2	2	LT1466L	0.075	no	390	7	14	0.12	0.04	88	1500	45	2	16	yes	DIP-8/SO-8	300	Precision Rail-to-Rail Micropower	\$4.15
2	2	LTC6084	0.13	no	750	5	0.001 Typ	1.5	0.5	64	2000	31	2.5	5.5	yes	3x3 DFN-8/MS-8	300	Precision/1.5MHz/RRIO/Low Bias Current	\$0.91
2	2	LTC2055	0.15	no	3	0.03	0.15	0.5	0.5	120	10000		2.7	7	out	3x3 DFN-8/MS-8	50	Micropower Zero-Drift/3V/5V Operation	\$1.60
2	2	LT6011	0.15	no	60	0.8	0.3	0.33	0.09	107	2000	14	2.4	40	out	3x3 DFN-8/SO-8/MS-8	500	Micropower/Precision/RRIO	\$1.65
2	2	LT6014	0.165	no	60	0.8	0.4	1.6	0.2	107	2000	9.5	2.7	40	out	3x3 DFN-8/SO-8	500	Micropower/Precision/RRIO/ $A_v>5$	\$1.65
2	2	LTC2055HV	0.18	no	5	0.03	0.15	0.5	0.5	120	10000		2.7	12	out	3x3 DFN-8/MS-8	50	Micropower Zero-Drift±5V Operation	\$2.00
2	2	LT1464	0.2	no	800	20	0.002	1	0.9	76	1000	24	10	40		DIP-8/SO-8	1000	JFET with Excellent C-Load Stability	\$2.50
2	2	LT1638	0.23	no	600	6	50	1.2	0.38	88	1500	20	2.2	44	yes	3x3 DFN-8/DIP-8/MS-8/SO-8	6000	High Voltage/Over-The-Top/Low Power	\$1.95
2	2	LTC1047	0.275	no	10	0.05	0.03	0.2	0.2	110	31622		4.75	16	out	DIP-8/SOW-16	50	Zero-Drift No External Capacitors	\$4.85
2	2	LT1352	0.33	no	600	8	50	3	200	80	80	14	5	36		SO-8	All	High Speed/Precision/C-Load	\$3.80
2	2	LT1112	0.4	no	60	0.5	0.25	0.75	0.3	120	5000	14	2	40		DIP-8/SO-8	All	Low Power/Matching Specs/C-Load Stable	\$2.35
2	2	LTC6081	0.425	yes	70	0.8	0.001	3.6	1	100	1000	13	2.7	5.5	yes	3x3 DFN-10/MS-8	200	Precision/RRIO/Picoamp Input Current	\$1.74
2	2	LT1413	0.45	no	150	2	15	0.95	0.3	100	1400	23	3	22	ss	DIP-8/SO-8	100	Single Supply/Optimized for 5V	\$2.00
2	2	LTC6103	0.45	no	450	1.5 Typ	170	0.12		110			4	60		MS-8		Dual High Voltage/ High Side Current Sense Amplifier	\$1.66
2	2	LT1013	0.5	no	150	2	20	0.8	0.4	100	8000	22	4	44	ss	SO-8/DIP-8	100	Single Supply Precision Op Amps	\$1.90
2	2	LT1366	0.52	no	475	6	35	0.4	0.13	95	2000	29	2	36	yes	DIP-8/SO-8	1000	C-Load Stable up to 1000pF	\$3.50

† Primary Sort Column  
†† Secondary Sort Column

† Amplifiers Per Package	Part Number	†† I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>OS</sub>	TC of V <sub>OS</sub>	I <sub>BIAS</sub>	GBW	Slew Rate	CMRR	A <sub>VOL</sub>	E <sub>NOISE</sub>	V <sub>SUPPLY</sub>	V <sub>SUPPLY</sub>	Rail-to-	Package	C-Load Stable (pF)	Features	Price 1K Qty
				Max 25°C (μV)	Max (μV/°C)	Max 25°C (nA)	Typ 25°C (MHz)	Typ 25°C (V/μs)	Min 25°C (dB)	Typ 25°C (V/mV)	Typ 25°C (nV/√Hz)	Min (V)	Max (V)	Rail I/O <sup>(1)</sup>				
2	LT1368	0.52	no	475	6	35	0.16	0.065	95	2000	29	2	36	yes	DIP-8/SO-8	100000	Stable with 100nF C-Load	\$3.45
2	LT1492	0.55	no	180	3	100	4.5	1.8	86	350	16.5	2.1	36	ss	SO-8/DIP-8	150	Single Supply/Low Power/Precision	\$3.45
2	LT1024	0.6	no	50	1.5	0.12	1	0.2	112	2000	14	4	40		DIP-14	1000	Low V <sub>OS</sub> /Low Power	\$4.75
2	LT1884	0.9	no	50	0.8	0.4	2	0.9	108	1600	9.5	2.4	40	out	DIP-8/SO-8	500	Picoamp Input Current/Precision	\$2.75
2	LT1881	0.9	no	50	0.8	0.2	1	0.35	106	1600	14	2.4	40	out	DIP-8/SO-8	1000	Picoamp Input Current/Precision	\$2.75
2	LT6221	1	no	350	5	150	60	20	85	100	10	2.2	12.6	yes	3×3 DFN-8/SO-8	7000	Precision/Low Power/RRIO	\$1.85
4	LT6005	0.001	no	650	5	0.09	0.002	0.0008		150	325	1.6	16	yes	5×3 DFN-16/TSSOP-16	2000	Low Power, 1.8V Precision	\$1.75
4	LT1496	0.0015	no	375	2	1	0.0027	0.001	100	500	185	2.1	36	yes	DIP-14/SO-14	1000	Ultralow Power/Precision/RRIO	\$3.25
4	LT1674	0.002	no	375	2	1	0.012	0.005	90	500	185	2.1	36	yes	DIP-14/SO-14	10000	Ultralow Power/Over-The-Top Inputs	\$3.25
4	LT6002	0.016	no	750	5	5	0.05	0.015	82	65	75	1.8	18	yes	SSOP-16/5×3 DFN-16	800	Quad 1.8V/13μA Precision RRIO	\$2.00
4	LT1179	0.017	no	100	0.3	5	0.085	0.04	97	2500	49	2	44	ss	DIP-14/SOW-16	2500	Precision/Micropower/Single Supply	\$3.70
4	LT2179	0.018	no	100	3	5	0.06	0.025	93	700	49	2.2	44	ss	SO-14	200	Micropower Single Supply	\$6.30
4	LT1463	0.045	no	800	20	0.002	0.125	0.13	74	600	76	5	40		DIP-14/SO-14	1000	JFET with Excellent C-Load Stability	\$4.30
4	LT1079	0.05	no	100	1.8	8	0.2	0.07	97	1000	28	2.2	44	ss	DIP-14/SOW-16	1800	Precision/Micropower/Single Supply	\$3.40
4	LT2079	0.05	no	110	3	8	0.2	0.07	95	1000	28	2.3	44	ss	SO-14	300	Micropower Single Supply	\$5.95
4	LT1491A	0.055	no	1000	4	8	0.18	0.06	84	1500	50	2	44	yes	DIP-14/SO-14/5×3 DFN-16	300	RRIO/Over-The-Top	\$3.00
4	LTC6079	0.072	no	25	1.4	0.001	0.75	0.05	95	3162	18	2.7	6	yes	5×3 DFN-16/SSOP-16	200	Micropower/Precision/RRIO	\$2.53
4	LT1467L	0.075	no	390	7	14	0.12	0.04	88	1500	45	2	16	yes	SO-16	300	Precision Micropower Rail-to-Rail	\$7.20
4	LTC6085	0.13	no	750	5	0.001 Typ	1.5	0.5	64	2000	31	2.5	5.5	Yes	5×3 DFN-16/SSOP-16	300	Precision/1.5MHz/RRIO/Low Bias Current	\$1.40
4	LT6012	0.15	no	60	0.8	0.3	0.33	0.09	107	2000	14	2.4	40	out	SO-14/SSOP-16	500	Micropower/Precision/RRIO	\$2.95
4	LT1465	0.2	no	800	20	0.002	1	0.9	74	900	24	5	40		DIP-14/SO-14	1000	JFET with Excellent C-Load Stability	\$4.30
4	LT1639	0.23	no	600	6	50	1.075	0.38	88	1500	20	2.2	44	yes	DIP-14/SO-14	6000	High Voltage/Over-The-Top/Low Power	\$3.30
4	LT1353	0.33	no	600	8	50	3	200	80	80	14	5	36		SO-14	All	High Speed/Precision/C-Load	\$6.70
4	LT1114	0.4	no	60	1.1	0.25	0.75	0.3	120	5000	14	2	40		DIP-14/SO-16	All	Low Power/Matching Specs/C-Load Stable	\$4.40
4	LTC6082	0.425	yes	70	0.8	0.001	3.6	1	100	1000	13	2.7	5.5	yes	5×3 DFN-16/SSOP-16	200	Precision/RRIO/Picoamp Input Current	\$2.97
4	LT1014	0.5	no	150	2	20	0.8	0.4	100	8000	22	4	44	ss	DIP-14/SOW-16	100	Single Supply Precision Op Amp	\$3.45
4	LT1367	0.52	no	800	6	35	0.4	0.13	93	2000	29	2	36	yes	SO-14	1000	C-Load Stable up to 1000pF	\$6.10
4	LT1369	0.52	no	800	6	35	0.16	0.065	93	2000	29	2	36	yes	SO-14	100000	Stable with 100nF C-Load	\$6.10
4	LT1493	0.55	no	130	3	100	4.5	1.8	86	350	16.5	2.1	36	ss	SO-16	150	Single Supply/Low Power/Precision	\$6.40
4	LT1885	0.9	no	80	0.8	0.9	2	0.9	108	1600	9.5	2.4	40	out	SO-14	500	Picoamp Input Current/Precision	\$4.85
4	LT1882	0.9	no	80	0.8	0.5	1	0.35	106	1600	14	2.4	40	out	SO-14	1000	Picoamp Input Current/Precision	\$4.85
4	LT6222	1	no	350	5	150	60	20	85	100	10	2.2	12.6	yes	SSOP-16	7000	Precision/Low Power/RRIO	\$2.95

† Primary Sort Column  
 †† Secondary Sort Column

Note:

1. ss = Input common mode range includes negative supply rail

Amps, Refs,  
 Filters, Comps  
 Power  
 Management  
 Data  
 Conversion  
 Interface  
 High  
 Frequency  
 Space, Military,  
 Harsh Envir.  
 Reference  
 Material

# SINGLE SUPPLY OP AMPS

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Space, Military,  
Harsh Envir.

Reference  
Material

† Amplifiers Per Package	Part Number	V <sub>OS</sub> Max 25°C (µV)	TC of V <sub>OS</sub> Max (µV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/µs)	CMRR Min 25°C (dB)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Features	Price 1K Qty
1	LTC6406	3500	1 Typ	6000 Typ	3000	630	50		1.6	38	22	yes	2.7	3.5	ss	3×3 QFN-16	3GHz Differential ADC Driver	\$3.44
1	LTC6405	15000	18 Typ	8000 Typ	2700	690	50	31.6	1.6		23	no	4.5	5.5	ss	3×3 QFN-16	2.7GHz, 5V, Low Noise, Rail-to-Rail Input Differential Amplifier/Driver	\$3.44
1	LTC6400-8	5000	85 Typ		2200	3810	39		1	20	95	no	2.85	3.5		3×3 QFN-16	2.2GHz Low Noise, Low Distortion Differential ADC Driver for DC-300MHz	\$3.20
1	LTC6401-8	4000	3 Typ		2200	3400	36		3.2	10	60	yes	2.85	3.5		3×3 QFN-16	8dB Fixed Gain/Differential ADC Driver/140MHz IF	\$3.20
1	LTC6416	5000		10000	2000	3400	83		1.8	20	51	no	2.7	3.9	ss	3×2 DFN-10	16-Bit, 2GHz Differential ADC Buffer	\$3.50
1	LTC6401-14	3000	1.2 Typ		1950	3600	40		2.9	10	60	yes	2.85	3.5		3×3 DFN-16	2GHz Differential ADC Driver, A <sub>V</sub> =5	\$2.95
1	LTC6400-26	2000	1 Typ		1900	6670	50		1.5	20	102	yes	2.85	3.5		3×3 QFN-16	26dB Fixed Gain/Differential ADC Driver/140MHz IF	\$3.20
1	LTC6400-14	3000	85 Typ		1860	4800	40		2.5	20	96	no	2.85	3.5		3×3 QFN-16	1.9GHz Low Noise, Low Distortion Differential ADC Driver for 300MHz IF	\$3.20
1	LTC6400-20	2000	1.2 Typ		1840	4500	45		2.1	20	105	yes	2.85	3.5		3×3 QFN-16	1.8GHz Differential ADC Driver	\$3.20
1	LTC6404-4	2000	1 Typ	-23000	1700	1200	60 Typ	32	1.5	40	39	yes	2.75	5.25	out	3×3 DFN-16	1.7GHz/Low Noise and Distortion	\$3.44
1	LTC6401-26	2500	1 Typ		1610	3300	50		1.5	10	60	yes	2.85	3.5		3×3 QFN-16	26dB Fixed Gain/Differential ADC Driver/140MHz IF	\$2.95
1	LT6200-10	1000	24	40000	1600	450	68	200	0.95	60	23	yes	2.5	12.6	yes	SO-8/SOT23-6	Low Noise/RRIO/High Speed/A <sub>V</sub> >10	\$1.50
1	LT6230-10	500	3	10000	1450	320	95	260	1.1	30	3.75	yes	3	12.6	out	SOT23-6	Ultralow Noise/Low Power/A <sub>V</sub> >10	\$1.50
1	LTC6410-6	2000	-0.3 Typ		1400	1500	45		3	42	130	yes	2.8	5.25		3×3 QFN-16	Low Noise/Differential IF Amp/Configurable Input Impedance	\$2.89
1	LTC6401-20	2000	1.4 Typ		1250	4500			0.91	10	62		2.85	3.5		3×3 QFN-16	1.3GHz Low Noise, Low Distortion Differential ADC Driver	\$2.95
1	LTC6404-2	2000	1 Typ	-23000	900	700	60 Typ	32	1.5	40	39	yes	2.75	5.25	out	3×3 QFN-16	0.9GHz/Low Noise and Distortion	\$3.44
1	LT5514			20000	850					33	75	yes	4.75	5.25	ss	TSSOP-20	Low Distortion Differential, Digitally Controlled PGA	\$5.20
1	<b>LTC6412</b>				<b>800</b>				<b>2.5</b>	<b>17</b>	<b>120</b>	<b>yes</b>	<b>3</b>	<b>3.6</b>		<b>4×4 QFN-24</b>	<b>Fully Differential 31dB Range Control Analog VGA</b>	<b>C.F.</b>
1	LT6200-5	1000	24	40000	800	250	68	200	0.95	60	23	yes	2.5	12.6	yes	SO-8/SOT23-6	Low Noise/RRIO/High Speed/A <sub>V</sub> >5	\$1.50
1	LT5524			30000	540					24	43	yes	4.75	5.25	ss	TSSOP-20	Low Distortion Differential, Digitally Controlled PGA	\$4.40
1	LTC6404-1	2000	1 Typ	-23000	500	450	60 Typ	32	1.5	40	35.5	yes	2.7	5.25	out	3×3 QFN-16	500MHz/Low Noise, Differential I/O Amp/Driver	\$3.44
1	LT6233-10	500	3	3000	375	115	90	180	1.9	40	1.25	yes	3	12.6	out	SOT23-6	Low Noise/Low Power/A <sub>V</sub> >10	\$1.90
1	LT1806	550	5	4000	325	125	79	220	3.5	35	13	yes	2.5	12.6	yes	SO-8/SOT23-6	High Speed/Precision/Low Noise	\$2.10
1	LT6402-6	6500	30 Typ		300	400	42		3.8	30	37	yes	4	5.5	ss	3×3 QFN-16	Low Distortion and Noise Diff. ADC Driver	\$2.39
1	LT6402-12	6500	30 Typ		300	400	42		2.7	30	37	yes	4	5.5	ss	3×3 QFN-16	Low Distortion and Noise Diff. ADC Driver	\$2.39
1	LT6402-20	6500	30 Typ		300	1000	45		1.85	30	37	yes	4	5.5	ss	3×3 QFN-16	Low Distortion and Noise Diff. ADC Driver	\$2.39
1	LT6230	500	3	10000	215	70	95	260	1.1	30	3.75	yes	3	12.6	out	SOT23-6	Ultralow Noise/Low Power/High Speed	\$1.25
1	LTC6403-1	1500	1 Typ	25000	200	200	50	32	2.8	30	11.8	yes	2.7	5.25	out	3×3 QFN-16	Low Noise/Low Distortion Diff ADC Driver	\$1.79
1	LT6210	6000			200	700	46		6.5	75	8.3	no	3	13.2	out	SOT23-6	Adjustable Speed and Power CFA	\$1.20
1	LT6200	1000	24	40000	165	50	68	200	0.95	60	23	yes	2.5	12.6	yes	SO-8/SOT23-6	Low Noise/RRIO/High Speed	\$2.15
1	LT1809	2500	25	8000	160	300	66	80	16	45	17	yes	2.5	12.6	yes	SO-8/SOT23-6	Low Distortion/High Speed/Low Noise	\$1.75
1	LT6202	500	24	7000	100	25	65	200	1.9	30	3.5	no	2.5	12.6	yes	SO-8/SOT23-5	Low Noise/Low Power/RRIO	\$1.45
1	LT6205	4500	18	30000	100	600	78	133	9	25	5.6	no	3	12.6	out	SOT23-5	3V 100MHz Single Supply Video Amp	\$0.88
1	LT1800	350	5	250	80	25	85	85	8.5	20	2	no	2.3	12.6	yes	SO-8/SOT23-5	High Speed/Power/Precision/RRIO	\$1.30
1	LT1803	2000	35	750	80	100	75	60	21	20	3	no	2.3	12.6	yes	SO-8/SOT23-5	RRIO/High Speed	\$1.30
1	LT6552	20000	12.5 Typ	50000	75	600	58		55	35	13.5	yes	3	12.6	out	DFN-8/SO-8	Low Power Video Difference Amp	\$1.10
1	LT1994	2000	13.3 Typ	45000	70	65	65	100	3	45	18.5	yes	2.375	12.6	out	MS-8/DFN-8	Low Noise/Low Distortion/Diff. In/Out	\$1.65
1	LT6220	350	5	150	60	20	85	100	10	20	1	no	2.2	12.6	yes	SO-8/SOT23-5	Precision/Low Power/RRIO	\$1.20
1	LT6233	500	3	3000	60	17	90	180	1.9	40	1.25	yes	3	12.6	out	SOT23-6	Ultralow Noise/Low Power/High Speed	\$1.45
1	LT6600-20	15000	42 Typ	95000	20		66		15		46	no	2.7	11	ss	SO-8	Low Noise Diff Amp w/20MHz LP Filter	\$2.95
1	LTC6240	175	2.5	0.001	18	10	80	1600	7	15	2.4	no	2.8	6	out	SOT-23/SO-8	18MHz/Low Noise/RRIO/CMOS	\$0.77
1	LTC6240HV	250	2.5	0.001	18	10	80	2700	7	15	3.3	no	2.8	11	out	SOT-23/SO-8	18MHz/Low Noise/RRIO/CMOS	\$1.40
1	LT6600-15	15000	42 Typ	90000	15		66		19		46	no	2.7	11	ss	SO-8	Low Noise Diff Amp w/15MHz LP Filter	\$2.95
1	LTC6910-2	15000			13	16	55		9.1	9.5	3	no	2.7	11	yes	SOT23-8	3-Bit Gain Control/0 to 64 V/V	\$1.10
1	LTC6910-1	15000			11	16	55		8.6	9.5	3	no	2.7	11	yes	SOT23-8	3-Bit Gain Control/0 to 100 V/V	\$1.10

† Primary Sort Column  
†† Secondary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

† Amplifiers Per Package	Part Number	V <sub>OS</sub> Max 25°C (µV)	TC of V <sub>OS</sub> Max (µV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/µs)	CMRR Min 25°C (dB)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Features	Price 1K Qty
1	LTC6910-3	15000		300	11	16	55		10.6	9.5	3	no	2.7	11	yes	SOT23-8	3-Bit Gain Control/0 to 7 V/V	\$1.10
1	LT1797	1500	20		10	2.25	88	1000	20	25	1.5	no	2.1	12.6	yes	SOT23-5	RRIO/Low Noise/C-Load Stable	\$1.00
1	LT6600-10	13000	35 Typ	85000	10		61		14		39	no	2.7	11	ss	SO-8/DFN-12	Low Noise Diff Amp w/10MHz LP Filter	\$2.95
1	LT1677	60	1.5	20	7.2	2.5	109	19000	3.2	25	3.5	no	2.5	44	yes	DIP-8/SO-8	High Loop Gain/Low Noise/RRIO	\$2.15
1	LT6600-5	25000	28 Typ	70000	5		61 Typ		16		31	no	2.7	11	ss	SO-8	Low Noise Diff Amp w/5MHz LP Filter	\$2.95
1	LTC1992	2500	0.65 Typ	0.25	4	0.75	69	10	18	10	1	no	2.4	12	out	MS-8	Fully Differential In/Out	\$1.65
1	LTC1992-1	2500	0.65 Typ	0.25	4	0.75	55		45	10	1	no	2.7	12	out	MS-8	Fully Differential In/Out/A <sub>V</sub> =1	\$3.95
1	LTC1992-2	2500	0.65 Typ	0.25	4	0.75	55		45	10	1	no	2.7	12	out	MS-8	Fully Differential In/Out/A <sub>V</sub> =2	\$3.95
1	LTC1992-5	2500	0.65 Typ	0.25	4	0.75	55		45	10	1	no	2.7	12	out	MS-8	Fully Differential In/Out/A <sub>V</sub> =5	\$3.95
1	LTC1992-10	2500	0.65 Typ	0.25	4	0.75	55		45	10	1	no	2.7	12	out	MS-8	Fully Differential In/Out/A <sub>V</sub> =10	\$3.95
1	LTC2050	3	0.03	0.075	3	2	120	10000		2.4	1.2	yes	2.7	7	out	SO-8/SOT23-5/SOT23-6	Zero-Drift Op Amp 3V/5V Operation	\$1.15
1	LTC2050HV	3	0.03	0.05	3	2	120	10000		2.4	1.5	yes	2.7	12	out	SO-8/SOT23-5/SOT23-6	Zero-Drift 3V/5V/±5V Operation	\$1.45
1	LTC1050	5	0.05	0.03	2.5	4	114	100000	90	6 Typ	1.5	no	4.75	18	out	DIP-8/DIP-14/SO-8	Zero-Drift No External Capacitors	\$2.15
1	LTC1150	10	0.05	0.1	2.5	3	110	1000000		1.35	1.5	yes	4.75	32	ss	DIP-8/SO-8	Auto Zero Amplifier Works on 30V+	\$3.70
1	LT1784	3500	15	500	2.5	2.1	84	1000	25	20	0.75	yes	2	18	yes	SOT23-5/SOT23-6	Low Power/RRIO/Shutdown	\$1.00
1	LT6600-2.5	13000	26 Typ	35000	2.5		63		23		30	no	2.7	11	ss	SO-8/DFN-12	Low Noise Diff Amp w/2.5MHz LP Filter	\$2.95
1	LTC1100	10	0.1	0.05	1.8	3	104		1.9		2.8	no	4	18	out	DIP-8/SOW-16	Zero-Drift/Fixed Gain of 10 and 100	\$6.15
1	LT1783	800	5	80	1.25	0.42	90	1500	20	20	0.3	yes	2.2	18	yes	SOT23-5/SOT23-6	Over-The-Top/Micropower/RRIO/C-Load	\$1.10
1	LTC1052	5	0.05	0.03	1.2	4	120	100000	30	0.5	2	no	4.75	18	out	DIP-8/DIP-14/SOW-16	Low Noise Zero-Drift	\$4.10
1	LT1880	150	1.2	0.9	1.1	0.55	116	1600	13	1	1.9	no	2.4	40	out	SOT23-5	Picoamp Input Current/Precision	\$1.75
1	LT1637	350	3	50	1	0.35	88	800	27	15	0.25	yes	1.8	44	yes	DFN-8/DIP-8/MS-8/SO-8	High Voltage/Over-The-Top/Low Power	\$1.45
1	LTC1049	10	0.1	0.05	0.8	0.8	110	31622	80	0.5	0.3	no	4.75	18	out	DIP-8/SO-8	Zero-Drift No External Capacitors	\$2.15
1	LTC1152	10	0.1	0.1	0.7	0.5	115	3162	130	35 Typ	3	yes	3	14	yes	DIP-8/SO-8	Zero-Drift C-Load Stable with Ext. RC	\$3.15
1	LT1006	50	1.3	15	0.6	0.4	100	2500	22	6.5	0.52	no	4	44	ss	DIP-8/SO-8	Single Supply Precision Op Amp	\$1.55
1	LT1996	50	1	5	0.56	0.12	80		18	8	0.11	no	2.7	36	yes	MS-10/DFN-10	Precision/A <sub>V</sub> =9 to 117	\$1.39
1	LT1991	50	1	5	0.56	0.12	80		46	8	0.11	no	2.4	40	yes	MS-10/DFN-10	Precision/Gain Select Range -13 to 14	\$1.39
1	LTC2054	3	0.03	0.15	0.5	0.5	120	10000		1	0.175	no	2.7	7	out	SOT23-5	Micropower Zero-Drift/3V/5V Operation	\$1.00
1	LTC2054HV	5	0.03	0.15	0.5	0.5	120	10000		1	0.21	no	2.7	12	out	SOT23-5	Micropower Zero-Drift ±5V Operation	\$1.25
1	LT1218	90	3	70	0.3	0.1	92	1000	33	5	0.42	yes	2	36	yes	SO-8/DIP-8	Low V <sub>OS</sub> Across Entire R-R Input Range	\$4.75
1	LT1218L	90	3	70	0.3	0.1	92	1000	33	5	0.42	yes	2	16	yes	SO-8/DIP-8	Low V <sub>OS</sub> Across Entire R-R Input Range	\$2.90
1	LT1077	40	1.6	9	0.23	0.08	97	1000	27	5.5	0.06	no	2.2	44	ss	DIP-8/SO-8	High Precision Micropower Single Supply	\$1.60
1	LTC2053	10	0.05	10	0.2	0.2	105		50	2.4	1.3	no	2.7	11	yes	DFN-8/MS-8	Zero-Drift IA/Programmable Gain	\$3.20
1	LTC6915	10	0.05	10	0.2	0.2	105		50	2	1.6	yes	2.7	11	yes	DFN-12/SSOP-16	Serial or Par. PGA/A <sub>V</sub> =0 to 4096 V/V	\$2.44
1	LTC2053-SYNC	10	0.05	10	0.2	0.2	105		50	2.4	1.3	no	2.7	11	yes	MS-8	Zero-Drift IA/Freq. Set with Ext. Clock	\$3.40
1	LTC6800	100	0.25	10	0.2	0.2	90		50	2.4	1.2	no	2.7	5.5	yes	DFN-8/MS-8	Zero-Drift RRIO IA	\$1.55
1	LT1636	225	5	8	0.2	0.07	84	2000	52	12	0.055	yes	2.6	44	yes	DFN-8/DIP-8/MS-8/SO-8	Over-The-Top Micropower Op Amp	\$1.45
1	LT1782	800	5	15	0.2	0.07	90	1500	50	20	0.055	yes	2.2	18	yes	SOT23-5/SOT23-6	Over-The-Top/Micropower/RRIO/C-Load	\$1.10
1	LT1635	1300	7	4.5	0.175	0.045	94	450	50	20	0.2	no	1.1	14	out	DIP-8/SO-8	Op Amp and Reference/LM10 Pinout	\$1.75
1	LT1219	90	3	70	0.15	0.05	92	1000	33	5	0.42	yes	2	36	yes	SO-8/DIP-8	Low V <sub>OS</sub> Across Entire R-R Input Range	\$4.75
1	LT1219L	90	3	70	0.15	0.05	92	1000	33	5	0.42	yes	2	16	yes	SO-8/DIP-8	Low V <sub>OS</sub> Across Entire R-R Input Range	\$2.90
1	LTC1564	13000			0.15						17	no	2.7	10.5	yes	SSOPW-16	Digitally Prog. Filter and 4-bit PGA	\$8.95
1	LT6100	300	3		0.14		100			8	0.13	no	2.7	36	ss	DFN-8/MS-8	Precision/Gain Selectable Current Sense	\$1.18
1	LTC6101	450	0.22 Typ		0.14					1	0.45	no	4	60	ss	SOT-23-5/MS-8	High Voltage/High Side Current Sense	\$1.04
1	LTC6101HV	300	0.2 Typ		0.14					1 Typ	0.45	no	5	100	ss	SOT-23-5/MS-8	High Voltage/High Side Current Sense	\$1.30
1	LT1990	5200	22		0.1	0.55	70		1000	6	0.18	no	2.4	36	yes	SO-8	±250V Diff Amp and Integrated Resistors	\$1.35
1	LT1789-1	100	0.7	40	0.06	0.026	100		48	2.2	0.095	no	2.2	36	out	SO-8	Micropower/Precision IA/Single Supply	\$3.20
1	LT6000	750	5	5	0.05	0.015	82	65	75	4 Typ	0.016	no	1.8	18	yes	DFN-6	Low Power Precision RRIO	\$0.80
1	LT1789-10	160	0.7	40	0.025	0.026	98		52	2.2	0.095	no	2.2	36	out	SO-8	Micropower/Precision IA/A <sub>V</sub> >10	\$3.20
1	LT1672	375	2	1	0.012	0.005	90	500	185	0.7	0.002	no	2.1	36	yes	DIP-8/MS-8/SO-8	Ultralow Power/Over-The-Top Inputs	\$1.65
1	LTC1541	1000			0.012						0.01	no	2.5	12.6	ss	MS-8/SO-8/DFN-8	Micropower Amp/Comparator and Ref	\$1.50
1	LTC1542	1000			0.012	8	0.5	1000		1.3	0.01	no	2.5	12.6	out	MS-8/SO-8/DFN-8	Micropower Amp/Comparator and Ref	\$1.20
1	LT1494	375	2	1	0.0027	0.001	100	500	185	0.7	0.0015	no	2.1	36	yes	DIP-8/MS-8/SO-8	Ultralow Power/Rail-to-Rail/Precision	\$1.65

† Primary Sort Column  
 †† Secondary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# SINGLE SUPPLY OP AMPS

† Amplifiers Per Package	Part Number	V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	CMRR Min 25°C (dB)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Features	Price 1K Qty
1	LT1787	75	2							0.05 Typ	0.12	no	2.5	36	ss	SO-8/MS-8	Precision/High Side Current Sense	\$2.05
1	LT1787HV	75	2							0.05 Typ	0.12	no	2.5	60	ss	SO-8/MS-8	Precision/Current Sense/60V V <sub>IN</sub>	\$2.90
1	LT6003	500	5	0.09	0.002	0.0008	115	350	325	2	0.001	no	1.6	16	yes	DFN-4/SOT23-5	1.6V, 1μA Precision RRIO	\$0.72
2	LTC6420-20	2000	1.2 Typ		1800	4500	45		2.2	20	95	yes	2.85	3.5	out	3x4 QFN-20	Dual, Matched, Diff In/Out, A <sub>v</sub> =10	\$5.17
2	LTC6421-20	2000	1.4 Typ		1300	4500	45		2.2	10	50	yes	2.85	3.5	out	3x4 QFN-20	Dual, Matched, Diff In/Out, A <sub>v</sub> =10	\$4.77
2	LT1807	550	5	4000	325	125	79	220	3.5	35	13	no	2.5	12.6	yes	MS-8/SO-8	High Speed/Precision/Low Noise	\$3.40
2	LT6231	350	3	10000	215	70	95	260	1.1	30	3.75	no	3	12.6	out	DFN-8/SO-8	Ultralow Noise/Low Power/High Speed	\$1.95
2	LT6211	6000			200	700	46		6.5	75	8.3	no	3	13.2	out	DFN-10/MS-10	Adjustable Speed and Power CFA	\$1.60
2	LT6201	1000	24	40000	165	50	68	200	0.95	60	23	no	2.5	12.6	yes	DFN-8/SO-8	Low Noise/RRIO/High Speed	\$3.65
2	LT1810	2500	25	8000	160	300	66	80	16	45	17	no	2.3	12.6	yes	MS-8/SO-8	Low Distortion/High Speed/Low Noise	\$2.65
2	LT6203	500	24	7000	100	25	65	200	1.9	30	3.5	no	2.5	12.6	yes	DFN-8/MS-8/SO-8	Low Noise/Low Power/RRIO	\$2.45
2	LT6206	4500	18	30000	100	600	78	133	9	25	5.6	no	3	12.6	out	MS-8	3V 100MHz Single Supply Video Amp	\$1.05
2	LT1801	350	5	250	80	25	85	85	8.5	20	2	no	2.3	12.6	yes	DFN-8/MS-8/SO-8	High Speed/Power/Precision/RRIO	\$1.95
2	LT1804	2000	35	750	80	100	75	60	21	20	3	no	2.3	12.6	yes	DFN-8/SO-8	RRIO/High Speed	\$1.95
2	LT6221	350	5	150	60	20	85	100	10	20	1	no	2.2	12.6	yes	DFN-8/SO-8	Precision/Low Power/RRIO	\$1.85
2	LT6234	350	3	3000	60	17	90	180	1.9	40	1.25	no	3	12.6	out	DFN-8/SO-8	Ultralow Noise/Low Power	\$2.45
2	LTC6244	100	2.5	0.075	50	35	74	2500	8	25	7.4	no	2.8	6	out	DFN-8/MSOP-8	Dual 50MHz/Low Noise/RRIO/CMOS	\$1.65
2	LTC6244HV	100	2.5	0.075	50	35	74	2500	8	25	7.4	no	2.8	10.5	out	DFN-8/MSOP-8	Dual 50MHz/Low Noise/RRIO/CMOS	\$2.35
2	LT1632	1350	15	2200	45	27	70	2000	12	20	5.2	no	2.6	36	yes	DIP-8/SO-8	Low Distortion/High Speed/RRIO	\$3.05
2	LT1630	525	5.5	1000	30	9.2	79	3500	6	20	4.4	no	2.6	36	yes	DIP-8/SO-8	Low Distortion/High Speed/RRIO	\$2.96
2	LTC6912-1	22000	1.75 Typ		30	16			15.1	35 Typ	2.75	yes	2.7	10.5	yes	DFN-12/SSOP-16	Dual PGA/Serial SPI/A <sub>v</sub> =0 to 100V/V	\$2.15
2	LTC6912-2	22000	1.75 Typ		30	16			15.1	35 Typ	2.75	yes	2.7	10.5	yes	DFN-12/SSOP-16	Dual PGA/Serial SPI/A <sub>v</sub> =1 to 64V/V	\$2.15
2	LT1213	150	1.5	160	28	8.5	90	850	10	30	3.8	no	2.5	36	ss	DIP-8/SO-8	Precision/Fast/CM to V <sup>-</sup>	\$2.85
2	LT1215	300	2.5	500	23	30	90	150	12	30	6.6	no	2.5	36	ss	DIP-8/SO-8	Precision/Fast/CM to V <sup>-</sup>	\$2.85
2	LT1678	100	3	20	20	6	98	3000	3.9	15	3.4	no	3	36	yes	SO-8	Very Low 1/f Corner Frequency	\$2.50
2	LTC6241	125	2.5	0.075	18	10	80	1600	7	15	2.2	no	2.8	6	out	DFN-8/SO-8	1pA Input Bias Current CMOS Amp	\$1.25
2	LTC6241HV	125	2.5	0.075	18	10	80	1600	7	15	2.2	no	2.8	11	out	DFN-8/SO-8	1pA Input Bias Current CMOS Amp	\$2.20
2	LTC6087	750	5	0.001 Typ	14	7.2	70	6000	12	28	1.3	yes	2.7	5.5	yes	MS-8/DFN-10	Picoamp Input Current/RRIO	\$0.91
2	LT1211	150	1.5	100	13	7	90	560	12	20	1.8	no	2.5	36	ss	DIP-8/SO-8	Precision/Single Supply/Wide V <sub>SUPPLY</sub>	\$2.85
2	LTC6911-1	22000	2.1 Typ		11	16	55		9.9	35 Typ	3.15	no	2.7	10.5	yes	MS-10	Dual/3-Bit Gain Control/0 to 100 V/V	\$2.00
2	LTC6911-2	22000	2.1 Typ		11	16			10.9		3.15	no	2.7	10.5	yes	MS-10	Dual/3-Bit Gain Control/0 to 64 V/V	\$2.00
2	LT1498	475	2.5	650	10.5	4.5	93	3800	12	12.5	2.2	no	2.2	36	yes	DIP-8/SO-8	Stable with Large C-Load	\$2.96
2	LT1492	180	3	100	4.5	1.8	86	350	16.5	20	0.55	no	2.1	36	ss	SO-8/DIP-8	Single Supply/Low Power/Precision	\$3.45
2	LTC6081	70	0.8	0.001	3.6	1	100	1000	13	24	0.425	yes	2.7	5.5	yes	DFN-10/MS-8	Precision/RRIO/Picoamp Input Current	\$1.74
2	LTC2051	3	0.03	0.075	3	2	120	10000		10 Typ	1.2	yes	2.7	7	out	DFN-8/MS-8/MS-10/SO-8	Zero-Drift 3V/5V Operation	\$2.00
2	LTC2051HV	3	0.03	0.15	3	2	125	10000		10 Typ	1.5	yes	2.7	12	out	DFN-8/MS-8/MS-10/SO-8	Zero-Drift 3V/5V/±5V Operation	\$2.50
2	LTC1051	5	0.05	0.065	2.5	4	106	100000	70	0.5	2	no	4.75	16.5	out	DIP-8/SOW-16	Zero-Drift No External Capacitors	\$4.05
2	LTC1151	5	0.05	0.1	2	2.5	106	10000		1.35	1.5	no	4.75	36	ss	DIP-8/SOW-16	Auto Zero Amplifier Works on 30V <sup>+</sup>	\$5.80
2	LT6014	60	0.8	0.4	1.6	0.2	107	2000	9.5	8	0.165	no	2.7	40	out	DFN-8/SO-8	Micropower/Precision/RRIO/A <sub>v</sub> >5	\$1.65
2	LTC6084	750	5	0.001 Typ	1.5	0.5	64	2000	31	12.5 Typ	0.13	no	2.5	5.5	yes	3x3 DFN-8/MS-8	Precision/1.5MHz/RRIO/Low Bias Current	\$0.91
2	LT1638	600	6	50	1.2	0.38	88	1500	20	15	0.23	no	2.2	44	yes	DFN-8/DIP-8/MS-8/SO-8	High Voltage/Over-The-Top/Low Power	\$1.95
2	LT1413	150	2	15	0.95	0.3	100	1400	23	2	0.45	no	3	22	ss	DIP-8/SO-8	Single Supply/Optimized for 5V	\$2.00
2	LT1013	150	2	20	0.8	0.4	100	8000	22	6.5	0.5	no	4	44	ss	SO-8/DIP-8	Single Supply Precision Op Amps	\$1.90
2	LT6078	25	0.7	0.001	0.75	0.05	95	3162	18	5	0.072	yes	2.7	6	yes	MS-8/DFN-10	Micropower/Precision/RRIO	\$1.49
2	LTC2055	3	0.03	0.15	0.5	0.5	120	10000		1	0.15	no	2.7	7	out	DFN-8/MS-8	Micropower Zero-Drift/3V/5V Operation	\$1.60
2	LTC2055HV	5	0.03	0.15	0.5	0.5	120	10000		1	0.18	no	2.7	12	out	DFN-8/MS-8	Micropower Zero-Drift ±5V Operation	\$2.00
2	LT1366	475	6	35	0.4	0.13	95	2000	29	30	0.52	no	2	36	yes	DIP-8/SO-8	C-Load Stable up to 1000pF	\$3.50
2	LT6011	60	0.8	0.3	0.33	0.09	107	2000	14	1	0.15	no	2.4	40	out	DFN-8/SO-8/MS-8	Micropower/Precision/RRIO	\$1.65
2	LTC1047	10	0.05	0.03	0.2	0.2	110	31622		0.5	0.275	no	4.75	16	out	DIP-8/SOW-16	Zero-Drift No External Capacitors	\$4.85
2	LT2078	70	1.8	8	0.2	0.07	95	1000	28	5.5	0.05	no	2.3	44	ss	SO-8	Micropower/Single Supply/Std Pinout	\$3.50
2	LT1078	70	1.8	8	0.2	0.07	97	1000	28	5.5	0.05	no	2.2	44	ss	DIP-8/SO-8	Precision/Micropower/Single Supply	\$2.70
2	LT1490A	500	4	8	0.18	0.06	84	1500	50	15	0.055	no	2	44	yes	DFN-8/DIP-8/MS-8/SO-8	RRIO/Over-The-Top	\$1.75
2	LT1368	475	6	35	0.16	0.065	95	2000	29	30	0.52	no	2	36	yes	DIP-8/SO-8	Stable with 100nF C-Load	\$3.45
2	LT1466L	390	7	14	0.12	0.04	88	1500	45	10	0.075	no	2	16	yes	DIP-8/SO-8	Precision Rail-to-Rail Micropower	\$4.15

† Primary Sort Column  
 †† Secondary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO



† Amplifiers Per Package	Part Number	V <sub>OS</sub> Max 25°C (µV)	TC of V <sub>OS</sub> Max (µV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/µs)	CMRR Min 25°C (dB)	A <sub>VOL</sub> Typ 25°C (V/mV)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Features	Price 1K Qty
2	LT1178	70	3	5	0.085	0.04	97	2500	49	5.5	0.017	no	2	44	ss	DIP-8/SO-8/SOW-16	Precision/Micropower/Single Supply	\$2.95
2	LT2178	70	1.8	5	0.06	0.025	93	700	49	5.5	0.018	no	2.2	44	ss	SO-8	Micropower Single Supply	\$3.50
2	LT6001	600	5	5	0.05	0.015	82	65	75	2	0.016	yes	1.8	18	yes	MS-8/DFN-10	Dual 1.8V/13µA Precision RRIO	\$1.25
2	LT1673	375	2	1	0.012	0.005	90	500	185	0.7	0.002	no	2.1	36	yes	DIP-8/SO-8	Ultralow Power/Over-The-Top Inputs	\$2.45
2	LT6004	500	5	0.09	0.002	0.0008	115	350	325	2	0.001	no	1.6	16	yes	DFN-8/MS-8	1.6V, 1µA Precision RRIO	\$1.10
2	LT1495	375	2	1	0.0027	0.001	100	500	185	0.7	0.0015	no	2.1	36	yes	DIP-8/SO-8	Ultralow Power/Rail-to-Rail/Precision	\$2.45
3	LT6558	45000			550	2200				60	24	no	3	7.5	ss	SSOP-16/DFN-16	Triple Video Amplifier with Input Bias Control	\$2.50
3	LT6550	35000		65000	110	340			12	45	11.5	no	3	12.6	out	MS-10	3V RGB Driver with A <sub>V</sub> =2	\$1.75
4	LT6232	350	3	10000	215	70	95	260	1.1	30	3.75	no	3	12.6	out	SSOP-16	Ultralow Noise/Low Power/High Speed	\$3.30
4	LT6551	35000		65000	110	340			12	45	11.5	no	3	12.6	out	MS-10	3V RGB + Sync Driver with A <sub>V</sub> =2	\$1.95
4	LT6204	500	24	7000	100	25	65	200	1.9	30	3.5	no	2.5	12.6	yes	SO-14/SSOP-16	Low Noise/Low Power/RRIO	\$4.50
4	LT6207	4500	18	30000	100	600	78	133	9	25	5.6	no	3	12.6	out	SSOP-16	3V 100MHz Single Supply Video Amp	\$1.55
4	LT1805	2000	35	750	85	100	75	60	21	20	3	no	2.3	12.6	yes	SO-14	RRIO/High Speed	\$3.50
4	LT1802	350	5	250	80	25	85	85	8.5	20	2	no	2.3	12.6	yes	SO-14	High Speed/Power/Precision/RRIO	\$3.50
4	LT6235	350	3	3000	60	17	90	180	1.9	40	1.25	no	3	12.6	out	SSOP-16	Ultralow Noise/Low Power	\$4.15
4	LT6222	350	5	150	60	20	85	100	10	20	1	no	2.2	12.6	yes	SSOP-16	Precision/Low Power/RRIO	\$2.95
4	LT1633	1350	15	2200	45	27	70	2000	12	20	5.2	no	2.6	36	yes	SO-14	Low Distortion/High Speed/RRIO	\$5.70
4	LT1631	525	5.5	1000	30	9.2	79	3500	6	20	4.4	no	2.6	36	yes	SO-14	Low Distortion/High Speed/RRIO	\$5.60
4	LT1214	275	3	200	28	8.5	86	250	10	30	3.8	no	2.5	36	ss	DIP-14/SO-16	Precision/Fast CM to V <sup>-</sup>	\$5.10
4	LT1216	450	5	600	23	30	90	600	12	30	6.6	no	2.5	36	ss	DIP-14/SO-16	Precision/Fast/CM to V <sup>-</sup>	\$5.10
4	LT1679	100	3	20	20	6	98	3000	3.9	15	3.4	no	3	36	yes	SO-14	Very Low 1/f Corner Frequency	\$3.85
4	LTC6242	125	2.5	0.075	18	10	80	1600	7	15	2.2	no	2.8	6	out	DFN-16/SSOP-16	1pA Input Bias Current CMOS Amp	\$2.25
4	LTC6242HV	125	2.5	0.075	18	10	80	1600	7	15	2.2	no	2.8	11	out	DFN-16/SSOP-16	1pA Input Bias Current CMOS Amp	\$3.30
4	LTC6088	750	5	0.001 Typ	14	7.2	70	6000	12	28	1.3	yes	2.7	5.5	yes	SSOP-16/DFN-16	Picoamp Input Current/RRIO	\$1.40
4	LT1212	275	3	125	13	7	86	560	12	20	1.8	no	2.5	36	ss	DIP-14/SO-16	Precision/Single Supply/Wide V <sub>SUPPLY</sub>	\$5.10
4	LT1499	475	2.5	650	10.5	4.5	93	3800	12	12.5	2.2	no	2.2	36	yes	SO-14	Stable with Large C-Load	\$5.60
4	LT1493	130	3	100	4.5	1.8	86	350	16.5	20	0.55	no	2.1	36	ss	SO-16	Single Supply/Low Power/Precision	\$6.40
4	LTC6082	70	0.8	0.001	3.6	1	100	1000	13	24	0.425	yes	2.7	5.5	yes	DFN-16/SSOP-16	Precision/RRIO/Picoamp Input Current	\$2.97
4	LTC2052	3	0.03	0.075	3	2	120	10000		10 Typ	1.2	no	2.7	7	out	SO-14/SSOP-16	Zero-Drift Op Amp 3V/5V Operation	\$3.65
4	LTC2052HV	3	0.03	0.15	3	2	125	10000		10 Typ	1.5	no	2.7	12	out	SO-14/SSOP-16	Zero-Drift 3V/5V/±5V Operation	\$4.55
4	LTC1053	5	0.05	0.065	2.5	4	106	100000	70	0.5	2	no	4.75	16.5	out	DIP-14/SOW-18	Zero-Drift No External Capacitors	\$7.50
4	LT1885	80	0.8	0.9	2	0.9	108	1600	9.5	15	0.9	no	2.4	40	out	SO-14	Picoamp Input Current/Precision	\$4.85
4	LTC6085	750	5	0.001 Typ	1.5	0.5	64	2000	31	12.5 Typ	0.13	no	2.5	5.5	yes	5×3 DFN-16/SSOP-16	Precision/1.5MHz/RRIO/Low Bias Current	\$1.40
4	LT1639	600	6	50	1.075	0.38	88	1500	20	15	0.23	no	2.2	44	yes	DIP-14/SO-14	High Voltage/Over-The-Top/Low Power	\$3.30
4	LT1882	80	0.8	0.5	1	0.35	106	1600	14	5	0.9	no	2.4	40	out	SO-14	Picoamp Input Current/Precision	\$4.85
4	LT1014	150	2	20	0.8	0.4	100	8000	22	6.5	0.5	no	4	44	ss	DIP-14/SOW-16	Single Supply Precision Op Amp	\$3.45
4	LTC6079	25	1.4	0.001	0.75	0.05	95	3162	18	5	0.072	no	2.7	6	yes	DFN-16/SSOP-16	Micropower/Precision/RRIO	\$2.53
4	LT1367	800	6	35	0.4	0.13	93	2000	29	30	0.52	no	2	36	yes	SO-14	C-Load Stable up to 1000pF	\$6.10
4	LT6012	60	0.8	0.3	0.33	0.09	107	2000	14	1	0.15	no	2.4	40	out	SO-14/SSOPN-16	Micropower/Precision/RRO	\$2.95
4	LT1079	100	1.8	8	0.2	0.07	97	1000	28	5.5	0.05	no	2.2	44	ss	DIP-14/SOW-16	Precision/Micropower/Single Supply	\$3.40
4	LT2079	110	3	8	0.2	0.07	95	1000	28	5.5	0.05	no	2.3	44	ss	SO-14	Micropower Single Supply	\$5.95
4	LT1491A	1000	4	8	0.18	0.06	84	1500	50	15	0.055	no	2	44	yes	DIP-14/SO-14/DFN-16	RRIO/Over-The-Top	\$3.00
4	LT1369	800	6	35	0.16	0.065	93	2000	29	30	0.52	no	2	36	yes	SO-14	Stable with 100nF C-Load	\$6.10
4	LT1467L	390	7	14	0.12	0.04	88	1500	45	10	0.075	no	2	16	yes	SO-16	Precision/Micropower Rail-to-Rail	\$7.20
4	LT1179	100	0.3	5	0.085	0.04	97	2500	49	5.5	0.017	no	2	44	ss	DIP-14/SOW-16	Precision/Micropower/Single Supply	\$3.70
4	LT2179	100	3	5	0.06	0.025	93	700	49	1.6	0.018	no	2.2	44	ss	SO-14	Micropower Single Supply	\$6.30
4	LT6002	750	5	5	0.05	0.015	82	65	75	2	0.016	no	1.8	18	yes	SSOP-16/DFN-16	Quad 1.8V/13µA Precision RRIO	\$2.00
4	LT1674	375	2	1	0.012	0.005	90	500	185	0.7	0.002	no	2.1	36	yes	DIP-14/SO-14	Ultralow Power/Over-The-Top Inputs	\$3.25
4	LT1496	375	2	1	0.0027	0.001	100	500	185	0.7	0.0015	no	2.1	36	yes	DIP-14/SO-14	Ultralow Power/Precision/RRIO	\$3.25
4	LT6005	650	5	0.09	0.002	0.0008		350	325	2	0.001	no	1.6	16	yes	SSOP-16/DFN-16	1.6V, 1µA Precision RRIO	\$1.75

† Primary Sort Column  
 †† Secondary Sort Column

Note:  
 1. ss = Input common mode range includes negative supply rail



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# LOW NOISE OP AMPS ( $e_n \leq 20\text{nV}/\sqrt{\text{Hz}}$ )

†	Amplifiers Per Package	Part Number	†† $E_{NOISE}$ Typ 25°C (nV/√Hz)	LF $E_{NOISE}$ Typ 25°C (μV-p)	$I_{NOISE}$ Typ 25°C (pA/√Hz)	$V_{OS}$ Max 25°C (μV)	TC of $V_{OS}$ Max (μV/°C)	$I_{BIAS}$ Max 25°C (nA)	††† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	$I_{OUT}$ Min 25°C (mA)	$I_{SUPPLY}$ Per Ampl Max 25°C (mA)	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Features	Price 1K Qty
1	1	LT1028	0.85	0.035	1	40	0.8	90	75	15	18.3	9.5	8	44		DIP-8/SO-8/SOW-16	300	Lowest Noise Low Drift	\$4.75
1	1	LT1128	0.85	0.035	1	40	0.8	90	20	6	18.3	9.5	8	44		DIP-8/SO-8	500	Lowest Noise High Speed	\$4.75
1	1	LT1115	0.9	0.8	1.2	200	8.5 Typ	380	70	15	18.3	11.5	8	44		DIP-8/SOW-16	4000	Low Noise /Ultralow Distortion	\$2.90
1	1	LT6200-10	0.95	0.6	2.2	1000	24	40000	1600	450	60	23	2.5	12.6	yes	SO-8/SOT23-6	1000	Low Noise/RRIO/High Speed/ $A_V > 10$	\$1.50
1	1	LT6200-5	0.95	0.6	2.2	1000	24	40000	800	250	60	23	2.5	12.6	yes	SO-8/SOT23-6	1000	Low Noise/RRIO/High Speed/ $A_V > 5$	\$1.50
1	1	LT6200	0.95	0.6	2.2	1000	24	40000	165	50	60	23	2.5	12.6	yes	SO-8/SOT23-6	1000	Low Noise/RRIO/High Speed	\$2.15
1	1	LTC6400-8	1			5000	85 Typ		2200	3810	20	95	2.85	3.5	ss	3×3 QFN-16		2.2GHz Low Noise, Low Distortion Differential ADC Driver for DC-300MHz	\$3.20
1	1	LT6230-10	1.1	0.18	1	500	3	10000	1450	320	30	3.75	3	12.6	out	SOT23-6	2000	Ultralow Noise/Low Power/ $A_V > 10$	\$1.50
1	1	LT6230	1.1	0.18	1	500	3	10000	215	70	30	3.75	3	12.6	out	SOT23-6	1000	Ultralow Noise/Low Power/High Speed	\$1.25
1	1	LTC6400-26	1.5			2000	1 Typ		1900	6670	20	102	2.85	3.5		3×3 QFN-16		26dB Fixed Gain/Differential ADC Driver/140MHz IF	\$3.20
1	1	LTC6401-26	1.5			2500	1 Typ		1610	3300	10	60	2.85	3.5		3×3 QFN-16		26dB Fixed Gain/Differential ADC Driver/140MHz IF	\$2.95
1	1	LTC6404-1	1.5		3	2000	1 Typ	-23000	500	450	40	35.5	2.7	5.25	out	3×3 QFN-16		500MHz/Low Noise, Differential I/O Amp/Driver	\$3.44
1	1	LTC6404-4	1.5		3	2000	1 Typ	-23000	1700	1200	40	39	2.7	5.25	out	3×3 QFN-16		1.7GHz Low Noise/Distortion, RRO	\$3.44
1	1	LTC6404-2	1.5		3	2000	1 Typ	-23000	900	700	40	39	2.7	5.25	out	3×3 QFN-16		0.9GHz Low Noise/Distortion, RRO	\$3.44
1	1	LTC6405	1.6		2.4	15000	18 Typ	8000 Typ	2700	690		23	4.5	5.5	ss	3×3 QFN-16		2.7GHz, 5V, Low Noise, Rail-to-Rail Input Differential Amplifier/Driver	\$3.44
1	1	LTC6406	1.6		2.5	5000	18 Typ	6000 Typ	3000	630	38	22	2.7	3.5	ss	3×3 QFN-16		3GHz, Low Noise, Rail-to-Rail Input Differential Amplifier/Driver	\$3.44
1	1	LT1993-10	1.7			6500	100 Typ		700	1100	40	112	4	5.5		3×3 QFN-16	5	Low Distortion ADC Driver/ $A_V = 10$	\$2.95
1	1	LTC6416	1.8		6.5	5000		10000	2000	3400	20	51	2.7	4	ss	3×2 DFN-10		16-Bit, 2GHz Differential ADC Buffer	C.F.
1	1	LT6402-20	1.85			6500	30 Typ		300	1000	30	37	4	5.5	ss	3×3 QFN-16	5	Low Distortion and Noise Diff. ADC Driver	\$2.39
1	1	LT6233-10	1.9	0.22	0.43	500	3	3000	375	115	40	1.25	3	12.6	out	SOT23-6	1000	Low Noise/Low Power/ $A_V > 10$	\$1.90
1	1	LT6202	1.9	0.8	0.75	500	24	7000	100	25	30	3.5	2.5	12.6	yes	SO-8/SOT23-5	1000	Low Noise/Low Power/RRIO	\$1.45
1	1	LT6233	1.9	0.22	0.43	500	3	3000	60	17	40	1.25	3	12.6	out	SOT23-6	1000	Ultralow Noise/Low Power/High Speed	\$1.45
1	1	LTC1100	1.9	1.9		10	0.1	0.05	1.8	3		2.8	4	18	out	DIP-8/SOW-16	10	Zero-Drift/Fixed Gain of 10 and 100	\$6.15
1	1	LTC6401-20	2.1			2000	1.4 Typ		1250	4500	10	62	2.85	3.5		3×3 QFN-16		1.3GHz Differential ADC Driver	\$2.95
1	1	LTC6400-20	2.1			2000	1.2 Typ		1840	4500	20	105	2.85	3.5		3×3 QFN-16		20dB Fixed Gain/1.8GHz Low Noise, Low Distortion Differential ADC Driver	\$3.20
1	1	LT1993-4	2.15			6500	100 Typ		900	1100	40	112	4	5.5		3×3 QFN-16	5	Low Distortion ADC Driver/ $A_V = 4$	\$2.95
1	1	LTC6401-14	2.5			3000	1.2 Typ		1950	3600	10	60	2.85	3.5		3×3 QFN-16		2GHz Differential ADC Driver	\$2.95
1	1	LT1037	2.5	0.06	0.4	25	0.6	35	60	15	18.3	4.3	8	44		DIP-8/SO-8	100	Extremely Low Noise	\$1.90
1	1	LTC6400-14	2.5			3000	85 Typ		1860	4800	20	96	2.85	3.5	ss	3×3 QFN-16		1.9GHz Low Noise, Low Distortion Differential ADC Driver for 300MHz IF	\$3.20
1	1	LT1007	2.5	0.06	0.04	25	0.6	35	8	2.5	18.3	4	4	44		DIP-8/SO-8	100	Extremely Low Noise	\$1.90
1	1	LT1226	2.6		1.5	1000	7 Typ	8000	1000	400	24	9	5	36		SO-8/DIP-8	1000	Low Noise/High Speed/High Gain	\$2.85
1	1	LT6402-12	2.7			6500	30 Typ		300	400	30	37	4	5.5	ss	3×3 QFN-16	5	Low Distortion Diff. Amp ( $A_V = 12\text{dB}$ )	\$2.39
1	1	LT1251	2.7		1.5	5000	13.5 Typ	30000	40	300	30	17	5	36		DIP-14/SO-14	100	Video Fader Control	\$5.85
1	1	LT1256	2.7		1.5	5000	13.5 Typ		40	300	30	17	5	36		DIP-14/SO-14	100	Video Fader Control	\$5.85
1	1	LTC6403-1	2.8		1.8	1500	1 Typ	25000	200	200	30	11.8	2.7	5.25	out	3×3 QFN-16		Low Noise/Low Distortion Diff ADC Driver	\$1.79
1	1	LTC6410-6	3			2000	-0.3 Typ		1400	1500	42	130	2.8	5.25	ss	3×3 QFN-16		Low Noise/Differential IF Amp/Configurable Input Impedance	\$2.89
1	1	LT1222	3		2	300	8 Typ	300	500	200	24	10.5	5	36		SO-8/DIP-8	1000	Fast Setting Time/High Speed/Gain > 10	\$3.40
1	1	LT1252	3		1.5	15000			250	250	30	18	4	28		DIP-8/SO-8	100	High Voltage Video Amp	\$1.70
1	1	LT1994	3		2.5	2000	13.3 Typ	45000	70	65	45	18.5	2.375	12.6	out	MS-8/3×3 DFN-8	25	Low Noise/Low Distortion/Diff. In/Out	\$1.65
1	1	LT1210	3		2	15000	35 Typ		66	900	1100	50	8	36		DDPAK-7/SO-16/TO-220	10000	1A Output Current	\$6.40
1	1	LTC6401-8	3.2			1000	1.4 Typ		1700	4800	10	45	2.85	3.5	ss	3×3 QFN-16		8dB Fixed Gain/Differential ADC Driver/140MHz IF	\$2.95
1	1	LT1227	3.2		1.7	10000	10 Typ		140	1100	30	15	4	36		DIP-8/SO-8	2000	High Voltage CFA	\$2.40
1	1	LT1677	3.2	0.09	0.3	60	1.5	20	7.2	2.5	25	3.5	2.5	44	yes	DIP-8/SO-8	1000	High Loop Gain/Low Noise/RRIO	\$2.15

† Primary Sort Column  
 †† Secondary Sort Column  
 ††† Tertiary Sort Column

†	Amplifiers Per Package	Part Number	††					†††										C-Load Stable (pF)	Features	Price 1K Qty
			$E_{NOISE}$ Typ 25°C (nV/√Hz)	$I_{F\ NOISE}$ Typ 25°C (μA/√Hz)	$I_{NOISE}$ Typ 25°C (pA/√Hz)	$V_{OS\ Max}$ 25°C (μV)	TC of $V_{OS}$ Max (μV/°C)	$I_{BIAS\ Max}$ 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	$I_{OUT\ Min}$ 25°C (mA)	$I_{SUPPLY\ Per\ Ampl}$ Max 25°C (mA)	$V_{SUPPLY\ Min}$ (V)	$V_{SUPPLY\ Max}$ (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package				
1	LT1993-2	3.5				6500		800	1100	40	112	4	5.5		3x3 QFN-16	5	Low Distortion ADC Driver/ $A_V=2$	\$2.95		
1	LT1806	3.5	0.8	1.5	550	5	4000	325	125	35	13	2.5	12.6	yes	SO-8/SOT23-6	1000	High Speed/Precision/Low Noise	\$2.10		
1	LT1206	3.6		2	10000	20 Typ		66	900	250	30	10	36		DDPAK-7/DIP-8/SO-8/TO-220	10000	High $I_{OUT}/Adj.$ Supply Current/C-Load	\$3.40		
1	LT6402-6	3.8			6500	30 Typ		300	400	30	37	4	5.5	ss	3x3 QFN-16	5	Low Distortion Diff. Amp ( $A_V=6\text{dB}$ )	\$2.39		
1	LT1722	3.8		1.2	400	7	300	200	70	35	4.5	4.6	12.6		SO-8/SOT23-5	100	Low Noise at Video Speed/Precision	\$0.88		
1	LT1792	4.2	2.4	0.01	600	10	0.8	5.6	3.4	12	5.2	10	40		DIP-8/SO-8	10000	FET Input/Low Distortion/Precision	\$2.25		
1	LT1395	4.5		6	10000	15		400	800	80	6.5	3	12.6		SO-8/SOT23-5/SOT23-6	1000	CFA/100MHz 0.1dB Bandwidth	\$1.30		
1	LT1468	5	0.3	0.6	75	2	40	90	22	15	5	6	36		3x3 DFN-8/DIP-8/SO-8	300	16-Bit Accuracy/760ns to 0.01% Settling	\$2.95		
1	LT1468-2	5	0.3	0.6	75	2	40	200	30	15	5	9	36		3x3 DFN-8/SO-8	300	16-Bit Accuracy/760ns to 0.01% Settling/ $A_V>2$	\$2.95		
1	LT1818	6		1.2	1500	15	8000	400	2500	40	10	3.5	12.6		SO-8/SOT23-5	20	High Slew Rate VFB	\$0.95		
1	LT1815	6		1.3	1500	15	8000	220	1500	50	7.8	4	12.6		SO-8/SOT23-5/SOT23-6	10	High SR VFB with Prog. Supply Current	\$0.88		
1	LT1221	6		2	1000	8 Typ	300	150	250	24	10.5	5	36		SO-8/DIP-8	1000	Low Noise/High Speed/High Gain	\$3.30		
1	LT1793	6	2.4	0.0008	800	13	0.01	4.2	3.4	12	5.2	10	40		DIP-8/SO-8	10000	FET Input/Precision/Low Distortion	\$2.25		
1	LT6210	6.5		4.5	6000			200	700	75	8.3	3	13.2	out	SOT23-6	10000	Adjustable Speed and Power CFA	\$1.20		
1	LT1217	6.5		0.7	3000			10	500	50	2	10	36		DIP-8/SO-8	5000	Low Power CFA	\$3.20		
1	LT1204	7		1.5	14000	19 Typ		95	1000	35	24	9	36		DIP-16/SOW-16	4000	4:1 MUX w/CFA Bootstrapped Resistors	\$4.80		
1	LTC6240	7	0.55	0.00056	175	2.5	0.001	18	10	15	2.4	2.8	6	out	SOT-23/SO-8	200	18MHz/Low Noise/RRO/CMOS	\$0.77		
1	LTC6240HV	7	0.55	0.00056	250	2.5	0.001	18	10	15	3.3	2.8	11	out	SOT-23/SO-8	200	18MHz/Low Noise/RRO/CMOS	\$1.40		
1	LT1225	7.5		1.5	1000	7 Typ	8000	150	400	24	9	5	36		SO-8/DIP-8	1000	Full Power Bandwidth 13MHz at ±5V	\$2.85		
1	LT1167	7.5	0.28	0.124	40	0.3	0.35	1	1.2	20	1.3	4.6	40		DIP-8/SO-8	1000	Precision/Low Bias Current IA	\$3.20		
1	LT1920	7.5	2	0.124	125	1	2	0.8	1.2	20	1.3	4.6	40		DIP-8/SO-8	1000	Resistor Programmable IA	\$3.05		
1	LT1812	8		1	1500	15	4000	100	750	40	3.6	2.5	12.6		SO-8/SOT23-5/SOT23-6	100	High Speed/Power/Low Noise	\$0.88		
1	LT1357	8		0.8	600	8	500	25	600	24	2.5	5	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$2.45		
1	LT1800	8.5	1.4	1	350	5	250	80	25	20	2	2.3	12.6	yes	SO-8/SOT23-5	1000	High Speed/Power/Precision/RRIO	\$1.30		
1	LTC6910-1	8.6	3.4		15000			11	16	9.5	3	2.7	11	yes	SOT23-8	50	3-Bit Gain Control/0 to 100 V/V	\$1.10		
1	LT1192	9		4	2500	2 Typ	2500	350	450	50	38	4	18		DIP-8/SO-8	50	+/-5V Supply Color Video	\$1.70		
1	LT6205	9	2	4	4500	18	30000	100	600	25	5.6	3	12.6	out	SOT23-5	1000	3V 100MHz Single Supply Video Amp	\$0.88		
1	LT1363	9		1	1500	13	2000	70	1000	50	7.5	3	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$2.40		
1	LT1360	9		0.9	1000	12	1000	50	800	26	4.8	3	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$2.20		
1	LTC6910-2	9.1	3.6		15000			13	16	9.5	3	2.7	11	yes	SOT23-8	50	3-Bit Gain Control/0 to 64 V/V	\$1.10		
1	LT6013	9.5	0.2	0.15	35	0.8	0.25	1.6	0.2	8	0.165	2.7	40	out	DFN-8/SO-8	500	Micropower/Precision/RRO/ $A_V>5$	\$1.10		
1	LT1001	9.6	0.3	0.1	25	0.6	2	0.8	0.25	12	2.5	6	44		DIP-8/SO-8	20000	General Purpose/High Precision	\$1.65		
1	LT6220	10	0.5	0.8	350	5	150	60	20	20	1	2.2	12.6	yes	SO-8/SOT23-5	7000	Precision/Low Power/RRIO	\$1.20		
1	LT1354	10		0.6	800	8	300	12	400	30	1.25	5	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$2.30		
1	LT1168	10	0.28	0.074	40	0.3	0.25	0.4	0.5	20	0.53	4.6	40		DIP-8/SO-8	1000	Precision IA/Low Bias Current/Low Power	\$3.70		
1	LTC6910-3	10.6	4.7		15000			11	16	9.5	3	2.7	11	yes	SOT23-8	50	3-Bit Gain Control/0 to 7 V/V	\$1.10		
1	LT1880	13	0.5	0.07	150	1.2	0.9	1.1	0.55	1	1.9	2.4	40	out	SOT23-5	1000	Picoamp Input Current/Precision	\$1.75		
1	LT1995	14			5000	26	600 Typ	24	1000	70	8.5	2.5	36		MS-10/DFN-10	200	Fast Diff. Amp/Integrated Resistors	\$1.89		
1	LT1122	14	3	0.002	600	18	0.075	14	80	19.1	10	20	40		DIP-8/SO-8	500	Setting Guaranteed to 0.01%/FET Input	\$2.45		
1	LT6600-10	14			13000	35 Typ	85000	10			39	2.7	11	ss	SO-8/DFN-12	50	Low Noise Diff Amp w/10MHz LP Filter	\$2.95		
1	LT1022	14	2.5	0.0018	250	5	0.05	8.5	26	6	7	8	40		DIP-8	100	High Speed JFET Input	\$2.80		
1	LT1351	14		0.5	600	8	50	3	200	30	0.33	5	36		SO-8/MS-8/DIP-8	All	High Speed/Precision/C-Load	\$2.45		
1	LT1008	14	0.5	0.02	120	1.5	0.1	1	0.2	1.3	0.6	4	40		DIP-8/SO-8	600	Low Bias Current/External Compensation	\$2.95		
1	LT1012	14	0.5	0.02	25	0.6	0.1	1	0.2	1.3	0.5	2.4	40		DIP-8/SO-8	1000	Low $V_{OS}$ Stable with any C-Load	\$1.60		
1	LT1097	14	0.5	0.008	50	1.2	0.25	0.7	0.2	5.75	0.56	2	40		DIP-8/SO-8	10000	Low Cost/C-Load Stable	\$1.75		
1	LT6010	14	0.4	0.1	35	0.8	0.11	0.33	0.09	1	0.15	2.7	40	out	DFN-8/SO-8	500	Micropower/Precision/RRO	\$1.10		
1	LT1194	15		4	6000	6 Typ	3500	350	500	64	40	4	18		DIP-8/SO-8	50	Amplitude Limiting Control	\$2.90		
1	LT6600-20	15			15000	42 Typ	95000	20			46	2.7	11	ss	SO-8	50	Low Noise Diff Amp w/20MHz LP Filter	\$2.95		
1	LT1056	15	2.8	0.0018	800	12	0.05	5.5	14	30 Typ	7	8	40		DIP-8/SO-8	100	Low Offset JFET	\$1.90		
1	LT1055	15	2	0.0018	700	12	0.05	4.5	12	30 Typ	4	8	40		DIP-8/SO-8	100	Low Offset JFET	\$1.90		

† Primary Sort Column  
 †† Secondary Sort Column  
 ††† Tertiary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# LOW NOISE OP AMPS ( $e_n \leq 20\text{nV}/\sqrt{\text{Hz}}$ )

†	Amplifiers Per Package	Part Number	††	$E_{\text{NOISE}}$ Typ 25°C (nV/√Hz)	$I_{\text{F NOISE}}$ Typ 25°C (μA/√Hz)	$I_{\text{NOISE}}$ Typ 25°C (pA/√Hz)	$V_{\text{OS}}$ Max 25°C (μV)	TC of $V_{\text{OS}}$ Max (μV/°C)	$I_{\text{BIAS}}$ Max 25°C (nA)	†††	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	$I_{\text{OUT}}$ Min 25°C (mA)	$I_{\text{SUPPLY}}$ Per Ampl Max 25°C (mA)	$V_{\text{SUPPLY}}$ Min (V)	$V_{\text{SUPPLY}}$ Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Features	Price 1K Qty
1	1	LT1970	15	3	3	600	10	600	3.6	1.6	500	13	5	36			TSSOP-20	10000	Power Amp/Adj. Current Limit	\$4.95	
1	1	LTC1250	15	0.75	0.004	10	0.05	0.2	1.5	10	4	4	4.75	18			DIP-8/SO-8	50	Low Noise/Zero-Drift Bridge Amp	\$2.85	
1	1	LT1809	16	8	5	2500	25	8000	160	300	45	17	2.5	12.6	yes		SO-8/SOT23-6	1000	Low Distortion/High Speed/Low Noise	\$1.75	
1	1	LT6600-5	16			25000	28 Typ	70000	5			31	2.7	11	ss		SO-8	50	Low Noise Diff Amp w/5MHz LP Filter	\$2.95	
1	1	LT1220	17		2	1000	8 Typ	300	45	250	24	10.5	5	36			SO-8/DIP-8	100000	Fast Setting Time and C-Load Op Amp	\$3.40	
1	1	LTC1992	18		1	2500	0.65 Typ	0.25	4	0.75	10	1	2.4	12	out		MS-8	10000	Fully Differential In/Out	\$1.65	
1	1	LT1996	18			50	1	5	0.56	0.12	8	0.11	2.7	36	yes		MS-10/DFN-10		Precision/ $A_V=9$ to 117	\$1.39	
1	1	LT6600-15	19			15000	42 Typ	90000	15			46	2.7	11	ss		SO-8	50	Low Noise Diff Amp w/15MHz LP Filter	\$2.95	
1	1	LT1102	19	2.8	1.5	600	8	0.04	3.5	30	6	5	18	40			DIP-8	50000	JFET Input IA/Gain of 10 or 100	\$4.75	
1	1	LT1228	20		1.4	5000	9 Typ	1000	100	500	30	15	4	36			DIP-8/SO-8	2000	CFA with Gain Control	\$3.75	
1	1	LT1010	20			150000		250000	30	200	150	9	4.5	44			DIP-8/T-5/DFN-10	330000	High Power High Speed Buffer	\$2.40	
1	1	LT1797	20	1.5	0.15	1500	20	300	10	2.25	25	1.5	2.1	12.6	yes		SOT23-5	10000	RRIO/Low Noise/C-Load Stable	\$1.00	
1	1	LT1783	20	0.6	0.14	800	5	80	1.25	0.42	20	0.3	2.2	18	yes		SOT23-5/SOT23-6	3000	Over-The-Top/Micropower/RRIO/C-Load	\$1.10	
2	2	LT6201	0.95	0.6	2.2	1000	24	40000	165	50	60	2.3	2.5	12.6	yes		DFN-8/SO-8	1000	Low Noise/RRIO/High Speed	\$3.65	
2	2	LT6231	1.1	0.18	1	350	3	10000	215	70	30	3.75	3	12.6	out		DFN-8/SO-8	1000	Ultralow Noise/Low Power/High Speed	\$1.95	
2	2	LT6203	1.9	0.8	0.75	500	24	7000	100	25	30	3.5	2.5	12.6	yes		DFN-8/MS-8/SO-8	1000	Low Noise/Low Power/RRIO	\$2.45	
2	2	LT6234	1.9	0.22	0.43	350	3	3000	60	17	40	1.25	3	12.6	out		DFN-8/SO-8	1000	Ultralow Noise/Low Power	\$2.45	
2	2	LTC6420-20	2.2			2000	1.2 Typ		1800	4500	20	95	2.85	3.5	out		3x4 QFN-20		Dual Matched Diff In/Out, $A_V=10$	\$5.17	
2	2	LTC6421-20	2.2			2000	1.4 Typ		1300	4500	10	50	2.85	3.5	out		3x4 QFN-20		Dual Matched Diff In/Out, $A_V=10$	\$4.77	
2	2	LT1126	2.7	0.07	0.3	70	1	20	65	11	6.25	3.1	8	44			SO-8/DIP-8	15	Low Noise/65MHz GBW/Precision	\$3.50	
2	2	LT1124	2.7	0.07	0.3	70	1	20	12.5	4.5	6.25	2.75	8	44			DIP-8/SO-8	15	Low Noise/Low 1/f Corner/Precision	\$3.50	
2	2	LT1253	3		1.5	15000			250	250	30	11	4	28			DIP-8/SO-8	100	High Voltage Dual Video Amp	\$2.45	
2	2	LT1497	3		2	10000	10		59	900	125	7	4	36			SO-8/SO-16	2000	125mA Output CFA	\$3.35	
2	2	LT1229	3.2		1.4	10000	6 Typ		100	700	30	9.5	4	36			DIP-8/SO-8	2000	General Purpose High Voltage CFA	\$3.75	
2	2	LT1807	3.5	0.8	1.5	550	5	4000	325	125	35	13	2.5	12.6	yes		MS-8/SO-8	1000	High Speed/Precision/Low Noise	\$3.40	
2	2	LT1259	3.6		1.3	12000	5 Typ		130	1600	30	7.5	4	36			DIP-14/SO-14	1000	Low Cost High Voltage CFA/Shutdown	\$2.45	
2	2	LT1207	3.6		2	10000	20 Typ		66	900	250	30	10	36			SO-16	10000	High Current/Prog. Supply/C-Load	\$6.90	
2	2	LT1795	3.6		2	13000	29 Typ		65	900	500	34	10	36			SOW-20/TSSOP-20	1000	High $I_{\text{OUT}}$ /High Speed	\$4.95	
2	2	LT1723	3.8		1.2	400	7	300	200	70	35	4.5	4.6	12.6			MS-8/SO-8	100	Low Noise at Video Speed/Precision	\$1.15	
2	2	LT1678	3.9	0.09	0.3	100	3	20	20	6	15	3.4	3	36	yes		SO-8	500	Very Low 1/f Corner Frequency	\$2.50	
2	2	LT1396	4.5		6	10000	15		400	800	80	6.5	3	12.6			DFN-8/MS-8/SO-8	1000	Dual CFA/100MHz 0.1dB BW	\$1.95	
2	2	LT1398	4.5		6	10000	15		300	800	80	6.5	3	12.6			SO-16	1000	0.1dB Gain Flatness to 150MHz	\$2.25	
2	2	LT1113	4.5	2.4	0.01	1500	1.5	0.45	5.6	3.9	12	6.25	9	40			DIP-8/SO-8	10000	Low Noise and Low Offset/JFET Input	\$3.15	
2	2	LT1469	5	0.3	0.6	125	3	40	90	22	15	5.2	6	36			4x4 DFN-12/DIP-8/SO-8	300	16-Bit Accuracy/760ns to 0.01% Settling	\$4.95	
2	2	<b>LT1469-2</b>	<b>5</b>	<b>0.3</b>	<b>0.6</b>	<b>125</b>	<b>3</b>	<b>40</b>	<b>200</b>	<b>30</b>	<b>15</b>	<b>5.2</b>	<b>9</b>	<b>36</b>			<b>4x4 DFN-12/SO-8</b>	<b>300</b>	<b>16-Bit Accuracy/760ns to 0.01% Settling/<math>A_V&gt;2</math></b>	<b>\$4.95</b>	
2	2	LT1969	6		2	4000	17	4000	700	200	200	8.25	4	13.2			MS-10	1000	High Output Current/ $A_V>10$	\$2.95	
2	2	LT1886	6		2	4000	17	4000	700	200	200	8.25	4	13.2			SO-8	1000	High Output Current/ $A_V>10$	\$2.80	
2	2	LT1819	6		1.2	1500	15	8000	400	2500	40	10	3.5	12.6			MS-8/SO-8	20	High Slew Rate VFB	\$1.60	
2	2	LT1816	6		1.3	1500	15	8000	220	1500	50	7.8	2.5	12.6			DFN-8/MS-8/MS-10/SO-8	10	High SR VFB with Prog Supply Current	\$1.50	
2	2	LT1630	6	0.3	0.9	525	5.5	1000	30	9.2	20	4.4	2.6	36	yes		DIP-8/SO-8	300	Low Distortion/High Speed/RRIO	\$2.96	
2	2	LT1169	6	2.4	0.001	2000	50	0.02	5.3	4.2	12	6.5	9	40			DIP-8/SO-8	1000	Low Noise JFET	\$3.85	
2	2	LT6211	6.5		4.5	6000			200	700	75	8.3	3	13.2	out		DFN-10/MS-10	10000	Adjustable Speed and PowerCFA	\$1.60	
2	2	LTC6241	7	0.55	0.00056	125	2.5	0.075	18	10	15	2.2	2.8	6	out		DFN-8/SO-8	200	1pA Input Bias Current CMOS Amp	\$1.25	
2	2	LTC6241HV	7	0.55	0.00056	175	2.5	0.075	18		15	2.2	2.8	11	out		DFN-8/SO-8	200	1pA Input Bias Current CMOS Amp	\$2.20	
2	2	LT6411	8			10000			650	3300	50	11	4.5	12.6			QFN-16	12	650MHz Diff ADC Driver	\$2.39	
2	2	LT6300	8		0.8	5000	4 Typ	4000	200	600	500	13.5	8	27			SSOP-16	30	xDSL Driver	\$2.85	
2	2	LT1794	8		0.8	5000	10 Typ	4000	200	600	500	13.5	8	36			SOW-20/TSSOP-20	30	High $I_{\text{OUT}}$ /Low Noise/High Speed	\$4.95	
2	2	LT1739	8		0.8	5000	10 Typ	4000	200	600	500	13.5	8	27			DFN-12/TSSOP-20	30	High $I_{\text{OUT}}$ /Low Noise/High Speed	\$3.55	
2	2	LT1813	8		1	1500	15	4000	100	750	40	3.6	2.5	12.6			MS-8/SO-8/DFN-8	100	High Speed/Power/Low Noise	\$0.99	
2	2	LT1813HV	8		1	1500	15	4000	100	750	40	4	2.5	13.5			SO-8	100	High Speed/Power/ $V_S$ up to 13.5V	\$1.19	

† Primary Sort Column  
 †† Secondary Sort Column  
 ††† Tertiary Sort Column

†	Amplifiers Per Package	Part Number	††		V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	†††							C-Load Stable (pF)	Features	Price 1K Qty	
			EN <sub>NOISE</sub> Typ 25°C (nV/√Hz)	LF EN <sub>NOISE</sub> Typ 25°C (μVp-p)				I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)				Rail-to-Rail I/O <sup>(1)</sup>
2	LTC6244	8	1.5	0.00056	100	2.5	0.075	50	35	25	7.4	2.8	6	out	DFN-8/MSOP-8	200	50MHz/Low Noise/RRO/CMOS	\$1.65
2	LTC6244HV	8	1.5	0.00056	100	2.5	0.075	50	35	25	7.4	2.8	10.5	out	DFN-8/MSOP-8	200	High Voltage Version of LTC6244	\$2.35
2	LT1358	8		0.8	600	8	500	25	600	24	2.5	5	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$3.90
2	LT1801	8.5	1.4	1	350	5	250	80	25	20	2	2.3	12.6	yes	DFN-8/MS-8/SO-8	1000	High Speed/Power/Precision/RRIO	\$1.95
2	LT6206	9	2	4	4500	18	30000	100	600	25	5.6	3	12.6	out	MS-8	1000	3V 100MHz Single Supply Video Amp	\$1.05
2	LT1364	9		1	1500	13	1000	70	1000	50	7.2	3	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$3.70
2	LT1361	9		0.9	1000	12	1000	50	800	26	4.8	5	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$3.40
2	LT1884	9.5	0.4	0.05	50	0.8	0.4	2	0.9	15	0.9	2.4	40	out	DIP-8/SO-8	500	Picoamp Input Current/Precision	\$2.75
2	LT6014	9.5	0.2	0.15	60	0.8	0.4	1.6	0.2	8	0.165	2.7	40	out	DFN-8/SO-8	500	Micropower/Precision/RRO/A <sub>v</sub> >5	\$1.65
2	LT1002	9.6	0.35	0.1	60	0.9	3	0.8	0.25	12	2.5	6	44		DIP-14	20000	High CMRR and PSRR	\$2.85
2	LTC6911-1	9.9	3.8		22000	2.1 Typ		11	16	35 Typ	3.15	2.7	10.5	yes	MS-10	50	Dual/3-Bit Gain Control/0 to 100 V/V	\$2.00
2	LT6221	10	0.5	0.8	350	5	150	60	20	20	1	2.2	12.6	yes	DFN-8/SO-8	7000	Precision/Low Power/RRIO	\$1.85
2	LT1213	10	0.2	0.2	150	1.5	160	28	8.5	30	3.8	2.5	36	ss	DIP-8/SO-8	1000	Precision/Fast/CM to V <sup>-</sup>	\$2.85
2	LT1355	10		0.6	800	8	300	12	400	25	1.25	5	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$3.80
2	LTC6911-2	10.9			22000	2.1 Typ		11	16		3.15	2.7	10.5	yes	MS-10	50	Dual/3-Bit Gain Control/0 to 64 V/V	\$2.00
2	LT1632	12		1.6	1350	15	2200	45	27	20	5.2	2.6	36	yes	DIP-8/SO-8	10	Low Distortion/High Speed/RRIO	\$3.05
2	LT1215	12	0.4	0.5	300	2.5	500	23	30	30	6.6	2.5	36	ss	DIP-8/SO-8	1000	Precision/Fast/CM to V <sup>-</sup>	\$2.85
2	LT1211	12	0.4	0.2	150	1.5	100	13	7	20	1.8	2.5	36	ss	DIP-8/SO-8	8000	Precision/Single Supply/Wide V <sub>SUPPLY</sub>	\$2.85
2	LT1498	12	0.25	0.3	475	2.5	650	10.5	4.5	12.5	2.2	2.2	36	yes	DIP-8/SO-8	30000	Stable with Large C-Load	\$2.96
2	LT1057	13	0.42	0.0015	450	10	0.05	5	14	20 Typ	2.5	8	40		DIP-8/SO-8/SOW-16	8000	High Speed JFET Input	\$2.45
2	LTC6081	13	1.3	0.0005	70	0.8	0.001	3.6	1	17 Typ	0.33 Typ	2.7	5.5	yes	MS-8/DFN-10		Precision Dual/Quad CMOS Rail-to-Rail Input/Output Amplifiers	\$1.74
2	LT1457	13	2	0.0015	450	10	0.05	1	4	6	3	9	40		DIP-8/SO-8	10000	JFET with Excellent C-Load Stability	\$2.35
2	LT1352	14		0.5	600	8	50	3	200	30	0.33	5	36		DIP-8/SO-8	All	High Speed/Precision/C-Load	\$3.80
2	LT1881	14	0.5	0.03	50	0.8	0.2	1	0.35	5	0.9	2.4	40	out	DIP-8/SO-8	1000	Picoamp Input Current/Precision	\$2.75
2	LT1024	14	0.5	0.02	50	1.5	0.12	1	0.2	10 Typ	0.6	4	40		DIP-14	1000	Low V <sub>OS</sub> /Low Power	\$4.75
2	LT1112	14	0.3	0.0008	60	0.5	0.25	0.75	0.3	5.5	0.4	2	40		DIP-8/SO-8	All	Low Power/Matching Specs/C-Load	\$2.35
2	LT6011	14	0.4	0.1	60	0.8	0.3	0.33	0.09	1	0.15	2.4	40	out	DFN-8/SO-8/MS-8	500	Micropower/Precision/RRO	\$1.65
2	LTC6912-1	15.1	2.6		22000	1.75 Typ		30	16	35 Typ	2.75	2.7	10.5	yes	DFN-12/SSOP-16	50	Dual PGA/Serial SPI/A <sub>v</sub> =0 to 100V/V	\$2.15
2	LTC6912-2	15.1	5.6		22000	1.75 Typ		30	16	35 Typ	2.75	2.7	10.5	yes	DFN-12/SSOP-16	50	Dual PGA/Serial SPI/A <sub>v</sub> =1 to 64V/V	\$2.15
2	LT1810	16	8	5	2500	25	8000	160	300	45	17	2.3	12.6	yes	MS-8/SO-8	1000	Low Distortion/High Speed/Low Noise	\$2.65
2	LT1492	16.5	0.33	0.14	180	3	100	4.5	1.8	20	0.55	2.1	36	ss	SO-8/DIP-8	150	Single Supply/Low Power/Precision	\$3.45
2	LTC6078	18	1		25	0.7	0.001	0.75	0.05	5	0.072	2.7	6	yes	MS-8/DFN-10	200	Micropower/Precision/RRIO	\$1.49
2	LT1638	20	1	0.3	600	6	50	1.2	0.38	15	0.23	2.2	44	yes	DFN-8/DIP-8/MS-8/SO-8	6000	High Voltage/Over-The-Top/Low Power	\$1.95
3	LT1260	3.6		1.3	12000	5 Typ		130	1600	30	7.5	4	36		DIP-16/SO-16	1000	Low Cost High Voltage CFA/Shuttdown	\$2.60
3	LT6559	4.5		6	10000	3.9 Typ		300	500	80 Typ	6.1	4	12		QFN-16	1000	Low Cost 5V±5V Triple Video Amp	\$0.95
3	LT1399	4.5		6	10000	15		300	800	80	6.5	3	12.6		SSOPN-16/SO-16	1000	0.1dB Gain Flatness to 150 MHz	\$2.45
3	LT1399HV	4.5		6	10000	15		300	800	80	7	3	15.5		SO-16	1000	0.1dB Gain Flatness to 150MHz	\$3.05
3	LT6555	9		3.5	16000			650	2200	50	12	4.5	12.6		SSOP-24/QFN-24	10	Triple 2:1 Video Multiplexer/A <sub>v</sub> =2	\$2.75
3	LT6553	9		4	10000			650	2500	50	11	4	13.2		SSOP-16	10	High Speed Video Amp/A <sub>v</sub> =2	\$2.50
3	LT6556	11		3.5	67000			750	2100	50	13	4.5	12.6		SSOP-24/QFN-24	10	Triple 2:1 Video Multiplexer/A <sub>v</sub> =1	\$2.75
3	LT6557	12		20	40000			500	2200	70	25		7.5		SSOP-16/DFN-16		Single Supply Video Amp/A <sub>v</sub> =2	\$2.50
3	LT6550	12		8	35000			110	340	45	11.5	3	12.6	out	MS-10	150	3V RGB Driver with A <sub>v</sub> =2	\$1.75
3	LT6554	20		3.5	35000			650	2500	50	10	4	13.2		SSOP-16	12	High Speed CFA Video Buffer	\$2.50
4	LT6232	1.1	0.18	1	350	3	10000	215	70	30	3.75	3	12.6	out	SSOP-16	1000	Ultralow Noise/Low Power/High Speed	\$3.30
4	LT6204	1.9	0.8	0.75	500	24	7000	100	25	30	3.5	2.5	12.6	yes	SO-14/SSOPN-16	1000	Low Noise/Low Power/RRIO	\$4.50
4	LT6235	1.9	0.22	0.43	350	3	3000	60	17	40	1.25	3	12.6	out	SSOP-16	1000	Ultralow Noise/Low Power	\$4.15
4	LT1127	2.7	0.07	0.3	90	1	20	65	11	6.25	3.1	8	44		DIP-14/SOW-16	15	Low Noise/65MHz GBW/Precision	\$5.70
4	LT1125	2.7	0.07	0.3	90	1	20	12.5	4.5	6.25	2.75	8	44		DIP-14/SOW-16	15	Low Noise/Low 1/f Corner/Precision	\$5.70
4	LT1254	3		1.5	15000			250	250	30	11	4	28		SO-14/DIP-14	100	High Voltage Quad Video Amp	\$4.40
4	LT1230	3.2		1.4	10000	6 Typ		100	700	30	9.5	4	36		DIP-14/SO-14	2000	General Purpose High Voltage CFA	\$7.00

† Primary Sort Column  
 †† Secondary Sort Column  
 ††† Tertiary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# LOW NOISE OP AMPS ( $e_n \leq 20\text{nV}/\sqrt{\text{Hz}}$ )

†	Amplifiers Per Package	Part Number	††	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	LF E <sub>NOISE</sub> Typ 25°C (μV <sub>p-p</sub> )	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	†††	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Features	Price 1K Qty
4	LT1724	3.8		1.2	400	7	300	200	70	35	4.5	4.6	12.6				SO-14	100	Low Noise at Video Speed/Precision	\$2.19	
4	LT1679	3.9		0.3	100	3	20	20	6	15	3.4	3	36	yes			SO-14	500	Very Low 1/f Corner Frequency	\$3.85	
4	LT1397	4.5		6	10000	15		400	800	80	6.5	3	12.6				DFN-14/SO-14/SSOPN-16	1000	Quad CFA/100MHz 0.1dB BW	\$2.75	
4	LT1817	6		1.3	1500	15	8000	220	1500	50	7	2.5	12.6				SO-14/SSOPN-16	10	High Slew Rate VFB	\$2.05	
4	LT1631	6	0.3	0.9	525	5.5	1000	30	9.2	20	4.4	2.6	36	yes			SO-14	300	Low Distortion/High Speed/RRIO	\$5.60	
4	LTC6242	7	0.55	0.00056	150	2.5	0.075	18	10	15	2.2	2.8	6	out			DFN-16/SSOP-16	200	1pA Input Bias Current CMOS Amp	\$2.25	
4	LTC6242HV	7	0.55	0.00056	200	2.5	0.075	18	10	15	2.2	2.8	11	out			DFN-16/SSOP-16	200	1pA Input Bias Current CMOS Amp	\$3.30	
4	LT6301	8		0.8	5000	4 Typ	4000	200	600	500	13.5	8	27				TSSOP-28	30	Dual xDSL Driver	\$6.20	
4	LT1814	8		1	1500	15	4000	100	750	40	3.6	2.5	12.5				SO-14/SSOPN-16	100	High Speed/Power/Low Offset	\$1.95	
4	LT1359	8		0.8	600	8	500	25	600	24	2.5	5	36				SO-16/SO-14/DIP-14	All	High Speed/Precision/C-Load	\$6.50	
4	LT1802	8.5	1.4	1	350	5	250	80	25	20	2	2.3	12.6	yes			SO-14	1000	High Speed/Power/Precision/RRIO	\$3.50	
4	LT6207	9	2	4	4500	18	30000	100	600	25	5.6	3	12.6	out			SSOPN-16	1000	3V 100MHz Single Supply Video Amp	\$1.55	
4	LT1365	9		1	1500	13	2000	70	1000	50	7.2	3	36				DIP-14/SO-16	All	High Speed/Precision/C-Load	\$6.45	
4	LT1362	9		0.9	1000	12	1000	50	800	26	4.8	5	36				SO-16/DIP-14	All	High Speed/Precision/C-Load	\$6.00	
4	LT1885	9.5	0.4	0.05	80	0.8	0.9	2	0.9	15	0.9	2.4	40	out			SO-14	500	Picoamp Input Current/Precision	\$4.85	
4	LT6222	10	0.5	0.8	350	5	150	60	20	20	1	2.2	12.6	yes			SSOP-16	7000	Precision/Low Power/RRIO	\$2.95	
4	LT1214	10	0.2	0.2	275	3	200	28	8.5	30	3.8	2.5	36	ss			DIP-14/SO-16	1000	Precision/Fast CM to V <sup>-</sup>	\$5.10	
4	LT1356	10		0.6	800	8	300	12	400	25	1.25	5	36				SO-16/DIP-14	All	High Speed/Precision/C-Load	\$6.45	
4	LT6551	12		8	35000		65000	110	340	45	11.5	3	12.6	out			MS-10	150	3V RGB+Sync Driver with A <sub>V</sub> =2	\$1.95	
4	LT1633	12	0.4	1.6	1350	15	2200	45	27	20	5.2	2.6	36	yes			SO-14	10	Low Distortion/High Speed/RRIO	\$5.70	
4	LT1216	12	0.4	0.5	450	5	600	23	30	30	6.6	2.5	36	ss			DIP-14/SO-16	1000	Precision/Fast/CM to V <sup>-</sup>	\$5.10	
4	LT1212	12	0.25	0.2	275	3	125	13	7	20	1.8	2.5	36	ss			DIP-14/SO-16	8000	Precision/Single Supply/Wide V <sub>SUPPLY</sub>	\$5.10	
4	LT1499	12	0.4	0.3	475	2.5	650	10.5	4.5	12.5	2.2	2.2	36	yes			SO-14	30000	Stable with Large C-Load	\$5.60	
4	LT1058	13	2.4	0.0015	600	15	0.05	5	14	20 Typ	2.5	8	40				DIP-14/SOW-16	8000	Low Offset JFET Input	\$4.20	
4	LTC6082	13	1.3	0.0005	70	0.8	0.001	3.6	1	17 Typ	0.33 Typ	2.7	5.5	yes			MS-8, DFN-10		Precision Quad CMOS Rail-to-Rail Input/Output Amplifiers	\$2.97	
4	LT1353	14		0.5	600	8	50	3	200	30	0.33	5	36				SO-14	All	High Speed/Precision/C-Load	\$6.70	
4	LT1882	14	0.5	0.3	80	0.8	0.5	1	0.35	5	0.9	2.4	40	out			SO-14	1000	Picoamp Input Current/Precision	\$4.85	
4	LT1114	14	0.3	0.008	60	1.1	0.25	0.75	0.3	5.5	0.4	2	40				DIP-14/SO-16	All	Low Power/Matching Specs/C-Load	\$4.40	
4	LT6012	14	0.4	0.1	60	0.8	0.3	0.33	0.09	1	0.15	2.4	40	out			SO-14/SSOPN-16	500	Micropower/Precision/RRO	\$2.95	
4	LT1493	16.5	0.33	0.14	130	3	100	4.5	1.8	20	0.55	2.1	36	ss			SO-16	150	Single Supply/Low Power/Precision	\$6.40	
4	LTC6079	18	1		25	1.4	0.001	0.75	0.05	5	0.072	2.7	6	yes			DFN-16/SSOPN-16	200	Micropower/Precision/RRIO	\$2.53	
4	LT1639	20	1	0.3	600	6	50	1.075	0.38	15	0.23	2.2	44	yes			DIP-14/SO-14	6000	High Voltage/Over-The-Top/Low Power	\$3.30	

† Primary Sort Column  
 †† Secondary Sort Column  
 ††† Tertiary Sort Column

Note:  
 1. ss = Input common mode range includes negative supply rail

# LOW INPUT BIAS CURRENT OP AMPS ( $I_{BIAS} \leq 10nA \text{ MAX}$ )

† Amplifiers Per Package	Part Number	†† $I_{BIAS}$ Max 25°C (nA)	$V_{OS}$ Max 25°C (μV)	TC of $V_{OS}$ Max (μV/°C)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	CMRR Min 25°C (dB)	$A_{VOL}$ Typ 25°C (V/mV)	$E_{NOISE}$ Typ 25°C (nV/√Hz)	$I_{NOISE}$ Typ 25°C (pA/√Hz)	$I_{SUPPLY}$ Per Amplifier Max 25°C (mA)	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Type <sup>(2)</sup>	Features	Price 1K Qty
1	LTC6240	0.001	175	2.5	18	10	80	1600	7	0.00056	2.4	2.8	6	out	SOT-23/SO-8	VFB	18MHz/Low Noise/RRO/CMOS	\$0.77
1	LTC6240HV	0.001	250	2.5	18	10	83	2700	7	0.00056	3.3	2.8	11	out	SOT-23/SO-8	VFB	18MHz/Low Noise/RRO/CMOS	\$1.40
1	LT1793	0.01	800	13	4.2	3.4	83	4500	6	0.0008	5.2	10	40		DIP-8/SO-8	JFET	FET Input/Precision/Low Distortion	\$2.25
1	LTC1050	0.03	5	0.05	2.5	4	114	100000	90	0.0018	1.5	4.75	18	out	DIP-8/DIP-14/SO-8	ZD	Zero-Drift No External Capacitors	\$2.15
1	LTC1052	0.03	5	0.05	1.2	4	120	100000	30	0.0006	2	4.75	18	out	DIP-8/DIP-14/SOW-16	ZD	Low Noise Zero-Drift	\$4.10
1	LT1102	0.04	600	8	3.5	30	84		19	1.5	5	18	40		DIP-8	IA	JFET Input IA/Gain of 10 or 100	\$4.75
1	LT1055	0.05	700	12	4.5	12	86	400	15	0.0018	4	8	40		DIP-8/SO-8	JFET	Low Offset JFET	\$1.90
1	LTC1049	0.05	10	0.1	0.8	0.8	110	31622	80	0.002	0.3	4.75	18	out	DIP-8/SO-8	ZD	Zero-Drift no External Capacitors	\$2.15
1	LTC2050HV	0.05	3	0.03	3	2	120	10000		0.003	1.5	2.7	12	out	SO-8/SOT23-5/SOT23-6	ZD	Zero-Drift 3V/5V/±5V Operation	\$1.45
1	LT1022	0.05	250	5	8.5	26	86	400	14	0.0018	7	8	40		DIP-8	JFET	High Speed JFET Input	\$2.80
1	LT1056	0.05	800	12	5.5	14	86	400	15	0.0018	7	8	40		DIP-8/SO-8	JFET	Low Offset JFET	\$1.90
1	LTC1100	0.05	10	0.1	1.8	3	104		38		2.8	4	18	out	DIP-8/SOW-16	IA	Zero-Drift/Fixed Gain of 10 and 100	\$6.15
1	LTC2050	0.075	3	0.03	3	2	120	10000		0.003	1.2	2.7	7	out	SO-8/SOT23-5/SOT23-6	ZD	Zero-Drift Op Amp 3V/5V Operation	\$1.15
1	LT1122	0.075	600	18	14	80	83	500	14	0.002	10	20	40		DIP-8/SO-8	JFET	Setting Guaranteed to 0.01%/FET Input	\$2.45
1	LT6003	0.09	500	5	0.002	0.0008	88	500	325	0.012	0.001	1.6	16	yes	DFN-4/SOT23-5	VFB	1.6V, 1μA Precision RRIO	\$0.72
1	LT1008	0.1	120	1.5	1	0.2	114	2000	14	0.02	0.6	4	40		DIP-8/SO-8	VFB	Low Bias Current/External Compensation	\$2.95
1	LT1012	0.1	25	0.6	1	0.2	114	2000	14	0.02	0.5	2.4	40		DIP-8/SO-8	VFB	Low $V_{OS}$ Stable with any C-Load	\$1.60
1	LTC1150	0.1	10	0.05	2.5	3	110	1000000		0.0018	1.5	4.75	32	ss	DIP-8/SO-8	ZD	Auto Zero Amplifier Works on 30V+	\$3.70
1	LTC1152	0.1	10	0.1	0.7	0.5	115	3162	130	0.6	3	3	14	yes	DIP-8/SO-8	ZD	Zero-Drift C-Load Stable with Ext. RC	\$3.15
1	LT6010	0.11	35	0.8	0.33	0.09	107	2000	14	0.1	0.15	2.7	40	out	DFN-8/SO-8	VFB	Micropower/Precision/RRIO	\$1.10
1	LTC2054	0.15	3	0.03	0.5	0.5	120	10000			0.175	2.7	7	out	SOT23-5	ZD	Micropower Zero-Drift 3V/5V Operation	\$1.00
1	LTC2054HV	0.15	5	0.03	0.5	0.5	120	10000			0.21	2.7	12	out	SOT23-5	ZD	Micropower Zero-Drift ±5V Operation	\$1.25
1	LTC1250	0.2	10	0.05	1.5	10	110	316227	15	0.004	4	4.75	18		DIP-8/SO-8	ZD	Low Noise/Zero-Drift Bridge Amp	\$2.85
1	LTC1992	0.25	2500	0.65 Typ	4	0.75	69	10	18	1	1	2.4	12	out	MS-8	DIFF	Fully Differential In/Out	\$1.65
1	LTC1992-1	0.25	2500	0.65 Typ	4	0.75	55		45	1	2.7	12	out	MS-8	DIFF	Fully Differential In/Out/ $A_V=1$	\$3.95	
1	LTC1992-2	0.25	2500	0.65 Typ	4	0.75	55		45	1	2.7	12	out	MS-8	DIFF	Fully Differential In/Out/ $A_V=2$	\$3.95	
1	LTC1992-5	0.25	2500	0.65 Typ	4	0.75	55		45	1	2.7	12	out	MS-8	DIFF	Fully Differential In/Out/ $A_V=5$	\$3.95	
1	LTC1992-10	0.25	2500	0.65 Typ	4	0.75	55		45	1	2.7	12	out	MS-8	DIFF	Fully Differential In/Out/ $A_V=10$	\$3.95	
1	LT1097	0.25	50	1.2	0.7	0.2	115	2500	14	0.008	0.56	2	40		DIP-8/SO-8	VFB	Low Cost/C-Load stable	\$1.75
1	LT1168	0.25	40	0.3	0.4	0.5	126		10	0.074	0.53	4.6	40		DIP-8/SO-8	IA	Precision IA/Low Bias Current/Low Power	\$3.70
1	LT6013	0.25	35	0.8	1.6	0.2	107	2000	9.5	0.15	0.165	2.7	40	out	DFN-8/SO-8	VFB	Micropower/Precision/RRIO/ $A_V>5$	\$1.10
1	LT1167	0.35	40	0.3	1	1.2	126		7.5	0.124	1.3	4.6	40		DIP-8/SO-8	IA	Precision/Low Bias Current IA	\$3.20
1	LT1792	0.8	600	10	5.6	3.4	85	4800	4.2	0.01	5.2	10	40		DIP-8/SO-8	JFET	FET Input/Low Distortion/Precision	\$2.25
1	LT1880	0.9	150	1.2	1.1	0.55	116	1600	13	0.07	1.9	2.4	40	out	SOT23-5	VFB	Picoamp Input Current/Precision	\$1.75
1	LT1494	1	375	2	0.0027	0.001	100	500	185	0.01	0.0015	2.1	36	yes	DIP-8/MS-8/SO-8	VFB	Ultralow Power/Rail-to-Rail/Precision	\$1.65
1	LT1672	1	375	2	0.012	0.005	90	500	185	0.01	0.002	2.1	36	yes	DIP-8/MS-8/SO-8	VFB	Ultralow Power/Over-The-Top Inputs	\$1.65
1	LT1001	2	25	0.6	0.8	0.25	114	800	9.6	0.1	2.5	6	44		DIP-8/SO-8	VFB	General Purpose/High Precision	\$1.65
1	LT1920	2	125	1	0.8	1.2	110		7.5	0.124	1.3	4.6	40		DIP-8/SO-8	IA	Resistor Programmable IA	\$3.05
1	LT1635	4.5	1300	7	0.175	0.045	94	450	50	0.05	0.2	1.1	14	out	DIP-8/SO-8	VFB	Op Amp and Reference/LM10 Pinout	\$1.75
1	LT1996	5	50	1	0.56	0.12	80		18		0.11	2.7	36	yes	MS-10/DFN-10	SGA	Precision/ $A_V=9$ to 117	\$1.39
1	LT1991	5	50	1	0.56	0.12	80		46		0.11	2.4	40	yes	MS-10/DFN-10	SGA	Precision/Gain Select Range -13 to 14	\$1.39
1	LT6000	5	750	5	0.05	0.015	90	65	75	0.025	0.016	1.8	18	yes	DFN-6	VFB	1.8V/13μA Precision RRIO	\$0.80
1	LT1636	8	225	5	0.2	0.07	84	2000	52	0.035	0.055	2.6	44	yes	DFN-8/DIP-8/MS-8/SO-8	VFB	Over-The-Top Micropower Op Amp	\$1.45
1	LT1101	8	160	2	0.37	0.1	100		43	0.06	0.13	1.8	44		DIP-8/SOW-16	IA	Micropower Single Supply IA/ $A_V=10$ or 100	\$4.75
1	LT1077	9	40	1.6	0.23	0.08	97	1000	27	0.065	0.06	2.2	44	ss	DIP-8/SO-8	VFB	High Precision Micropower Single Supply	\$1.60
1	LTC2053	10	10	0.05	0.2	0.2	105		50		1.3	2.7	11	yes	DFN-8/MS-8	ZD/IA	Zero-Drift IA	\$3.20
1	LTC6800	10	100	0.25	0.2	0.2	90		50		1.2	2.7	5.5	yes	DFN-8/MS-8	IA	Zero-Drift RRIO IA	\$1.55
1	LTC6915	10	10	0.05	0.2	0.2	105		50		1.6	2.7	11	yes	DFN-12/SSOP-16	IA/ZD	Serial or Par. PGA/ $A_V=0$ to 4096 V/V	\$2.44
1	LTC2053-SYNC	10	10	0.05	0.2	0.2	105		50		1.3	2.7	11	yes	MS-8	ZD/IA	Zero-Drift IA/Freq. Set with Ext. Clock	\$3.40
2	LTC6078	0.001	25	0.7	0.75	0.05	95	3162	18		0.072	2.7	6	yes	MS-8/DFN-10	VFB	Micropower/Precision/RRIO	\$1.49
2	LTC6081	0.001	70	0.8	3.6	1	100	1000	13	0.0005	0.425	2.7	5.5	yes	DFN-10/MS-8	VFB	Precision/RRIO/Picoamp Input Current	\$1.74

† Primary Sort Column  
 †† Secondary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# LOW INPUT BIAS CURRENT OP AMPS ( $I_{BIAS} \leq 10nA$ MAX)

† Amplifiers Per Package	Part Number	‡‡ $I_{BIAS}$ Max 25°C (nA)	$V_{OS}$ Max 25°C (µV)	TC of $V_{OS}$ Max (µV/°C)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/µs)	CMRR Min 25°C (dB)	$A_{VOL}$ Typ 25°C (V/mV)	$E_{NOISE}$ Typ 25°C (nV/√Hz)	$I_{NOISE}$ Typ 25°C (pA/√Hz)	$I_{SUPPLY}$ Per Amplifier Max 25°C (mA)	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Type <sup>(2)</sup>	Features	Price 1K Qty
2	LTC6084	0.001 Typ	750	5	1.5	0.5	64	2000	31	0.00056	0.13	2.5	5.5	yes	3×3 DFN-8/MS-8	VFB	Precision/1.5MHz/RRIO/Low Bias Current	\$0.91
2	LTC6087	0.001 Typ	750	5	14	7.2	70	6000	12	0.0056	1.3	2.7	5.5	yes	MS-8/DFN-10	VFB	Picoamp Input Current/RRIO	\$0.91
2	LT1464	0.002	800	20	1	0.9	76	1000	24	0.0004	0.2	10	40		DIP-8/SO-8	JFET	JFET with Excellent C-Load Stability	\$2.50
2	LT1462	0.002	800	20	0.175	0.13	76	600	76	0.0005	0.045	10	40		DIP-8/SO-8	JFET	JFET with Excellent C-Load Stability	\$2.50
2	LT1169	0.02	2000	50	5.3	4.2	82	4500	6	0.001	6.5	9	40		DIP-8/SO-8	VFB	Low Noise JFET	\$3.85
2	LTC1047	0.03	10	0.05	0.2	0.2	110	31622		0.0015	0.275	4.75	16	out	DIP-8/SOW-16	ZD	Zero-Drift no External Capacitors	\$4.85
2	LT1057	0.05	450	10	5	14	86	350	13	0.0015	2.5	8	40		DIP-8/SO-8/SOW-16	JFET	High Speed JFET Input	\$2.45
2	LT1457	0.05	450	10	1.7	4	86	300	13	0.0015	3	9	40		DIP-8/SO-8	JFET	JFET with Excellent C-Load Stability	\$2.35
2	LTC1051	0.065	5	0.05	2.5	4	106	100000	70	0.0022	2	4.75	16.5	out	DIP-8/SOW-16	ZD	Zero-Drift no External Capacitors	\$4.05
2	LTC6241	0.075	125	2.5	18	10	80	1600	7	0.00056	2.2	2.8	6	out	DFN-8/SO-8	VFB	1pA Input Bias Current CMOS Amp	\$1.25
2	LTC2051	0.075	3	0.03	3	2	120	10000		1.2	2.7	7	out	DFN-8/MS-8/MS-10/SO-8	ZD	Zero-Drift/3V/5V Operation	\$2.00	
2	LTC6244	0.075	100	2.5	50	35	74	2500	8	0.00056	7.4	2.8	7	out	DFN-8/MSOP-8	VFB	50MHz/Low Noise/RRIO/CMOS	\$1.65
2	LTC6244HV	0.075	100	2.5	50	35	74	2500	8	0.00056	7.4	2.8	12	out	DFN-8/MSOP-8	VFB	50MHz/Low Noise/RRIO/CMOS	\$2.35
2	LTC6241HV	0.075	175	2.5	18		80	1600	7	0.00056	2.2	2.8	11	out	DFN-8/SO-8	VFB	1pA Input Bias Current CMOS Amp	\$2.20
2	LT6004	0.09	500	5	0.002	0.0008	88	150	325	0.012	0.001	1.6	16	yes	DFN-8/MS-8	VFB	1.6V, 1µA Precision RRIO	\$1.10
2	LTC1151	0.1	5	0.05	2	2.5	106	10000		0.0022	1.5	4.75	36	ss	DIP-8/SOW-16	ZD	Auto Zero Amplifier Works on 30V+	\$5.80
2	LT1024	0.12	50	1.5	1	0.2	112	2000	14	0.02	0.6	4	40		DIP-14	VFB	Low $V_{OS}$ /Low Power	\$4.75
2	LTC2051HV	0.15	3	0.03	3	2	125	10000		1.5	2.7	12	out	DFN-8/MS-8/MS-10/SO-8	ZD	Zero-Drift 3V/5V/±5V Operation	\$2.50	
2	LTC2055	0.15	3	0.03	0.5	0.5	120	10000		0.15	2.7	7	out	DFN-8/MS-8	ZD	Micropower Zero-Drift 3V/5V Operation	\$1.60	
2	LTC2055HV	0.15	5	0.03	0.5	0.5	120	10000		0.18	2.7	12	out	DFN-8/MS-8	ZD	Micropower Zero-Drift ±5V Operation	\$2.00	
2	LT1881	0.2	50	0.8	1	0.35	106	1600	14	0.03	0.9	2.4	40	out	DIP-8/SO-8	VFB	Picoamp Input Current/Precision	\$2.75
2	LT1112	0.25	60	0.5	0.75	0.3	120	5000	14	0.0008	0.4	2	40		DIP-8/SO-8	VFB	Low Power/Matching Specs/C-Load Stable	\$2.35
2	LT6011	0.3	60	0.8	0.33	0.09	107	2000	14	0.1	0.15	2.4	40	out	DFN-8/SO-8/MS-8	VFB	Micropower/Precision/RRIO	\$1.65
2	LT1884	0.4	50	0.8	2	0.9	108	1600	9.5	0.05	0.9	2.4	40	out	DIP-8/SO-8	VFB	Picoamp Input Current/Precision	\$2.75
2	LT6014	0.4	60	0.8	1.6	0.2	107	2000	9.5	0.15	0.165	2.7	40	out	DFN-8/SO-8	VFB	Micropower/Precision/RRIO/ $A_{V} > 5$	\$1.65
2	LT1113	0.45	1500	1.5	5.6	3.9	85	4800	4.5	0.01	6.25	9	40		DIP-8/SO-8	JFET	Low Noise and Low Offset/JFET Input	\$3.15
2	LT1495	1	375	2	0.0027	0.001	100	500	185	0.01	0.0015	2.1	36	yes	DIP-8/SO-8	VFB	Ultralow Power/Rail-to-Rail/Precision	\$2.45
2	LT1673	1	375	2	0.012	0.005	90	500	185	0.01	0.002	2.1	36	yes	DIP-8/SO-8	VFB	Ultralow Power/Over-The-Top Inputs	\$2.45
2	LT1002	3	60	0.9	0.8	0.25	110	800	9.6	0.1	2.5	6	44		DIP-14	VFB	High CMRR and PSRR	\$2.85
2	LT6001	5	600	5	0.05	0.015	82	65	75	0.025	0.016	1.8	18	yes	MS-8/DFN-10	VFB	1.8V/13µA Precision RRIO	\$1.25
2	LT2178	5	70	1.8	0.06	0.025	93	700	49	0.01	0.018	2.2	44	ss	SO-8	VFB	Micropower Single Supply	\$3.50
2	LT1178	5	70	3	0.085	0.04	97	2500	49	0.00001	0.017	2	44	ss	DIP-8/SO-8/SOW-16	VFB	Precision/Micropower/Single Supply	\$2.95
2	LT1490A	8	500	4	0.18	0.06	84	1500	50	0.015	0.055	2	44	yes	DFN-8/DIP-8/MS-8/SO-8	VFB	RRIO/Over-The-Top	\$1.75
2	LT2078	8	70	1.8	0.2	0.07	95	1000	28	0.02	0.05	2.3	44	ss	SO-8	VFB	Micropower/Single Supply/Std Pinout	\$3.50
2	LT1078	8	70	1.8	0.2	0.07	97	1000	28	0.06	0.05	2.2	44	ss	DIP-8/SO-8	VFB	Precision/Micropower/Single Supply	\$2.70
4	LTC6079	0.001	25	1.4	0.75	0.05	95	3162	18		0.072	2.7	6	yes	DFN-16/SSOP-16	VFB	Micropower/Precision/RRIO	\$2.53
4	LTC6082	0.001	70	0.8	3.6	1	100	1000	13	0.0005	0.425	2.7	5.5	yes	DFN-16/SSOP-16	VFB	Precision/RRIO/Picoamp Input Current	\$2.97
4	LTC6085	0.001 Typ	750	5	1.5	0.5	64	2000	31	0.00056	0.13	2.5	5.5	yes	5×3 DFN-16, SSOP-16	VFB	Precision/1.5MHz/RRIO/Low Bias Current	\$1.40
4	LTC6088	0.001 Typ	750	5	14	7.2	70	6000	12	0.0056	1.3	2.7	5.5	yes	SSOP-16/DFN-16	VFB	Picoamp Input Current/RRIO	\$1.40
4	LT1463	0.002	800	20	0.125	0.13	74	600	76	0.0005	0.045	10	40		DIP-14/SO-14	JFET	JFET with Excellent C-Load Stability	\$4.30
4	LT1465	0.002	800	20	1	0.9	74	900	24	0.0004	0.2	10	40		DIP-14/SO-14	JFET	JFET with Excellent C-Load Stability	\$4.30
4	LT1058	0.05	600	15	5	14	84	350	13	0.0015	2.5	8	40		DIP-14/SOW-16	JFET	Low Offset JFET Input	\$4.20
4	LTC1053	0.065	5	0.05	2.5	4	106	100000	70	0.0022	2	4.75	16.5	out	DIP-14/SOW-18	ZD	Zero-Drift No External Capacitors	\$7.50
4	LTC6242	0.075	150	2.5	18	10	80	1600	7	0.00056	2.2	2.8	6	out	DFN-16/SSOP-16	VFB	1pA Input Bias Current CMOS Amp	\$2.25
4	LTC6242HV	0.075	200	2.5	18	10	80	1600	7	0.00056	2.2	2.8	11	out	DFN-16/SSOP-16	VFB	1pA Input Bias Current CMOS Amp	\$3.30
4	LTC2052	0.075	3	0.03	3	2	120	10000		1.2	2.7	7	out	SO-14/SSOP-16	ZD	Zero-Drift Op Amp 3V/5V Operation	\$3.65	
4	LT6005	0.09	650	5	0.002	0.0008	88	150	325	0.012	0.001	1.6	16	yes	TSOP-16/DFN-16	VFB	1.6V, 1µA Precision RRIO	\$1.75
4	LTC2052HV	0.15	3	0.03	3	2	125	10000		1.5	2.7	12	out	SO-14/SSOP-16	ZD	Zero-Drift 3V/5V/±5V Operation	\$4.55	
4	LT1114	0.25	60	1.1	0.75	0.3	120	5000	14	0.008	0.4	2	40		DIP-14/SO-16	VFB	Low Power/Matching Specs/C-Load Stable	\$4.40
4	LT6012	0.3	60	0.8	0.33	0.09	107	2000	14	0.1	0.15	2.4	40	out	SO-14/SSOPN-16	VFB	Micropower/Precision/RRIO	\$2.95
4	LT1882	0.5	80	0.8	1	0.35	106	1600	14	0.3	0.9	2.4	40	out	SO-14	VFB	Picoamp Input Current/Precision	\$4.85
4	LT1885	0.9	80	0.8	2	0.9	108	1600	9.5	0.05	0.9	2.4	40	out	SO-14	VFB	Picoamp Input Current/Precision	\$4.85
4	LT1674	1	375	2	0.012	0.005	90	500	185	0.01	0.002	2.1	36	yes	DIP-14/SO-14	VFB	Ultralow Power/Over-The-Top Inputs	\$3.25
4	LT1496	1	375	2	0.0027	0.001	100	500	185	0.01	0.0015	2.1	36	yes	DIP-14/SO-14	VFB	Ultralow Power/Precision/RRIO	\$3.25

† Primary Sort Column  
‡‡ Secondary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

# LOW INPUT BIAS CURRENT OP AMPS ( $I_{BIAS} \leq 10nA$ MAX)

† Amplifiers Per Package	Part Number	†† $I_{BIAS}$ Max 25°C (nA)	$V_{OS}$ Max 25°C (μV)	TC of $V_{OS}$ Max (μV/°C)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	CMRR Min 25°C (dB)	$A_{VOL}$ Typ 25°C (V/mV)	$E_{NOISE}$ Typ 25°C (nV/√Hz)	$I_{NOISE}$ Typ 25°C (pA/√Hz)	$I_{SUPPLY}$ Per Ampl Max 25°C (mA)	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Type <sup>(2)</sup>	Features	Price 1K Qty
4	LT2179	5	100	3	0.06	0.025	93	700	49	0.01	0.018	2.2	44	ss	SO-14	VFB	Micropower Single Supply	\$6.30
4	LT6002	5	750	5	0.05	0.015	82	65	75	0.025	0.016	1.8	18	yes	SSOP-16/DFN-16	VFB	1.8V/13μA Precision RRIO	\$2.00
4	LT1179	5	100	0.3	0.085	0.04	97	2500	49	0.00001	0.017	2	44	ss	DIP-14/SOW-16	VFB	Precision/Micropower/Single Supply	\$3.70
4	LT2079	8	110	3	0.2	0.07	95	1000	28	0.02	0.05	2.3	44	ss	SO-14	VFB	Micropower Single Supply	\$5.95
4	LT1079	8	100	1.8	0.2	0.07	97	1000	28	0.06	0.05	2.2	44	ss	DIP-14/SOW-16	VFB	Precision/Micropower/Single Supply	\$3.40
4	LT1491A	8	1000	4	0.18	0.06	84	1500	50	0.015	0.055	2	44	yes	DIP-14/SO-14/DFN-16	VFB	RRIO/Over-The-Top	\$3.00

† Primary Sort Column  
 †† Secondary Sort Column

Notes:

- ss = Input common mode range includes negative supply rail
- Topology: VFB = Voltage Feedback, CFA = Current Feedback, ZD = Zero-Drift Amplifier, IA = Instrumentation Amplifier, JFET = JFET Input Stage, BUF = Buffer, MUX = Multiplexer, VIDEO = Optimized for Video Applications, DIFF = Fully Differential Amplifier, SGA = Selectable Gain Difference Amplifier, CSA = Current Sense Amplifier, PGA = Programmable Gain Amplifier, VGA = Variable Gain Amplifier
- C.F. = Contact Factory

## SOT-23 AND DFN OP AMPS

† Amplifiers Per Package	Part Number	$V_{OS}$ Max 25°C (μV)	TC of $V_{OS}$ Max (μV/°C)	$I_{BIAS}$ Max 25°C (nA)	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	$E_{NOISE}$ Typ 25°C (nV/√Hz)	$I_{OUT}$ Min 25°C (mA)	$I_{SUPPLY}$ Per Ampl Max 25°C (mA)	Shutdown	Rail-to-Rail I/O <sup>(1)</sup>	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Features	Price 1K Qty
1	LT6416	5000		10000	2000	3400	1.8	20	51	no		2.7	3.9	DFN-10		DIFF	16-Bit, 2GHz Differential ADC Buffer	\$3.50
1	LT6200-10	1000	24	40000	1600	450	0.95	60	23	yes	yes	2.5	12.6	SO-8/SOT23-6	1000	VFB	Low Noise/RRIO/High Speed/ $A_V > 10$	\$1.50
1	LT6230-10	500	3	10000	1450	320	1.1	30	3.75	yes	out	3	12.6	SOT23-6	2000	VFB	Ultralow Noise/Low Power/ $A_V > 10$	\$1.50
1	LT6200-5	1000	24	40000	800	250	0.95	60	23	yes	yes	2.5	12.6	SO-8/SOT23-6	1000	VFB	Low Noise/RRIO/High Speed/ $A_V > 5$	\$1.50
1	LT1395	10000	15		400	800	4.5	80	6.5	yes		3	12.6	SO-8/SOT23-5/SOT23-6	1000	CFA	CFA/100MHz 0.1dB Bandwidth	\$1.30
1	LT1818	1500	15	8000	400	2500	6	40	10	no		3.5	12.6	SO-8/SOT23-5	20	VFB	High Slew Rate VFB	\$0.95
1	LT6233-10	500	3	3000	375	115	1.9	40	1.25	yes	out	3	12.6	SOT23-6	1000	VFB	Low Noise/Low Power/ $A_V > 10$	\$1.90
1	LT1806	550	5	4000	325	125	3.5	35	13	yes	yes	2.5	12.6	SO-8/SOT23-6	1000	VFB	High Speed/Precision/Low Noise	\$2.10
1	LT1815	1500	15	8000	220	1500	6	50	7.8	no		4	12.6	SO-8/SOT23-5/SOT23-6	10	VFB	High SR VFB with Prog. Supply Current	\$0.88
1	LT6230	500	3	10000	215	70	1.1	30	3.75	yes	out	3	12.6	SOT23-6	1000	VFB	Ultralow Noise/Low Power/High Speed	\$1.25
1	LT6210	6000			200	700	6.5	75	8.3	no	out	3	13.2	SOT23-6	10000	CFA	Adjustable Speed and Power CFA	\$1.20
1	LT1722	400	7	300	200	70	3.8	35	4.5	no		4.6	12.6	SO-8/SOT23-5	100	VFB	Low Noise at Video Speed/Precision	\$0.88
1	<b>LT1468-2</b>	<b>75</b>	<b>2</b>	<b>40</b>	<b>200</b>	<b>30</b>	<b>5</b>	<b>15</b>	<b>5</b>	<b>no</b>		<b>9</b>	<b>36</b>	<b>DFN-8/SO-8</b>	<b>300</b>	<b>VFB</b>	<b>16-Bit Accuracy, 760ns to 0.01% Settling/<math>A_V &gt; 2</math></b>	<b>\$2.95</b>
1	LT6200	1000	24	40000	165	50	0.95	60	23	yes	yes	2.5	12.6	SO-8/SOT23-6	1000	VFB	Low Noise/RRIO/High Speed	\$2.15
1	LT1809	2500	25	8000	160	300	16	45	17	yes	yes	2.5	12.6	SO-8/SOT23-6	1000	VFB	Low Distortion/High Speed/Low Noise	\$1.75
1	LT6205	4500	18	30000	100	600	9	25	5.6	no	out	3	12.6	DFN-8/DIP-8/SO-8	1000	VFB	3V 100MHz Single Supply Video Amp	\$0.88
1	LT1812	1500	15	4000	100	750	8	40	3.6	yes		2.5	12.6	SO-8/SOT23-5/SOT23-6	100	VFB	High Speed/Power/Low Noise	\$0.88
1	LT6202	500	24	7000	100	25	1.9	30	3.5	no	yes	2.5	12.6	SO-8/SOT23-5	1000	VFB	Low Noise/Low Power/RRIO	\$1.45
1	LT1468	75	2	40	90	22	5	15	5	no		9	36	DFN-8/DIP-8/SO-8	300	VFB	16-Bit Accuracy, 760ns to 0.01% Settling	\$2.95
1	LT1803	2000	35	750	83	100	21	20	3	no	yes	2.3	12.6	SO-8/SOT23-5	1000	VFB	RRIO/High Speed	\$1.30
1	LT1800	350	5	250	80	25	8.5	20	2	no	yes	2.3	12.6	SO-8/SOT23-5	1000	VFB	High Speed/Power/Precision/RRIO	\$1.30
1	LT6552	20000	12.5 Typ	50000	75	600	55	35	13.5	yes	out	3	12.6	DFN-8/SO-8	1000	VFB	Low Power Video Difference Amp	\$1.10
1	LT1994	2000	13.3 Typ	45000	70	65	3	45	18.5	yes	out	2.375	12.6	MS-10/DFN-8	25	DIFF	Low Noise/Low Distortion/Diff. In/Out	\$1.65
1	LT6233	500	3	3000	60	17	1.9	40	1.25	yes	out	3	12.6	SOT23-6	1000	VFB	Ultralow Noise/Low Power/High Speed	\$1.45
1	LT6220	350	5	150	60	20	10	20	1	no	yes	2.2	12.6	SO-8/SOT23-5	7000	VFB	Precision/Low Power/RRIO	\$1.20
1	LT1010	150000		250000	30	200	20	150	9	no		4.5	44	DIP-8/T-5/DFN-10	330000	BUF	High Power High Speed Buffer	\$2.40
1	LT1995	5000	26	600 Typ	24	1000	14	70	8.5	no		2.5	36	MS-10/DFN-10	200	SGA	Fast Diff. Amp/Integrated Resistors	\$1.89
1	LTC6240	175	2.5	0.001	18	10	7	15	2.4	no	2.8	6		SOT-23/SO-8	200	VFB	18MHz/Low Noise/RRIO/CMOS	\$0.77
1	LTC6240HV	250	2.5	0.001	18	10	7	15	3.3	no	2.8	11		SOT-23/SO-8	200	VFB	18MHz/Low Noise/RRIO/CMOS	\$1.40
1	LTC6910-2	15000			13	16	9.1	9.5	3	no	yes	2.7	11	SOT23-8	50	PGA	3-Bit Gain Control/0 to 64 V/V	\$1.10

† Primary Sort Column  
 †† Secondary Sort Column



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# SOT-23 AND DFN OP AMPS

† Amplifiers Per Package	Part Number	V <sub>OS</sub> Max 25°C (µV)	TC of V <sub>OS</sub> Max (µV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/µs)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Amp Max 25°C (mA)	Shutdown	Rail-to-Rail I/O <sup>(1)</sup>	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Features	Price 1K Qty
1	LTC6910-1	15000			11	16	8.6	9.5	3	no	yes	2.7	11	SOT23-8	50	PGA	3-Bit Gain Control/0 to 100 V/V	\$1.10
1	LTC6910-3	15000			11	16	10.6	9.5	3	no	yes	2.7	11	SOT23-8	50	PGA	3-Bit Gain Control/0 to 7 V/V	\$1.10
1	LT1797	1500	20	300	10	2.25	20	25	1.5	no	yes	2.1	12.6	SOT23-5	10000	VFB	RRIO/Low Noise/C-Load Stable	\$1.00
1	LTC6600-10	13000	35 Typ	85000	10		14		39	no	ss	2.7	11	SO-8/DFN-12	50	DIFF	Differential Amp and 4th Order 10MHz LP Filter	\$2.95
1	LTC2050	3	0.03	0.075	3	2		2.4	1.2	yes	out	2.7	7	SO-8/SOT23-5/SOT23-6	50	ZD	Zero-Drift Op Amp 3V/5V Operation	\$1.15
1	LTC2050HV	3	0.03	0.05	3	2		2.4	1.5	yes	out	2.7	12	SO-8/SOT23-5/SOT23-6	50	ZD	Zero-Drift 3V/5V/±5V Operation	\$1.45
1	LT1784	3500	15	500	2.5	2.1	25	20	0.75	yes	yes	2	18	SOT23-5/SOT23-6	1000	VFB	Low Power/RRIO/Shutdown	\$1.00
1	LTC6600-2.5	13000	26 Typ	35000	2.5		23		30	no	ss	2.7	11	SO-8/DFN-12	50	DIFF	Differential Amp and 4th Order 2.5MHz LP Filter	\$2.95
1	LT6013	35	0.8	0.25	1.6	0.2	9.5	8	0.165	no	out	2.7	40	DFN-8/SO-8	500	VFB	Micropower/Precision/RRIO/A <sub>V</sub> >5	\$1.10
1	LT1783	800	5	80	1.25	0.42	20	20	0.3	yes	yes	2.2	18	SOT23-5/SOT23-6	3000	VFB	Over-The-Top/Micropower/RRIO/C-Load	\$1.10
1	LT1880	150	1.2	0.9	1.1	0.55	13	1	1.9	no	out	2.4	40	SOT23-5	1000	VFB	Picoamp Input Current/Precision	\$1.75
1	LT1637	350	3	50	1	0.35	27	15	0.25	yes	yes	1.8	44	DFN-8/DIP-8/MS-8/SO-8	2000	VFB	High Voltage/Over-The-Top/Low Power	\$1.45
1	LT1996	50	1	5	0.56	0.12	18	8	0.11	no	yes	2.7	36	MS-10/DFN-10		SGA	Precision/A <sub>V</sub> =9 to 117	\$1.39
1	LT1991	50	1	5	0.56	0.12	46	8	0.11	no	yes	2.4	40	MS-10/DFN-10	100	SGA	Precision/Gain Select Range -13 to 14	\$1.39
1	LTC2054	3	0.03	0.15	0.5	0.5		1	0.175	no	out	2.7	7	SOT23-5	50	ZD	Micropower Zero-Drift 3V/5V Operation	\$1.00
1	LTC2054HV	5	0.03	0.15	0.5	0.5		1	0.21	no	out	2.7	12	SOT23-5	50	ZD	Micropower Zero-Drift ±5V Operation	\$1.25
1	LT6010	35	0.8	0.11	0.33	0.09	14	1	0.15	yes	out	2.7	40	DFN-8/SO-8	500	VFB	Micropower/Precision/RRIO	\$1.10
1	LT1782	800	5	15	0.2	0.07	50	20	0.055	yes	yes	2.2	18	SOT23-5/SOT23-6	10000	VFB	Over-The-Top/Micropower/RRIO/C-Load	\$1.10
1	LT1636	225	5	8	0.2	0.07	52	12	0.055	yes	yes	2.6	44	DFN-8/DIP-8/MS-8/SO-8	10000	VFB	Over-The-Top Micropower Op Amp	\$1.45
1	LTC6800	100	0.25	10	0.2	0.2	50	2.4	1.2	no	yes	2.7	5.5	DFN-8/MS-8	30	ZD/IA	Zero-Drift RRIO IA	\$1.55
1	LTC2053	10	0.05	10	0.2	0.2	50	2.4	1.3	no	yes	2.7	11	DFN-8/MS-8	30	ZD/IA	Zero-Drift IA	\$3.20
1	LTC6915	10	0.05	10	0.2	0.2	50	2	1.6	yes	yes	2.7	11	DFN-12/SSOP-16	30	ZD/IA	Serial or Par. PGA/A <sub>V</sub> =0 to 4096 V/V	\$2.44
1	LT6000	750	5	5	0.05	15	75	4 Typ	0.016	no	yes	1.8	18	DFN-6	800	VFB	1.8V/13µA Precision/Rail-to-Rail	\$0.80
1	LT6100	300	3	10000	0.15	0.5		8	0.13	no	ss	4.1	48	DFN-8/MS-8		CSA	Precision/Gain Selectable Current Sense	\$1.18
1	LTC6101	450	0.22 Typ		0.02			1	0.45	no	ss	4	60	SOT23-5/MS-8		CSA	High Voltage/High Side Current Sense	\$1.04
1	LTC6101HV	300	0.2 Typ		0.02			1 Typ	0.45	no	ss	5	100	SOT23-5/MS-8		CSA	High Voltage/High Side Current Sense	\$1.30
1	LTC1541	1000			0.012				0.01	no	ss	2.5	12.6	MS-8/SO-8/DFN-8		REF	Micropower Amp/Comparator and Ref	\$1.50
1	LTC1542	1000			0.012	8		1.3	0.01	no	out	2.5	12.6	MS-8/SO-8/DFN-8	1000	REF	Micropower Amp/Comparator and Ref	\$1.20
1	LT6003	500	5	0.09	0.002	0.0008	325	2	0.001	no	yes	1.6	16	DFN-4/SOT23-5	2000	VFB	1.6V, 1µA RRIO Precision	\$0.72
2	LT1396	12000	4.6 Typ		400	800	4.5	80	6.5	no		3	12.6	DFN-8/MS-8/SO-8	1000	CFA	CFA/100MHz 0.1dB BW	\$1.95
2	LT1816	1500	15	8000	220	1500	6	50	7.8	no		2.5	12.6	DFN-8/MS-8/MS-10/SO-8	10	VFB	High SR VFB with Prog Supply Current	\$1.50
2	LT6231	350	3	10000	215	70	1.1	30	3.75	no	out	3	12.6	DFN-8/SO-8	1000	VFB	Ultralow Noise/Low Power/High Speed	\$1.95
2	LT6211	6000			200	700	6.5	75	8.3	no	out	3	13.2	DFN-10/MS-10	10000	CFA	Adjustable Speed and Power CFA	\$1.60
2	LT1739	5000	10 Typ	4000	200	600	8	500	13.5	yes		8	27	DFN-12/TSSOP-20	30	VFB	High I <sub>OUT</sub> /Low Noise/High Speed	\$3.55
2	<b>LT1469-2</b>	<b>125</b>	<b>3</b>	<b>40</b>	<b>200</b>	<b>30</b>	<b>5</b>	<b>15</b>	<b>5.2</b>	<b>no</b>		<b>9</b>	<b>36</b>	<b>DFN-12/SO-8</b>	<b>300</b>	<b>VFB</b>	<b>16-Bit Accuracy, 760ns to 0.01% Settling/A<sub>V</sub>&gt;2</b>	<b>\$4.95</b>
2	LT6201	1000	24	40000	165	50	0.95	60	23	no	yes	2.5	12.6	DFN-8/SO-8	1000	VFB	Low Noise/RRIO/High Speed	\$3.65
2	LT1813	1500	15	4000	100	750	8	40	3.6	no		2.5	12.6	MS-8/SO-8/DFN-8	100	VFB	High Speed/Power/Low Noise	\$0.99
2	LT6203	500	24	7000	100	25	1.9	30	3.5	no	yes	2.5	12.6	DFN-8/MS-8/SO-8	1000	VFB	Low Noise/Low Power/RRIO	\$2.45
2	LT1469	125	3	40	90	22	5	15	5.2	no		9	36	DFN-12/DIP-8/SO-8	300	VFB	16-Bit Accuracy, 760ns to 0.01% Settling	\$4.95
2	LT1804	2000	35	750	83	100	21	20	3	no	yes	2.3	12.6	DFN-8/SO-8	1000	VFB	RRIO/High Speed	\$1.95
2	LT1801	350	5	250	80	25	8.5	20	2	no	yes	2.3	12.6	DFN-8/MS-8/SO-8	1000	VFB	High Speed/Power/Precision/RRIO	\$1.95
2	LT6221	350	5	150	60	20	10	20	1	no	yes	2.2	12.6	DFN-8/SO-8	7000	VFB	Precision/Low Power/RRIO	\$1.85
2	LT6234	350	3	3000	60	17	1.9	40	1.25	no	out	3	12.6	DFN-8/SO-8	1000	VFB	Ultralow Noise/Low Power	\$2.45
2	LTC6244	100	2.5	0.075	50	35	8	25	7.4	no	out	2.8	6	DFN-8/MSOP-8	200	VFB	50MHz/Low Noise/RRIO/CMOS	\$1.65
2	LTC6244HV	100	2.5	0.075	50	35	8	25	7.4	no	out	2.8	10.5	DFN-8/MSOP-8	200	VFB	50MHz/Low Noise/RRIO/CMOS	\$2.35
2	LTC6912-1	22000	1.75 Typ		30	16	15.1	35 Typ	2.75	yes	yes	2.7	10.5	DFN-12/SSOP-16	50	PGA	Dual PGA/Serial SPI/A <sub>V</sub> =0 to 100V/V	\$2.15
2	LTC6912-2	22000	1.75 Typ		30	16	15.1	35 Typ	2.75	yes	yes	2.7	10.5	DFN-12/SSOP-16	50	PGA	Dual PGA/Serial SPI/A <sub>V</sub> =1 to 64V/V	\$2.15
2	LTC6241	125	2.5	0.075	18	10	7	15	2.2	no	out	2.8	6	DFN-8/SO-8	200	VFB	1pA Input Bias Current CMOS Amp	\$1.25
2	LTC6241HV	175	2.5	0.075	18	7	15	15	2.2	no	out	2.8	11	DFN-8/SO-8	200	VFB	1pA Input Bias Current CMOS Amp	\$2.20
2	LTC6087	750	5	0.001 Typ	14	7.2	12	1	1.3	yes	yes	2.7	5.5	MS-8/DFN-10	100	VFB	Picoamp Input Current/RRIO	\$0.91
2	LTC6081	70	0.8	0.001	3.6	1	13	5	0.425	yes	yes	2.7	5.5	DFN-10/MS-8	200	VFB	Precision/RRIO/Picoamp Input Current	\$1.74
2	LTC2051	3	0.03	0.075	3	2		10 Typ	1.2	yes	out	2.7	7	DFN-8/MS-8/MS-10/SO-8	100	ZD	Zero-Drift 3V/5V Operation	\$2.00
2	LTC2051HV	3	0.03	0.15	3	2		10 Typ	1.5	yes	out	2.7	12	DFN-8/MS-8/MS-10/SO-8	100	ZD	Zero-Drift 3V/5V/±5V Operation	\$2.50
2	LT6014	60	0.8	0.4	1.6	0.2	9.5	8	0.165	no	out	2.7	40	DFN-8/SO-8	500	VFB	Micropower/Precision/RRIO/A <sub>V</sub> >5	\$1.65

† Primary Sort Column  
 †† Secondary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO





† Amplifiers Per Package	Part Number	V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	Rail-to-Rail I/O <sup>(1)</sup>	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Features	Price 1K Qty
2	LTC6084	750	5	0.001 Typ	1.5	0.5	31	12.5 Typ	0.13	no	yes	2.5	5.5	DFN-8/MS-8	300	VFB	Precision/RRIO/1.5MHz/Low Bias Current	\$0.91
2	LT1638	600	6	50	1.2	0.38	20	15	0.23	no	yes	2.2	44	DFN-8/DIP-8/MS-8/SO-8	6000	VFB	High Voltage/Over-The-Top/Low Power	\$1.95
2	LTC6078	25	0.7	0.001	0.75	0.05	18	5	0.072	yes	yes	2.7	6	MS-8/DFN-10	200	VFB	Micropower/Precision/RRIO	\$1.49
2	LTC2055	3	0.03	0.15	0.5	0.5		1	0.15	no	out	2.7	7	DFN-8/MS-8	50	ZD	Micropower Zero-Drift 3V/5V Operation	\$1.60
2	LTC2055HV	5	0.03	0.15	0.5	0.5		1	0.18	no	out	2.7	12	DFN-8/MS-8	50	ZD	Micropower Zero-Drift ±5V Operation	\$2.00
2	LT6011	60	0.8	0.3	0.33	0.09	14	1	0.15	no	out	2.4	40	DFN-8/SO-8/MS-8	500	VFB	Micropower/Precision/RRIO	\$1.65
2	LT1490A	500	4	8	0.18	0.06	50	15	0.055	no	yes	2	44	DFN-8/DIP-8/MS-8/SO-8	300	VFB	RRIO/Over-The-Top	\$1.75
2	LT6001	600	5	5	0.05	0.015	75	2	0.016	yes	yes	1.8	18	MS-8/DFN-10	800	VFB	1.8V/13μA Precision RRIO	\$1.25
2	LT6004	500	5	0.09	0.002	0.0008	325	2	0.001	no	yes	1.6	16	DFN-8/MSOP-8	2000	VFB	1.6V, 1μA RRIO Precision	\$1.10
3	LT6557	40000		70000	500	2200	12	70	25	yes			7.5	SSOP-16/DFN-16		VIDEO	Single Supply Video Amp/A <sub>v</sub> =2	\$2.50
4	LT1397	1200	4.6 Typ		400	800	4.5	80	6.5	no	no	3	12.6	DFN-14/SO-14/SSOPN-14	1000	CFA	100MHz 0.1dB BW	\$2.75
4	LTC6242	150	2.5	0.075	18	10	7	15	2.2	no	out	2.8	6	DFN-16/SSOP-16	200	VFB	1pA Input Bias Current CMOS Amp	\$2.25
4	LTC6242HV	200	2.5	0.075	18	10	7	15	2.2	no	out	2.8	11	DFN-16/SSOP-16	200	VFB	1pA Input Bias Current CMOS Amp	\$3.30
4	LTC6088	750	5	0.001 Typ	14	7.2	12	1	1.3	yes	yes	2.7	5.5	SSOP-16/DFN-16	100	VFB	Picoamp Input Current/RRIO	\$1.40
4	LTC6082	70	0.8	0.001	3.6	1	13	5	0.425	yes	yes	2.7	5.5	DFN-16/SSOP-16	200	VFB	Precision/RRIO/Picoamp Input Current	\$2.97
4	LTC6085	750	5	0.001 Typ	1.5	0.5	31	12.5 Typ	0.13	no	yes	2.5	5.5	DFN-16, SSOP-16	300	VFB	Precision/RRIO/1.5MHz/Low Bias Current	\$1.40
4	LTC6079	25	1.4	0.001	0.75	0.05	18	5	0.072	no	yes	2.7	6	DFN-16/SSOP-16	200	VFB	Micropower/Precision/RRIO	\$2.53
4	LT1491A	1000	4	8	0.18	0.06	50	15	0.055	no	yes	2	44	DIP-14/SO-14/DFN-16	300	VFB	RRIO/Over-The-Top	\$3.00
4	LT6002	750	5	5	0.05	0.015	75	2	0.016	no	yes	1.8	18	SSOP-16/DFN-16	800	VFB	1.8V/13μA Precision RRIO	\$2.00
4	LT6005	500	5	0.09	0.002	0.0008	325	2	0.001	no	yes	1.6	16	DFN-16/SSOP-16	2000	VFB	1.6V, 1μA RRIO Precision	\$1.75

† Primary Sort Column  
 †† Secondary Sort Column

- Notes:  
 1. ss = Input common mode range includes negative supply rail  
 2. Topology: VFB = Voltage Feedback, CFA = Current Feedback, ZD = Zero-Drift Amplifier, IA = Instrumentation Amplifier, JFET = JFET Input Stage, BUF = Buffer, MUX = Multiplexer, VIDEO = Optimized for Video Applications, DIFF = Fully Differential Amplifier, SGA = Selectable Gain Difference Amplifier, CSA = Current Sense Amplifier, PGA = Programmable Gain Amplifier, VGA = Variable Gain Amplifier

HIGH TEMPERATURE OP AMPS (-40°C TO 125°C)

† Amplifiers Per Package	Part Number	†† V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	A <sub>VOL</sub> Typ 25°C (V/mV)	CMRR Min 25°C (dB)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	Rail-to-Rail I/O <sup>(1)</sup>	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Type <sup>(2)</sup>	Package	Features	Price 1K Qty
1	LTC2050	3	0.03	0.075	3	2	10000	120		out	2.4	1.2	yes	2.7	7	ZD	SO-8/SOT23-5/SOT23-6	Zero-Drift Op Amp 3V/5V Operation	\$1.15
1	LTC2050HV	3	0.03	0.05	3	2	10000	120		out	2.4	1.5	yes	2.7	12	ZD	SO-8/SOT23-5/SOT23-6	Zero-Drift 3V/5V/±5V Operation	\$1.45
1	LTC2054	3	0.03	0.15	0.5	0.5	10000	120		out	1	0.175	no	2.7	7	ZD	SOT23-5	Micropower Zero-Drift 3V/5V Operation	\$1.00
1	LTC2054HV	5	0.03	0.15	0.5	0.5	10000	120		out	1	0.21	no	2.7	12	ZD	SOT23-5	Micropower Zero-Drift ±5V Operation	\$1.25
1	LTC1050	5	0.05	0.03	2.5	4	100000	114	90	out	6 Typ	1.5	no	4.75	18	ZD	DIP-8/DIP-14/SO-8	Zero-Drift No External Capacitors	\$2.15
1	LTC6915	10	0.05	10	0.2	0.2		105	50	yes	2	1.6	yes	2.7	11	IA/ZD/PGA	DFN-12/SSOP-16	Serial or Par. PGA/A <sub>v</sub> =0 to 4096 V/V	\$2.44
1	LTC2053	10	0.05	10	0.2	0.2		105	50	yes	2.4	1.3	no	2.7	11	ZD/IA	DFN-8/MS-8	Zero-Drift IA	\$3.20
1	LT1991	50	1	5	0.56	0.12		80	46	yes	8	0.11	no	2.4	40	SGA	MS-10/DFN-10	Precision/Gain Select Range -13 to 14	\$1.39
1	LT1787	75	2							ss	0.05 Typ	0.12	no	2.5	36	CSA	SO-8/MS-8	Precision/High Side Current Sense	\$2.05
1	LT1787HV	75	2							ss	0.05 Typ	0.12	no	2.5	60	CSA	SO-8/MS-8	Precision/Current Sense/60V V <sub>IN</sub>	\$2.90
1	LTC6800	100	0.25	10	0.2	0.2		90	50	yes	2.4	1.2	no	2.7	5.5	IA	DFN-8/MS-8	Zero-Drift RRIO IA	\$1.55
1	LT1112MP	150	1.3	0.25	0.75	0.22	2500	115	14		5.5	0.4	no	2.4	40	VFB	SO-8	-55°C to 125°C Operation	\$7.78
1	LTC6240	175	2.5	0.001	18	10	1600	80	7	out	15	2.4	no	2.8	6	VFB	SOT-23/SO-8	18MHz/Low Noise/RRIO/CMOS	\$0.77
1	LTC6240HV	175	2.5	0.001	18	10	2700	83	7	out	15	3.3	no	2.8	11	VFB	SOT-23/SO-8	18MHz/Low Noise/RRIO/CMOS	\$1.40
1	LT1636	225	5	8	0.2	0.07	2000	84	52	yes	12	0.055	yes	2.6	44	VFB	DFN-8/DIP-8/MS-8/SO-8	Over-The-Top Micropower Op Amp	\$1.45
1	LT6100	300	3	10000	0.15	0.05		100		ss	8	0.13	no	4.1	48	CSA	DFN-8/MS-8	Precision/Gain Selectable Current Sense	\$1.18

† Primary Sort Column  
 †† Secondary Sort Column



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# HIGH TEMPERATURE OP AMPS (-40°C TO 125°C)

† Amplifiers Per Package	Part Number	‡ V <sub>OS</sub> Max 25°C (µV)	TC of V <sub>OS</sub> Max (µV/°C)	I <sub>BIAS</sub> Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/µs)	A <sub>VOL</sub> Typ 25°C (V/mV)	CMRR Min 25°C (dB)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	Rail-to-Rail I/O <sup>(1)</sup>	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Type <sup>(2)</sup>	Package	Features	Price 1K Qty
1	LTC6101HV	300	0.2 Typ		0.02														\$1.30
1	LT1637	350	3	50						yes	15	0.25	yes	1.8	44	VFB	DFN-8/DIP-8/MS-8/SO-8	High Voltage/Over-The-Top/Low Power	\$1.45
1	LT1494	375	2	1	0.0027	0.001	500	100	185	yes	0.7	0.0015	no	2.1	36	VFB	DIP-8/MS-8/SO-8	Ultralow Power/Rail-to-Rail/Precision	\$1.65
1	LTC6101	450	0.22 Typ		0.02						1	0.45	no	4	60	CSA	SOT-23-5/MS-8	High Voltage/High Side Current Sense	\$1.04
1	LT1637MP	450	10	50	1	0.35	800	88	27	yes	15	0.25	no	3	44	VFB	SO-8	-55°C to 125°C Operation	\$4.58
1	LT6003	500	5	0.09	0.002	0.0008	150	88	325	yes	2	0.001	no	1.6	16	VFB	DFN-4/SOT23-5	1.6V, 1µA Precision RRIO	\$0.72
1	LT1782	800	5	15	0.2	0.07	1500	90	50	yes	20	0.055	yes	2.2	18	VFB	SOT23-5/SOT23-6	Over-The-Top/Micropower/RRIO/C-Load	\$1.10
1	LT1783	800	5	80	1.25	0.42	1500	90	20	yes	20	0.3	yes	2.2	18	VFB	SOT23-5/SOT23-6	Over-The-Top/Micropower/RRIO/C-Load	\$1.10
1	LTC1992	2500	0.65 Typ	0.25	4	0.75	10	69	18	out	10	1	no	2.4	12	DIFF	MS-8	Fully Differential In/Out	\$1.65
1	LTC1992-1	2500	0.65 Typ	0.25	4	0.75		55	45	out	10	1	no	2.7	12	DIFF	MS-8	Fully Differential In/Out/ A <sub>v</sub> =1	\$3.95
1	LTC1992-2	2500	0.65 Typ	0.25	4	0.75		55	45	out	10	1	no	2.7	12	DIFF	MS-8	Fully Differential In/Out/ A <sub>v</sub> =2	\$3.95
1	LTC1992-5	2500	0.65 Typ	0.25	4	0.75		55	45	out	10	1	no	2.7	12	DIFF	MS-8	Fully Differential In/Out/ A <sub>v</sub> =5	\$3.95
1	LTC1992-10	2500	0.65 Typ	0.25	4	0.75		55	45	out	10	1	no	2.7	12	DIFF	MS-8	Fully Differential In/Out/ A <sub>v</sub> =10	\$3.95
1	LT1990	5200	22		0.1	0.55		70	1000	yes	6	0.18	no	2.4	36	SGA	SO-8	±250V Diff Amp and Integrated Resistors	\$1.35
1	LTC6910-2	15000			13	16		55	9.1	yes	9.5	3	no	2.7	11	PGA	SOT23-8	3-Bit Gain Control/0 to 64 V/V	\$1.10
1	LTC6910-3	15000			11	16		55	10.6	yes	9.5	3	no	2.7	11	PGA	SOT23-8	3-Bit Gain Control/0 to 7 V/V	\$1.10
2	LTC2051	3	0.03	0.075	3	2	10000	120		out	10 Typ	1.2	yes	2.7	7	ZD	DFN-8/MS-8/MS-10/SO-8	Zero-Drift 3V/5V Operation	\$2.00
2	LTC2051HV	3	0.03	0.15	3	2	10000	125		out	10 Typ	1.5	yes	2.7	12	ZD	DFN-8/MS-8/MS-10/SO-8	Zero-Drift 3V/5V/±5V Operation	\$2.50
2	LTC2055	3	0.03	0.15	0.5	0.5	10000	120		out	1	0.15	no	2.7	7	ZD	DFN-8/MS-8	Micropower Zero-Drift 3V/5V Operation	\$1.60
2	LTC2055HV	5	0.03	0.15	0.5	0.5	10000	120		out	1	0.18	no	2.7	12	ZD	DFN-8/MS-8	Micropower Zero-Drift ±5V Operation	\$2.00
2	LTC6078	25	0.7	0.001	0.75	0.05	3162	95	18	yes	5	0.072	yes	2.7	6	VFB	MS-8/DFN-10	Micropower/Precision/RRIO	\$1.49
2	LTC6081	70	0.8	0.001	3.6	1	1000	100	13	yes	5	0.425	yes	2.7	5.5	VFB	DFN-10/MS-8	Precision/RRIO/Picoamp Input Current	\$1.74
2	LTC6244	100	2.5	0.075	50	35	2500	74	8	Out	25	7.4	no	2.8	6	VFB	DFN-8/MS-8	Dual 50MHz/ Low Noise/ RRO/CMOS Op Amp	\$1.65
2	LTC6241	125	2.5	0.075	18	10	1600	80	7	Out	15	2.2	no	2.8	6	VFB	DFN-8/SO-8	1pA Input Bias Current/ RRO/CMOS Amp	\$1.25
2	LTC6241HV	175	2.5	0.075	18		1600	80	7	Out	15	2.2	no	2.8	11	VFB	DFN-8/SO-8	1pA Input Bias Current/ RRO/CMOS Amp	\$2.20
2	LT1112	150	1.3	0.25	0.75	0.22	2500	115	14		5.5	0.4	no	2.4	40	VFB	SO-8	-55°C to 125°C	\$7.78
2	LT1495	375	2	1	0.0027	0.001	500	100	185	yes	0.7	0.0015	no	2.1	36	VFB	DIP-8/SO-8	Ultralow Power/Rail-to-Rail/Precision	\$2.45
2	LTC6103	450	0.275 Typ								1	0.275 Typ	no	4	60	MS-8		Dual High Voltage/ High Side Current Sense Amp	\$1.66
2	LT1490A	500	4	8	0.18	0.06	1500	84	50	yes	15	0.055	no	2	44	VFB	DFN-8/DIP-8/MS-8/SO-8	RRIO/Over-The-Top	\$1.75
2	LT6004	500	5	0.09	0.02	0.0008	150	88	325	yes	2	0.001	no	1.6	16	VFB	DFN-8/MS-8	1.6V, 1µA Precision RRIO	\$1.10
2	LTC6084	750	5	0.001 Typ	1.5	0.5	2000	64	31	yes	12.5 Typ	0.13	no	2.5	5.5	VFB	3×3 DFN-8/MS-8	Precision/1.5MHz/RRIO/ Low Bias Current	\$0.91
2	LT1638	600	6	50	1.2	0.38	1500	88	20	yes	15	0.23	no	2.2	44	VFB	DFN-8/DIP-8/MS-8/SO-8	High Voltage/Over-The-Top/Low Power	\$1.95
2	LTC6087	750	5	0.001 Typ	14	7.2	6000	70	12	yes	1	1.3	yes	2.7	5.5	VFB	MS-8/DFN-10	Picoamp Input Current/RRIO	\$0.91
2	LTC6911-1	22000	2.1 Typ		11	16		55	9.9	yes	35 Typ	3.15	no	2.7	10.5	PGA	MS-10	Dual/3-Bit Gain Control/0 to 100 V/V	\$2.00
2	LTC6911-2	22000	2.1 Typ		11	16			10.9	yes		3.15	no	2.7	10.5	PGA	MS-10	Dual/3-Bit gain Control/0 to 64 V/V	\$2.00
4	LTC2052	3	0.03	0.075	3	2	10000	120		out	10 Typ	1.2	no	2.7	7	ZD	SO-14/SSOP-16	Zero-Drift Op Amp 3V/5V Operation	\$3.65
4	LTC2052HV	3	0.03	0.15	3	2	10000	125		out	10 Typ	1.5	no	2.7	12	ZD	SO-14/SSOP-16	Zero-Drift 3V/5V/±5V Operation	\$4.55
4	LTC6079	25	1.4	0.001	0.75	0.05	3162	95	18	yes	5	0.072	no	2.7	6	VFB	DFN-16/SSOP-16	Micropower/Precision/RRIO	\$2.53
4	LTC6082	70	0.8	0.001	3.6	1	1000	100	13	yes	5	0.425	yes	2.7	5.5	VFB	DFN-16/SSOP-16	Precision/RRIO/Picoamp Input Current	\$2.97
4	LTC6242	150	2.5	0.075	18	10	1600	80	7	Out	15	2.2	no	2.8	6	VFB	DFN-16/SSOP-16	1pA Input Bias Current CMOS Amp	\$2.25
4	LTC6242HV	200	2.5	0.075	18	10	1600	80	7	out	15	2.2	no	2.8	11	VFB	DFN-16/SSOP-16	1pA Input Bias Current CMOS Amp	\$3.30
4	LT1496	375	2	1	0.0027	0.001	500	100	185	yes	0.7	0.0015	no	2.1	36	VFB	DIP-14/SO-14	Ultralow Power/Precision/RRIO	\$3.25
4	LTC6085	750	5	0.001 Typ	1.5	0.5	2000	64	31	yes	12.5 Typ	0.13	no	2.5	5.5	VFB	5×3 DFN-16/SSOP-16	Precision/1.5MHz/RRIO/Low Bias Current	\$1.40
4	LT1639	600	6	50	1.075	0.38	1500	88	20	yes	15	0.23	no	2.2	44	VFB	DIP-14/SO-14	High Voltage/Over-The-Top/Low Power	\$3.30
4	LT6005	650	5	0.09	0.02	0.0008	150	115	325	yes	2	0.001	no	1.6	16	VFB	SSOP-16/DFN-16	1.6V, 1µA Precision RRIO	\$1.75
4	LTC6088	750	5	0.001 Typ	14	7.2	6000	70	12	yes	1	1.3	yes	2.7	5.5	VFB	SSOP-16/DFN-16	Picoamp Input Current/RRIO	\$1.40
4	LT1491A	1000	4	8	0.18	0.06	1500	84	50	yes	15	0.055	no	2	44	VFB	DIP-14/SO-14/DFN-16	RRIO/Over-The-Top	\$3.00
4	LT1397	10000	15		400	800		42	4.5		80	6.5	no	3	12.6	CFA	DFN-14/SO-14/SSOPN-16	Quad CFA/ 100MHz 0.1dB BW	\$1.95

† Primary Sort Column  
‡ Secondary Sort Column

- Notes:  
1. ss = Input common mode range includes negative supply rail  
2. Topology: VFB = Voltage Feedback, CFA = Current Feedback, ZD = Zero-Drift Amplifier, IA = Instrumentation Amplifier, JFET = JFET Input Stage, BUF = Buffer, MUX = Multiplexer, VIDEO = Optimized for Video Applications, DIFF = Fully Differential Amplifier, SGA = Selectable Gain Difference Amplifier, CSA = Current Sense Amplifier, PGA = Programmable Gain Amplifier, VGA = Variable Gain Amplifier

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

†	Amplifiers Per Package	Part Number	†† I <sub>OUT</sub> Min 25°C (mA)	††† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	Settle Time to 0.1% Typ 25°C (ns)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	Shutdown	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	C-Load Stable (pF)	Type <sup>(2)</sup>	Av Min Stable Typ 25°C (V/V)	Features	Price 1K Qty
1	1	LT1210	1100	66	900	3		50	yes	8	36		DDPAK-7/SO-16/TO-220	10000	CFA	1	1A Output Current	\$6.40
1	1	LT1970	500	3.6	1.6	15	8000	13	no	5	36		TSSOP-20	10000	VFB	1	Power Amp/Adj. Current Limit	\$4.95
1	1	LT1206	250	66	900	3.6		30	yes	10	36		DDPAK-7/DIP-8/SO-8/TO-220	10000	CFA	1	High I <sub>OUT</sub> /Adj. Supply Current/C-Load	\$3.40
1	1	LT1010	150	30	200	20		9	no	4.5	44		DIP-8/T-5/DFN-10	330000	BUF	1	High Power High Speed Buffer	\$2.40
1	1	LT1395	80	400	800	4.5	25	6.5	yes	3	12.6		SO-8/SOT23-5/SOT23-6	1000	CFA	1	CFA/100MHz 0.1dB Bandwidth	\$1.30
1	1	LT6210	75	200	700	6.5	20	8.3	no	3	13.2	out	SOT23-6	10000	CFA	1	Adjustable Speed and Power CFA	\$1.20
1	1	LT1995	70	24	1000	14	100	8.5	no	2.5	36		MS-10/DFN-10	200	SGA	1	Fast Diff. Amp/Integrated Resistors	\$1.89
1	1	LT1194	64	350	500	15	200	40	no	4	18		DIP-8/SO-8	50	VIDEO	10	Amplitude Limiting Control	\$2.90
1	1	LT1193	64	80	500	50	180	40	yes	4	18		DIP-8/SO-8	30	VIDEO	2	63dB AC CMRR at 1MHz	\$2.90
1	1	LT6200-10	60	1600	450	0.95		23	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	VFB	10	Low Noise/RRIO/High Speed/A <sub>V</sub> >10	\$1.50
1	1	LT6200-5	60	800	250	0.95		23	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	VFB	5	Low Noise/RRIO/High Speed/A <sub>V</sub> >5	\$1.50
1	1	LT6200	60	165	50	0.95	140	23	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	VFB	1	Low Noise/RRIO/High Speed	\$2.15
1	1	LT1192	50	350	450	9	90	38	yes	4	18		DIP-8/SO-8	50	VFB	5	±5V Supply Color Video	\$1.70
1	1	LT1675-1	50	250	1100			14	yes	5.2	12.6		MS-8/SO-8	5	VIDEO	2	Pixel-Rate Select/A <sub>V</sub> =2/Cable Driver	\$1.95
1	1	LT1815	50	220	1500	6	15	7.8	no	4	12.6		SO-8/SOT23-5/SOT23-6	10	VFB	1	High SR VFB with Prog. Supply Current	\$0.88
1	1	LT1223	50	100	1000	33	75	10	yes	5	36		SO-8/DIP-8	1800	CFA	1	High Slew Rate/High I <sub>OUT</sub>	\$2.85
1	1	LT1191	50	90	450	25	110	38	yes	4	18		DIP-8/SO-8	30	VFB	1	±5V Supply Color Video	\$1.70
1	1	LT1363	50	70	1000	9	50	7.5	no	3	36		SO-8/DIP-8	All	VFB	1	High Speed/Precision/C-Load	\$2.40
1	1	LT1190	50	50	450	50	140	38	yes	4	18		DIP-8/SO-8	10	VFB	1	±5V Supply Color Video	\$1.70
1	1	LT1217	50	10	500	6.5	280	2	yes	10	36		DIP-8/SO-8	5000	CFA	1	Low Power CFA	\$3.20
2	2	LT1739	500	200	600	8		13.5	Yes	8	27		DFN-12/TSSOP-20	30	VFB	10	High I <sub>OUT</sub> / Low Noise/ High Speed	\$3.55
2	2	LT1794	500	200	600	8		13.5	yes	8	36		SOW-20/TSSOP-20	30	VFB	10	High I <sub>OUT</sub> /Low Noise/High Speed	\$4.95
2	2	LT6300	500	200	600	8		13.5	yes	8	27		SSOP-16	30	VFB	10	High I <sub>OUT</sub> Driver	\$2.85
2	2	LT1795	500	65	900	3.6		34	yes	10	36		SOW-20/TSSOP-20	1000	CFA	1	High I <sub>OUT</sub> /High Speed	\$4.95
2	2	LT1207	250	66	900	3.6		30	yes	10	36		SO-16	10000	CFA	1	High Current/Prog. Supply/C-Load	\$6.90
2	2	LT1969	200	700	200	6	50	8.25	no	4	13.2		MS-10	1000	VFB	10	High Output Current/A <sub>V</sub> >10	\$2.95
2	2	LT1886	200	700	200	6	50	8.25	no	4	13.2		SO-8	1000	VFB	10	High Output Current/A <sub>V</sub> >10	\$2.80
2	2	LT1497	125	59	900	3	50	7	no	4	36		SO-8/SO-16	2000	CFA	1	125mA Output CFA	\$3.35
2	2	LT1396	80	400	800	4.5	25	6.5	no	3	12.6		DFN-8/MS-8/SO-8	1000	CFA	1	CFA/100MHz 0.1dB BW	\$1.95
2	2	LT1398	80	300	800	4.5	25	6.5	yes	3	12.6		SO-16	1000	CFA	1	0.1dB Gain Flatness to 150MHz	\$2.25
2	2	LT6211	75	200	700	6.5	20	8.3	no	3	13.2	out	DFN-10/MS-10	10000	CFA	1	Adjustable Speed and Power CFA	\$1.60
2	2	LT6201	60	165	50	0.95	140	23	no	2.5	12.6	yes	DFN-8/SO-8	1000	VFB	1	Low Noise/RRIO/High Speed	\$3.65
2	2	LT6411	50	650	3300	8	6	22	yes	4.5	12.6		QFN-16	12	CFA	1	650MHz Differential ADC Driver/Selectable Gain	\$2.39
2	2	LT1816	50	220	1500	6	15	7.8	no	2.5	12.6		DFN-8/MS-8/MS-10/SO-8	10	VFB	1	High SR VFB with Prog Supply Current	\$1.50
2	2	LT1364	50	70	1000	9	60	7.2	no	3	36		SO-8/DIP-8	All	VFB	1	High Speed/Precision/C-Load	\$3.70
3	3	LT1485	80	300	800	4.5	25	6.5	yes	3	12.6		SSOPN-16/SO-16	1000	CFA	1	0.1dB Gain Flatness to 150MHz	\$2.45
3	3	LT1399HV	80	300	800	4.5	25	7	yes	3	15.5		SO-16	1000	CFA	1	0.1dB Gain Flatness to 150MHz	\$3.05
3	3	LT6559	80 Typ	300	500	4.5	25	6.1	yes	4	12		QFN-16	1000	VIDEO	1	Low Cost 5V/±5V 300MHz Triple Video Amp	\$0.95
3	3	LT6557	70	500	2200	12	7	25	yes		7.5		SSOP-16/DFN-16		VIDEO	2	Single Supply Triple Video Amp/A <sub>V</sub> =2	\$2.50
3	3	LT6558	60	550	2200	20	7	24	yes		7.5		SSOP-16/DFN-16		VIDEO	1	Single Supply Triple Video Amp/A <sub>V</sub> =1	\$2.50
3	3	LT6556	50	750	2100	11	6.5	13	yes	4.5	12.6		SSOP-24/QFN-24	10	VIDEO	1	Triple 2:1 Video Multiplexer/A <sub>V</sub> =1	\$2.75
3	3	LT6553	50	650	2500	9	6	11	no	4	13.2		SSOP-16	10	VIDEO	2	High Speed Video Amp/A <sub>V</sub> =2	\$2.50
3	3	LT6554	50	650	2500	20	6	10	yes	4	13.2		SSOP-16	12	VIDEO	1	High Speed CFA Video Buffer	\$2.50
3	3	LT6555	50	650	2200	9	6.5	12	yes	4.5	12.6		SSOP-24/QFN-24	10	VIDEO	2	Triple 2:1 Video Multiplexer/A <sub>V</sub> =2	\$2.75
3	3	LT1675	50	250	1100			14	yes	5.2	12.6		SSOPN-16	5	VIDEO	2	RGB Pixel-Rate Select/A <sub>V</sub> =2/Cable Driver	\$1.95
4	4	LT6301	500	200	600	8		13.5	yes	8	27		TSSOP-28	30	VFB	10	High I <sub>OUT</sub> Driver	\$6.20
4	4	LT1397	80	400	800	4.5	25	6.5	no	3	12.6		DFN-14/SO-14/SSOPN-16	1000	CFA	1	CFA/100MHz 0.1dB BW	\$2.75
4	4	LT1817	50	220	1500	6	15	7	no	2.5	12.6		SO-14/SSOPN-16	10	VFB	1	High Slew Rate VFB	\$2.05
4	4	LT1365	50	70	1000	9	50	7.2	no	3	36		DIP-14/SO-16	All	VFB	1	High Speed/Precision/C-Load	\$6.45

† Primary Sort Column  
 †† Secondary Sort Column  
 ††† Tertiary Sort Column

Notes:  
 1. ss = Input common mode range includes negative supply rail  
 2. Topology: VFB = Voltage Feedback, CFA = Current Feedback, ZD = Zero-Drift Amplifier, IA = Instrumentation Amplifier, JFET = JFET Input Stage, BUF = Buffer, MUX = Multiplexer,  
 VIDEO = Optimized for Video Applications, DIFF = Fully Differential Amplifier, SGA = Selectable Gain Difference Amplifier, CSA = Current Sense Amplifier, PGA = Programmable Gain Amplifier, VGA = Variable Gain Amplifier



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# C-Load OP AMPS

† Amplifiers Per Package	Part Number	‡ C-Load Stable (pF)	A <sub>OL</sub>			‡‡‡GBW Typ 25°C (MHz)	Stew Rate Typ 25°C (V/μs)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Type <sup>(2)</sup>	Features	Price 1K Qty
			Typ 25°C (V/mV)	V <sub>OS</sub> Max 25°C (μV)	I <sub>BIAS</sub> Max 25°C (nA)												
1	LT1363	All	9	1500	2000	70	1000	9	50	7.5	3	36	SO-8/DIP-8	VFB	High Speed/Precision/C-Load	\$2.40	
1	LT1360	All	9	1000	1000	50	800	9	26	4.8	3	36	SO-8/DIP-8	VFB	High Speed/Precision/C-Load	\$2.20	
1	LT1357	All	65	600	500	25	600	8	24	2.5	5	36	SO-8/DIP-8	VFB	High Speed/Precision/C-Load	\$2.45	
1	LT1354	All	36	800	300	12	400	10	30	1.25	5	36	SO-8/DIP-8	VFB	High Speed/Precision/C-Load	\$2.30	
1	LT1351	All	80	600	50	3	200	14	30	0.33	5	36	SO-8/MS-8/DIP-8	VFB	High Speed/Precision/C-Load	\$2.45	
1	LTC1152	All	130	10	0.1	0.7	0.5	130	35 Typ	3	3	14	DIP-8/SO-8	ZD	Zero-Drift C-Load Stable with Ext. RC	\$3.15	
1	LT1010	330000	1000	150000	250000	30	200	20	150	9	4.5	44	DIP-8/T-5/DFN-10	BUF	High Power High Speed Buffer	\$2.40	
1	LT1220	100000		1000	300	45	250	17	24	10.5	5	36	SO-8/DIP-8	VFB	Fast Setting Time and C-Load Op Amp	\$3.40	
1	LT1219	100000	1000	90	70	0.15	0.05	33	5	0.42	2	36	SO-8/DIP-8	VFB	Low V <sub>OS</sub> Across Entire R-R Input Range	\$4.75	
1	LT1219L	100000	1000	90	70	0.15	0.05	33	5	0.42	2	16	SO-8/DIP-8	VFB	Low V <sub>OS</sub> Across Entire R-R Input Range	\$2.90	
1	LT1102	50000		600	0.04	3.5	30	19	6	5	18	40	DIP-8	IA	JFET Input IA/Gain of 10 or 100	\$4.75	
1	LT1101	30000		160	8	0.37	0.1	43	5.5	0.13	1.8	44	DIP-8/SOW-16	IA	Micropower Single Supply IA/A <sub>V</sub> =10 or 100	\$4.75	
1	LT1001	20000	800	25	2	0.8	0.25	9.6	12	2.5	6	44	DIP-8/SO-8	VFB	General Purpose/High Precision	\$1.65	
1	LT6210	10000		6000		200	700	6.5	75	8.3	3	13.2	out	SOT23-6	CFA	Adjustable Speed and Power CFA	\$1.20
1	LT1210	10000		15000		66	900	3	1100	50	8	36		DDPAK-7/SO-16/TO-220	CFA	1A Output Current	\$6.40
1	LT1206	10000		10000		66	900	3.6	250	30	10	36		DDPAK-7/DIP-8/SO-8/TO-220	CFA	High I <sub>OUT</sub> /Adj. Supply Current/C-Load	\$3.40
1	LT1797	10000	1000	1500	300	10	2.25	20	25	1.5	2.1	12.6	yes	SOT23-5	VFB	RRIO/Low Noise/C-Load Stable	\$1.00
1	LT1792	10000	4800	600	0.8	5.6	3.4	4.2	12	5.2	10	40		DIP-8/SO-8	JFET	FET Input/Low Distortion/Precision	\$2.25
1	LT1793	10000	4500	800	0.01	4.2	3.4	6	12	5.2	10	40		DIP-8/SO-8	JFET	FET Input/Precision/Low Distortion	\$2.25
1	LTC1992	10000	10	2500	0.25	4	0.75	18	10	1	2.4	12	out	MS-8	DIFF	Fully Differential In/Out	\$1.65
1	LTC1992-1	10000		2500	0.25	4	0.75	45	10	1	2.7	12	out	MS-8	DIFF	Fully Differential In/Out/ A <sub>V</sub> =1	\$3.95
1	LTC1992-2	10000		2500	0.25	4	0.75	45	10	1	2.7	12	out	MS-8	DIFF	Fully Differential In/Out/ A <sub>V</sub> =2	\$3.95
1	LTC1992-5	10000		2500	0.25	4	0.75	45	10	1	2.7	12	out	MS-8	DIFF	Fully Differential In/Out/ A <sub>V</sub> =5	\$3.95
1	LTC1992-10	10000		2500	0.25	4	0.75	45	10	1	2.7	12	out	MS-8	DIFF	Fully Differential In/Out/ A <sub>V</sub> =10	\$3.95
1	LT1970	10000	150	600	600	3.6	1.6	15	500	13	5	36		TSSOP-20	VFB	Power Amp/Adj. Current Limit	\$4.95
1	LT1097	10000	2500	50	0.25	0.7	0.2	14	5.75	0.56	2	40		DIP-8/SO-8	VFB	Low Cost/C-Load Stable	\$1.75
1	LT1636	10000	2000	225	8	0.2	0.07	52	12	0.055	2.6	44	yes	DFN-8/DIP-8/MS-8/SO-8	VFB	Over-The-Top Micropower Op Amp	\$1.45
1	LT1782	10000	1500	800	15	0.2	0.07	50	20	0.055	2.2	18	yes	SOT23-5/SOT23-6	VFB	Over-The-Top/Micropower/RRIO/C-Load	\$1.10
1	LT1672	10000	500	375	1	0.012	0.005	185	0.7	0.002	2.1	36	yes	DIP-8/MS-8/SO-8	VFB	Ultralow Power/Over-The-Top Inputs	\$1.65
1	LT1494	8000	500	375	1	0.0027	0.001	185	0.7	0.0015	2.1	36	yes	DIP-8/MS-8/SO-8	VFB	Ultralow Power/Rail-to-Rail/Precision	\$1.65
1	LT6220	7000	100	350	150	60	20	10	20	1	2.2	12.6	yes	SO-8/SOT23-5	VFB	Precision/Low Power/RRIO	\$1.20
1	LT1217	5000	177	3000		10	500	6.5	50	2	10	36		DIP-8/SO-8	CFA	Low Power CFA	\$3.20
1	LT1204	4000		14000		95	1000	7	35	24	9	36		DIP-16/SOW-16	VIDEO	4:1 MUX w/CFA Bootstrapped Resistors	\$4.80
1	LT1115	4000	20000	200	380	70	15	0.9	18.3	11.5	8	44		DIP-8/SOW-16	VFB	Low Noise/Ultralow Distortion	\$2.90
1	LT1783	3000	1500	800	80	1.25	0.42	20	20	0.3	2.2	18	yes	SOT23-5/SOT23-6	VFB	Over-The-Top/Micropower/RRIO/C-Load	\$1.10
1	LT1990	3000		5200		0.1	0.55	1000	6	0.18	2.4	36	yes	SO-8	SGA	±250V Diff Amp and Integrated Resistors	\$1.35
1	LT6230-10	2000	260	500	10000	1450	320	1.1	30	3.75	3	12.6	out	SOT23-6	VFB	Ultralow Noise/Low Power/A <sub>V</sub> >10	\$1.50
1	LT1227	2000		10000		140	1100	3.2	30	15	4	36		DIP-8/SO-8	CFA	High Voltage CFA	\$2.40
1	LT1228	2000		5000	1000	100	500	20	30	15	4	36		DIP-8/SO-8	CFA	CFA with Gain Control	\$3.75
1	LT1637	2000	800	350	50	1	0.35	27	15	0.25	1.8	44	yes	DFN-8/DIP-8/MS-8/SO-8	VFB	High Voltage/Over-The-Top/Low Power	\$1.45
1	LT1789-10	2000		160	40	0.025	0.026	52	2.2	0.095	2.2	36	out	SO-8	IA	Micropower/Precision IA/A <sub>V</sub> >10	\$3.20
1	LT1223	1800	5000	3000		100	1000	33	50	10	5	36		SO-8/DIP-8	CFA	High Slew Rate/High I <sub>OUT</sub>	\$2.85
1	LT1077	1500	1000	40	9	0.23	0.08	27	5.5	0.06	2.2	44	ss	DIP-8/SO-8	VFB	High Precision Micropower Single Supply	\$1.60
1	LT6200-10	1000	200	1000	40000	1600	450	0.95	60	23	2.5	12.6	yes	SO-8/SOT23-6	VFB	Low Noise/RRIO/High Speed/A <sub>V</sub> >10	\$1.50
1	LT1226	1000	150	1000	8000	1000	400	2.6	24	9	5	36		SO-8/DIP-8	VFB	Low Noise/High Speed/High Gain	\$2.85
1	LT6200-5	1000	200	1000	40000	800	250	0.95	60	23	2.5	12.6	yes	SO-8/SOT23-6	VFB	Low Noise/RRIO/High Speed/A <sub>V</sub> >5	\$1.50
1	LT1222	1000	200	300	300	500	200	3	24	10.5	5	36		SO-8/DIP-8	VFB	Fast Setting Time/High Speed/Gain>10	\$3.40
1	LT1395	1000		10000		400	800	4.5	80	6.5	3	12.6		SO-8/SOT23-5/SOT23-6	CFA	CFA/100MHz 0.1dB Bandwidth	\$1.30
1	LT6233-10	1000	180	500	3000	375	115	1.9	40	1.25	3	12.6	out	SOT23-6	VFB	Low Noise/Low Power/A <sub>V</sub> >10	\$1.90
1	LT1806	1000	220	550	4000	325	125	3.5	35	13	2.5	12.6	yes	SO-8/SOT23-6	VFB	High Speed/Precision/Low Noise	\$2.10
1	LT6230	1000	260	500	10000	215	70	1.1	30	3.75	3	12.6	out	SOT23-6	VFB	Ultralow Noise/Low Power/High Speed	\$1.25
1	LT6200	1000	200	1000	40000	165	50	0.95	60	23	2.5	12.6	yes	SO-8/SOT23-6	VFB	Low Noise/RRIO/High Speed	\$2.15

† Primary Sort Column  
 ‡ Secondary Sort Column  
 ‡‡‡ Tertiary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO





† Amplifiers Per Package	Part Number	‡ C-Load Stable (pF)	A <sub>VOL</sub> Typ 25°C (V/mV)	V <sub>OS</sub> Max 25°C (µV)	I <sub>BIAS</sub> Max 25°C (nA)	‡‡‡GBW Typ 25°C (MHz)	Stew Rate Typ 25°C (V/µs)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Type <sup>(2)</sup>	Features	Price 1K Qty
1	LT1809	1000	80	2500	8000	160	300	16	45	17	2.5	12.6	yes	SO-8/SOT23-6	VFB	Low Distortion/High Speed/Low Noise	\$1.75
1	LT1225	1000	20	1000	8000	150	400	7.5	24	9	5	36		SO-8/DIP-8	VFB	Full Power Bandwidth 13MHz at ±5V	\$2.85
1	LT1221	1000	100	1000	300	150	250	6	24	10.5	5	36		SO-8/DIP-8	VFB	Low Noise/High Speed/High Gain	\$3.30
1	LT6202	1000	200	500	7000	100	25	1.9	30	3.5	2.5	12.6	yes	SO-8/SOT23-5	VFB	Low Noise/Low Power/RRIO	\$1.45
1	LT6205	1000	133	4500	30000	100	600	9	25	5.6	3	12.6	out	SOT23-5	VFB	3V 100MHz Single Supply Video Amp	\$0.88
1	LT1803	1000	60	2000	750	83	100	21	20	3	2.3	12.6	yes	SO-8/SOT23-5	VFB	RRIO/High Speed	\$1.30
1	LT1800	1000	85	350	250	80	25	8.5	20	2	2.3	12.6	yes	SO-8/SOT23-5	VFB	High Speed/Power/Precision/RRIO	\$1.30
1	LT6552	1000		20000	50000	75	600	55	35	13.5	3	12.6	out	DFN-8/SO-8	VFB	Low Power Video Difference Amp	\$1.10
1	LT6233	1000	180	500	3000	60	17	1.9	40	1.25	3	12.6	out	SOT23-6	VFB	Ultralow Noise/Low Power/High Speed	\$1.45
1	LT1224	1000		2000	8000	45	400	22	24	9	5	36		SO-8/DIP-8	VFB	10V Peak Full Power BW to 6.4MHz	\$2.85
1	LT1677	1000	19000	60	20	7.2	2.5	3.2	25	3.5	2.5	44	yes	DIP-8/SO-8	VFB	High Loop Gain/Low Noise/RRIO	\$2.15
1	LT1784	1000	1000	3500	500	2.5	2.1	25	20	0.75	2	18	yes	SOT23-5/SOT23-6	VFB	Low Power/RRIO/Shuttdown	\$1.00
1	LT1880	1000	1600	150	0.9	1.1	0.55	13	1	1.9	2.4	40	out	SOT23-5	VFB	Picoamp Input Current/Precision	\$1.75
1	LT1012	1000	2000	25	0.1	1	0.2	14	1.3	0.5	2.4	40		DIP-8/SO-8	VFB	Low V <sub>OS</sub> Stable with any C-Load	\$1.60
1	LT1167	1000		40	0.35	1	1.2	7.5	20	1.3	4.6	40		DIP-8/SO-8	IA	Precision/Low Bias Current IA	\$3.20
1	LT1920	1000		125	2	0.8	1.2	7.5	20	1.3	4.6	40		DIP-8/SO-8	IA	Resistor Programmable IA	\$3.05
1	LT1168	1000		40	0.25	0.4	0.5	10	20	0.53	4.6	40		DIP-8/SO-8	IA	Precision IA/Low Bias Current/Low Power	\$3.70
1	LT1218	1000	1000	90	70	0.3	0.1	33	5	0.42	2	36	yes	SO-8/DIP-8	VFB	Low V <sub>OS</sub> Across Entire R-R Input Range	\$4.75
1	LT1218L	1000	1000	90	70	0.3	0.1	33	5	0.42	2	16	yes	SO-8/DIP-8	VFB	Low V <sub>OS</sub> Across Entire R-R Input Range	\$2.90
1	LT1635	1000	450	1300	4.5	0.175	0.045	50	20	0.2	1.1	14	out	DIP-8/SO-8	VFB	Op Amp and Reference/LM10 Pinout	\$1.75
1	LTC1542	1000	1000	1000		0.012	8		1.3	0.01	2.5	12.6	out	MS-8/SO-8/DFN-8	REF	Micropower Amp/Comparator and Ref	\$1.20
1	LT6003	900	150	500	0.009	0.002	0.0008	325	2	1	1.6	16	yes	DFN-4/SOT23-5	VFB	1.6V, 1µA Precision RRIO	\$0.72
1	LT1008	600	2000	120	0.1	1	0.2	14	1.3	0.6	4	40		DIP-8/SO-8	VFB	Low Bias Current/External Compensation	\$2.95
1	LT1789-1	600		100	40	0.06	0.026	48	2.2	0.095	2.2	36	out	SO-8	IA	Micropower/Precision IA/Single Supply	\$3.20
1	LT1128	500	30000	40	90	20	6	0.85	18.3	9.5	8	44		DIP-8/SO-8	VFB	Lowest Noise High Speed	\$4.75
1	LT1122	500	500	600	0.075	14	80	14	19.1	10	20	40		DIP-8/SO-8	JFET	Setting Guaranteed to 0.01%/FET Input	\$2.45
1	LT6013	500	2000	35	0.25	1.6	0.2	9.5	8	0.165	2.7	40	out	DFN-8/SO-8	VFB	Micropower/Precision/RRIO/A <sub>V</sub> >5	\$1.10
1	LT6010	500	2000	35	0.11	0.33	0.09	14	1	0.15	2.7	40	out	DFN-8/SO-8	VFB	Micropower/Precision/RRIO	\$1.10
2	LT1112	All	5000	60	0.25	0.75	0.3	14	5.5	0.4	2	40		DIP-8/SO-8	VFB	Low Power/Matching Specs/C-Load Stable	\$2.35
2	LT1364	All	9	1500	1000	70	1000	9	50	7.2	3	36		SO-8/DIP-8	VFB	High Speed/Precision/C-Load	\$3.70
2	LT1361	All	9	1000	1000	50	800	9	26	4.8	5	36		SO-8/DIP-8	VFB	High Speed/Precision/C-Load	\$3.40
2	LT1208	All	7	3000	8000	45	400	22	24	9	8	36		DIP-8/SO-8	VFB	Fast C-Load	\$4.25
2	LT1358	All	65	600	500	25	600	8	24	2.5	5	36		SO-8/DIP-8	VFB	High Speed/Precision/C-Load	\$3.90
2	LT1355	All	13.4	800	300	12	400	10	25	1.25	5	36		SO-8/DIP-8	VFB	High Speed/Precision/C-Load	\$3.80
2	LT1352	All	80	600	50	3	200	14	30	0.33	5	36		SO-8	VFB	High Speed/Precision/C-Load	\$3.80
2	LT1368	100000	2000	475	35	0.16	0.065	29	30	0.52	2	36	yes	DIP-8/SO-8	VFB	Stable with 100nF C-Load	\$3.45
2	LT1498	30000	3800	475	650	10.5	4.5	12	12.5	2.2	2.2	36	yes	DIP-8/SO-8	VFB	Stable with Large C-Load	\$2.96
2	LT1002	20000	800	60	3	0.8	0.25	9.6	12	2.5	6	44		DIP-14	VFB	High CMRR and PSRR	\$2.85
2	LT6211	10000		6000		200	700	6.5	75	8.3	3	13.2	out	DFN-10/MS-10	CFA	Adjustable Speed and Power CFA	\$1.60
2	LT1207	10000		10000		66	900	3.6	250	30	10	36		SO-16	CFA	High Current/Prog. Supply/C-Load	\$6.90
2	LT1113	10000	4800	1500	0.45	5.6	3.9	4.5	12	6.25	9	40		DIP-8/SO-8	JFET	Low Noise and Low Offset/JFET Input	\$3.15
2	LT1457	10000	350	450	0.05	1	4	13	6	3	9	40		DIP-8/SO-8	JFET	JFET with Excellent C-Load Stability	\$2.35
2	LT1673	10000	500	375	1	0.012	0.005	185	0.7	0.002	2.1	36	yes	DIP-8/SO-8	VFB	Ultralow Power/Over-The-Top Inputs	\$2.45
2	LT1211	8000	560	150	100	13	7	12	20	1.8	2.5	36	ss	DIP-8/SO-8	VFB	Precision/Single Supply/Wide V <sub>SUPPLY</sub>	\$2.85
2	LT1057	8000	350	450	0.05	5	14	13	20 Typ	2.5	8	40		DIP-8/SO-8/SOW-16	JFET	High Speed JFET Input	\$2.45
2	LT6221	7000	100	350	150	60	20	10	20	1	2.2	12.6	yes	DFN-8/SO-8	VFB	Precision/Low Power/RRIO	\$1.85
2	LT1638	6000	1500	600	50	1.2	0.38	20	15	0.23	2.2	44	yes	DFN-8/DIP-8/MS-8/SO-8	VFB	High Voltage/Over-The-Top/Low Power	\$1.95
2	LT1178	2500	2500	70	5	0.085	0.04	49	5.5	0.017	2	44	ss	DIP-8/SO-8/SOW-16	VFB	Precision/Micropower/Single Supply	\$2.95
2	LT1229	2000		10000		100	700	3.2	30	9.5	4	36		DIP-8/SO-8	CFA	General Purpose High Voltage CFA	\$3.75
2	LT1497	2000	10	10000		59	900	3	125	7	4	36		SO-8/SO-16	CFA	125mA Output CFA	\$3.35
2	LT1078	1800	1000	70	8	0.2	0.07	28	5.5	0.05	2.2	44	ss	DIP-8/SO-8	VFB	Precision/Micropower/Single Supply	\$2.70
2	LT1886	1000	12	4000	4000	700	200	6	200	8.25	4	13.2		SO-8	VFB	High Output Current/A <sub>V</sub> >10	\$2.80

† Primary Sort Column  
 ‡‡ Secondary Sort Column  
 ‡‡‡ Tertiary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# C-Load OP AMPS

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Space, Military,  
Harsh Envir.

Reference  
Material

† Amplifiers Per Package	Part Number	‡ C-Load Stable (pF)	A <sub>VL</sub> Typ 25°C (V/mV)	V <sub>OS</sub> Max 25°C (μV)	I <sub>BIAS</sub> Max 25°C (nA)	‡‡‡GBW Typ 25°C (MHz)	Stew Rate Typ 25°C (V/μs)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Type <sup>(2)</sup>	Features	Price 1K Qty
2	LT1969	1000	12	4000	4000	700	200	6	200	8.25	4	13.2		MS-10	VFB	High Output Current/A <sub>V</sub> >10	\$2.95
2	LT1396	1000		10000		400	800	4.5	80	6.5	3	12.6		DFN-8/MS-8/SO-8	CFA	CFA/100MHz 0.1dB BW	\$1.95
2	LT1807	1000	220	550	4000	325	125	3.5	35	13	2.5	12.6	yes	MS-8/SO-8	VFB	High Speed/Precision/Low Noise	\$3.40
2	LT1398	1000		10000		300	800	4.5	80	6.5	3	12.6		SO-16	CFA	0.1dB Gain Flatness to 150MHz	\$2.25
2	LT6231	1000	260	350	10000	215	70	1.1	30	3.75	3	12.6	out	DFN-8/SO-8	VFB	Ultralow Noise/Low Power/High Speed	\$1.95
2	LT6201	1000	200	1000	40000	165	50	0.95	60	23	2.5	12.6	yes	DFN-8/SO-8	VFB	Low Noise/RRIO/High Speed	\$3.65
2	LT1810	1000	80	2500	8000	160	300	16	45	17	2.3	12.6	yes	MS-8/SO-8	VFB	Low Distortion/High Speed/Low Noise	\$2.65
2	LT1259	1000	3.98	12000		130	1600	3.6	30	7.5	4	36		DIP-14/SO-14	CFA	Low Cost High Voltage CFA/Shutdown	\$2.45
2	LT6206	1000	133	4500	30000	100	600	9	25	5.6	3	12.6	out	MS-8	VFB	3V 100MHz Single Supply Video Amp	\$1.05
2	LT6203	1000	200	500	7000	100	25	1.9	30	3.5	2.5	12.6	yes	DFN-8/MS-8/SO-8	VFB	Low Noise/Low Power/RRIO	\$2.45
2	LT1804	1000	60	2000	750	83	100	21	20	3	2.3	12.6	yes	DFN-8/SO-8	VFB	RRIO/High Speed	\$1.95
2	LT1801	1000	85	350	250	80	25	8.5	20	2	2.3	12.6	yes	DFN-8/MS-8/SO-8	VFB	High Speed/Power/Precision/RRIO	\$1.95
2	LT1795	1000	2.51	13000		65	900	3.6	500	34	10	36		SOW-20/TSSOP-20	CFA	High I <sub>OUT</sub> /High Speed	\$4.95
2	LT6234	1000	180	350	3000	60	17	1.9	40	1.25	3	12.6	out	DFN-8/SO-8	VFB	Ultralow Noise/Low Power	\$2.45
2	LT1213	1000	850	150	160	28	8.5	10	30	3.8	2.5	36	ss	DIP-8/SO-8	VFB	Precision/Fast/CM to V <sup>-</sup>	\$2.85
2	LT1215	1000	150	300	500	23	30	12	30	6.6	2.5	36	ss	DIP-8/SO-8	VFB	Precision/Fast/CM to V <sup>-</sup>	\$2.85
2	LT1169	1000	4500	2000	0.02	5.3	4.2	6	12	6.5	9	40		DIP-8/SO-8	VFB	Low Noise JFET	\$3.85
2	LT1881	1000	1600	50	0.2	1	0.35	14	5	0.9	2.4	40	out	DIP-8/SO-8	VFB	Picoamp Input Current/Precision	\$2.75
2	LT1464	1000	1000	800	0.002	1	0.9	24	6.65	0.2	10	40		DIP-8/SO-8	JFET	JFET with Excellent C-Load Stability	\$2.50
2	LT1024	1000	2000	50	0.12	1	0.2	14	10 Typ	0.6	4	40		DIP-14	VFB	Low V <sub>OS</sub> /Low Power	\$4.75
2	LT1366	1000	2000	475	35	0.4	0.13	29	30	0.52	2	36	yes	DIP-8/SO-8	VFB	C-Load Stable up to 1000pF	\$3.50
2	LT1462	1000	600	800	0.002	0.175	0.13	76	13	0.045	10	40		DIP-8/SO-8	JFET	JFET with Excellent C-Load Stability	\$2.50
2	LT1495	1000	500	375	1	0.0027	0.001	185	0.7	0.0015	2.1	36	yes	DIP-8/SO-8	VFB	Ultralow Power/Rail-to-Rail/Precision	\$2.45
2	LT6004	900	150	500	0.009	0.002	0.0008	325	2	1	1.6	16	yes	DFN-8/MS-8	VFB	1.6V, 1μA Precision RRIO	\$1.10
2	LT1678	500	3000	100	20	20	6	3.9	15	3.4	3	36	yes	SO-8	VFB	Very Low 1/f Corner Frequency	\$2.50
2	LT1884	500	1600	50	0.4	2	0.9	9.5	15	0.9	2.4	40	out	DIP-8/SO-8	VFB	Picoamp Input Current/Precision	\$2.75
2	LT6014	500	2000	60	0.4	1.6	0.2	9.5	8	0.165	2.7	40	out	DFN-8/SO-8	VFB	Micropower/Precision/RRIO/A <sub>V</sub> >5	\$1.65
2	LT6011	500	2000	60	0.3	0.33	0.09	14	1	0.15	2.4	40	out	DFN-8/SO-8/MS-8	VFB	Micropower/Precision/RRIO	\$1.65
3	LT1399	1000		10000		300	800	4.5	80	6.5	3	12.6		SSOPN-16/SO-16	CFA	0.1dB Gain Flatness to 150MHz	\$2.45
3	LT1399HV	1000		10000		300	800	4.5	80	7	3	15.5		SO-16	CFA	0.1dB Gain Flatness to 150MHz	\$3.05
3	LT1260	1000	3.98	12000		130	1600	3.6	30	7.5	4	36		DIP-16/SO-16	CFA	Low Cost High Voltage CFA/Shutdown	\$2.60
4	LT1114	All	5000	60	0.25	0.75	0.3	14	5.5	0.4	2	40		DIP-14/SO-16	VFB	Low Power/Matching Specs/C-Load Stable	\$4.40
4	LT1365	All	9	1500	2000	70	1000	9	50	7.2	3	36		DIP-14/SO-16	VFB	High Speed/Precision/C-Load	\$6.45
4	LT1362	All	9	1000	1000	50	800	9	26	4.8	5	36		SO-16/DIP-14	VFB	High Speed/Precision/C-Load	\$6.00
4	LT1209	All	7	3000	8000	45	400	22	24	9	8	36		DIP-14/SO-16	VFB	Fast C-Load	\$6.65
4	LT1359	All	65	600	500	25	600	8	24	2.5	5	36		SO-16/SO-14/DIP-14	VFB	High Speed/Precision/C-Load	\$6.50
4	LT1356	All	13.4	800	300	12	400	10	25	1.25	5	36		SO-16/DIP-14	VFB	High Speed/Precision/C-Load	\$6.45
4	LT1353	All	80	600	50	3	200	14	30	0.33	5	36		SO-14	VFB	High Speed/Precision/C-Load	\$6.70
4	LT1369	100000	2000	800	35	0.16	0.065	29	30	0.52	2	36	yes	SO-14	VFB	Stable with 100nF C-Load	\$6.10
4	LT1499	30000	3800	475	650	10.5	4.5	12	12.5	2.2	2.2	36	yes	SO-14	VFB	Stable with Large C-Load	\$5.60
4	LT1674	10000	500	375	1	0.012	0.005	185	0.7	0.002	2.1	36	yes	DIP-14/SO-14	VFB	Ultralow Power/Over-The-Top Inputs	\$3.25
4	LT1212	8000	560	275	125	13	7	12	20	1.8	2.5	36	ss	DIP-14/SO-16	VFB	Precision/Single Supply/Wide V <sub>SUPPLY</sub>	\$5.10
4	LT1058	8000	350	600	0.05	5	14	13	20 Typ	2.5	8	40		DIP-14/SOW-16	JFET	Low Offset JFET Input	\$4.20
4	LT6222	7000	100	350	150	60	20	10	20	1	2.2	12.6	yes	SSOP-16	VFB	Precision/Low Power/RRIO	\$2.95
4	LT1639	6000	1500	600	50	1.075	0.38	20	15	0.23	2.2	44	yes	DIP-14/SO-14	VFB	High Voltage/Over-The-Top/Low Power	\$3.30
4	LT1179	2500	2500	100	5	0.085	0.04	49	5.5	0.017	2	44	ss	DIP-14/SOW-16	VFB	Precision/Micropower/Single Supply	\$3.70
4	LT1230	2000		10000		100	700	3.2	30	9.5	4	36		DIP-14/SO-14	CFA	General Purpose High Voltage CFA	\$7.00
4	LT1079	1800	1000	100	8	0.2	0.07	28	5.5	0.05	2.2	44	ss	DIP-14/SOW-16	VFB	Precision/Micropower/Single Supply	\$3.40
4	LT1397	1000		10000		400	800	4.5	80	6.5	3	12.6		DFN-14/SO-14/SSOPN-16	CFA	CFA/100MHz 0.1dB BW	\$2.75
4	LT6232	1000	260	350	10000	215	70	1.1	30	3.75	3	12.6	out	SSOP-16	VFB	Ultralow Noise/Low Power/High Speed	\$3.30
4	LT6207	1000	133	4500	30000	100	600	9	25	5.6	3	12.6	out	SSOPN-16	VFB	3V 100MHz Single Supply Video Amp	\$1.55
4	LT6204	1000	200	500	7000	100	25	1.9	30	3.5	2.5	12.6	yes	SO-14/SSOPN-16	VFB	Low Noise/Low Power/RRIO	\$4.50
4	LT1805	1000	60	2000	750	85	100	21	20	3	2.3	12.6	yes	SO-14	VFB	RRIO/High Speed	\$3.50
4	LT1802	1000	85	350	250	80	25	8.5	20	2	2.3	12.6	yes	SO-14	VFB	High Speed/Power/Precision/RRIO	\$3.50

† Primary Sort Column  
‡ Secondary Sort Column  
‡‡‡ Tertiary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

† Amplifiers Per Package	Part Number	‡ C-Load Stable (pF)	A <sub>VOL</sub> Typ 25°C (V/mV)	V <sub>OS</sub> Max 25°C (μV)	I <sub>BIAS</sub> Max 25°C (nA)	‡‡‡ GBW Typ 25°C (MHz)	Stew Rate Typ 25°C (V/μs)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> Per Ampl Max 25°C (mA)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package	Type <sup>(2)</sup>	Features	Price 1K Qty
4	LT6235	1000	180	350	3000	60	17	1.9	40	1.25	3	12.6	out	SSOP-16	VFB	Ultralow Noise/Low Power	\$4.15
4	LT1214	1000	250	275	200	28	8.5	10	30	3.8	2.5	36	ss	DIP-14/SO-16	VFB	Precision/Fast CM to V <sup>-</sup>	\$5.10
4	LT1216	1000	600	450	600	23	30	12	30	6.6	2.5	36	ss	DIP-14/SO-16	VFB	Precision/Fast/CM to V <sup>-</sup>	\$5.10
4	LT1882	1000	1600	80	0.5	1	0.35	14	5	0.9	2.4	40	out	SO-14	VFB	Picoamp Input Current/Precision	\$4.85
4	LT1465	1000	900	800	0.002	1	0.9	24	6.65	0.2	10	40		DIP-14/SO-14	JFET	JFET with Excellent C-Load Stability	\$4.30
4	LT1367	1000	2000	800	35	0.4	0.13	29	30	0.52	2	36	yes	SO-14	VFB	C-Load Stable up to 1000pF	\$6.10
4	LT1463	1000	600	800	0.002	0.125	0.13	76	13	0.045	10	40		DIP-14/SO-14	JFET	JFET with Excellent C-Load Stability	\$4.30
4	LT1496	1000	500	375	1	0.0027	0.001	185	0.7	0.0015	2.1	36	yes	DIP-14/SO-14	VFB	Ultralow Power/Precision/RRIO	\$3.25
4	LT6005	900	150	650	0.009	0.002	0.0008	325	2	1	1.6	16	yes	SSOP-16/DFN-16	VFB	1.6V, 1μA Precision RRIO	\$1.75
4	LT1679	500	3000	100	20	20	6	3.9	15	3.4	3	36	yes	SO-14	VFB	Very Low 1/f Corner Frequency	\$3.85
4	LT1885	500	1600	80	0.9	2	0.9	9.5	15	0.9	2.4	40	out	SO-14	VFB	Picoamp Input Current/Precision	\$4.85
4	LT6012	500	2000	60	0.3	0.33	0.09	14	1	0.15	2.4	40	out	SO-14/SSOPN-16	VFB	Micropower/Precision/RRIO	\$2.95

† Primary Sort Column  
 ‡ Secondary Sort Column  
 ‡‡‡ Tertiary Sort Column

Notes:

1. ss = Input common mode range includes negative supply rail
2. Topology: VFB = Voltage Feedback, CFA = Current Feedback, ZD = Zero-Drift Amplifier, IA = Instrumentation Amplifier, JFET = JFET Input Stage, BUF = Buffer, MUX = Multiplexer, VIDEO = Optimized for Video Applications, DIFF = Fully Differential Amplifier, SGA = Selectable Gain Difference Amplifier, CSA = Current Sense Amplifier, PGA = Programmable Gain Amplifier

CURRENT SENSE AMPLIFIERS

Part Number	Direction	† V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Typ (μV/°C)	Bias Current Max 25°C (μA)	Max Input Voltage (V)	Separate Supply (yes/no)	I <sub>SUPPLY</sub> Max 25°C (μA)	Gain V <sub>OUT</sub> /V <sub>SENSE</sub>	PSRR Min (dB)	Package	Comments	Price 1K Qty
LTC6102	Unidirectional	10	0.05	0.003	70	optional	450	Programmable	130	DFN-8, MSOP-8	Ultra-Precise, Zero-Drift, High Speed. "-1" Has Shutdown Mode	\$1.72
LTC6102HV	Unidirectional	10	0.05	0.003	105	optional	450	Programmable	130	DFN-8, MSOP-8	Ultra-Precise, Zero-Drift, High Speed	\$2.06
LT1787	Bidirectional	75	0.5	20	36	no	120	8	120	SO-8, MSOP-8	Precision, Low Power, V <sub>S</sub> from 2.5V	\$2.25
LT1787HV	Bidirectional	75	0.5	20	60	no	120	8	120	SO-8, MSOP-8	Precision, Low Power, V <sub>S</sub> from 2.5V	\$3.05
LTC4150	Bidirectional	100	-	15	9	yes	140	V-F Conversion	-	MSOP-8	Coulomb Counter, Battery Gas Gauge	\$1.50
LT6107	Unidirectional	250	1 Typ	0.04	44	optional	95	Programmable	106	SOT-23	Tested Over -55°C to 150°C, Military Plastic Package	\$2.35
LT6106	Unidirectional	250	1 Typ	0.04	44	optional	95	Programmable	106	SOT-23	Low Cost, Precision, Flexible	\$0.87
LT6105	Unidirectional	300	0.5 Typ	25	44	yes	300	Programmable	100	DFN-6, MSOP-8	-0.3V to 44V Input Common Mode Range	\$0.99
LT6100	Unidirectional	300	3	10	48	yes	130	Programmable	105	DFN-8, MSOP-8	MOSFET and Fuse Monitoring OK	\$1.18
LTC6101	Unidirectional	300	1	0.17	70	optional	450	Programmable	110	SOT-23, MSOP-8	High Speed, Precise, and Flexible	\$1.04
LTC6101HV	Unidirectional	300	1	0.17	105	optional	450	Programmable	110	SOT-23, MSOP-8	High Speed, Precise, and Flexible	\$1.30
LTC6103	Unidirectional	450	1.5	0.17	70	optional	500	Programmable	110	MSOP-8	Dual, Fast, Precise, and Flexible	\$1.66
LTC6104	Bidirectional	450	1.5	0.17	70	no	520	Programmable	110	MSOP-8	High Speed, Precise, and Flexible	\$1.38
LTC4151	Unidirectional	4000	-	-	80	no	300 (85°C)	-	-	MSOP-10, 3x3 DFN-10	80V Current Sense and Voltage Monitor	\$2.60
<b>LTC2990</b>	<b>Unidirectional</b>	-	-	-	<b>5.5</b>	<b>yes</b>	<b>1800</b>	-	-	<b>MSOP-10</b>	<b>3V to 5.5V Temperature, Voltage and Current Monitor, 13-Bit ADC, 0.06°C Resolution and 1°C Accuracy, Can Measure Two Remote Diode Temperatures</b>	<b>C.F.</b>

† Primary Sort Column

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# PROGRAMMABLE GAIN AMPLIFIERS

Part Number	Gain Range (V/V)	Supply Voltage Min (V)	Supply Voltage Max (V)	I <sub>SUPPLY</sub> Max 25°C (mA)	Rail-to-Rail I/O	e <sub>n</sub> Typ (nV/√Hz)	System Dynamic Range (dB)	GBW Typ 25°C (MHz)	Package	Important Features	Price
LTC6910-1	0, 1, 2, 5, 10, 20, 50, 100	2.7	10.5	3	yes	9	120	11	SOT-23	3-Bit Digital Gain Control, 8-Pin SOT-23	\$1.10
LTC6910-2	0, 1, 2, 4, 8, 16, 32, 64	2.7	10.5	3	yes	9	120	13	SOT-23	3-Bit Digital Gain Control, 8-Pin SOT-23	\$1.10
LTC6910-3	0, 1, 2, 3, 4, 5, 6, 7	2.7	10.5	3	yes	10.5	117	11	SOT-23	3-Bit Digital Gain Control, 8-Pin SOT-23	\$1.10
LTC6911-1	0, 1, 2, 5, 10, 20, 50, 100	2.7	10.5	3	yes	9	120	11	MSOP-10	Dual, Matched Channels	\$2.00
LTC6911-2	0, 1, 2, 4, 8, 16, 32, 64	2.7	10.5	3	yes	9	120	13	MSOP-10	Dual, Matched Channels	\$2.00
LTC6912-1	0, 1, 2, 5, 10, 20, 50, 100	2.7	10.5	2.75	yes	15.1	115	30	SSOP-16/4×3 DFN-12	Dual, Independent Channels, SPI	\$2.15
LTC6912-2	0, 1, 2, 4, 8, 16, 32, 64	2.7	10.5	2.75	yes	15.1	115	30	SSOP-16/4×3 DFN-12	Dual, Independent Channels, SPI	\$2.15
LTC6915	0, 1, 2, 4, 8, 16, 32, 64, 128, ... 4096	2.7	11	1.6	yes	50	123	0.2	SSOP-16/4×3 DFN-12	Serial or Par. PGA/IA/ Av=0 to 4096 V/V	\$2.44

# GAIN SELECTABLE AMPLIFIERS

Part Number	Gain Range (V/V)	Supply Voltage Min (V)	Supply Voltage MAX (V)	I <sub>SUPPLY</sub> Max 25°C (mA)	Rail-to-Rail I/O	e <sub>n</sub> Typ (nV/√Hz)	GBW Typ 25°C (MHz)	Package	Important Features	Price
LT1991	-13 to 14	2.7	36	0.11	out	46	0.56	MSOP-10	Precision, Pin Configurable Gain Diff Amplifier	\$1.10
LT1991A	-13 to 14	2.7	36	0.11	out	46	0.56	MSOP-10	Precision, Pin Configurable Gain Diff Amplifier	\$1.65
LT1990	1 or 10	2.7	36	0.12	out	1000	0.1	SO-8	±250V Input, Pin Configurable Gain Diff Amplifier	\$1.30
LT1990A	1 or 10	2.7	36	0.12	out	1000	0.1	SO-8	±250V Input, Pin Configurable Gain Diff Amplifier	\$1.65
LT1995	-7 to 8	5	36	8.5	no	27	30	MSOP-10	High Speed, Pin Configurable Gain Diff Amplifier	\$1.89
LT1996	-117 to 118	2.7	36	0.11	out	46	0.56	MSOP-10	Precision, Pin Configurable Gain Diff Amplifier	\$1.10

# DIFFERENTIAL AMPLIFIERS WITH INTEGRATED FILTER

Part Number	Function	Filter Characteristics					Adjustable Output Common Mode	Resistor Prog. Gain (V/V)	SNR (dB)	I/P Referred Differential Offset (mV, Typ)	Differential Offset Drift (μV/°C, Typ)	Supply Voltage			Package	Price 1K Qty
		Filter Order	Cutoff Frequency (MHz)	Passband Ripple (dB)	Differential Inputs	Differential Outputs						Min (V)	Max (V)	I <sub>SUPPLY</sub> Max/Ampl (mA)		
<b>Singles</b>																
LTC1992	Lowpass	1	4	n/a	yes	yes	yes	yes	2.5	10	2.7	±5	1	MSOP-8	\$1.65	
LTC1992-X	Lowpass	1	4	n/a	yes	yes	yes	Fixed Gain, A <sub>V</sub> =1,2,5,10	2.4	10	2.7	±5	1.0	MSOP-8	\$3.95	
LT1993-X	Lowpass	1	175		yes	yes	yes	Fixed Gain, A <sub>V</sub> =2,4,10	6.5	2.5	4	5.5	112	3×3 QFN-16	\$2.95	
LTC6601-1	Lowpass	2	5 to 27	n/a	yes	yes	yes	Pin-Strapped (-7dB to 7dB)	82.3	0.25	2.7	5.25	43	4×4 QFN-20	\$3.95	
<b>LTC6601-2</b>	<b>Lowpass</b>	<b>2</b>	<b>5 to 27</b>	<b>n/a</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>Pin-Strapped (-7dB to 7dB)</b>	<b>77</b>	<b>0.25</b>	<b>2.7</b>	<b>5.25</b>	<b>26 or 43</b>	<b>4×4 QFN-20</b>	<b>\$3.95</b>	
LT6600-2.5	Lowpass	4	2.5	0.5	yes	yes	yes	yes	86	3	2.7	±5	30	SO-8	\$2.95	
LT6600-5	Lowpass	4	5	0.5	yes	yes	yes	yes	82	13	2.7	±5	28	SO-8	\$2.95	
LT6600-10	Lowpass	4	10	0.5	yes	yes	yes	yes	82	5	2.7	±5	39	SO-8	\$2.95	
LT6600-15	Lowpass	4	15	0.5	yes	yes	yes	yes	76	15	2.7	±5	39	SO-8	\$2.95	
LT6600-20	Lowpass	4	20	0.5	yes	yes	yes	yes	76	10	2.7	±5	46	SO-8	\$2.95	
LT1568	Any	4	0.2 to 10	0.25	yes	yes	yes	yes	92	4	2.7	±5	35	SSOP-16	\$4.25	
<b>Duals</b>																
LTC6605-7	Lowpass	2	6.5 to 10	n/a	yes	yes	yes	Pin Prog, A <sub>V</sub> =1,4,5	no spec	0.25	1	2.7	5.25	45	6×3 DFN-22	\$6.95
LTC6605-10	Lowpass	2	9.7 to 14	n/a	yes	yes	yes	Pin Prog, A <sub>V</sub> =1,4,5	no spec	0.25	1	2.7	5.25	45	6×3 DFN-22	\$6.95
LTC6605-14	Lowpass	2	12.4 to 20	n/a	yes	yes	yes	Pin Prog, A <sub>V</sub> =1,2,3	no spec	0.25	1	2.7	5.25	45	6×3 DFN-22	\$6.95
LT6604-2.5	Lowpass	4	2.5	0.5	yes	yes	yes	yes	86	3	3	±5	30	4×7 QFN-34	\$6.50	
LT6604-5	Lowpass	4	5	0.5	yes	yes	yes	yes	82	5	3	±5	31	4×7 QFN-34	\$6.50	
LT6604-10	Lowpass	4	10	0.5	yes	yes	yes	yes	82	5	3	±5	39	4×7 QFN-34	\$6.50	
LT6604-15	Lowpass	4	15	0.5	yes	yes	yes	yes	76	5	3	±5	39	4×7 QFN-34	\$6.50	

† Output Voltage (V)	Shunt/Series	†† Temperature Range (°C)	Accuracy Max 25°C (%)	TC of V <sub>OUT</sub> Max (ppm/°C)	Output Current	Part Order Number	Package Type	I <sub>o</sub> Max or Shunt Current	Dropout Voltage	0.1 - 10Hz Typ Noise (µV <sub>p-p</sub> )	Comment	Price 1K Qty
0.2	Series	0°C to 70°C	5.5	30 Typ	±10mA	LT1635CN8	DIP-8	130µA	0.8V	–	200mV Reference with Buffer and Independent Op Amp	\$1.75
0.2	Series	0°C to 70°C	5.5	30 Typ	±10mA	LT1635CS8	SO-8	130µA	0.8V	–	200mV Reference with Buffer and Independent Op Amp	\$1.95
0.2	Series	–40°C to 85°C	5.5	30 Typ	±10mA	LT1635IN8	DIP-8	130µA	0.8V	–	200mV Reference with Buffer and Independent Op Amp	\$2.15
0.2	Series	–40°C to 85°C	5.5	30 Typ	±10mA	LT1635IS8	SO-8	130µA	0.8V	–	200mV Reference with Buffer and Independent Op Amp	\$2.40
0.400	Series	0°C to 70°C	0.5	30 Typ	±200µA	LT6650CS5	SOT-23-5	11µA	0.1V	20	400mV Reference with Buffer Amplifier	\$1.25
0.400	Series	–40°C to 85°C	0.5	30 Typ	±200µA	LT6650IS5	SOT-23-5	11µA	0.1V	20	400mV Reference with Buffer Amplifier	\$1.69
0.400	Series	–40°C to 125°C	0.5	30 Typ	±200µA	LT6650HS5	SOT-23-5	11µA	0.1V	20	400mV Reference with Buffer Amplifier	\$1.69
1.225/7	Shunt	0°C to 70°C	1.20	20	Shunt	LT1034BCZ-1.2	TO-92	30µA-20mA	Shunt	6	Micropower, Includes Auxiliary 7V Reference	\$2.75
1.225/7	Shunt	0°C to 70°C	1.20	40	Shunt	LT1034CS8-1.2	SO-8	30µA-20mA	Shunt	6	Micropower, Includes Auxiliary 7V Reference	\$2.35
1.225/7	Shunt	0°C to 70°C	1.20	40	Shunt	LT1034CZ-1.2	TO-92	30µA-20mA	Shunt	6	Micropower, Includes Auxiliary 7V Reference	\$2.05
1.225/7	Shunt	–40°C to 85°C	1.20	20	Shunt	LT1034BIZ-1.2	TO-92	30µA-20mA	Shunt	6	Micropower, Includes Auxiliary 7V Reference	\$4.75
1.225/7	Shunt	–40°C to 85°C	1.20	40	Shunt	LT1034IS8-1.2	SO-8	30µA-20mA	Shunt	6	Micropower, Includes Auxiliary 7V Reference	\$3.30
1.225/7	Shunt	–40°C to 85°C	1.20	40	Shunt	LT1034IZ-1.2	TO-92	30µA-20mA	Shunt	6	Micropower, Includes Auxiliary 7V Reference	\$2.95
1.235	Shunt	0°C to 70°C	0.3	20 Typ	Shunt	LT1004CS8-1.2	SO-8	10µA-20mA	Shunt	–	General Purpose Micropower Shunt Reference	\$1.60
1.235	Shunt	0°C to 70°C	0.3	20 Typ	Shunt	LT1004CZ-1.2	TO-92	10µA-20mA	Shunt	–	General Purpose Micropower Shunt Reference	\$1.30
1.235	Shunt	–40°C to 85°C	0.30	20 Typ	Shunt	LT1004IS8-1.2	SO-8	10µA-20mA	Shunt	–	General Purpose Micropower Shunt Reference	\$3.10
1.235	Shunt	–40°C to 85°C	0.30	20 Typ	Shunt	LT1004IZ-1.2	TO-92	10µA-20mA	Shunt	–	General Purpose Micropower Shunt Reference	\$2.75
1.25	Shunt	0°C to 70°C	0.05	10	Shunt	LT1389ACS8-1.25	SO-8	600nA-20mA	Shunt	20	Lowest Power Shunt Reference Available	\$5.25
1.25	Shunt	0°C to 70°C	0.05	10	Shunt	LT1634ACS8-1.25	SO-8	7µA-100mA	Shunt	10	Upgrade for LT1004/1034 and LM185/385	\$4.50
1.25	Series	0°C to 70°C	0.05	10	–1mA to 5mA	LT1790ACS6-1.25	SOT-23-6	60µA	0.1V	10	High Precision SOT-23 Reference	\$2.91
1.25	Shunt	0°C to 70°C	0.05	20	Shunt	LT1389BCS8-1.25	SO-8	600nA-20mA	Shunt	20	Lowest Power Shunt Reference Available	\$3.10
1.25	Shunt	0°C to 70°C	0.05	25	Shunt	LT1634BCMS8-1.25	MSOP-8	7µA-100mA	Shunt	10	Upgrade for LT1004/1034 and LM185/385	\$2.60
1.25	Shunt	0°C to 70°C	0.05	25	Shunt	LT1634CS8-1.25	SO-8	7µA-100mA	Shunt	10	Upgrade for LT1004/1034 and LM185/385	\$2.35
1.25	Series	0°C to 70°C	0.10	25	–1mA to 5mA	LT1790BCS6-1.25	SOT-23-6	60µA	0.1V	10	Lowest Cost Precision Series Reference, SOT-23	\$1.25
1.25	Shunt	0°C to 70°C	0.20	25	Shunt	LT1634CZ-1.25	TO-92	7µA-100mA	Shunt	10	Upgrade for LT1004/1034 and LM185/385	\$2.10
1.25	Series	–40°C to 85°C	0.05	10	–1mA to 5mA	LT1790AIS6-1.25	SOT-23-6	60µA	0.1V	10	High Precision SOT-23 Reference	\$3.31
1.25	Shunt	–40°C to 85°C	0.05	10	Shunt	LT1634AIS8-1.25	SO-8	7µA-100mA	Shunt	10	Upgrade for LT1004/1034 and LM185/385	\$4.95
1.25	Shunt	–40°C to 85°C	0.05	25	Shunt	LT1634BIS8-1.25	SO-8	7µA-100mA	Shunt	10	Upgrade for LT1004/1034 and LM185/385	\$2.85
1.25	Series	–40°C to 85°C	0.10	25	–1mA to 5mA	LT1790BIS6-1.25	SOT-23-6	60µA	0.1V	10	Lowest Cost Precision Series Reference, SOT-23	\$1.56
1.25	Series	–40°C to 125°C	0.05	5	±5mA	LTC6652AHMS8-1.25	MSOP-8	560µA	1.55V	2.5	Precision, Low Noise, High Temperature Reference	\$3.36
1.25	Series	–40°C to 125°C	0.1	10	±5mA	LTC6652BHMS8-1.25	MSOP-8	560µA	1.55V	2.5	Precision, Low Noise, High Temperature Reference	\$1.65
2.048	Series	0°C to 70°C	0.05	10	–3mA to 5mA	LT1790ACS6-2.048	SOT-23-6	60µA	0.1V	22	High Precision SOT-23 Reference	\$2.91
2.048	Series	0°C to 70°C	0.10	25	–3mA to 5mA	LT1790BCS6-2.048	SOT-23-6	60µA	0.1V	22	Lowest Cost Precision Series Reference, SOT-23	\$1.25
2.048	Series	–40°C to 85°C	0.05	10	–3mA to 5mA	LT1790AIS6-2.048	SOT-23-6	60µA	0.1V	22	High Precision SOT-23 Reference	\$3.31
2.048	Series	–40°C to 85°C	0.10	25	–3mA to 5mA	LT1790BIS6-2.048	SOT-23-6	60µA	0.1V	22	Lowest Cost Precision Series Reference, SOT-23	\$1.56
2.048	Series	–40°C to 125°C	0.05	5	±5mA	LTC6652AHMS8-2.048	MSOP-8	560µA	0.712V	4.1	Precision, Low Noise, High Temperature Reference	\$3.36
2.048	Series	–40°C to 125°C	0.1	10	±5mA	LTC6652BHMS8-2.048	MSOP-8	560µA	0.712V	4.1	Precision, Low Noise, High Temperature Reference	\$1.65
2.5	Series	0°C to 70°C	0.04	3	0mA to 50mA	LT1461ACS8-2.5	SO-8	50µA	0.3V	20	Highest Precision LDO Reference Available, Shutdown	\$5.10
2.5	Series	0°C to 70°C	0.05	5	±10mA	LT1019ACN8-2.5	DIP-8	1.0mA	1.1V	6	Tight Tolerance, Low TC and Runs on 5V Supplies	\$6.25
2.5	Series	0°C to 70°C	0.05	5	±10mA	LT1019ACS8-2.5	SO-8	1.0mA	1.1V	6	Tight Tolerance, Low TC and Runs on 5V Supplies	\$5.40
2.5	Series	0°C to 70°C	0.06	7	0mA to 50mA	LT1461BCS8-2.5	SO-8	50µA	0.3V	20	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$3.50
2.5	Series	0°C to 70°C	0.05	10	–3mA to 5mA	LT1790ACS6-2.5	SOT-23-6	60µA	0.1V	32	High Precision SOT-23 Reference	\$2.91
2.5	Shunt	0°C to 70°C	0.05	10	Shunt	LT1634ACS8-2.5	SO-8	7µA-50mA	Shunt	15	Upgrade for LT1004/1034 and LM185/385	\$4.50
2.5	Series	0°C to 70°C	0.075	10	–1mA to 20mA	LT1460ACN8-2.5	DIP-8	130µA	0.9V	10	Output Capacitor Optional	\$3.20
2.5	Series	0°C to 70°C	0.075	10	–1mA to 20mA	LT1460ACS8-2.5	SO-8	130µA	0.9V	10	Output Capacitor Optional	\$3.35
2.5	Series	0°C to 70°C	0.10	12	0mA to 50mA	LT1461CCS8-2.5	SO-8	50µA	0.3V	20	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$1.50
2.5	Series	0°C to 70°C	0.10	15	–1mA to 20mA	LT1460CCMS8-2.5	MSOP-8	130µA	0.9V	10	Output Capacitor Optional	\$3.35
2.5	Shunt	0°C to 70°C	0.05	20	Shunt	LT1389BCS8-2.5	SO-8	600nA-20mA	Shunt	40	Lowest Power Shunt Reference Available	\$3.10
2.5	Series	0°C to 70°C	0.10	20	–1mA to 20mA	LT1460DCN8-2.5	DIP-8	130µA	0.9V	10	Output Capacitor Optional	\$2.00
2.5	Series	0°C to 70°C	0.10	20	–1mA to 20mA	LT1460DCS8-2.5	SO-8	130µA	0.9V	10	Output Capacitor Optional	\$2.05
2.5	Series	0°C to 70°C	0.20	20	±10mA	LT1019CN8-2.5	DIP-8	1.2mA	1.1V	6	Precision Series Reference, Runs on 5V Supplies	\$3.70
2.5	Series	0°C to 70°C	0.20	20	±10mA	LT1019CS8-2.5	SO-8	1.2mA	1.1V	6	Precision Series Reference, Runs on 5V Supplies	\$4.65
2.5	Series	0°C to 70°C	0.20	20	–1mA to 20mA	LT1460HCS3-2.5	SOT-23	145µA	0.9V	10	Precision SOT-23 Reference	\$3.00

† Primary Sort Column  
 †† Secondary Sort Column



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# REFERENCES

†	Output Voltage (V)	Shunt/Series	††	Temperature Range (°C)	Accuracy Max 25°C (%)	TC of V <sub>OUT</sub> Max (ppm/°C)	Output Current	Part Order Number	Package Type	I <sub>0</sub> Max or Shunt Current	Dropout Voltage	0.1 - 10Hz Typ Noise (μV <sub>P-P</sub> )	Comment	Price 1K Qty
	2.5	Series		0°C to 70°C	0.20	20	-1mA to 20mA	LT6660HCDC-2.5	DFN	145μA	0.9V	10	2x2 Pkg, 20mA Output, No Output Cap	\$1.32
	2.5	Series		0°C to 70°C	0.4	20	-1mA to 20mA	LT1460JCS3-2.5	SOT-23	145μA	0.9V	10	SOT-23 Reference, Output Cap Optional	\$2.45
	2.5	Series		0°C to 70°C	0.4	20	-1mA to 20mA	LT6660JCDC-2.5	DFN	145μA	0.9V	10	2x2 Pkg, 20mA Output, No Output Cap	\$1.16
	2.5/7	Shunt		0°C to 70°C	1.60	20	Shunt	LT1034BCZ-2.5	TO-92	30μA-20mA	Shunt	6	Micropower, Auxiliary 7V Reference	\$2.75
	2.5	Shunt		0°C to 70°C	0.05	25	Shunt	LT1634BCMS8-2.5	MSOP-8	7μA-50mA	Shunt	15	Upgrade for LT1004/1034 and LM185/385	\$2.60
	2.5	Shunt		0°C to 70°C	0.05	25	Shunt	LT1634BCS8-2.5	SO-8	7μA-50mA	Shunt	15	Upgrade for LT1004/1034 and LM185/385	\$2.35
	2.5	Series		0°C to 70°C	0.1	25	-3mA to 5mA	LT1790BCS6-2.5	SOT-23	60μA	0.1V	32	Lowest Cost Precision Series Reference also SOT-23	\$1.25
	2.5	Series		0°C to 70°C	0.15	25	-1mA to 20mA	LT1460FCMS8-2.5	MSOP-8	130μA	0.9V	10	Output Capacitor Optional	\$2.20
	2.5	Shunt		0°C to 70°C	0.20	25	Shunt	LT1009CZ	TO-92	400μA-10mA	Shunt	-	General Purpose Shunt Reference	\$1.30
	2.5	Shunt		0°C to 70°C	0.20	25	Shunt	LT1634CCZ-2.5	TO-92	7μA-50mA	Shunt	15	Upgrade for LT1004/1034 and LM185/385	\$2.10
	2.5	Series		0°C to 70°C	0.25	25	-1mA to 20mA	LT1460GCZ-2.5	TO-92	130μA	0.9V	10	Precision TO-92 Series Reference, Output Cap Optional	\$1.60
	2.5	Shunt		0°C to 70°C	0.40	25	Shunt	LT1009CMS8	MSOP-8	400μA-10mA	Shunt	-	General Purpose Shunt Reference	\$1.85
	2.5	Shunt		0°C to 70°C	0.40	25	Shunt	LT1009S8	SO-8	400μA-10mA	Shunt	-	General Purpose Shunt Reference	\$1.75
	2.5	Series		0°C to 70°C	0.15	40	-2mA to 10mA	LTC1258CS8-2.5	SO-8	6.5μA	0.1V	20	Lowest Power LDO Reference Available	\$2.10
	2.5	Series		0°C to 70°C	0.15	40	-2mA to 10mA	LTC1798CS8-2.5	SO-8	6.5μA	0.1V	20	Industry Standard Pinout Version of LTC1258	\$2.10
	2.5/7	Shunt		0°C to 70°C	1.60	40	Shunt	LT1034CS8-2.5	SO-8	30μA-20mA	Shunt	6	Micropower, Auxiliary 7V Reference	\$2.35
	2.5/7	Shunt		0°C to 70°C	1.60	40	Shunt	LT1034CZ-2.5	TO-92	30μA-20mA	Shunt	6	Micropower, Auxiliary 7V Reference	\$2.05
	2.5	Series		0°C to 70°C	0.50	50	-1mA to 20mA	LT1460KCS3-2.5	SOT-23	145μA	0.9V	10	Low Cost SOT-23 Reference Output Cap Optional	\$1.35
	2.5	Series		0°C to 70°C	0.50	50	-1mA to 20mA	LT6660KCDC-2.5	DFN	145μA	0.9V	10	2x2 Pkg, 20mA Output, No Output Cap	\$0.88
	2.5	Series		0°C to 70°C	0.21	60	-2mA to 10mA	LTC1258CMS8-2.5	MSOP-8	6.5μA	0.1V	20	Lowest Power LDO Reference Available	\$2.40
	2.5	Shunt		0°C to 70°C	0.80	20 Typ	Shunt	LT1004CS8-2.5	SO-8	20μA-20mA	Shunt	-	General Purpose Micropower Shunt Reference	\$1.60
	2.5	Shunt		0°C to 70°C	0.80	20 Typ	Shunt	LT1004CZ-2.5	TO-92	20μA-20mA	Shunt	-	General Purpose Micropower Shunt Reference	\$1.30
	2.5	Series		-40°C to 85°C	0.04	3	0mA to 50mA	LT1461AIS8-2.5	SO-8	50μA	0.3V	20	Highest Precision LDO Reference Available, Shutdown	\$5.40
	2.5	Series		-40°C to 85°C	0.06	7	0mA to 50mA	LT1461BIS8-2.5	SO-8	50μA	0.3V	20	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$3.85
	2.5	Series		-40°C to 85°C	0.05	10	-3mA to 5mA	LT1790AIS6-2.5	SOT-23	60μA	0.1V	32	High Precision SOT-23 Reference	\$3.31
	2.5	Series		-40°C to 85°C	0.05	10	±10mA	LT1019AIS8-2.5	SO-8	1.0mA	1.1V	6	Tight Tolerance, Low TC and Runs on 5V Supplies	\$5.65
	2.5	Shunt		-40°C to 85°C	0.05	10	Shunt	LT1634AIS8-2.5	SO-8	7μA-50mA	Shunt	15	Upgrade for LT1004/1034 and LM185/385	\$4.95
	2.5	Series		-40°C to 85°C	0.10	10	-1mA to 20mA	LT1460BIN8-2.5	DIP-8	130μA	0.9V	10	Output Capacitor Optional	\$4.80
	2.5	Series		-40°C to 85°C	0.10	10	-1mA to 20mA	LT1460BIS8-2.5	SO-8	130μA	0.9V	10	Output Capacitor Optional	\$4.85
	2.5	Series		-40°C to 85°C	0.10	12	0mA to 50mA	LT1461CIS8-2.5	SO-8	50μA	0.3V	20	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$1.75
	2.5	Series		-40°C to 85°C	0.125	20	-1mA to 20mA	LT1460EIN8-2.5	DIP-8	130μA	0.9V	10	Output Capacitor Optional	\$2.30
	2.5	Series		-40°C to 85°C	0.125	20	-1mA to 20mA	LT1460EIS8-2.5	SO-8	130μA	0.9V	10	Output Capacitor Optional	\$2.45
	2.5	Series		-40°C to 85°C	0.20	20	±10mA	LT1019IN8-2.5	DIP-8	1.2mA	1.1V	6	Precision Series Reference, Runs on 5V Supplies	\$4.75
	2.5	Series		-40°C to 85°C	0.20	20	±10mA	LT1019IS8-2.5	SO-8	1.2mA	1.1V	12	Precision Series Reference, Runs on 5V Supplies	\$4.85
	2.5/7	Shunt		-40°C to 85°C	1.60	20	Shunt	LT1034BIZ-2.5	TO-92	30μA-20mA	Shunt	6	Micropower, Auxiliary 7V Reference	\$4.75
	2.5	Shunt		-40°C to 85°C	0.05	25	Shunt	LT1634BIS8-2.5	SO-8	7μA-50mA	Shunt	15	Upgrade for LT1004/1034 and LM185/385	\$2.85
	2.5	Series		-40°C to 85°C	0.10	25	-3mA to 5mA	LT1790BIS6-2.5	SOT-23	60μA	0.1V	32	Lowest Cost Precision Series Reference also SOT-23	\$1.56
	2.5	Series		-40°C to 85°C	0.25	25	-1mA to 20mA	LT1460GIZ-2.5	TO-92	130μA	0.9V	10	Lowest Temp Co. TO-92 Reference Available	\$1.70
	2.5	Shunt		-40°C to 85°C	0.20	35	Shunt	LT1009IZ	TO-92	400μA-10mA	Shunt	-	General Purpose Shunt Reference	\$2.25
	2.5	Shunt		-40°C to 85°C	0.40	35	Shunt	LT1009IS8	SO-8	400μA-10mA	Shunt	-	General Purpose Shunt Reference	\$2.45
	2.5/7	Shunt		-40°C to 85°C	1.60	40	Shunt	LT1034IS8-2.5	SO-8	30μA-20mA	Shunt	6	Micropower, Auxiliary 7V Reference	\$3.30
	2.5/7	Shunt		-40°C to 85°C	1.60	40	Shunt	LT1034IZ-2.5	TO-92	30μA-20mA	Shunt	6	Micropower, Auxiliary 7V Reference	\$2.95
	2.5	Shunt		-40°C to 85°C	0.40	50 Typ	Shunt	LT1431IN8	DIP-8	1mA-100mA	Shunt	-	Adjustable Shunt Regulator, 100mA Sink Capacity	\$1.55
	2.5	Shunt		-40°C to 85°C	0.40	50 Typ	Shunt	LT1431S8	SO-8	1mA-100mA	Shunt	-	Adjustable Shunt Regulator, 100mA Sink Capacity	\$2.20
	2.5	Shunt		-40°C to 85°C	0.40	50 Typ	Shunt	LT1431IZ	TO-92	1mA-100mA	Shunt	-	Upgrade for TL431/LM431/μA431 etc.	\$1.11
	2.5	Shunt		-40°C to 85°C	0.80	20 Typ	Shunt	LT1004IS8-2.5	SO-8	20μA-20mA	Shunt	-	General Purpose Micropower Shunt Reference	\$3.10
	2.5	Shunt		-40°C to 85°C	0.80	20 Typ	Shunt	LT1004IZ-2.5	TO-92	20μA-20mA	Shunt	-	General Purpose Micropower Shunt Reference	\$2.75
	2.5	Series		-40°C to 85°C/125°C	0.20	20/50	-1mA to 20mA	LT1460LHS8-2.5	SO-8	130μA	0.9V	10	Extended Temperature Range O/P Cap Optional	\$2.65
	2.5	Series		-40°C to 125°C	0.05	5	±5mA	LTC6652AHMS8-2.5	MSOP-8	560μA	0.3V	5	Precision, Low Noise, High Temperature Reference	\$3.36
	2.5	Series		-40°C to 125°C	0.1	10	±5mA	LTC6652BHMS8-2.5	MSOP-8	560μA	0.3V	5	Precision, Low Noise, High Temperature Reference	\$1.65
	2.5	Series		-40°C to 125°C	0.15	20	0mA to 10mA	LT1461DHS8-2.5	SO-8	50μA	0.3V	20	Highest Precision LDO Reference Available, Shutdown	\$1.50
	2.5	Series		-40°C to 125°C	0.20	50	-1mA to 20mA	LT1460MHS8-2.5	SO-8	130μA	0.9V	10	Extended Temperature Range O/P Cap Optional	\$2.25
	3	Series		0°C to 70°C	0.04	3	0mA to 50mA	LT1461ACS8-3	SO-8	50μA	0.3V	24	Highest Precision LDO Reference Available, Shutdown	\$6.10
	3	Series		0°C to 70°C	0.06	7	0mA to 50mA	LT1461BCS8-3	SO-8	50μA	0.3V	24	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$4.20

† Primary Sort Column  
 †† Secondary Sort Column



† Output Voltage (V)	Shunt/Series	‡‡ Temperature Range (°C)	Accuracy Max 25°C (%)	TC of V <sub>OUT</sub> Max (ppm/°C)	Output Current	Part Order Number	Package Type	I <sub>o</sub> Max or Shunt Current	Dropout Voltage	0.1 - 10Hz Typ Noise (µV <sub>P-P</sub> )	Comment	Price 1K Qty
3	Series	0°C to 70°C	0.05	10	-3mA to 5mA	LT1790ACS6-3	SOT-23	60µA	0.1V	50	High Precision SOT-23 Reference	\$2.91
3	Series	0°C to 70°C	0.10	12	0mA to 50mA	LT1461CCS8-3	SO-8	50µA	0.3V	24	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$1.50
3	Series	0°C to 70°C	0.20	20	-1mA to 20mA	LT1460HCS3-3	SOT-23-3	180µA	0.9V	12	Precision SOT-23 Reference	\$3.00
3	Series	0°C to 70°C	0.20	20	-1mA to 20mA	LT6660HCDC-3	DFN	180µA	0.9V	12	2x2 Pkg, 20mA Output, No Output Cap	\$1.32
3	Series	0°C to 70°C	0.40	20	-1mA to 20mA	LT1460JCS3-3	SOT-23-3	180µA	0.9V	12	SOT-23 Reference Output Cap Optional	\$2.45
3	Series	0°C to 70°C	0.40	20	-1mA to 20mA	LT6660JDCDC-3	DFN	180µA	0.9V	12	2x2 Pkg, 20mA Output, No Output Cap	\$1.16
3	Series	0°C to 70°C	0.10	25	-3mA to 5mA	LT1790BCS6-3	SOT-23-6	60µA	0.1V	50	Lowest Cost Precision Series Reference also SOT-23	\$1.25
3	Series	0°C to 70°C	0.15	40	-2mA to 10mA	LTC1258CS8-3	SO-8	6.5µA	0.1V	40	Lowest Power LDO Reference Available	\$2.10
3	Series	0°C to 70°C	0.15	40	-2mA to 10mA	LTC1798CS8-3	SO-8	6.5µA	0.1V	40	Industry Standard Pinout Version of LTC1258	\$2.10
3	Series	0°C to 70°C	0.50	50	-1mA to 20mA	LT1460KCS3-3	SOT-23-3	180µA	0.9V	12	Low Cost SOT-23 Reference Output Cap Optional	\$1.35
3	Series	0°C to 70°C	0.50	50	-1mA to 20mA	LT6660KDCDC-3	DFN	180µA	0.9V	12	2x2 Pkg, 20mA Output, No Output Cap	\$0.88
3	Series	0°C to 70°C	0.20	60	-2mA to 10mA	LTC1258CMS8-3	MSOP-8	6.5µA	0.1V	40	Lowest Power LDO Reference Available	\$2.40
3	Series	-40°C to 85°C	0.04	3	0mA to 50mA	LT1461AIS8-3	SO-8	50µA	0.3V	24	Highest Precision LDO Reference Available, Shutdown	\$6.50
3	Series	-40°C to 85°C	0.06	7	0mA to 50mA	LT1461BIS8-3	SO-8	50µA	0.3V	24	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$4.60
3	Series	-40°C to 85°C	0.05	10	-3mA to 5mA	LT1790AIS6-3	SOT-23-6	60µA	0.1V	50	High Precision SOT-23 Reference, Shutdown	\$3.31
3	Series	-40°C to 85°C	0.10	12	0mA to 50mA	LT1461CIS8-3	SO-8	50µA	0.3V	24	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$1.75
3	Series	-40°C to 85°C	0.10	25	-3mA to 5mA	LT1790BIS6-3	SOT-23-6	60µA	0.1V	50	Lowest Cost Precision Series Reference also SOT-23	\$1.56
3	Series	-40°C to 125°C	0.05	5	±5mA	LTC6652AHMS8-3	MSOP-8	560µA	0.3V	6	Precision, Low Noise, High Temperature Reference	\$3.36
3	Series	-40°C to 125°C	0.10	10	±5mA	LTC6652BHMS8-3	MSOP-8	560µA	0.3V	6	Precision, Low Noise, High Temperature Reference	\$1.65
3	Series	-40°C to 125°C	0.20	20	0mA to 10mA	LT1461DHS8-3	SO-8	50µA	0.3V	24	Highest Precision LDO Reference Available, Shutdown	\$1.50
3.3	Series	0°C to 70°C	0.04	3	0mA to 50mA	LT1461ACS8-3.3	SO-8	50µA	0.3V	26	Highest Precision LDO Reference Available, Shutdown	\$6.10
3.3	Series	0°C to 70°C	0.06	7	0mA to 50mA	LT1461BCS8-3.3	SO-8	50µA	0.3V	26	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$4.20
3.3	Series	0°C to 70°C	0.05	10	-3mA to 5mA	LT1790ACS6-3.3	SOT-23-6	60µA	0.1V	50	High Precision SOT-23 Reference	\$2.91
3.3	Series	0°C to 70°C	0.10	12	0mA to 50mA	LT1461CCS8-3.3	SO-8	50µA	0.3V	26	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$1.50
3.3	Series	0°C to 70°C	0.20	20	-1mA to 20mA	LT1460HCS3-3.3	SOT-23-3	180µA	0.9V	13.5	Only 3.3V SOT-23 Reference Available, O/P Cap Optional	\$3.00
3.3	Series	0°C to 70°C	0.20	20	-1mA to 20mA	LT6660HCDC-3.3	DFN	180µA	0.9V	13.5	2x2 Pkg, 20mA Output, No Output Cap	\$1.32
3.3	Series	0°C to 70°C	0.40	20	-1mA to 20mA	LT1460JCS3-3.3	SOT-23-3	180µA	0.9V	13.5	Only 3.3V SOT-23 Reference Available, O/P Cap Optional	\$2.45
3.3	Series	0°C to 70°C	0.40	20	-1mA to 20mA	LT6660JDCDC-3.3	DFN	180µA	0.9V	13.5	2x2 Pkg, 20mA Output, No Output Cap	\$1.16
3.3	Series	0°C to 70°C	0.10	25	-3mA to 5mA	LT1790BCS6-3.3	SOT-23-6	60µA	0.1V	50	Lowest Cost Precision Series Reference also SOT-23	\$1.25
3.3	Series	0°C to 70°C	0.50	50	-1mA to 20mA	LT1460KDCDC-3.3	SOT-23-3	180µA	0.9V	13.5	Only 3.3V SOT-23 Reference Available. O/P Cap Optional	\$1.35
3.3	Series	0°C to 70°C	0.50	50	-1mA to 20mA	LT6660KCS3-3.3	DFN	180µA	0.9V	13.5	2x2 Pkg, 20mA Output, No Output Cap	\$0.88
3.3	Series	-40°C to 85°C	0.04	3	0mA to 50mA	LT1461AIS8-3.3	SO-8	50µA	0.3V	26	Highest Precision LDO Reference Available, Shutdown	\$6.50
3.3	Series	-40°C to 85°C	0.06	7	0mA to 50mA	LT1461BIS8-3.3	SO-8	50µA	0.3V	26	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$4.60
3.3	Series	-40°C to 85°C	0.05	10	-3mA to 5mA	LT1790AIS6-3.3	SOT-23-6	60µA	0.1V	50	High Precision SOT-23 Reference	\$3.31
3.3	Series	-40°C to 85°C	0.10	12	0mA to 50mA	LT1461CIS8-3.3	SO-8	50µA	0.3V	26	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$1.75
3.3	Series	-40°C to 85°C	0.10	25	-3mA to 5mA	LT1790BIS6-3.3	SOT-23-6	60µA	0.1V	50	Lowest Cost Precision Series Reference also SOT-23	\$1.56
3.3	Series	-40°C to 85°C	0.20	20	0mA to 10mA	LT1461DHS8-3.3	SO-8	50µA	0.3V	26	Highest Precision LDO Reference Available, Shutdown	\$1.50
3.3	Series	-40°C to 125°C	0.05	5	±5mA	LTC6652AHMS8-3.3	MSOP-8	560µA	0.3V	6.6	Precision, Low Noise, High Temperature Reference	\$3.36
3.3	Series	-40°C to 125°C	0.10	10	±5mA	LTC6652BHMS8-3.3	MSOP-8	560µA	0.3V	6.6	Precision, Low Noise, High Temperature Reference	\$1.65
4.096	Series	0°C to 70°C	0.04	3	0mA to 50mA	LT1461ACS8-4	SO-8	50µA	0.3V	32	Highest Precision LDO Reference Available, Shutdown	\$5.10
4.096	Series	0°C to 70°C	0.06	7	0mA to 50mA	LT1461BCS8-4	SO-8	50µA	0.3V	32	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$3.50
4.096	Shunt	0°C to 70°C	0.05	10	Shunt	LT1634ACS8-4.096	SO-8	7µA-30mA	Shunt	30	Upgrade for LT1004/1034 and LM185/385	\$4.50
4.096	Series	0°C to 70°C	0.05	10	-3mA to 5mA	LT1790ACS6-4.096	SOT-23-6	60µA	0.1V	60	High Precision SOT-23 Reference	\$2.91
4.096	Series	0°C to 70°C	0.10	12	0mA to 50mA	LT1461CCS8-4	SO-8	50µA	0.3V	32	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$1.50
4.096	Shunt	0°C to 70°C	0.05	25	Shunt	LT1634BCS8-4.096	SO-8	7µA-30mA	Shunt	30	Upgrade for LT1004/1034 and LM185/385	\$2.35
4.096	Series	0°C to 70°C	0.10	25	-3mA to 5mA	LT1790BCS6-4.096	SOT-23-6	60µA	0.1V	60	Lowest Cost Precision Series Reference also SOT-23	\$1.25
4.096	Shunt	0°C to 70°C	0.20	25	Shunt	LT1634CCZ-4.096	TO-92	7µA-30mA	Shunt	30	Upgrade for LT1004/1034 and LM185/385	\$2.10
4.096	Series	0°C to 70°C	0.15	40	-2mA to 10mA	LTC1258CS8-4.1	SO-8	6.5µA	0.1V	40	Lowest Power LDO Reference Available	\$2.10
4.096	Series	0°C to 70°C	0.15	40	-2mA to 10mA	LTC1798CS8-4.1	SO-8	6.5µA	0.1V	40	Industry Standard Pinout Version of LTC1258	\$2.10
4.096	Series	0°C to 70°C	0.18	60	-2mA to 10mA	LTC1258CMS8-4.1	MSOP-8	6.5µA	0.1V	40	Lowest Power LDO Reference Available	\$2.40
4.096	Shunt	0°C to 70°C	0.075	50	Shunt	LT1389BCS8-4.096	SO-8	6µA-20mA	Shunt	80	Lowest Power Shunt Reference Available	\$3.10
4.096	Series	-40°C to 85°C	0.04	3	0mA to 50mA	LT1461AIS8-4	SO-8	50µA	0.3V	32	Highest Precision LDO Reference Available, Shutdown	\$5.40
4.096	Series	-40°C to 85°C	0.06	7	0mA to 50mA	LT1461BIS8-4	SO-8	50µA	0.3V	32	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$3.85
4.096	Series	-40°C to 85°C	0.05	10	-3mA to 5mA	LT1790AIS6-4.096	SOT-23-6	60µA	0.1V	60	High Precision SOT-23 Reference	\$3.31

† Primary Sort Column  
 ‡‡ Secondary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# REFERENCES

† Output Voltage (V)	Shunt/Series	‡‡ Temperature Range (°C)	Accuracy Max 25°C (%)	TC of V <sub>OUT</sub> Max (ppm/°C)	Output Current	Part Order Number	Package Type	I <sub>O</sub> Max or Shunt Current	Dropout Voltage	0.1 - 10Hz Typ Noise (μV <sub>P-P</sub> )	Comment	Price 1K Qty
4.096	Shunt	-40°C to 85°C	0.05	10	Shunt	LT1634AIS8-4.096	SO-8	7μA-30mA	Shunt	30	Upgrade for LT1004/1034 and LM185/385	\$4.95
4.096	Series	-40°C to 85°C	0.10	12	0mA to 50mA	LT1461CIS8-4	SO-8	50μA	0.3V	32	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$1.75
4.096	Shunt	-40°C to 85°C	0.05	25	Shunt	LT1634BIS8-4.096	SO-8	7μA-30mA	Shunt	30	Upgrade for LT1004/1034 and LM185/385	\$2.85
4.096	Series	-40°C to 85°C	0.10	25	-3mA to 5mA	LT1790BIS6-4.096	SOT-23-6	60μA	0.1V	50	Lowest Cost Precision Series Reference also SOT-23	\$1.56
4.096	Series	-40°C to 125°C	0.05	5	±5mA	LTC6652AHMS8-4.096	MSOP-8	560μA	0.3V	8.2	Precision, Low Noise, High Temperature Reference	\$3.36
4.096	Series	-40°C to 125°C	0.10	10	±5mA	LTC6652BHMS8-4.096	MSOP-8	560μA	0.3V	8.2	Precision, Low Noise, High Temperature Reference	\$1.65
4.096	Series	-40°C to 125°C	0.20	20	0mA to 10mA	LT1461DHS8-4	SO-8	50μA	0.3V	32	Highest Precision LDO Reference Available, Shutdown	\$1.50
4.5	Series	0°C to 70°C	0.05	5	±10mA	LT1019ACN8-4.5	DIP-8	1.0mA	1.1V	12	Tight Tolerance and Low TC Bandgap Reference	\$6.25
4.5	Series	0°C to 70°C	0.20	20	±10mA	LT1019CN8-4.5	DIP-8	1.2mA	1.1V	12	Precision Series Bandgap Reference	\$3.70
4.5	Series	0°C to 70°C	0.20	20	±10mA	LT1019CS8-4.5	SO-8	1.2mA	1.1V	12	Precision Series Bandgap Reference	\$4.65
4.5	Series	-40°C to 85°C	0.20	20	±10mA	LT1019N8-4.5	DIP-8	1.2mA	1.1V	12	Precision Series Bandgap Reference	\$4.75
5	Series	0°C to 70°C	0.05	2	-10mA to 15mA	LT1027BCN8-5	DIP-8	2.7mA	3.0V	3	Tight Tolerance and Low TC Buried Zener Reference	\$4.85
5	Series	0°C to 70°C	0.04	3	0mA to 50mA	LT1461ACS8-5	SO-8	50μA	0.3V	40	Highest Precision LDO Reference Available, Shutdown	\$5.10
5	Series	0°C to 70°C	0.05	3	-10mA to 15mA	LT1027CCN8-5	DIP-8	2.7mA	3.0V	3	Tight Tolerance and Low TC Buried Zener Reference	\$4.40
5	Series	0°C to 70°C	0.05	3	-10mA to 15mA	LT1027CCS8-5	SO-8	2.7mA	3.0V	3	Tight Tolerance and Low TC Buried Zener Reference	\$4.50
5	Series	0°C to 70°C	0.05	5	±10mA	LT1019ACN8-5	DIP-8	1.0mA	1.1V	12	Tight Tolerance and Low TC Bandgap Reference	\$6.25
5	Series	0°C to 70°C	0.05	5	±10mA	LT1019ACS8-5	SO-8	1.0mA	1.1V	12	Tight Tolerance and Low TC Bandgap Reference	\$5.40
5	Series	0°C to 70°C	0.05	5	-10mA to 15mA	LT1027DCN8-5	DIP-8	2.7mA	3.0V	3	Tight Tolerance and Low TC Buried Zener Reference	\$3.90
5	Series	0°C to 70°C	0.05	5	-10mA to 15mA	LT1027DCS8-5	SO-8	2.7mA	3.0V	3	Tight Tolerance and Low TC Buried Zener Reference	\$4.70
5	Series	0°C to 70°C	0.05	5	±10mA	LT1236ACN8-5	DIP-8	1.2mA	2.2V	3	Tight Tolerance and Low TC	\$3.75
5	Series	0°C to 70°C	0.05	5	±10mA	LT1236ACS8-5	SO-8	1.2mA	2.2V	3	Tight Tolerance and Low TC	\$3.75
5	Series	0°C to 70°C	1.00	5	±10mA	LT1021BCN8-5	DIP-8	1.2mA	2.2V	3	Buried Zener Series Reference	\$5.25
5	Series	0°C to 70°C	1.00	5	±10mA	LT1021BCH-5	TO-5	1.2mA	2.2V	3	Very Low Drift, Buried Zener, Series Reference	\$6.90
5	Series	0°C to 70°C	0.06	7	0mA to 50mA	LT1461BCS8-5	SO-8	50μA	0.3V	40	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$3.50
5	Series	0°C to 70°C	0.10	7.5	-10mA to 15mA	LT1027ECN8-5	DIP-8	2.7mA	3.0V	3	Tight Tolerance and Low TC Buried Zener Reference	\$3.60
5	Series	0°C to 70°C	0.10	7.5	-10mA to 15mA	LT1027ECS8-5	SO-8	2.7mA	3.0V	3	Tight Tolerance and Low TC Buried Zener Reference	\$2.25
5	Series	0°C to 70°C	0.05	10	-3mA to 5mA	LT1790ACS6-5	SOT-23-6	60μA	0.1V	80	High Precision SOT-23 Reference	\$2.91
5	Shunt	0°C to 70°C	0.05	10	Shunt	LT1634ACS8-5	SO-8	7μA-30mA	Shunt	35	Upgrade for LT1004/1034 and LM185/385	\$4.50
5	Series	0°C to 70°C	0.075	10	-1mA to 20mA	LT1460ACN8-5	DIP-8	175μA	0.9V	20	Output Capacitor Optional	\$3.20
5	Series	0°C to 70°C	0.075	10	-1mA to 20mA	LT1460ACS8-5	SO-8	175μA	0.9V	20	Output Capacitor Optional	\$3.35
5	Series	0°C to 70°C	0.10	10	±10mA	LT1236BCN8-5	DIP-8	1.2mA	2.2V	3	Tight Tolerance and Low TC	\$2.15
5	Series	0°C to 70°C	0.10	10	±10mA	LT1236BCS8-5	SO-8	1.2mA	2.2V	3	Tight Tolerance and Low TC	\$2.35
5	Series	0°C to 70°C	0.10	12	0mA to 50mA	LT1461CCS8-5	SO-8	50μA	0.3V	40	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$1.50
5	Series	0°C to 70°C	0.10	15	±10mA	LT1236CCN8-5	DIP-8	1.2mA	2.2V	3	Buried Zener Series Reference	\$1.95
5	Series	0°C to 70°C	0.10	15	±10mA	LT1236CCS8-5	SO-8	1.2mA	2.2V	3	Buried Zener Series Reference	\$1.95
5	Series	0°C to 70°C	0.10	15	-1mA to 20mA	LT1460CMS8-5	MSOP-8	175μA	0.9V	20	Output Capacitor Optional	\$3.35
5	Series	0°C to 70°C	0.05	20	±10mA	LT1021CCH-5	TO-5	1.2mA	2.2V	3	Buried Zener Series Reference	\$5.15
5	Series	0°C to 70°C	0.05	20	±10mA	LT1021CCN8-5	DIP-8	1.2mA	2.2V	3	Buried Zener Series Reference	\$3.50
5	Series	0°C to 70°C	0.10	20	-1mA to 20mA	LT1460DCN8-5	DIP-8	175μA	0.9V	20	Output Capacitor Optional	\$2.00
5	Series	0°C to 70°C	0.10	20	-1mA to 20mA	LT1460DCS8-5	SO-8	175μA	0.9V	20	Output Capacitor Optional	\$2.05
5	Series	0°C to 70°C	0.20	20	±10mA	LT1019CN8-5	DIP-8	1.2mA	1.1V	12	Precision Series Bandgap Reference	\$3.70
5	Series	0°C to 70°C	0.20	20	±10mA	LT1019CS8-5	SO-8	1.2mA	1.1V	12	Precision Series Bandgap Reference	\$4.65
5	Shunt	0°C to 70°C	0.2	20	Shunt	LT1029ACZ	TO-92	600μA-10mA	Shunt	-	General Purpose Reference	\$2.50
5	Series	0°C to 70°C	0.20	20	-1mA to 20mA	LT1460HCS3-5	SOT-23-3	200μA	0.9V	20	Precision SOT-23 Reference	\$3.00
5	Series	0°C to 70°C	0.20	20	-1mA to 20mA	LT6660HCDC-5	DFN	200μA	0.9V	20	2x2 Pkg, 20mA Output, No Output Cap	\$1.32
5	Series	0°C to 70°C	0.40	20	-1mA to 20mA	LT1460JCS3-5	SOT-23-3	200μA	0.9V	20	SOT-23 Reference Output Cap Optional	\$2.46
5	Series	0°C to 70°C	0.40	20	-1mA to 20mA	LT6660JCDC-5	DFN	200μA	0.9V	20	2x2 Pkg, 20mA Output, No Output Cap	\$1.16
5	Series	0°C to 70°C	1.00	20	±10mA	LT1021DCN8-5	DIP-8	1.2mA	2.2V	3	Low Cost, Buried Zener, Series Reference	\$2.65
5	Series	0°C to 70°C	1.00	20	±10mA	LT1021DCS8-5	SO-8	1.2mA	2.2V	3	Low Cost, Buried Zener, Series Reference	\$3.20
5	Shunt	0°C to 70°C	0.05	25	Shunt	LT1634BCS8-5	SO-8	7μA-30mA	Shunt	35	Upgrade for LT1004/1034 and LM185/385	\$2.35
5	Series	0°C to 70°C	0.10	25	-3mA to 5mA	LT1790BCS6-5	SOT-23-6	60μA	0.1V	80	Lowest Cost Precision Series Reference Also SOT-23	\$1.25
5	Series	0°C to 70°C	0.15	25	-1mA to 20mA	LT1460FMS8-5	MSOP-8	175μA	0.9V	20	Output Capacitor Optional	\$2.20
5	Shunt	0°C to 70°C	0.20	25	Shunt	LT1634CCZ-5	TO-92	7μA-30mA	Shunt	35	Upgrade for LT1004/1034 and LM185/385	\$2.10
5	Series	0°C to 70°C	0.25	25	-1mA to 20mA	LT1460GCZ-5	TO-92	175μA	0.9V	20	Precision TO-92 Series Reference Output Cap Optional	\$1.60

† Primary Sort Column  
 ‡‡ Secondary Sort Column

† Output Voltage (V)	Shunt/Series	†† Temperature Range (°C)	Accuracy Max 25°C (%)	TC of V <sub>OUT</sub> Max (ppm/°C)	Output Current	Part Order Number	Package Type	I <sub>o</sub> Max or Shunt Current	Dropout Voltage	0.1 - 10Hz Typ Noise (µV <sub>p-p</sub> )	Comment	Price 1K Qty
5	Shunt	0°C to 70°C	1.00	34	Shunt	LT1029CZ	TO-92	600µA-10mA	Shunt	–	General Purpose Reference	\$1.55
5	Series	0°C to 70°C	0.15	40	–2mA to 10mA	LTC1258CS8-5	SO-8	6.5µA	0.1V	40	Lowest Power LDO Reference Available	\$2.10
5	Series	0°C to 70°C	0.15	40	–2mA to 10mA	LTC1798CS8-5	SO-8	6.5µA	0.1V	40	Industry Standard Pinout Version of LTC1258	\$2.10
5	Shunt	0°C to 70°C	0.075	50	Shunt	LT1389BCS8-5	S8	1µA	–	100	Ultralow Power Shunt Reference	\$3.10
5	Series	0°C to 70°C	0.50	50	–1mA to 20mA	LT1460KCS3-5	SOT-23-3	200µA	0.9V	20	Low Cost SOT-23 Reference Output Cap Optional	\$1.35
5	Series	0°C to 70°C	0.50	50	–1mA to 20mA	LT6660KCCD-5	DFN	200µA	0.9V	20	2x2 Pkg, 20mA Output, No Output Cap	\$0.88
5	Series	0°C to 70°C	0.18	60	–2mA to 10mA	LTC1258CMS8-5	MSOP-8	6.5µA	0.1V	40	Lowest Power LDO Reference Available	\$2.40
5	Series	–40°C to 85°C	0.04	3	0mA to 50mA	LT1461AIS8-5	SO-8	50µA	0.3V	40	Highest Precision LDO Reference Available, Shutdown	\$5.40
5	Series	–40°C to 85°C	0.05	5	±10mA	LT1236AIS8-5	SO-8	1.2mA	2.2V	3	Tight Tolerance and Low TC	\$4.95
5	Series	–40°C to 85°C	0.06	7	0mA to 50mA	LT1461BIS8-5	SO-8	50µA	0.3V	40	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$3.85
5	Series	–40°C to 85°C	0.05	10	±10mA	LT1019AIS8-5	SO-8	1.0mA	1.1V	12	Tight Tolerance and Low TC Bandgap Reference	\$5.65
5	Series	–40°C to 85°C	0.05	10	–3mA to 5mA	LT1790AIS6-5	SOT-23-6	60µA	0.1V	80	High Precision SOT-23 Reference	\$3.31
5	Shunt	–40°C to 85°C	0.05	10	Shunt	LT1634AIS8-5	SO-8	7µA-30mA	Shunt	35	Upgrade for LT1004/1034 and LM185/385	\$4.95
5	Series	–40°C to 85°C	0.10	10	±10mA	LT1236BIN8-5	DIP-8	1.2mA	2.2V	3	Tight Tolerance and Low TC	\$2.45
5	Series	–40°C to 85°C	0.10	10	±10mA	LT1236BIS8-5	SO-8	1.2mA	2.2V	3	Tight Tolerance and Low TC	\$2.45
5	Series	–40°C to 85°C	0.10	10	–1mA to 20mA	LT1460BIN8-5	DIP-8	175µA	0.9V	20	Output Capacitor Optional	\$4.80
5	Series	–40°C to 85°C	0.10	10	–1mA to 20mA	LT1460BIS8-5	SO-8	175µA	0.9V	20	Output Capacitor Optional	\$4.85
5	Series	–40°C to 85°C	0.10	12	0mA to 50mA	LT1461CIS8-5	SO-8	50µA	0.3V	40	Tight Tolerance, Low TC and Low Dropout, Shutdown	\$1.75
5	Series	–40°C to 85°C	0.10	15	±10mA	LT1236CIN8-5	DIP-8	1.2mA	2.2V	3	Buried Zener Series Reference	\$2.30
5	Series	–40°C to 85°C	0.10	15	±10mA	LT1236CIS8-5	SO-8	1.2mA	2.2V	3	Buried Zener Series Reference	\$2.30
5	Series	–40°C to 85°C	0.05	20	±10mA	LT1021CIN8-5	DIP-8	1.2mA	2.2V	3	Buried Zener Series Reference	\$4.65
5	Series	–40°C to 85°C	0.125	20	–1mA to 20mA	LT1460EIN8-5	DIP-8	175µA	0.9V	20	Output Capacitor Optional	\$2.25
5	Series	–40°C to 85°C	0.125	20	–1mA to 20mA	LT1460EIS8-5	SO-8	175µA	0.9V	20	Output Capacitor Optional	\$2.35
5	Series	–40°C to 85°C	0.20	20	±10mA	LT1019IN8-5	DIP-8	1.2mA	1.1V	12	Precision Series Bandgap Reference	\$4.75
5	Series	–40°C to 85°C	0.20	20	±10mA	LT1019IS8-5	SO-8	1.2mA	1.1V	12	Precision Series Bandgap Reference	\$4.85
5	Series	–40°C to 85°C	1.00	20	±10mA	LT1021DIN8-5	DIP-8	1.2mA	2.2V	3	Buried Zener Series Reference	\$3.50
5	Shunt	–40°C to 85°C	0.05	25	Shunt	LT1634BIS8-5	SO-8	7µA-30mA	Shunt	35	Upgrade for LT1004/1034 and LM185/385	\$2.85
5	Series	–40°C to 85°C	0.10	25	–3mA to 5mA	LT1790BIS6-5	SOT-23-6	60µA	0.1V	80	Lowest Cost Precision Series Reference Also SOT-23	\$1.56
5	Series	–40°C to 85°C	0.25	25	–1mA to 20mA	LT1460GIZ-5	TO-92	175µA	0.9V	20	Lowest Temp Co. TO-92 Reference Available	\$1.70
5	Series	–40°C to 85°C/125°C	0.20	20/50	–1mA to 20mA	LT1460LHS8-5	SO-8	175µA	0.9V	20	Extended Temperature Range O/P Cap Optional	\$2.55
5	Series	–40°C to 85°C	0.20	20	0mA to 10mA	LT1461DHS8-5	SO-8	50µA	0.3V	40	Highest Precision LDO Reference Available, Shutdown	\$1.50
5	Series	–40°C to 125°C	0.05	5	±5mA	LTC6652AHMS8-5	MSOP-8	560µA	0.3V	10	Precision, Low Noise, High Temperature Reference	\$3.36
5	Series	–40°C to 125°C	0.10	10	±5mA	LTC6652BHMS8-5	MSOP-8	560µA	0.3V	10	Precision, Low Noise, High Temperature Reference	\$1.65
5	Series	–40°C to 125°C	0.20	50	–1mA to 20mA	LT1460MHS8-5	SO-8	175µA	0.9V	20	Extended Temperature Range O/P Cap Optional	\$2.20
5	Series	–55°C to 125°C	1.00	5	±10mA	LT1021BMH-5	TO-5	1.2mA	2.2V	3	Very Low Drift, Buried Zener, Military Temp Range	\$15.00
5	Series	–55°C to 125°C	0.05	20	±10mA	LT1021CMH-5	TO-5	1.2mA	2.2V	3	Low Drift, Buried Zener, Military Temp Range	\$8.20
6.95	Shunt	0°C to 70°C	2.00	0.5	Shunt	LM399AH	TO-46	0.5mA-10mA	Shunt	–	Excellent Temperature Stability	\$6.56
6.95	Shunt	0°C to 70°C	2.00	1	Shunt	LM399H	TO-46	0.5mA-10mA	Shunt	–	Excellent Temperature Stability	\$4.65
7	Series	0°C to 70°C	0.71	5	±10mA	LT1021BCN8-7	DIP-8	1.2mA	1.5V	4	Buried Zener Series Reference	\$5.25
7	Series	0°C to 70°C	0.71	20	±10mA	LT1021DCN8-7	DIP-8	1.2mA	1.5V	4	Low Cost, Buried Zener, Series Reference	\$1.75
7	Series	0°C to 70°C	0.71	20	±10mA	LT1021DCS8-7	SO-8	1.2mA	1.5V	4	Low Cost, Buried Zener, Series Reference	\$3.20
7.2	Super Zener	–55°C to 125°C	4.00	0.05	Shunt	LTZ1000CH	TO-5	N/A	N/A	2	Ultra Stable, Temperature Controllable Reference	\$35.20
7.2	Super Zener	–55°C to 125°C	4.00	0.05	Shunt	LTZ1000ACH	TO-5	N/A	N/A	2	Ultra Stable, Temperature Controllable Reference	\$44.80
10	Series	0°C to 70°C	0.05	5	±10mA	LT1019ACN8-10	DIP-8	1.0mA	1.1V	25	Tight Tolerance and Low TC Bandgap Reference	\$6.25
10	Series	0°C to 70°C	0.05	5	±10mA	LT1236ACN8-10	DIP-8	1.2mA	1.5V	6	Tight Tolerance and Low TC	\$2.95
10	Series	0°C to 70°C	0.05	5	±10mA	LT1236AC8S-10	SO-8	1.2mA	1.5V	6	Tight Tolerance and Low TC	\$3.10
10	Series	0°C to 70°C	0.05	5	±10mA	LT1031BCH	TO-39	1.7mA	1.0V	6	Plug-In Replacement for LH0070 and AD581	\$7.40
10	Series	0°C to 70°C	0.10	15	±10mA	LT1031CCH	TO-39	1.7mA	1.0V	6	Plug-In Replacement for LH0070 and AD581	\$4.45
10	Series	0°C to 70°C	0.20	25	±10mA	LT1031DCH	TO-39	1.7mA	1.0V	6	Plug-In Replacement for LH0070 and AD581	\$3.40
10	Series	0°C to 70°C	0.50	5	±10mA	LT1021BCN8-10	DIP-8	1.7mA	1.5V	6	Buried Zener Series Reference	\$5.25
10	Series	0°C to 70°C	0.075	10	–1mA to 20mA	LT1460ACN8-10	DIP-8	270µA	0.9V	40	Output Capacitor Optional	\$2.75
10	Series	0°C to 70°C	0.075	10	–1mA to 20mA	LT1460ACS8-10	SO-8	270µA	0.9V	40	Output Capacitor Optional	\$3.15
10	Series	0°C to 70°C	0.10	10	±10mA	LT1236BCN8-10	DIP-8	1.2mA	1.5V	6	Tight Tolerance and Low TC	\$2.35
10	Series	0°C to 70°C	0.10	10	±10mA	LT1236BCS8-10	SO-8	1.2mA	1.5V	6	Tight Tolerance and Low TC	\$2.35

† Primary Sort Column  
 †† Secondary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# REFERENCES

†	Output Voltage (V)	Shunt/Series	††	Temperature Range (°C)	Accuracy Max 25°C (%)	TC of $V_{out}$ Max (ppm/°C)	Output Current	Part Order Number	Package Type	$I_o$ Max or Shunt Current	Dropout Voltage	0.1 - 10Hz Typ Noise ( $\mu$ V <sub>P-P</sub> )	Comment	Price 1K Qty
	10	Series		0°C to 70°C	0.10	15	±10mA	LT1236CCN8-10	DIP-8	1.2mA	1.5V	6	Buried Zener Series Reference	\$2.20
	10	Series		0°C to 70°C	0.10	15	±10mA	LT1236CCS8-10	SO-8	1.2mA	1.5V	6	Buried Zener Series Reference	\$2.20
	10	Series		0°C to 70°C	0.10	15	-1mA to 20mA	LT1460CCMS8-10	MSOP-8	270μA	0.9V	40	Output Capacitor Optional	\$3.35
	10	Series		0°C to 70°C	0.05	20	±10mA	LT1021CCN8-10	DIP-8	1.7mA	1.5V	6	Buried Zener Series Reference	\$3.50
	10	Series		0°C to 70°C	0.10	20	-1mA to 20mA	LT1460DCN8-10	DIP-8	270μA	0.9V	40	Output Capacitor Optional	\$2.00
	10	Series		0°C to 70°C	0.10	20	-1mA to 20mA	LT1460DCS8-10	SO-8	270μA	0.9V	40	Output Capacitor Optional	\$2.05
	10	Series		0°C to 70°C	0.20	20	±10mA	LT1019CN8-10	DIP-8	1.2mA	1.1V	25	Precision Series Bandgap Reference	\$3.70
	10	Series		0°C to 70°C	0.20	20	±10mA	LT1019CS8-10	SO-8	1.2mA	1.1V	25	Precision Series Bandgap Reference	\$4.65
	10	Series		0°C to 70°C	0.20	20	-1mA to 20mA	LT1460HCS3-10	SOT-23-3	270μA	0.9V	40	Only 10V SOT-23 Reference Available, O/P Cap Optional	\$3.00
	10	Series		0°C to 70°C	0.20	20	-1mA to 20mA	LT6660HCDC-10	DFN	270μA	0.9V	40	2x2 Pkg, 20mA Output, No Output Cap	\$1.32
	10	Series		0°C to 70°C	0.40	20	-1mA to 20mA	LT1460JCS3-10	SOT-23-3	270μA	0.9V	40	Only 10V SOT-23 Reference Available, O/P Cap Optional	\$2.45
	10	Series		0°C to 70°C	0.40	20	-1mA to 20mA	LT6660JCDC-10	DFN	270μA	0.9V	40	2x2 Pkg, 20mA Output, No Output Cap	\$1.16
	10	Series		0°C to 70°C	0.50	20	±10mA	LT1021DCN8-10	DIP-8	1.7mA	1.5V	6	Low Cost, Buried Zener, Series Reference	\$2.65
	10	Series		0°C to 70°C	0.50	20	±10mA	LT1021DCS8-10	SO-8	1.7mA	1.5V	6	Low Cost, Buried Zener, Series Reference	\$3.20
	10	Series		0°C to 70°C	0.15	25	-1mA to 20mA	LT1460FMS8-10	MSOP-8	270μA	0.9V	40	Output Capacitor Optional	\$2.20
	10	Series		0°C to 70°C	0.25	25	-1mA to 20mA	LT1460GCZ-10	TO-92	270μA	0.9V	40	Only TO-92 10V Series Reference Output Cap Optional	\$1.60
	10	Series		0°C to 70°C	0.50	50	-1mA to 20mA	LT1460KCS3-10	SOT-23-3	270μA	0.9V	40	Only 10V SOT-23 Reference Available, O/P Cap Optional	\$1.35
	10	Series		0°C to 70°C	0.50	50	-1mA to 20mA	LT6660KCDC-10	DFN	270μA	0.9V	40	2x2 Pkg, 20mA Output, No Output Cap	\$0.88
	10	Series		-40°C to 85°C	0.05	5	±10mA	LT1236AIN8-10	DIP-8	1.2mA	1.5V	6	Tight Tolerance and Low TC	\$3.55
	10	Series		-40°C to 85°C	0.05	5	±10mA	LT1236AIS8-10	SO-8	1.2mA	1.5V	6	Tight Tolerance and Low TC	\$3.70
	10	Series		-40°C to 85°C	0.10	10	±10mA	LT1236BIN8-10	DIP-8	1.2mA	1.5V	6	Tight Tolerance and Low TC	\$2.85
	10	Series		-40°C to 85°C	0.10	10	±10mA	LT1236BIS8-10	SO-8	1.2mA	1.5V	6	Tight Tolerance and Low TC	\$2.85
	10	Series		-40°C to 85°C	0.10	10	-1mA to 20mA	LT1460BIN8-10	DIP-8	270μA	0.9V	40	Output Capacitor Optional	\$4.60
	10	Series		-40°C to 85°C	0.10	10	-1mA to 20mA	LT1460BIS8-10	SO-8	270μA	0.9V	40	Output Capacitor Optional	\$4.85
	10	Series		-40°C to 85°C	0.10	15	±10mA	LT1236CIN8-10	DIP-8	1.2mA	1.5V	6	Buried Zener Series Reference	\$2.65
	10	Series		-40°C to 85°C	0.10	15	±10mA	LT1236CIS8-10	SO-8	1.2mA	1.5V	6	Buried Zener Series Reference	\$2.65
	10	Series		-40°C to 85°C	0.05	20	±10mA	LT1021CIN8-10	DIP-8	1.7mA	1.5V	6	Buried Zener Series Reference	\$4.65
	10	Series		-40°C to 85°C	0.20	20	±10mA	LT1019IN8-10	DIP-8	1.2mA	1.1V	25	Precision Series Bandgap Reference	\$4.75
	10	Series		-40°C to 85°C	0.50	20	±10mA	LT1021DIN8-10	DIP-8	1.7mA	1.5V	6	Buried Zener Series Reference	\$3.50
	10	Series		-40°C to 85°C	0.125	20	-1mA to 20mA	LT1460EIN8-10	DIP-8	270μA	0.9V	40	Output Capacitor Optional	\$2.25
	10	Series		-40°C to 85°C	0.125	20	-1mA to 20mA	LT1460EIS8-10	SO-8	270μA	0.9V	40	Output Capacitor Optional	\$2.35
	10	Series		-40°C to 85°C	0.25	25	-1mA to 20mA	LT1460GIZ-10	TO-92	270μA	0.9V	40	Only TO-92 10V Series Reference, Output Cap Optional	\$1.70
	10	Series		-55°C to 125°C	0.05	11	±10mA	LH0070-2H	TO-39	5mA	1.4V	6	Low Drift Precision Reference for Series or Shunt Mode	\$8.75
	10	Series		-55°C to 125°C	0.05	5	±10mA	LT1031BMH	TO-39	1.7mA	1.0V	6	Plug-In Replacement for LH0070 and AD581	\$11.50
	10	Series		-55°C to 125°C	1.00	5	±10mA	LT1021BMH-10	TO-5	1.2mA	2.2V	3	Very Low Drift, Buried Zener, Military Temp Range	\$15.00
	10	Series		-55°C to 125°C	0.10	17	±10mA	LH0070-0H	TO-39	5mA	1.4V	6	Low Drift Precision Reference for Series or Shunt Mode	\$5.35
	10	Series		-55°C to 125°C	0.10	17	±10mA	LH0070-1H	TO-39	5mA	1.4V	6	Low Drift Precision Reference for Series or Shunt Mode	\$6.85
	10	Series		-55°C to 125°C	0.20	25	±10mA	LT1031DMH	TO-39	1.7mA	1.0V	6	Plug-In Replacement for LH0070 and AD581	\$4.65
	Adjust	Series		0°C to 70°C	0.5	30 Typ	±200μA	LT6650CS5	SOT-23-5	11μA	0.1V	20	400mV Reference with Internal Amplifier	\$1.25
	Adjust	Shunt		0°C to 70°C	0.40	30 Typ	Shunt	LT1431CN8	DIP-8	1mA-100mA	Shunt	-	Adjustable Shunt Regulator, Voltage from 2.5V to 36V	\$1.20
	Adjust	Shunt		0°C to 70°C	0.40	30 Typ	Shunt	LT1431CS8	SO-8	1mA-100mA	Shunt	-	Adjustable Shunt Regulator, Voltage from 2.5V to 36V	\$1.75
	Adjust	Shunt		0°C to 70°C	0.40	30 Typ	Shunt	LT1431CZ	TO-92	1mA-100mA	Shunt	-	Adjustable Shunt Regulator, Voltage from 2.5V to 36V	\$1.05
	Adjust	Series		0°C to 70°C	5.5	30 Typ	±10mA	LT1635CN8	DIP-8	130μA	0.8V	-	200mV Reference with Internal Amplifier	\$1.75
	Adjust	Series		0°C to 70°C	5.5	30 Typ	±10mA	LT1635CS8	SO-8	130μA	0.8V	-	200mV Reference with Internal Amplifier	\$1.95
	Adjust	Series		-40°C to 85°C	5.5	30 Typ	±10mA	LT1635IN8	DIP-8	130μA	0.8V	-	200mV Reference with Internal Amplifier	\$2.15
	Adjust	Series		-40°C to 85°C	5.5	30 Typ	±10mA	LT1635IS8	SO-8	130μA	0.8V	-	200mV Reference with Internal Amplifier	\$2.40
	Adjust	Series		-40°C to 85°C	0.5	30 Typ	±200μA	LT6650IS5	SOT-23-5	11μA	0.1V	20	400mV Reference with Internal Amplifier	\$1.69
	Adjust	Series		-40°C to 85°C	0.5	30 Typ	±200μA	LT6650HS5	SOT-23-5	11μA	0.1V	20	400mV Reference with Internal Amplifier	\$1.69

† Primary Sort Column  
 †† Secondary Sort Column



Part Number	Temperature Range	Output Voltage Options	Accuracy Max 25°C (%)	TC of V <sub>OUT</sub> Max (ppm/°C)	Output Current	Package	Supply Voltage	Features
LTC6652	-40° to 125°C	1.25V, 2V, 2.5V, 3V, 3.3V, 4V, 5V	±0.05	5	±5mA	MSOP-8	(V <sub>OUT</sub> +300mV) to 13.2V	2ppm Noise, Shutdown Mode with <2μA
LT1460xH	-40° to 125°C	2.5V, 5V	±0.2	50	0 to 10mA	SO-8	(V <sub>OUT</sub> +0.9V) to 30V	Reverse Battery Protected, No Output Capacitor Required
LT1461DH	-40° to 125°C	2.5V, 3V, 3.3V, 4.096V, 5V	±0.15	20	-1mA to 20mA	SO-8	(V <sub>OUT</sub> +0.3V) to 30V	Micropower with High Output Current and Shutdown
LT6650H	-40° to 125°C	0.4V	±0.5	30 Typ	±200μA	SOT-23	(V <sub>OUT</sub> +1V) to 30V	400mV Reference with Internal Amp for Adjustable Output Voltage
LT1021xM	-55° to 125°C	5V, 10V	±0.05	5	±10mA	TO-5	(V <sub>OUT</sub> +1V) to 40V	Low Drift, 1ppm Noise, Shunt Mode or Series with ±10mA Output
LT1031	-55° to 125°C	10V	±0.05	5	±10mA	TO-39	11V to 40V	Low Noise, Shunt or Series Modes, ±10mA Output, AD581 Replacement
LTZ1000	-55° to 125°C	7.2V	±4	0.05	N/A (Shunt Device)	TO-5	N/A (Shunt Device)	Ultra Precision, Super Zener, 1.2μVp-p Noise, Low Hysteresis

## VOLTAGE REFERENCES COMBINED WITH AN AMPLIFIER OR COMPARATOR(S)

Part Number	Amplifier or Comparator Description	† Voltage Reference Output (V)	Reference Accuracy Max 25°C (%)	Input Offset Max 25°C (mV)	Input Common Mode Range (V)	Comparator Prop Delay or Amp GBW (μs or kHz)	V <sub>SUPPLY</sub> Range (V)	I <sub>SUPPLY</sub> Max 25°C (μA)	Package	Price 1K Qty
LT1635	Micropower Rail-to-Rail Op Amp, LM10 Pinout	0.2	2.5%	1.3	V <sup>-</sup> to (V <sup>+</sup> -1)	175kHz	1.2 to 14	200	DIP-8/SO-8	\$1.75
LT6650	Micropower Rail-to-Rail Buffer Amplifier	0.4	2.0%	n/a	n/a	56kHz	1.4 to 20	11	SOT-23	\$1.25
LT6700-1	Dual Low Voltage Inverting/Non-Inverting Comparator	0.4	2.0%	n/a	-0.3 to 18	18μs	1.4 to 18.5	10	SOT-23/2x3 DFN	\$1.25
LT6700-2	Dual Low Voltage Comparator, Two Inverting Inputs	0.4	2.0%	n/a	-0.3 to 18	18μs	1.4 to 18.5	10	SOT-23/2x3 DFN	\$1.25
LT6700-3	Dual Low Voltage Comparator, Two Non-Inverting Inputs	0.4	2.0%	n/a	-0.3 to 18	18μs	1.4 to 18.5	10	SOT-23/2x3 DFN	\$1.25
LT6700HV-1	Dual Low Voltage Inverting/Non-Inverting Comparator	0.4	2.0%	n/a	-0.3 to 36	18μs	1.4 to 18.5	10	SOT-23	\$1.49
LT6700HV-2	Dual Low Voltage Comparator, Two Inverting Inputs	0.4	2.0%	n/a	-0.3 to 36	18μs	1.4 to 18.5	10	SOT-23	\$1.49
LT6700HV-3	Dual Low Voltage Comparator, Two Non-Inverting Inputs	0.4	2.0%	n/a	-0.3 to 36	18μs	1.4 to 18.5	10	SOT-23	\$1.49
LT6700MP	Dual Comparators and Reference for -55°C to 125°C	0.4	2.0	n/a	-0.3 to 36	18μs	1.4 to 18.5	10	2x3 DFN-6	\$4.12
LT6703-2	Low Voltage Comparator, Access to Non-Inverting Input	0.4	2.0%	n/a	-0.3 to 18	18μs	1.4 to 18.5	10	SOT-23/2x2 DFN-3	\$0.75
LT6703-3	Low Voltage Comparator, Access to Inverting Input	0.4	2.0%	n/a	-0.3 to 18	18μs	1.4 to 18.5	10	SOT-23/2x2 DFN-3	\$0.75
LT6703HV-2	Low Voltage Comparator, Access to Non-Inverting Input	0.4	2.0%	n/a	-0.3 to 36	18μs	1.4 to 18.5	10	SOT-23	\$0.83
LT6703HV-3	Low Voltage Comparator, Access to Inverting Input	0.4	2.0%	n/a	-0.3 to 36	18μs	1.4 to 18.5	10	SOT-23	\$0.83
LTC1440	Ultralow Power Comparator	1.182	1.5%	10	V <sup>-</sup> to (V <sup>+</sup> -1.3)	8μs	2 to 11	4	DIP-8/MSOP-8/SO-8/ 3x3 DFN	\$1.45
LTC1442	Dual Ultralow Power Comparator	1.182	1.0%	10	V <sup>-</sup> to (V <sup>+</sup> -1.3)	8μs	2 to 11	5.7	DIP-8/SO-8	\$2.20
LTC1443	Quad Ultralow Power Comparator	1.182	1.0%	10	V <sup>-</sup> to (V <sup>+</sup> -1.3)	4μs	2 to 11	8.5	DIP-16/SO-16/5x4 DFN	\$2.25
LTC1540	Nanopower Comparator	1.182	2.2%	12	V <sup>-</sup> to (V <sup>+</sup> -1.3)	50μs	2 to 11	0.7	MSOP-8/SO-8/3x3 DFN	\$1.60
LTC1842	Dual Ultralow Power Comparator, Open Drain Outputs	1.182	1.0%	10	V <sup>-</sup> to (V <sup>+</sup> -1.3)	4μs	2.5 to 11	5.7	SO-8	\$1.40
LTC1843	Dual Ultralow Power Inverting/Non-Inverting Comparator	1.182	1.0%	10	V <sup>-</sup> to (V <sup>+</sup> -1.3)	4μs	2.5 to 11	5.7	SO-8	\$1.40
LTC1541	Micropower Amplifier and Comparator	1.2	1.25%	2	V <sup>-</sup> to (V <sup>+</sup> -1.3)	8μs	2.5 to 12.6	7.5	MSOP-8/SO-8/3x3 DFN	\$1.50
LTC1998	Comparator, Battery Monitor with Adj. Thresholds	1.2	1.0%	n/a	n/a	150μs	1.5 to 5.5	3.5	SOT-23	\$0.95
LTC1444	Quad Ultralow Power Comparator, Open Drain Outputs	1.221	1.0%	10	V <sup>-</sup> to (V <sup>+</sup> -1.3)	4μs	2 to 11	8.5	DIP-16/SO-16/5x4 DFN	\$2.25
LTC1445	Quad Ultralow Power Comparator	1.221	1.0%	10	V <sup>-</sup> to (V <sup>+</sup> -1.3)	4μs	2 to 11	8.5	DIP-16/SO-16/5x4 DFN	\$2.25

† Primary Sort Column

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# FILTERS

Part Number	Filter Order	Filters per Package	Filter Configuration	† Max $f_{CENTER}$ or $f_{CUTOFF}$	Clock Tunable (Y/N)	$f_0/f_{CLK}$	Supply Current (mA)	Package	Important Features	Price 1K Qty
<b>Lowpass Filters: Preconfigured for lowpass operation</b>										
LTC1069-1	8	1	Elliptic	12kHz	Y	100:1	2.5	DIP-8/SO-8	Single 3.3V Supply, Wide Dynamic Range SO-8	\$4.70
LTC1062	5	1	Butterworth	20kHz	Y	100:1	4.5	DIP-8/SOW-16	No DC Error, Internal or External Clock can be used	\$3.20
LTC1164-5	8	1	Butterworth or Bessel	20kHz	Y	100, 50:1	2.5	DIP-14/SOW-16	Low Power, Pin Select Butterworth or Bessel	\$10.80
LTC1069-6	8	1	Elliptic	20kHz	Y	50:1	1.2	DIP-8/SO-8	Single 3.3V Supply, Wide Dynamic Range SO-8	\$4.80
LTC1164-7	8	1	Improved Bessel	20kHz	Y	100, 50:1	2.5	DIP-14/SOW-16	Constant Group Delay, No External Components	\$10.80
LTC1164-XX	8	1	Semi-Custom	20kHz	Y	100, 50:1	4	DIP-14/SOW-16	Semi-Custom LTC1164	C.F.
LTC1164-6	8	1	Elliptic	30kHz	Y	100, 50:1	2.5	DIP-14/SOW-16	Low Power, Pin Select Elliptic or Linear Phase	\$12.35
LTC1065	5	1	Bessel	50kHz	Y	100:1	2.5	DIP-8/SOW-16	DC Accurate Bessel, Internal or External Clock	\$5.50
LTC1063	5	1	Butterworth	50kHz	Y	100:1	2.7	DIP-8/SOW-16	No DC Error, Self Clock with RC or External Clock	\$5.50
LTC1064-1	8	1	Cauer	50kHz	Y	100, 50:1	10	DIP-14/SOW-16	Low Noise, No External Components	\$12.35
LTC1068-XX	8	1	Semi-Custom	56kHz	Y	100:1	5	DIP-24/SSOP-28	Semi-Custom LTC1068	C.F.
LTC1569-6	10	1	Root Raised Cosine	64kHz	Y	128:1	3	SO-8	One Resistor Sets $f_c$ , 3V to $\pm 5V$ Operation	\$5.50
LTC1064-3	8	1	Bessel	95kHz	Y	150, 75:1	10	DIP-14/SOW-16	Low Noise, No External Components	\$9.60
LTC1064-4	8	1	Cauer	100kHz	Y	100, 50:1	11	DIP-14/SOW-16	Low Noise and $\pm 0.03\%$ THD or Better	\$13.70
LTC1064-7	8	1	Improved Bessel	100kHz	Y	100, 50:1	11	DIP-14/SOW-16	Constant Group Delay, Steeper Roll-Off than Bessel	\$10.80
LTC1066-1	8	1	Elliptic/Linear Phase	120kHz	Y	100, 50:1	14	SOW-18	14-Bit DC Accurate, Pin Select Cauer or Bessel	\$17.10
LTC1064-2	8	1	Butterworth	140kHz	Y	100, 50:1	11	DIP-14/SOW-16	Low Noise, No External Components	\$10.80
LTC1064-XX	8	1	Semi-Custom	140kHz	Y	100, 50:1	12	DIP-14/SOW-16	Semi-Custom LTC1064	C.F.
LTC1564	8	1	Elliptic	150kHz	N	n/a	17	SSOP-16	4-Bit Programmable Filter + 4-Bit PGA, Rail-to-Rail	\$8.95
LTC1564-XX	8	1	Semi-Custom	150kHz	N	n/a	17	SSOP-16	Semi-Custom LTC1564	C.F.
LTC1264-7	8	1	Improved Bessel	200kHz	Y	50, 25:1	11	DIP-14/SOW-16	Constant Group Delay, No External Components	\$13.70
LTC1264-XX	8	1	Semi-Custom	200kHz	Y	50, 25:1	14	DIP-14/SOW-16	Semi-Custom LTC1264	C.F.
LTC1069-7	8	1	Linear Phase	200kHz	Y	25:1	13	DIP-8/SO-8	Input Double Sampled, Passband Gain = $-1V/V$ , SO-8	\$4.80
LTC1563-3	4	1	Bessel	256kHz	N	n/a	10	SSOP-16	Active RC, Rail-to-Rail In/Out, One Resistor Sets $f_c$	\$1.95
LTC1563-2	4	1	Butterworth	256kHz	N	n/a	10	SSOP-16	Active RC, Rail-to-Rail In/Out, One Resistor Sets $f_c$	\$1.95
LTC1569-7	10	1	Root Raised Cosine	300kHz	Y	32:1	6	SO-8	One Resistor Sets $f_c$ , 3V to $\pm 5V$ Operation	\$5.95
LTC1565-31	7	1	Linear Phase	650kHz	N	n/a	23	SO-8	Active RC, Differential In/Out, Shutdown Mode	\$3.65
LTC6602	5	2	Prog. Lowpass or Bandpass	900kHz	Y	100:1	130	4x4 QFN-24	Configurable for 5th Order LP, Matched Channels, Prog Gain	\$6.95
LTC6603	9	2	Prog. LP	2.5MHz	Y	32:1	175	4x4 QFN-24	Matched Gain/Phase, SPI or Pin-Programmable Gain/BW	\$7.50
LTC1560-1	5	1	Elliptic	1MHz	N	n/a	22	SO-8	Active RC, Pin Select $f_c = 1MHz$ or 500kHz, SO-8	\$4.65
LTC1566-1	7	1	Linear Phase	2.3MHz	N	n/a	23	SO-8	Active RC, Differential In/Out, Low Noise	\$5.95
LT6604-2.5	4	2	Chebyshev	2.5MHz	N	n/a	60	4x7 QFN-34	Matched Gain/Phase Differential Amps + 2.5MHz LP Filters	\$6.50
LT6600-2.5	4	1	Chebyshev	2.5MHz	N	n/a	30	SO-8	Low Noise Fully Differential Amp + 2.5MHz Lowpass	\$2.95
LT6604-5	4	2	Chebyshev	5MHz	N	n/a	62	4x7 QFN-34	Matched Gain/Phase Differential Amps + 5MHz LP Filters	\$6.50
LT1568	4	2	Building Block	5MHz	N	n/a	35	SSOP-16	Two Matched Lowpass or One Lowpass/Bandpass	\$4.25
LT6600-5	4	1	Chebyshev	5MHz	N	n/a	31	SO-8	Low Noise Fully Differential Amp + 5MHz Lowpass	\$2.95
<b>LTC6605-7</b>	<b>2</b>	<b>2</b>	<b>Butterworth</b>	<b>7MHz</b>	<b>N</b>	<b>n/a</b>	<b>45</b>	<b>6x3 DFN-22</b>	<b>Matched Gain/Phase Differential Amps + 7MHz LP Filters</b>	<b>\$6.95</b>
LT6604-10	4	2	Chebyshev	10MHz	N	n/a	78	4x7 QFN-34	Matched Gain/Phase Differential Amps + 10MHz LP Filters	\$6.50
LT6600-10	4	1	Chebyshev	10MHz	N	n/a	39	SO-8	Low Noise Fully Differential Amp + 10MHz Lowpass	\$2.95
<b>LTC6605-10</b>	<b>2</b>	<b>2</b>	<b>Butterworth</b>	<b>10MHz</b>	<b>N</b>	<b>n/a</b>	<b>45</b>	<b>6x3 DFN-22</b>	<b>Matched Gain/Phase Differential Amps + 10MHz LP Filters</b>	<b>\$6.95</b>
<b>LTC6605-14</b>	<b>2</b>	<b>2</b>	<b>Butterworth</b>	<b>14MHz</b>	<b>N</b>	<b>n/a</b>	<b>45</b>	<b>6x3 DFN-22</b>	<b>Matched Gain/Phase Differential Amps + 14MHz LP Filters</b>	<b>\$6.95</b>
LT6604-15	4	2	Chebyshev	15MHz	N	n/a	78	4x7 QFN-34	Matched Gain/Phase Differential Amps + 15MHz LP Filters	\$6.50
LT6600-15	4	1	Chebyshev	15MHz	N	n/a	39	SO-8	Low Noise Fully Differential Amp + 15MHz Lowpass	\$2.95
LT6600-20	4	1	Chebyshev	20MHz	N	n/a	46	SO-8	Low Noise Fully Differential Amp + 20MHz Lowpass	\$2.95
LTC6601-1	2	1	Butterworth	5MHz-27MHz	N	n/a	43	4x4 QFN-20	Pin-Configurable Low Noise, High Performance Differential LPF/Amplifier	\$3.95
<b>LTC6601-2</b>	<b>2</b>	<b>1</b>	<b>Butterworth</b>	<b>5MHz-27MHz</b>	<b>N</b>	<b>n/a</b>	<b>25</b>	<b>4x4 QFN-20</b>	<b>Pin-Configurable Low Power, Low Distortion Differential LPF/Amplifier</b>	<b>\$3.95</b>

† Primary Sort Column

Part Number	Filter Order	Filters per Package	Filter Configuration	† Max f <sub>CENTER</sub> or f <sub>CUTOFF</sub>	Clock Tunable (Y/N)	f <sub>0</sub> /f <sub>CLK</sub>	Supply Current (mA)	Package	Important Features	Price 1K Qty
<b>Universal Filters: Can be configured for lowpass, bandpass, highpass and notch</b>										
LTC1060	4	2	Building Block	20kHz	Y	100, 50:1	2.5	DIP-20/SOW-20	Improved MF10 Replacement	\$3.70
LTC1067	4	2	Building Block	20kHz	Y	100:1	2.45	SSOP-16/SO-16	Rail-to-Rail In/Out, Low Noise, Single 3V Supply	\$3.50
LTC1164	8	4	Building Block	20kHz	Y	100, 50:1	4	DIP-24/SO-24	Low Noise, Low Power, Wide Dynamic Range Filter	\$8.10
LTC1164-XX	8	1	Semi-Custom	20kHz	Y	100, 50:1	4	DIP-14/SOW-16	Semi-Custom LTC1164	C.F.
LTC1068-200	8	4	Building Block	25kHz	Y	200:1	3.5	DIP-24/SSOP-28	Low Noise, High Accuracy, 4 Matched Filters	\$6.35
LTC1061	6	3	Building Block	35kHz	Y	100, 50:1	4.5	DIP-20/SOW-20	6th Order, f <sub>0</sub> × Q Product up to 1MHz	\$7.45
LTC1059	2	1	Building Block	40kHz	Y	100, 50:1	1.5	DIP-14/SO-14	Low Noise, MF5 Replacement	\$3.10
LTC1067-50	4	2	Building Block	40kHz	Y	50:1	2.45	SSOP-16/SO-16	Rail-to-Rail In/Out, Low Noise, Single 3V Supply	\$3.50
LTC1068	8	4	Building Block	50kHz	Y	100:1	3.5	DIP-24/SSOP-28	Low Noise, High Accuracy, 4 Matched Filters	\$6.15
LTC1068-50	8	4	Building Block	50kHz	Y	50:1	3	DIP-24/SSOP-28	Low Noise, High Accuracy, 4 Matched Filters	\$6.35
LTC1068-XX	8	1	Semi-Custom	56kHz	Y	100:1	5	DIP-24/SSOP-28	Semi-Custom LTC1068	C.F.
LTC1064	8	4	Building Block	140kHz	Y	100, 50:1	12	DIP-24/SOW-24	Low Noise, 4 Independent Filters in 1 Pkg	\$8.10
LTC1064-XX	8	1	Semi-Custom	140kHz	Y	100, 50:1	12	DIP-14/SOW-16	Semi-Custom LTC1064	C.F.
LTC1562	8	1	Building Block	150kHz	N	n/a	18	DIP-16/SSOP-20	Active RC, Rail-to-Rail In/Out, 14–16-Bit Applications	\$8.95
LTC1564-XX	8	1	Semi-Custom	150kHz	N	n/a	17	SSOP-16	Semi-Custom LTC1564	C.F.
LTC1068-25	8	4	Building Block	200kHz	Y	25:1	3.5	DIP-24/SSOP-28	Low Noise, High Accuracy, 4 Matched Filters	\$6.35
LTC1264	8	4	Building Block	250kHz	Y	20:1	14	DIP-24/SOW-24	High Speed, Low Noise, Input Double Sampled	\$9.45
LTC1264-XX	8	1	Semi-Custom	200kHz	Y	50, 25:1	14	DIP-14/SOW-16	Semi-Custom LTC1264	C.F.
LTC1562-2	8	1	Building Block	300kHz	N	n/a	21	SSOP-20	Active RC, Rail-to-Rail In/Out, 14–16-Bit Applications	\$8.95
LTC6602	4 & 5	2	Prog. BP or LP	900kHz	Y	100:1	130	4×4 QFN-24	SPI Prog. 5th Order LP & 4th Order Highpass Per Channel	\$6.95
LTC6603	9	2	Prog. LP	2.5MHz	Y	32:1	175	4×4 QFN-24	Matched Gain/Phase, SPI or Pin-Programmable Gain/BW	\$7.50
LT1567	2	1	Building Block	5MHz	N	n/a	15	MSOP-8	Active RC, Differential Out, Low Noise, Rail-to-Rail	\$1.85

† Primary Sort Column

HIGH SPEED COMPARATORS

Part Number	† Number Per Pkg	†† Prop Delay (ns)	Output Rise/Fall Time (ns)	Max Toggle Frequency (MHz)	Input Offset Max 25°C (mV)	Supply Voltage (V)	Supply Current (mA)	Input Voltage Range	Rail-to-Rail Output	Comp. Outputs	Output Latch	Package	Notes	Price 1K Qty
LT1719S8	1	4.2	2.5/2.2	70	2.5	2.7 to 10.5	4.2	(V <sup>-</sup> -0.1V) to (V <sup>+</sup> -1.2V)	yes	no	no	SO-8	Separate Output Supply, Shutdown	\$1.95
LT1719S6	1	4.5	2.5/2.2	70	2.5	2.7 to 6	4.2	(V <sup>-</sup> -0.1V) to (V <sup>+</sup> -1.2V)	yes	no	no	SOT-23	Reduced Footprint from SO-8 Version	\$1.40
LT1711	1	4.5	2/2	100	5	2.4 to ±6V	10	(V <sup>-</sup> -0.1V) to (V <sup>+</sup> +0.1V)	yes	yes	yes	MSOP-8	Fastest Single with Latch	\$2.15
LT1394	1	7	2/2	100	2.5	4.5 to ±5	8.5	V <sup>-</sup> to (V <sup>+</sup> -1.5V)	no	yes	yes	MSOP-8/SO-8	LT1016 Upgrade	\$2.55
LT1713	1	7	4/4	65	3	2.4 to ±6V	4	(V <sup>-</sup> -0.1V) to (V <sup>+</sup> -0.1V)	yes	yes	yes	MSOP-8	No Phase Reversal When Inputs Exceed Supplies	\$1.95
LT1016	1	9	7/7	25	3	4.5 to ±5	35	(V <sup>-</sup> +1.25V) to (V <sup>+</sup> -1.5V)	no	yes	yes	SO-8/DIP-8	Stable with Slow Moving Signals	\$2.90
LT1116	1	10	4/7	15	3	4.5 to ±5	38	V <sup>-</sup> to (V <sup>+</sup> -2.5V)	no	yes	yes	SO-8/DIP-8	Single Supply Version of LT1016	\$3.35
LT1671	1	60	30/30	10	2.5	4.5 to ±5	0.8	V <sup>-</sup> to (V <sup>+</sup> -2.5V)	no	yes	yes	MSOP-8/SO-8	Low Power, Ground-Sensing	\$1.70
LT1011	1	150	80/10	5	1.5	5 to ±15	4	(V <sup>-</sup> +0.5V) to (V <sup>+</sup> -2V)	no	no	no	SO-8/DIP-8	±30V Differential Input Voltage, ±50mA Output	\$1.30
LT1715	2	4	2/2	150	5.5	2.7 to 12	7.5	(V <sup>-</sup> -0.1V) to (V <sup>+</sup> -1.2V)	yes	no	no	MSOP-10	Separate Input and Output Supplies, -40°C to 125°C	\$3.35
LT1712	2	4.5	2/2	100	5	2.4 to ±6V	10	(V <sup>-</sup> -0.1V) to (V <sup>+</sup> +0.1V)	yes	yes	yes	SSOP-16	Fastest Dual with Latch	\$3.35
LT1720	2	4.5	2.5/2.2	70	3	2.7 to 6	4	(V <sup>-</sup> -0.1V) to (V <sup>+</sup> -1.2V)	yes	no	no	MSOP-8/SO-8/ 3×3 DFN-8	Low Cost Dual, 3×3 DFN	\$2.95
LT1714	2	7	4/4	65	3	2.4 to ±6V	4	(V <sup>-</sup> -0.1V) to (V <sup>+</sup> +0.1V)	yes	yes	yes	SSOP-16	No Phase Reversal When Inputs Exceed Supplies	\$3.15
LT1721	4	4.5	2.5/2.2	70	3	2.7 to 6	4	(V <sup>-</sup> -0.1V) to (V <sup>+</sup> -1.2V)	yes	no	no	SO-16/SSOP-16	Low Cost Quad, 3×3 DFN	\$4.50

† Primary Sort Column

†† Secondary Sort Column

Amps, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

Space, Military, Harsh Envir.

Reference Material

# MICROPOWER COMPARATORS

Part Number	Number Per Pkg	Input Offset Max 25°C (mV)	Input Common Mode Range (V)	Prop Delay Typ 25°C (μs)	Comparator Hysteresis (mV)	Internal Voltage Reference	Reference Output (V)	Reference Accuracy Max 25°C (%)	Supply Current Max 25°C (μA)	Supply Voltage Range (V)	Package	Price 1K Qty
LTC1440	Single	10	V <sup>-</sup> to (V <sup>+</sup> - 1.3V)	8	Adj	yes	1.182	1.5	3.7	2 to 11	MSOP-8/SO-8/DIP-8/3×3 DFN-8	\$1.45
LTC1540	Single	12	V <sup>-</sup> to (V <sup>+</sup> - 1.3V)	50	Adj	yes	1.182	2.2	0.7	2 to 11	MSOP-8/SO-8/DIP-8/3×3 DFN-8	\$1.60
LTC1541	Single	1	V <sup>-</sup> to (V <sup>+</sup> - 1.3V)	8	2.25	yes	1.2	1.25	7.5	2.5 to 12.6	MSOP-8/SO-8/DIP-8/3×3 DFN-8	\$1.50
LTC1542	Single	1	V <sup>-</sup> to (V <sup>+</sup> - 1.3V)	8	2.25	no	n/a	n/a	7.5	2.5 to 12.6	MSOP-8/SO-8/DIP-8/3×3 DFN-8	\$1.20
LT1716	Single	1.6	(V <sup>-</sup> - 5V) to (V <sup>-</sup> + 44V)	3	None	no	n/a	n/a	50	2.7 to 44	SOT-23	\$1.00
LT6703	Single	see Data Sheet	(V <sup>-</sup> - 0.3V) to (V <sup>-</sup> + 18V)	18	6.5	yes	400mV	2	11	1.4 to 18	SOT23/2×2 DFN-3	\$0.75
LT6703HV	Single	see Data Sheet	(V <sup>-</sup> - 0.3V) to (V <sup>-</sup> + 36V)	18	6.5	yes	400mV	2	11	1.4 to 18	SOT-23	\$0.83
LTC1998	Single	see Data Sheet	see Data Sheet	150	Adj	yes	2.5 to 3.25	1	3.5	1.5 to 5.5	SOT-23	\$0.95
LTC1441	Dual	10	V <sup>-</sup> to (V <sup>+</sup> - 1.3V)	8	None	no	n/a	n/a	5.7	2 to 11	SO-8/DIP-8	\$1.80
LTC1442	Dual	10	V <sup>-</sup> to (V <sup>+</sup> - 1.3V)	8	Adj	yes	1.182	1	5.7	2 to 11	SO-8/DIP-8	\$2.20
LTC1841	Dual	10	V <sup>-</sup> to (V <sup>+</sup> - 1.3V)	4	None	no	n/a	n/a	5.7	2 to 11	SO-8	\$1.15
LTC1842	Dual	10	V <sup>-</sup> to (V <sup>+</sup> - 1.3V)	4	Adj	yes	1.182	1	5.7	2.5 to 11	SO-8	\$1.40
LTC1843	Dual	10	V <sup>-</sup> to (V <sup>+</sup> - 1.3V)	4	Adj	yes	1.182	1	5.7	2.5 to 11	SO-8	\$1.40
LTC1040	Dual	0.75	V <sup>-</sup> to V <sup>+</sup>	80	None	no	n/a	n/a	5.7	2.8 to 16	SOW-18/DIP-18	\$2.10
LTC1041	Dual	n/a	GND to V <sup>+</sup>	80	None	no	n/a	n/a	3000	2.8 to 16	SO-8/DIP-8	\$1.80
LTC1042	Dual	n/a	GND to V <sup>+</sup>	80	None	no	n/a	n/a	3000	2.8 to 16	DIP-8	\$2.10
LT1017	Dual	1	V <sup>-</sup> to (V <sup>+</sup> - 0.9V)	22	None	no	n/a	n/a	80	1.2 to 40	SOW-16/SO-8/DIP-8	\$2.00
LT1018	Dual	1	V <sup>-</sup> to (V <sup>+</sup> - 0.9V)	6	None	no	n/a	n/a	250	1.2 to 40	SOW-16/SO-8/DIP-8	\$1.90
LT6700	Dual	see Data Sheet	(V <sup>-</sup> - 0.3V) to (V <sup>-</sup> + 18V)	18	6.5	yes	0.400	2	15	1.4 to 18	SOT-23/2×3 DFN-6	\$1.25
LT6700HV	Dual	see Data Sheet	(V <sup>-</sup> - 0.3V) to (V <sup>-</sup> + 36V)	18	6.5	yes	400mV	2	15	1.4 to 18	SOT-23	\$1.49
LT6700MP	Dual	see Data Sheet	-0.3V to 18V	18	6.5	yes	400mV	2	15	1.4 to 18	2×3 DFN-6	\$4.12
LTC6702	Dual	3.5	(V <sup>-</sup> - 0.1V) to (V <sup>-</sup> - 1.2V)	0.5	4	no	n/a	n/a	30	1.7 to 5.5	SOT-23/2×2 DFN-8	\$0.96
LTC1443	Quad	10	V <sup>-</sup> to (V <sup>+</sup> - 1.3V)	4	None	yes	1.182	1	8.5	2 to 11	DIP-16/SO-16/5×4 DFN-16	\$2.25
LTC1444	Quad	10	V <sup>-</sup> to (V <sup>+</sup> - 1.3V)	4	Adj	yes	1.221	1	8.5	2 to 11	DIP-16/SO-16/5×4 DFN-16	\$2.25
LTC1445	Quad	10	V <sup>-</sup> to (V <sup>+</sup> - 1.3V)	4	Adj	yes	1.221	1	8.5	2 to 11	DIP-16/SO-16/5×4 DFN-16	\$2.25

# APPLICATION SPECIFIC COMPARATORS

Part Number	Description	Typical Application	Supply Voltage (V)	Prop Delay Typ 25°C (μs)	Hysteresis Typ 25°C (mV)	Supply Current Max 25°C (μA)	Package	Price
LT6700	Dual Comparators with 400mV Reference	Flexible Window Comparator	1.4 to 18	18	6.5	10	SOT-23/2×3 DFN-6	\$1.25
LT6700HV	36V Input/Output Dual Comparators and Reference	Flexible Window Comparator	1.4 to 18	18	6.5	10	SOT-23	\$1.49
LT6700MP	Dual Comparators and Reference for -55°C to 125°C	Window Comparator for Rugged Environments	1.4 to 18	18	6.5	10	2×3 DFN-6	\$4.12
LT6703	Single Comparator and Internal Reference	Voltage Level Detector	1.4 to 18	18	6.5	10	SOT-23/2×2 DFN-3	\$0.75
LT6703HV	36V Input/Output Comparator and Reference	Voltage Level Detector	1.4 to 18	18	6.5	10	SOT-23	\$0.83
LTC1041	BANG-BANG Controller with 1nA OFF Current	Temp or Motor Speed Control, Battery Charger	2.8 to 18	80	None	3000	DIP-8/SO-8	\$1.80
LTC1042	Micropower, High Accuracy Window Comparator	Fault Detect, GO/NO-GO Test, Supply Monitor	2.8 to 18	80	None	3000	DIP-8	\$2.10
LTC1440	Ultralow Power Comparator with Reference	Voltage Level Detector, Battery Monitoring	2 to 11	8	Adj	4	MSOP-8/SO-8/DIP-8/3×3 DFN-8	\$1.45
LTC1441	Dual Ultralow Power Comparators with Reference	Battery-Powered System Monitoring	2 to 11	8	None	5.7	DIP-8/SO-8	\$1.80
LTC1442	Dual Ultralow Power Comparators with Reference	Battery-Powered System Monitoring	2 to 11	8	Adj	5.7	DIP-8/SO-8	\$2.20
LTC1443	Quad Ultralow Power Comparators with Reference	Battery-Powered System Monitoring	2 to 11	4	None	8.5	DIP-16/SO-16/5×4 DFN-16	\$2.25
LTC1444	Quad Ultralow Power Comparators with Reference	Glitch-Free Level Detector for Dual Supplies	2 to 11	4	Adj	8.5	DIP-16/SO-16/5×4 DFN-16	\$2.25
LTC1445	Quad Ultralow Power Comparators with Reference	Battery-Powered System Monitoring	2 to 11	4	Adj	8.5	DIP-16/SO-16/5×4 DFN-16	\$2.25
LTC1540	Nanopower Comparator with Reference	Battery-Powered System Monitoring	2 to 11	50	Adj	0.7	MSOP-8/SO-8/3×3 DFN-8	\$1.60
LTC1541	Combined Amplifier, Comparator and Reference	Battery-Powered System Monitoring	2.5 to 12.6	8	2.25	7.5	MSOP-8/SO-8/3×3 DFN-8	\$1.50
LTC1542	Micropower Amplifier and Comparator	Battery-Powered System Monitoring	2.5 to 12.6	8	2.25	5	MSOP-8/SO-8/3×3 DFN-8	\$1.20
LTC1842	Dual Ultralow Power Comparators with Reference	Battery-Powered System Monitoring	2.5 to 11	4	Adj	5.7	SO-8	\$1.40
LTC1843	Dual Ultralow Power Comparators with Reference	Battery-Powered System Monitoring	2.5 to 11	4	Adj	5.7	SO-8	\$1.40
LTC1921	Dual Independent Monitors for -48V Supply and Fuse	-48V Telecom and Network Backplane Monitor	-10 to -80	200	None	160	MSOP-8/SO-8	\$2.50
LTC1998	High Accuracy Comparator with 1.2V Reference	Battery-Powered System Monitoring	1.5 to 5.5	150	Adj	3.5	SOT-23	\$0.95

Part Number	Program Method	Frequency Range	Frequency Accuracy Max 25°C (%)	Frequency Temperature Drift (ppm/°C)	50% Duty Cycle Variation	Timing Jitter (%)	Supply Voltage		Supply Current Max 25°C	Package	Comments	Price
							Min (V)	Max (V)				
LTC6906	Resistor	10kHz to 1MHz	0.5	50	±5%	0.03	2.25	6	15µA@100kHz	SOT-23	Micropower, DIV by 1,3,10	\$1.25
LTC6907	Resistor	40kHz to 4MHz	0.5	50	±7%	0.12	3	6	36µA@400kHz	SOT-23	Micropower, DIV by 1,3,10	\$1.25
<b>LTC6909</b>	<b>Resistor</b>	<b>12.5kHz to 6.67MHz</b>	<b>2.5</b>	<b>40</b>	<b>±5%</b>	<b>0.20</b>	<b>2.7</b>	<b>6</b>	<b>1.8mA @ 3.3MHz</b>	<b>MSOP-16</b>	<b>Up to 8 Outputs with Configurable Phase Separation, Spread Spectrum</b>	<b>\$2.46</b>
LTC6908-1	Resistor	50kHz to 10MHz	1.5	40	±1%	0.10	2.7	6	1.6mA@5MHz	SOT-23/2×3 DFN-6	2 Outputs: 0°/90°, Spread Spectrum	\$1.65
LTC6908-2	Resistor	50kHz to 10MHz	1.5	40	±1%	0.10	2.7	6	1.6mA@5MHz	SOT-23/2×3 DFN-6	2 Outputs: 0°/180°, Spread Spectrum	\$1.65
LTC6900	Resistor	1kHz to 20MHz	1.5	40	±1%	0.10	2.7	6	860µA@10MHz	SOT-23	Low Power, 50µs Start-Up	\$1.55
LTC6902	Resistor	5kHz to 20MHz	1.5	40	±1%	0.10	2.7	6	1.8mA@10MHz	MSOP-10	4 Phase Outputs, Spread Spectrum	\$2.20
LTC1799	Resistor	1kHz to 30MHz	1.5	40	±1%	0.06	2.7	6	1.1mA@3MHz	SOT-23	Wide Frequency Range	\$1.55
LTC6905	Resistor	17MHz to 170MHz	1.4	20	±2.5%	0.50	2.7	6	5mA@21MHz	SOT-23	Available In Military Temperature Grade	\$1.65
LTC6903	Serial – SPI	1kHz to 68MHz	1.1	10	±1%	0.40	2.7	6	3.1mA@1MHz	MSOP-8	SPI Interface with Enable	\$1.95
LTC6904	Serial – I <sup>2</sup> C	1kHz to 68MHz	1.1	10	±1%	0.40	2.7	6	3.1mA@1MHz	MSOP-8	I <sup>2</sup> C Interface with Enable	\$2.10
LTC6930-4.19	Fixed	32.768kHz to 4.194MHz	0.09	1	±2%	0.15	1.7	6	420µA@4.19MHz	2×3 DFN-8/MSOP-8	8 Divider Settings, 100µs Start-Up Time	\$1.31
LTC6930-5.00	Fixed	39.063kHz to 5.000MHz	0.09	1	±2%	0.15	1.7	6	570µA@5MHz	2×3 DFN-8/MSOP-8	8 Divider Settings, 100µs Start-Up Time	\$1.31
LTC6930-7.37	Fixed	57.600kHz to 7.373MHz	0.09	1	±2%	0.15	1.7	6	660µA@7.37MHz	2×3 DFN-8/MSOP-8	8 Divider Settings, 100µs Start-Up Time	\$1.31
LTC6930-8.00	Fixed	62.500kHz to 8.000MHz	0.09	1	±2%	0.15	1.7	6	740µA@8MHz	2×3 DFN-8/MSOP-8	8 Divider Settings, 100µs Start-Up Time	\$1.31
LTC6930-8.192	Fixed	64.000kHz to 8.192MHz	0.09	1	±2%	0.15	1.7	6	760µA@8.19MHz	2×3 DFN-8/MSOP-8	8 Divider Settings, 100µs Start-Up Time	\$1.31
LTC6905-80	Fixed	80MHz, 40MHz, 20MHz	1.0	20	±2.5%	0.80	2.7	6	11mA@80MHz	SOT-23	Divide by 1,2,4, with Enable	\$1.15
LTC6905-96	Fixed	96MHz, 48MHz, 24MHz	1.0	20	±2.5%	0.80	2.7	6	12mA@96MHz	SOT-23	Divide by 1,2,4, with Enable	\$1.15
LTC6905-100	Fixed	100MHz, 50MHz, 25MHz	1.0	20	±2.5%	0.80	2.7	6	12mA@100MHz	SOT-23	Divide by 1,2,4, with Enable	\$1.15
LTC6905-133	Fixed	133MHz, 66.6MHz, 33.3MHz	1.0	20	±2.5%	0.80	2.7	6	15mA@133MHz	SOT-23	Divide by 1,2,4, with Enable	\$1.15

† Primary Sort Column

RMS-TO-DC CONVERSION

Part Number	Linearity Error Typ/Max (%)	Conversion Gain Error Typ/Max (%)	1% Error Bandwidth (kHz)	3dB Error Bandwidth (MHz)	Supply Voltage Min (V)	Max (V)	I <sub>SUPPLY</sub> Max (µA)	Max Input Swing (V)	Min RMS Input (mV)	Rail-to-Rail I/O	Temperature Range	Package	Price
LTC1966C	0.02/0.15	0.1/0.3	6	0.8	2.7	±5	170	1	5	yes	0°C to 70°C	MSOP-8	\$2.95
LTC1966I	0.02/0.15	0.1/0.3	6	0.8	2.7	±5	170	1	5	yes	-40°C to 85°C	MSOP-8	\$4.95
LTC1967C	0.02/0.15	0.1/0.3	200	4	4.5	5.5	390	1	5	yes	0°C to 70°C	MSOP-8	\$3.40
LTC1967I	0.02/0.15	0.1/0.3	200	4	4.5	5.5	390	1	5	yes	-40°C to 85°C	MSOP-8	\$5.69
LTC1968C	0.02/0.15	0.1/0.3	500	15	4.5	5.5	2300	1	5	yes	0°C to 70°C	MSOP-8	\$3.95
LTC1968I	0.02/0.15	0.1/0.3	500	15	4.5	5.5	2300	1	5	yes	-40°C to 85°C	MSOP-8	\$6.60

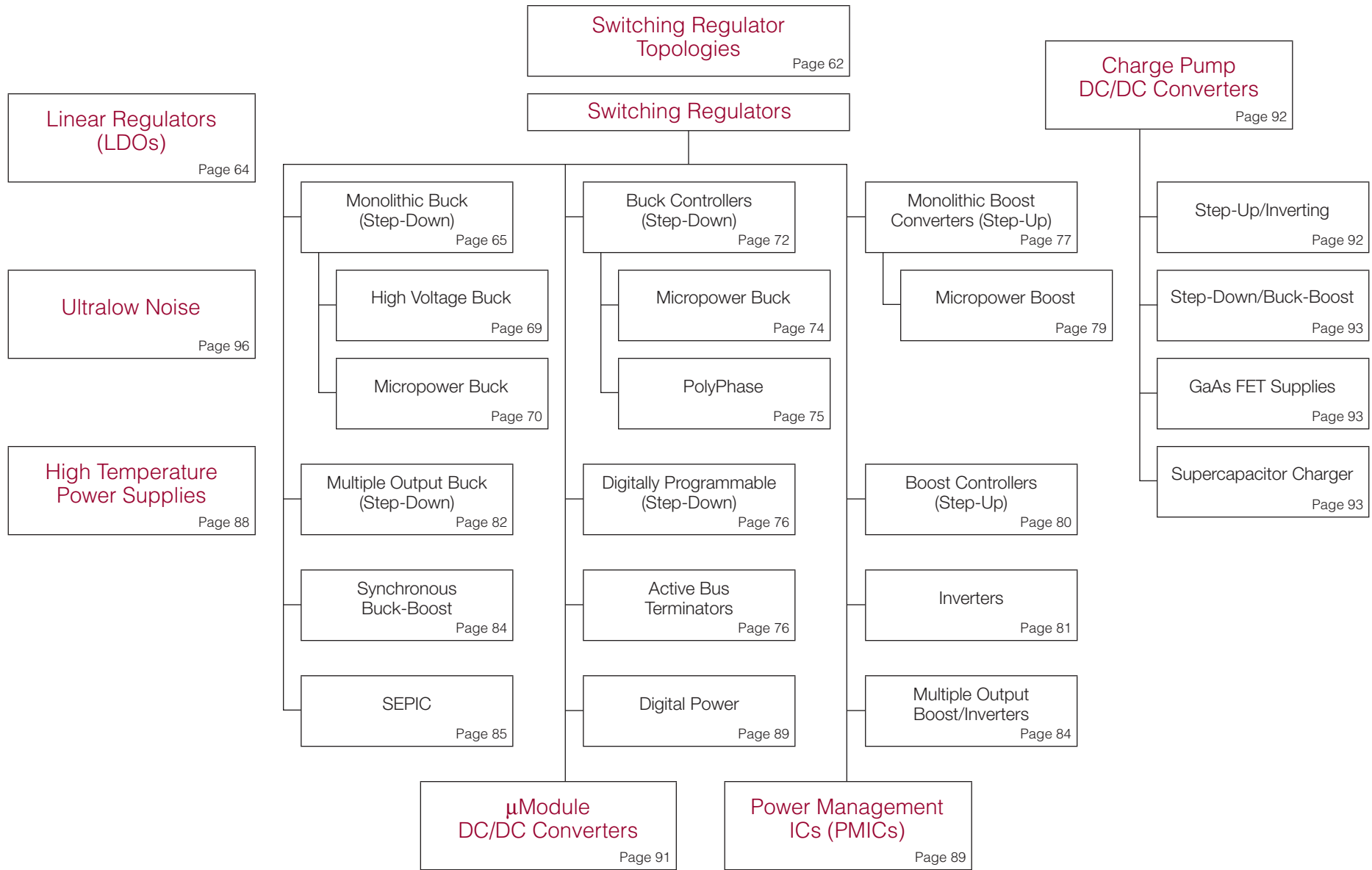
MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

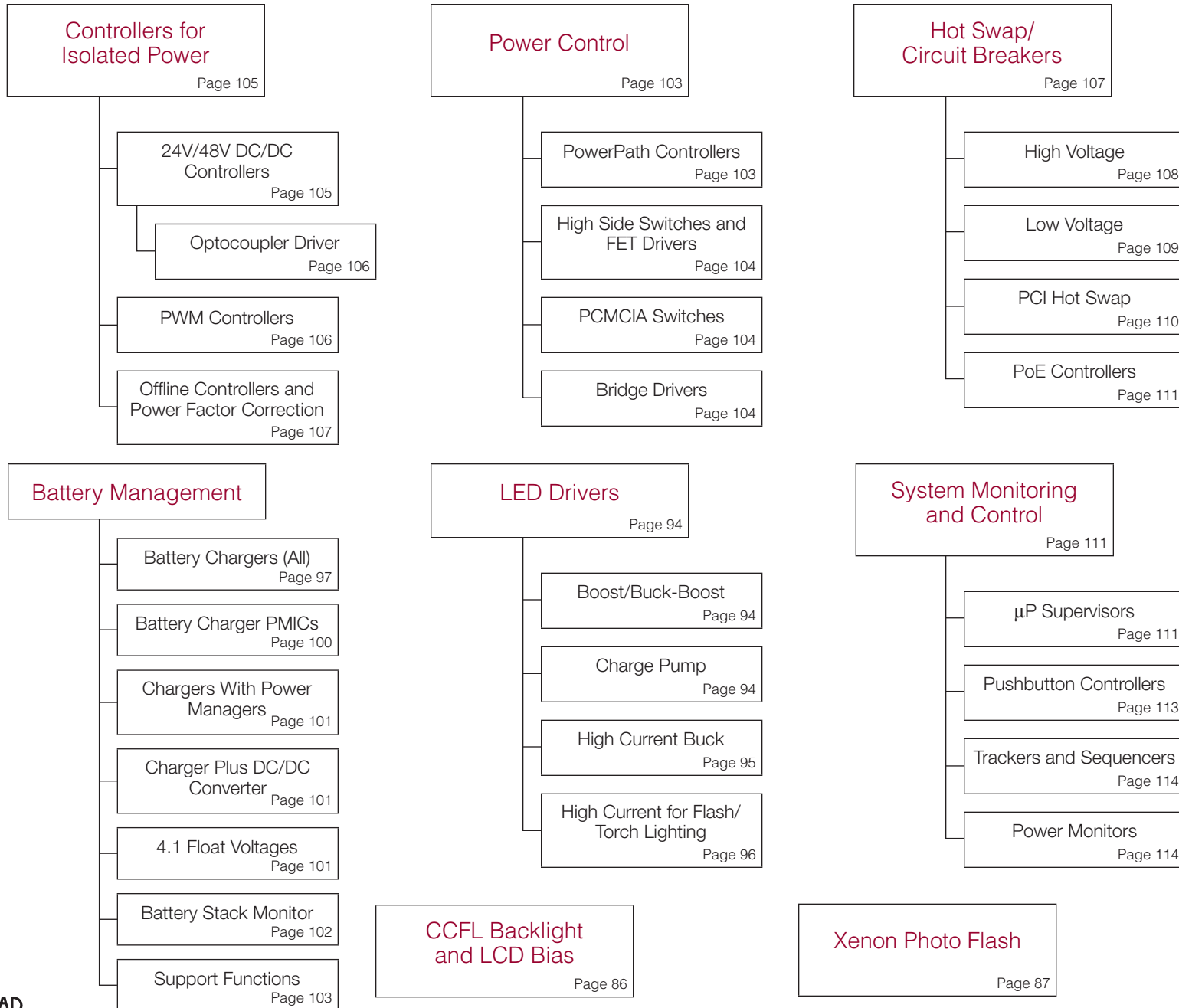
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 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# Power Management



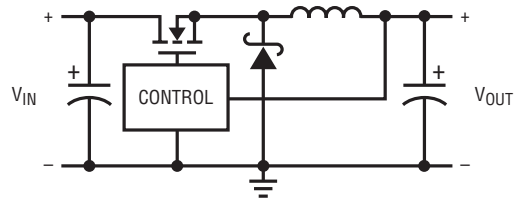


# Power Management



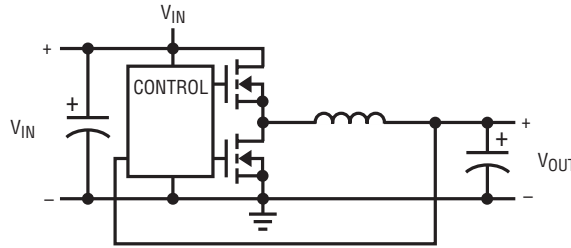
Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

**Buck Regulator**



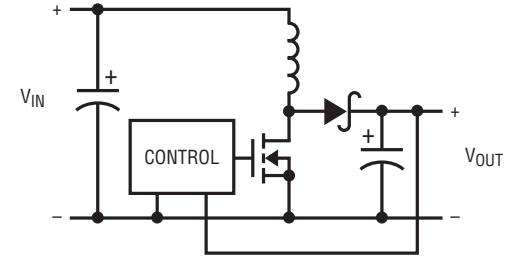
- $V_{OUT} < V_{IN}$
- $I_{OUT} \approx 0.8 \cdot I_{SW}$
- Switching Frequency 100kHz to 4MHz
- Monolithic and Controllers

**Synchronous Buck Regulator**



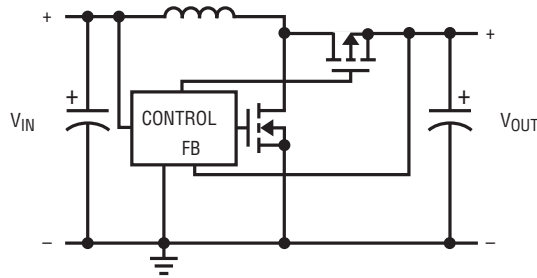
- Higher Efficiency than Standard Buck
- Switching Frequency up to 4MHz
- Combined for PolyPhase Operation from 60A to 240A

**Boost Regulator**



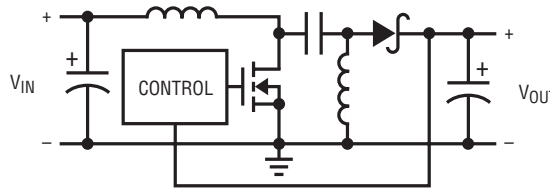
- $V_{OUT} > V_{IN}$
- $I_{OUT} \approx 0.64 \cdot \frac{V_{IN}}{V_{OUT}} \cdot I_{SW}$
- Monolithic and Controllers
- Switching Frequency up to 3MHz

**Synchronous Boost Regulator**



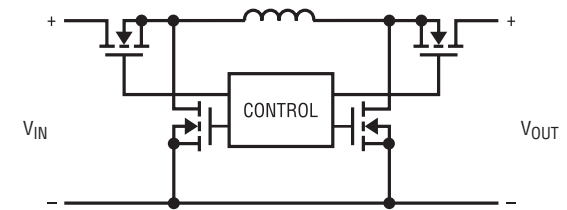
- Better Efficiency than Standard Boost
- Best for Low  $\frac{V_{OUT}}{V_{IN}}$  Ratios

**SEPIC**



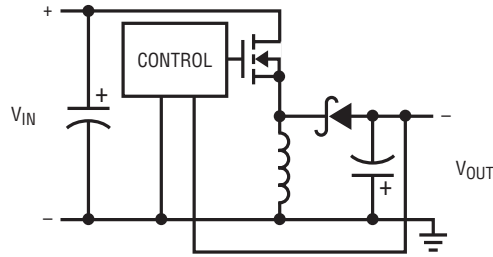
- $V_{IN}$  Ranges from Above  $V_{OUT}$  to Below  $V_{OUT}$
- Monolithic and Controllers
- Small Inductors

**Synchronous Buck-Boost**



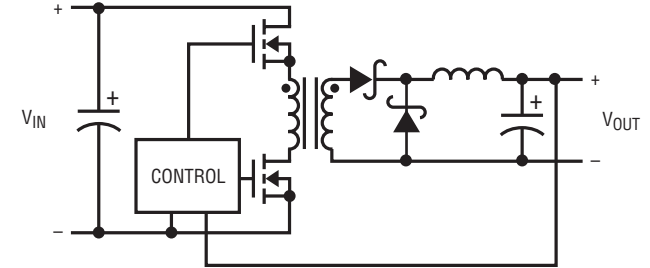
- Best Efficiency vs SEPIC
- Battery Disconnect
- True Buck and Boost Topologies

**Buck/Boost Inverter**



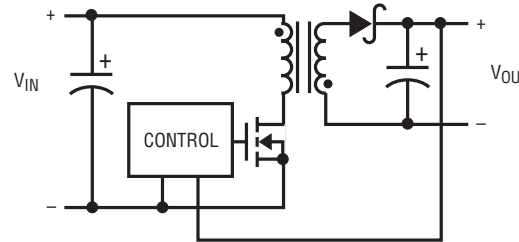
- $V_{IN} < |V_{OUT}|$
- Monolithic Solutions

**Dual Transistor forward Regulator**



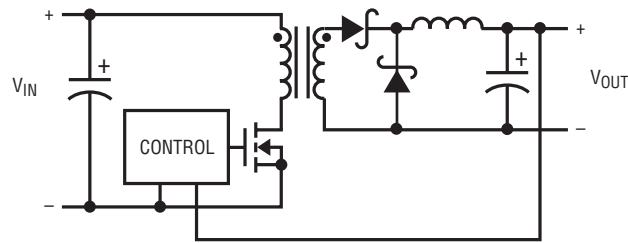
- Higher Output Power than Flyback
- Smaller Transformer than Flyback
- Higher Efficiency than Flyback
- Second Inductor Required

**Flyback Regulator**



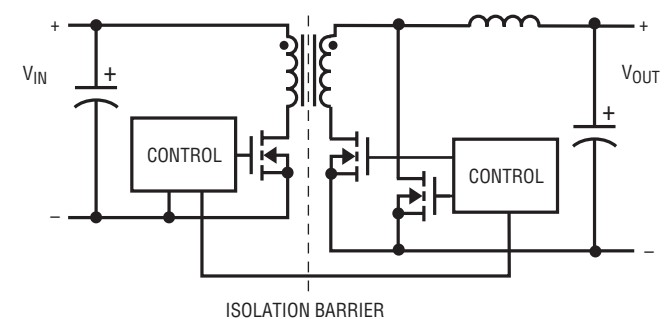
- Isolated and Nonisolated
- High  $\frac{V_{OUT}}{V_{IN}}$  Ratios
- 80% plus Efficiency
- Simple

**Single Transistor forward Regulator**



- Simpler than Two Transistor forward
- Better Efficiency than Dual Transistor Topology

**Single Transistor forward w/Synchronous Secondary**



- Replaces Secondary Side Diodes
- High Efficiency vs Standard forward

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Space, Military,  
Harsh Envir.

Reference  
Material

# LINEAR REGULATORS (LDOs)

Part Number	† Output Current (A)	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	Reference Voltage (V)	Dropout Voltage (V@I <sub>OUT</sub> )	I <sub>O</sub> (Supply) (μA)	Shutdown Current (μA)	Output Voltage (V)	Package	Extended Temp Range	Comments	Price 1K Qty
LT3014	0.02	3.0	80	1.22	0.35	7	<1	Adj (1.22 to 60)	TSOT-5, 3×3 DFN-8	E, I	Shutdown/Enable, Stable with 0.47μF Ceramic Capacitors	\$1.50
LT3014HV	0.02	3.0	100	1.22	0.35	7	<1	Adj (1.22 to 60)	TSOT-5, 3×3 DFN-8	E, I	Shutdown/Enable, Stable with 0.47μF Ceramic Capacitors, 100V/2ms Transient Survivability	\$1.70
LT3014B	0.02	3.0	80	1.22	0.35	7	n/a	Adj (1.22 to 60)	TSOT-5, 3×3 DFN-8	E, I	Stable with 0.47μF Ceramic Capacitors	\$1.50
LT3014BHV	0.02	3.0	100	1.22	0.35	7	n/a	Adj (1.22 to 60)	TSOT-5, 3×3 DFN-8	E, I	Stable with 0.47μF Ceramic Capacitors, 100V/2ms Transient Survivability	\$1.70
LT3009	0.02	1.6	20	0.60	0.28	3	<1	Adj (0.6 to 19.5), 1.2, 1.5, 1.8, 2.5, 3.3, 5	SC70-8, 2×2 DFN-6	E, I	Ultralow 3μA I <sub>O</sub> , 1μF Ceramic Caps, ±2% Accuracy, Low θ <sub>JA</sub> Pkgs	\$0.95
LT3008	0.02	2.0	45	0.60	0.28	3	<1	Adj (0.6 to 44.5)	SC70-8, 2×2 DFN-6	E, I	High-Voltage Up to 45V Input, Ultralow 3μA I <sub>O</sub> , 1μF Ceramic Caps, ±2% Accuracy, Low θ <sub>JA</sub> Pkgs	\$1.20
LT3010	0.05	1.5	80	1.275	0.30	30	<1	Adj, 5	MSOP-8	E, H	Low Noise <100μV <sub>RMS</sub> , Stable with 1μF Ceramic Capacitors	\$1.55
LT3011	0.05	3.0	80	1.24	0.30	45	<1	Adj	MSOP-12, 3×3 DFN	E, H	Power Good Flag with Programmable Delay	\$1.75
LT3020	0.1	0.9	10	0.20	0.15	120	<1	Adj, 1.2, 1.5, 1.8	MSOP-8, DFN-8	E, I	Low Noise <250μV <sub>RMS</sub> , V <sub>OUT(MIN)</sub> = 0.2V	\$1.50
LT1761	0.1	1.8	20	1.22	0.30	20	<1	Adj, 1.2, 1.5, 1.8, 2.2, 2.5, 2.8, 3, 3.3, 5	ThinSOT	E, M	Low Noise <20μV <sub>RMS</sub> , Stable with 1μF Ceramic Capacitors	\$0.95
<b>LT3060</b>	<b>0.1</b>	<b>1.7</b>	<b>45</b>	<b>0.60</b>	<b>0.30</b>	<b>40</b>	<b>&lt;1</b>	<b>Adj (0.6 to 36)</b>	<b>2×2 DFN-8, TSOT-8</b>	<b>E, I</b>	<b>Low Noise &lt;30μV<sub>RMS</sub>, Stable with 2.2μF Ceramic Capacitors</b>	<b>C.F.</b>
LT3023	Dual 0.1	1.8	20	1.22	0.30	40	<1	Adj (1.22 to 20)	MSOP-10E, DFN-10	E, I	Dual 100mA Output, Low Noise <20μV <sub>RMS</sub>	\$1.60
LT3027	Dual 0.1	1.8	20	1.22	0.30	40	<1	Adj (1.22 to 20)	MSOP-10E, DFN-10	I	Dual Inputs, Dual 100mA Output, Low Noise <20μV <sub>RMS</sub>	\$1.65
LT1020	0.125	2.9	36	2.50	0.40	40	40	Adjustable	SO-16, DIP-14	I	Comparator and Reference, Class B Outputs	\$3.70
LT1120/A	0.125	2.9	36	2.50	0.40	40	10	Adjustable	SO-8, DIP-8	I	Comparator and Reference, Logic Shutdown, Ref Sources/Sinks 2mA (A Grade = 4mA)	\$2.35
LT1121A/HV	0.15	4.2	30/36	3.75	0.42	30	16	Adj, 3.3, 5	SOT-223, SO-8, TO-92	I	Stable with 0.33μF Ceramic Capacitor, Reverse Battery Protection; "A" Version SOIC Has Pins 6&7 GND for Improved Thermal Resistance	\$1.30
LT1762	0.15	1.8	20	1.22	0.30	25	<1	Adj, 2.5, 3, 3.3, 5	MSOP-8	E	Low Noise <20μV <sub>RMS</sub> , Stable with 2.2μF Ceramic Capacitors	\$1.10
LTC1844	0.15	1.6	6.5	1.25	0.11	40	<1	Adj, 1.5, 1.8, 2.5, 2.8, 3.3	TSOT-5	E	Low Noise <30μV <sub>RMS</sub> , Stable with 1μF Ceramic Capacitors	\$1.21
LT3012H	0.2	4.0	80	1.24	0.40	40	<1	Adj (1.24 to 60)	TSSOP-16	H	140°C Operation, Shutdown, Low Noise <100μV <sub>RMS</sub> , Stable with 3.3μF Ceramic Capacitors	\$2.73
LT3013H	0.2	4.0	80	1.24	0.40	65	<1	Adj (1.24 to 60)	TSSOP-16	H, MP	140°C Operation, Shutdown, PowerGood, <100μV <sub>RMS</sub> Noise, Stable with 3.3μF Ceramic Capacitors	\$2.95
LT3012/B	0.25	4.0	80	1.24	0.40	40	<1	Adj (1.24 to 60)	TSSOP-16, 4×3 DFN-12	E, H	Low Noise <100μV <sub>RMS</sub> , Stable with 3.3μF Ceramic Capacitors	\$2.05
LT3013/B	0.25	4.0	80	1.24	0.40	65	<1	Adj (1.24 to 60)	TSSOP-16, 4×3 DFN-12	E	Shutdown, PWRGD, <100μV <sub>RMS</sub> Noise, Stable with 3.3μF Ceramic Capacitors, "B" Version Does Not Have Shutdown	\$2.25
LTC3025	0.3	0.9	5.5	0.40	0.05	54	<1	Adj (0.4 to 3.6)	2×2 DFN-6	E	45mV Dropout Voltage, Minimum V <sub>IN</sub> of 0.9V, 2 × 2 DFN	\$1.24
LT1521	0.3	4.3	20	3.75	0.50	12	6	Adj, 3, 3.3, 5	SOT-223, SO-8, MSOP-8	I	Stable with 1.5μF Ceramic Output Capacitor, Reverse Battery Protection	\$2.10
LT1579	0.3	2.7	20	1.50	0.40	50	7	Adj, 3, 3.3, 5	SO-8, SO-16, SSOP-16	I	Maintains Output Regulation with Dual Inputs, Reverse Battery Protection	\$3.40
LT1962	0.3	1.8	20	1.22	0.27	30	<1	Adj, 1.5, 1.8, 2.5, 3, 3.3, 5	MSOP-8	E	Low Noise <20μV <sub>RMS</sub> , Stable with 3.3μF Ceramic Capacitors	\$1.65
LTC3035	0.3	1.7	5.5	0.40	0.045	100	<1	Adj (0.4 to 3.6)	3×2 DFN-8	E	VLDO with Charge Pump Bias Generator	\$1.35
LT1763	0.5	1.8	20	1.22	0.30	30	<1	Adj, 1.5, 1.8, 2.5, 3, 3.3, 5	SO-8, 4×3 DFN-12	I, MP	Low Noise <20μV <sub>RMS</sub> , Stable with 3.3μF Ceramic Capacitors	\$1.95
LT3021	0.5	0.9	10	0.20	0.16	120	<3	Adjustable, 1.2, 1.5, 1.8	5×5 DFN-16, SO-8	E, I	Stable with 3.3μF Ceramic Capacitors, High Accuracy	\$2.25
LTC3025-x	0.5	0.9	5.5	0.40	0.08	54	<1	Adj (0.4 to 3.6), 1.2, 1.5, 1.8	2×2 DFN-6	E, I	75mV Dropout @ 500mA. "-1" Has Adj Output; "-2", "-3" and "-4" Have Fixed 1.2V, 1.5V and 1.8V Outputs Respectively	\$1.38
LT3085	0.5	1.2	36	Current 10μA	0.275	1mA	n/a	Adj (0 to 35.7)	2×3 DFN-6, MSOP-8	E, I, MP	Current Reference; Single Resistor Sets V <sub>OUT</sub> ; Parallel for Higher Current or to Spread PCB Heat, Low Noise <33μV <sub>RMS</sub>	\$1.73
LT3024	Dual 0.5/0.1	1.8	20	1.22	0.30	60	<1	Adj (1.22 to 20)	TSSOP-16E, 4×3 DFN-12	E, I	Dual 500mA/100mA Output, Low Noise <20μV <sub>RMS</sub>	\$2.45
LT3028	Dual 0.5/0.1	1.8	20	1.22	0.30	60	<1	Adj (1.22 to 20)	TSSOP-16E, 5×3 DFN-16	I	Dual Inputs, Dual 500mA/100mA Output, Low Noise <20μV <sub>RMS</sub>	\$2.55
<b>LT3029</b>	<b>Dual 0.5</b>	<b>1.9</b>	<b>20</b>	<b>1.218</b>	<b>0.30</b>	<b>100</b>	<b>&lt;1</b>	<b>Adj (1.22 to 19.5)</b>	<b>MSOP-16E, 3×4 DFN-16</b>	<b>E, I</b>	<b>Dual Inputs, Low Noise &lt;20μV<sub>RMS</sub>, Stable with 3.3μF Ceramic Output Capacitors</b>	<b>C.F.</b>
LT1129	0.7	4.2	30	3.75	0.40	50	16	Adj, 3.3, 5	DD, SOT-223, SO-8, TO-220, TSSOP-20,	E, I, MP	Shutdown, Stable with 3.3μF Ceramic Output Capacitor	\$2.15
LT1117	0.8	2.5	15	1.25	1.20	5mA	n/a	Adj, 2.85, 3.3, 5	DD, SOT-223	I	Guaranteed Dropout Voltages at Multiple Current Levels	\$1.90
LT1118	0.8	3.0	15	1.225	1.00	600	<1	2.5, 2.85, 5	SO-8, SOT-223	I	Regulates While Sourcing or Sinking Current, for Active Termination of SCSI Lines	\$2.35
LT3080/-1	1.1	1.2	36	Current 10μA	0.30	1mA	n/a	Adj (0 to 35.7)	3×3 DFN-8, MSOP-8, SOT-223, TO-220	E	Current Reference; Single Resistor Sets V <sub>OUT</sub> ; Parallel for Higher Current or to Spread Pcb Heat, Low Noise <40μV <sub>RMS</sub> ; "-1" Has Integrated Ballast Resistor	\$1.81
LT1965	1.1	1.8	20	1.20	0.29	500	n/a	Adj (1.2 to 19.5), 1.5, 1.8, 2.5, 3.3	3×3 DFN-8, MSOP-8, DD-Pak, TO-220	E, I	Low Noise <40μV <sub>RMS</sub> , Stable with 10μF Ceramic Capacitors	\$1.88
LTC3026	1.5	1.14	3.5/5.5	0.40	0.10	400	<1	Adj (0.4 to 2.6)	3×3 DFN-10, MSOP-10	E	Ideal for Low V <sub>IN</sub> , Good PSRR at High Frequency, External Boost Rail Allows 5.5V Max V <sub>IN</sub> . PowerGood Output PIN	\$2.20
LT317A	1.5	3.8	40	1.25	2.50	1.5mA	n/a	Adjustable	TO-220		Guaranteed Voltage Tolerance and Line/Load Regulation	\$2.00

† Primary Sort Column

Part Number	† Output Current (A)	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	Reference Voltage (V)	Dropout Voltage (V@I <sub>OUT</sub> )	I <sub>O</sub> (Supply) (μA)	Shutdown Current (μA)	Output Voltage (V)	Package	Extended Temp Range	Comments	Price 1K Qty
LT1086	1.5	2.6	25	1.25	1.30	5mA	n/a	Adj, 2.85, 3.3, 3.6, 5, 12	DD, TO-220	I	Guaranteed Dropout Voltages at Multiple Current Levels	\$2.00
LT1963/A	1.5	2.1	20	1.21	0.34	1mA	<1	Adj, 1.5, 1.8, 2.5, 3.3	TSSOP-16E, DD, TO-220, SOT-223, SO-8	E, I, MP	Low Noise <40μV <sub>RMS</sub> , "A" Version Stable with 10μF Ceramic Capacitors	\$2.15
LT1085	3	2.6	30	1.25	1.30	5mA	n/a	Adj, 3.3, 3.6, 5, 12	DD, TO-220, TO-3P	I	Guaranteed Dropout Voltages at Multiple Current Levels	\$3.55
LT1587	3	2.7	7	1.50	1.20	8mA	n/a	Adj, 1.5, 3.3, 3.45, 3.6	DD, TO-220	I	Fast Transient Response, Guaranteed Dropout Voltages at Multiple Current Levels	\$3.20
LT1528	3	3.9	15	3.30	0.60	400	125	Adj	DD, TO-220	I	Fast Transient Response, Optimized for Microprocessor Applications	\$3.50
LT1529	3	3.9	15	3.30	0.60	50	16	Adj, 3.3, 5	DD, TO-220	I	Reverse Battery Protection, Stable with 22μF Ceramic Output Capacitor	\$3.50
LT1764/A	3	2.7	20	1.21	0.34	1mA	<1	Adj, 1.5, 1.8, 2.5, 3.3	DD, TO-220, TSSOP-16E	E, MP	Low Noise <40μV <sub>RMS</sub> , "A" Version Stable with 10μF Ceramic Capacitors	\$3.30
LT1585	4.6	2.4	7	1.25	1.10	8mA	n/a	Adj, 1.5, 3.3, 3.38, 3.45, 3.6	DD, TO-220	I	Fast Transient Response Guaranteed Dropout Voltages at Multiple Current Levels	\$3.85
LT1585A	5	2.5	7	1.25	1.20	8mA	n/a	Adj, 1.5, 3.3	DD, TO-220	I	Fast Transient Response Guaranteed Dropout Voltages at Multiple Current Levels. Adjustable Output, "A-1.5" and "A-3" Versions Have Fixed 1.5V and 3.3V Outputs, Respectively	\$4.10
LT1084	5	2.6	30	1.25	1.30	5mA	n/a	Adj, 3.3, 3.6, 5, 12	DD, TO-220, TO-3P	I	Guaranteed Dropout Voltages at Multiple Current Levels	\$4.25
LT1584	7	2.5	7	1.25	1.25	8mA	n/a	Adj, 3.3, 3.38, 3.45, 3.6	DD, TO-220	I	Fast Transient Response, Guaranteed Dropout Voltages at Multiple Current Levels	\$5.80
LT1580	7	1.8	6	1.25	0.54	10mA	n/a	Adj, 2.5	DD, TO-220	I	Fast Transient Response, 540mV Dropout	\$5.30
LT1083	7.5	2.6	30	1.25	1.30	5mA	n/a	Adj, 3.3, 3.6, 5, 12	DD, TO-220, TO-3P	I	Guaranteed Dropout Voltages at Multiple Current Levels	\$7.35
LT1581	10	1.7	6	1.25	0.43	10mA	n/a	Adj, 2.5	TO-220	I	Fast Transient Response, Remote Sense	\$7.00

Negative Regulators

LT1964	0.2	-1.9	-20	-1.21	0.34	30	3	Adj, -5	TSOT-5, 3x3 DFN-8	E, I	Low Noise <30μV <sub>RMS</sub> , Stable with 1μF Ceramic Capacitors	\$1.35
LT1175	0.5	-4.3	-20	-3.8	0.50	45	10	Adj, -5	DD, SOT-223, SO-8, DIP-8	I	Guaranteed Voltage Tolerance and Line/Load Regulation	\$2.50
LT1185	3	-4.3	-35	-2.40	0.80	2.5mA	<1	Adjustable	DD, TO-220	I	Accurate Programmable Current Limit, Remote Sense	\$3.55

Discrete Pass Element Drivers and Regulators - Very Low Dropout

LT1123	3	n/a	30	5.00	— <sup>(1)</sup>	700	n/a	5	SOT-223, TO-92	I	Fast Transient Response, Requires External Transistor	\$1.25
LT1573	5	2.8	10	1.265	— <sup>(1)</sup>	1.7mA	200	Adj, 2.5, 2.8, 3.3	SO-8	I	Fast Transient Response, Requires External Transistor	\$1.75
LT3150	10 <sup>(1)</sup>	1.4	10	1.23	0.13	12mA	25	Adjustable	SSOP-16	I	Drives Low Cost N-Channel MOSFETs, Ultra-Fast Transient Response	\$3.70
LT1575	— <sup>(1)</sup>	n/a	22	1.210	— <sup>(1)</sup>	12mA	n/a	Adj, 1.5, 2.8, 3.3, 5	DP-8, SO-8	I	Drives Low Cost N-Channel MOSFETs, Ultra-Fast Transient Response	\$2.40
LT1577	— <sup>(1)</sup>	n/a	22	1.210	— <sup>(1)</sup>	12mA	n/a	Adj, 2.8, 3.3	SO-16	I	Drives Low Cost N-Channel MOSFETs, Ultra-Fast Transient Response	\$4.45

† Primary Sort Column

Notes:  
1. Depends on selection of external MOSFET

MONOLITHIC BUCK (STEP-DOWN)

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Max Switch Current (A)	Synchronous	Ext SYNC <sup>(3)</sup>	Switching Frequency <sup>(4)</sup>	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3642	4.5	45/60	0.8	V <sub>IN</sub>	0.05	0.02 or 0.1	yes	—	50kHz to 580kHz	12	<6	3x3 DFN-8, MSOP-8E	E, I	60V Transient Protection, Synchronous, Burst Mode Operation, UV/OV Lockout. Selectable Switch Current Limit; 3.3V, 5V or Adj V <sub>OUT</sub>	\$2.65
LT1934-1	3.2	34	1.25	0.85V <sub>IN</sub>	0.07	0.09	—	—	COT	12	<1	ThinSOT, 2x3 DFN-6	E, I	Same Electricals as LT1934 But with 90mA Switch Current	\$2.26
LTC3631	4.5	45/60	0.8	V <sub>IN</sub>	0.10	0.04 or 0.2	yes	—	50kHz to 580kHz	12	<6	3x3 DFN-8, MSOP-8E	E, I	60V Transient Protection, Synchronous, Burst Mode Operation, UV/OV Lockout. Selectable Switch Current Limit; 3.3V, 5V or Adj V <sub>OUT</sub>	C.F.
LT3470/A	4.0	40	1.25	16	0.2/0.25	0.25/0.32	—	—	Hysteretic	26/35	<1	ThinSOT, 3x2 DFN-8	H	Integrated Schottky and Catch Diodes. "A" Version Has Improved Start-Up and Dropout	\$2.36
LTC1779	2.5	9.8	0.8	V <sub>IN</sub>	0.25	0.5	—	—	550kHz	135	8	ThinSOT	E	100% Duty Cycle, 94% Efficiency	\$1.90
LTC3549	1.6	5.5	0.61	V <sub>IN</sub>	0.25	0.3	yes	—	2.25MHz	50	<1	2x3 DFN-6	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$1.35
LT1934	3.2	34	1.25	0.85V <sub>IN</sub>	0.3	0.35	—	—	COT	12	<1	ThinSOT-23, 2x3 DFN-6	E, I	350mA Switch Current	\$2.26
LTC3410/B	2.5	5.5	0.8	V <sub>IN</sub>	0.3	0.38	yes	—	2.25MHz	26	<1	SC70	E	96% Efficiency in 2x2 Footprint	\$1.50
LTC1474/ LTC1475	3.0	18	1.23	V <sub>IN</sub>	0.32	0.4	—	—	COT	10	<6	MSOP-8	I	Pushbutton On/Off Control for LTC1475, 100% Duty Cycle, 92% Efficiency	\$3.75
LTC3544/B	2.3	5.5	0.8	V <sub>IN</sub>	0.3/0.2x2/ 0.1	0.4	yes	—	2.25MHz	80	<1	3x3 QFN-16	I	Quad Output, Synchronous, 100% Duty Cycle, 96% Efficiency, "B" Has Burst Mode Disabled	\$2.95
LTC3547/B	2.5	5.5	0.6	V <sub>IN</sub>	0.3x2	0.4	yes	—	2.25MHz	40	<1	3x2 DFN-8	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency	\$1.95

† Primary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# MONOLITHIC BUCK (STEP-DOWN)

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Max Switch Current (A)	Synchronous	Ext SYNC <sup>(3)</sup>	Switching Frequency <sup>(4)</sup>	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3405/A	2.7	5.5	0.8	V <sub>IN</sub>	0.3	0.4	yes	–	1.5MHz	20	<1	ThinSOT	E	Synchronous, 100% Duty Cycle, 95% Efficiency, "A" Version Uses All Ceramic Caps	\$1.61
LT3437	3.3	80	1.25	0.9V <sub>IN</sub>	0.4	0.5	–	yes	200kHz	75	<1	3×3 DFN-10, TSSOP-16E	H	80V, Burst Mode Device	\$2.25
LTC3522	2.4	5.5	0.6	5.5	0.4/0.2	0.65	yes	–	100kHz to 2MHz	55	<1	3×3 QFN-10	E	Dual Output Synchronous 400mA Buck-Boost and 200mA Buck	\$2.50
LTC3670	2.5	5.5	0.8	V <sub>IN</sub>	0.4/ 0.15×2	0.6	yes	–	2.25MHz	38	<1	3×2 DFN-12	E	400mA Sync Buck Plus Dual 150mA LDOs. Adjustable Outputs	\$1.95
LTC3672	2.5	5.5	0.8	V <sub>IN</sub>	0.4/ 0.15×2	0.6	yes	–	2.25MHz	38	<1	2×2 DFN-8	E	400mA Sync Buck Plus Dual 150mA LDOs. Fixed Outputs	\$1.95
LTC1174/HV	4.0	13.5/18.5	1.25	0.7V <sub>IN</sub>	0.43	0.54	–	–	COT	130	<1	DIP-8, SO-8	I	Fixed Outputs of 3.3V, 5V Available	\$3.50
LTC1574/HV	4.0	18.5	1.25	0.7V <sub>IN</sub>	0.43	0.54	–	–	COT	130	<2	SO-16	I	Fixed Outputs of 3.3V, 5V Available	\$3.50
LT1777	7.0	48	1.24	0.85V <sub>IN</sub>	0.44	0.55	–	yes	100kHz	620	12	SO-16	I	Programmable di/dt Limit for Low Noise Applications	\$2.65
LT1676	7.4	60	1.24	0.85V <sub>IN</sub>	0.44	0.55	–	yes	100kHz	3.2mA	2.5	SO-8	I	Wide Input Range	\$2.60
LT1776	7.4	40	1.24	0.85V <sub>IN</sub>	0.44	0.55	–	yes	200kHz	3.2mA	30	DIP-8, SO-8	I	Transients to 60V	\$2.45
LT1612/B	2.0	5.5	0.62	0.8V <sub>IN</sub>	0.48	0.6	yes	–	800kHz	160	<1	SO-8, MSOP-8	E	Synchronous, "B" Version is Burst Mode Defeat	\$1.95
LTC1433/ LTC1434	3.5	13.5	1.3	V <sub>IN</sub>	0.48	0.6	–	LTC1434	240kHz	470	15	TSSOP-16, TSSOP20	I	100% Duty Cycle, 93% Efficiency, Low Noise, LTC1434 Has PLL	\$3.70
LT3502/A	3.4	40	0.8	0.9V <sub>IN</sub>	0.5	0.7	–	–	1.1/2.2MHz	1.5mA	<1	2×2 DFN-8, MSOP-10	I	40V, 500mA from a 2mm×2mm DFN. "A" Switches at 2.2MHz	\$1.95
LTC3542	2.5	5.5	0.6	V <sub>IN</sub>	0.5	0.7	yes	yes	2.25MHz	26	<1	2×2 DFN-6, ThinSOT	E	Synchronous, 100% Duty Cycle, 95% Efficiency. "-1" Has Fixed 2.8V Output	\$1.60
LTC3541	2.7	5.5	0.8	V <sub>IN</sub>	0.5/0.3	0.8	yes	–	2.25MHz	85μA	2.5	3×3 DFN-10	E	500mA Sync Buck Plus 300mA VLDO™, 100% Duty Cycle. Fixed and Adjustable Output Versions, Part Options for Order of DC/DC Power Up	\$1.89
LTC3563	2.5	5.5	1.28	1.87	0.5	0.65	yes	–	2.25MHz	26	<1	2×2 DFN-6	E	Pin-Selectable Outputs, Synchronous, 100% Duty Cycle, 95% Efficiency,	\$1.60
LT1616	3.6	25	1.25	0.8V <sub>IN</sub>	0.5	0.63	–	–	1.4MHz	1.9mA	<1	ThinSOT	E	Circuit Footprint ≤ V <sub>IN</sub> 50mm <sup>2</sup>	\$1.95
LTC1504/A	4.0	10	1.27	0.84V <sub>IN</sub>	0.5	1.0	–	–	200kHz	3mA	<1	SO-8	I	Synchronous, 100% Duty Cycle, 92% Efficiency, Fixed 3.3V or Adj. Output, "A" Has Improved Features	\$2.40
LTC1707	2.9	8.5	0.8	V <sub>IN</sub>	0.56	0.7	yes	yes	350kHz	200	11	SO-8	I	Synchronous, 100% Duty Cycle, 96% Efficiency	\$2.25
LTC3543	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.8	yes	–	2.25MHz	45	<1	2×3 DFN-6	E	Synchronous, 100% Duty Cycle, 95% Efficiency, Spread Spectrum	\$1.95
LTC3403	2.5	5	0.3	V <sub>IN</sub>	0.6	0.7	yes	–	1.5MHz	20	<1	3×3 DFN-8	E	Synchronous, Integrated Bypass MOSFET	\$2.10
LTC3408	2.5	5	0.3	V <sub>IN</sub>	0.6	0.7	yes	–	1.5MHz	1.5mA	<1	3×3 DFN-8	E	Synchronous, Integrated 0.08Ω Bypass MOSFET	\$1.90
LTC3448	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.7	yes	yes	1.5MHz/2.25MHz	32	<1	MSOP-8E, 3×3 DFN-8	E	LDO Mode for Low Noise Operation	\$2.05
LTC3409	1.6	5.5	0.62	V <sub>IN</sub>	0.6	0.75	yes	yes	2.6MHz	60	<1	3×3 DFN-8	E	Minimum V <sub>IN</sub> = 1.6V, Synchronous, 100% Duty Cycle, Ideal for 2-Cell AA Alkaline	\$2.15
LT1933	3.6	36	1.2	0.88V <sub>IN</sub>	0.6	0.75	–	–	500kHz	1.6mA	<1	2×3 DFN-6, TSOT-6	E, I, H	Integrated Soft-Start	\$2.20
LTC3406A/AB	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.75	yes	–	1.5MHz	20/300	<1	ThinSOT	E	Synchronous, 100% Duty Cycle, "A" Version Has Low Ripple Pulse-Skipping Mode, "AB" Disables Burst Mode Operation	\$1.83
LTC3406/B	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.75	yes	–	1.5MHz	20/300	<1	ThinSOT	E	Synchronous, 100% Duty Cycle, "B" Version Has Burst Mode Defeat for Lower Noise	\$2.01
LTC3406B-2	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.75	yes	–	2.25MHz	350	<1	ThinSOT	E	2.25MHz, Synchronous, 100% Duty Cycle, 96% Efficiency	\$2.16
LTC1877	2.7	10	0.8	V <sub>IN</sub>	0.6	0.8	yes	yes	550kHz	10	<1	MSOP-8	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$2.95
LTC1878	2.7	6	0.8	V <sub>IN</sub>	0.6	0.8	yes	yes	550kHz	10	<1	MSOP-8	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$2.60
LTC3404	2.7	6	0.8	V <sub>IN</sub>	0.6	0.8	yes	yes	1.4MHz	10	<1	MSOP-8	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$2.70
LTC3419	2.5	5.5	0.6	V <sub>IN</sub>	0.6×2	0.9	yes	–	2.25MHz	55	<1	MSOP-10E, 3×3 DFN-10	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency, "-1" Has Fixed 1.575V & 1.8V Fixed Outputs	\$1.95
LTC3407/A	2.5	5.5	0.6	V <sub>IN</sub>	0.6×2	0.75	yes	yes	1.5MHz	40	<1	MSOP-10E, 3×3 DFN-10	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency, "A" Has Soft-Start	\$2.60
LTC3562	2.9	5.5	0.6	V <sub>IN</sub>	0.6×2/ 0.4×2	0.85	yes	–	2.25MHz	100	<1	3×3 QFN-20	E	Quad Output with I <sup>2</sup> C Interface, Synchronous, 100% Duty Cycle, 96% Efficiency	\$3.25
LTC1627	2.7	8.5	0.8	V <sub>IN</sub>	0.64	0.8	yes	yes	350kHz	200	15	SO-8	I	Synchronous, 100% Duty Cycle, 96% Efficiency	\$2.05
LT3509	3.7	36/60	0.8	0.9V <sub>IN</sub>	0.7×2	1.2	–	yes	250kHz to 2.5MHz	2.8mA	<1	4×3 DFN-14	E, I, H	36V Input, Dual 0.7A Outputs, 0V Transient Protection to 60V	\$2.95
LTC1701/B	2.5	5.0	1.25	V <sub>IN</sub>	0.72	0.9	–	–	1.0MHz	135	<1	ThinSOT	E	100% Duty Cycle, 94% Efficiency	\$1.95
LTC3560	2.5	5.5	0.6	V <sub>IN</sub>	0.8	0.9	yes	yes	2.25MHz	16	<1	ThinSOT	E	Synchronous, 100% Duty Cycle, 95% Efficiency,	\$1.90
LT1107	2.0	30	1.25	0.64V <sub>IN</sub>	0.8	1.0	–	–	63kHz	320	n/a	DIP-8, SO-8	I	Step-Up or Step-Down, Fixed V <sub>OUT</sub> 5V or 12V or Adj	\$2.25
LT1173	2.0	30	1.25	0.43V <sub>IN</sub>	0.8	1.0	–	–	23kHz	110	n/a	DIP-8, SO-8	I	Step-Up or Step-Down, Fixed V <sub>OUT</sub> 5V or 12V or Adj	\$2.30
LT1108	2.0	30	1.25	0.63V <sub>IN</sub>	0.8	1.0	–	–	20kHz	110	n/a	DIP-8, SO-8	I	Step-Up or Step-Down, Fixed V <sub>OUT</sub> 5V or 12V or Adj	\$2.45
LT1111	2.0	30	1.25	0.24V <sub>IN</sub>	0.8	1.0	–	–	72kHz	300	n/a	DIP-8, SO-8	I	Step-Up or Step-Down, Fixed V <sub>OUT</sub> 5V or 12V or Adj	\$2.30

† Primary Sort Column

# MONOLITHIC BUCK (STEP-DOWN)

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Max Switch Current (A)	Synchronous	Ext SYNC <sup>(3)</sup>	Switching Frequency <sup>(4)</sup>	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SDRN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3548	2.5	5.5	0.6	V <sub>IN</sub>	0.8/0.4	1.2	yes	yes	2.25MHz	40	<1	MSOP-10E, 3×3 DFN-10	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency; "Plain" Has Adj. Outputs, "-1" Has Fixed 1.8V and 1.575V Outputs, "-2" Has Fixed 1.2V and Adjustable Outputs	\$2.60
LTC3407-x/A-2	2.5	5.5	0.6	V <sub>IN</sub>	0.8×2	1.2	yes	–	2.25MHz	40	<1	MSOP-10E, 3×3 DFN-10	I	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency; "-2" Version of LTC3407 Increases I <sub>OUT</sub> to 0.8A, "A" Has Soft-Start, "-4" Has Reduced POR time, "-3" Has Fixed 1.8V and 3.3V Outputs	\$2.95
LTC3545/-1	2.3	5.5	0.6	V <sub>IN</sub>	0.8×3	1.0	yes	yes	2.25MHz	60.0	<1	3×3 QFN-16,	E	Synchronous Triple 800mA Outputs. "-1" Replaces SYNC Pin with Power Good and Forces Burst Mode Operation	\$3.10
LTC1265	4.0	13	1.25	V <sub>IN</sub>	0.96	1.2	–	–	700kHz	1.8mA	15	SO-14	I	Fixed Outputs of 3.3V, 5V Available	\$3.75
LT1176	7.3	35	2.2	0.85V <sub>IN</sub>	0.96	1.2	–	–	100kHz	8mA	140	DIP-8, SO-20		Fixed Output of 5V Available	\$3.10
<b>LT3682</b>	<b>3.6</b>	<b>36/60</b>	<b>0.8</b>	<b>20</b>	<b>1.0</b>	<b>1.5</b>	–	<b>yes</b>	<b>250kHz to 2.2MHz</b>	<b>35</b>	<b>&lt;1</b>	<b>3×3 DFN-12</b>	<b>E, I</b>	<b>60V Transient Protection with 0V Lockout, PGOOD, 15mV<sub>P-P</sub> Low Ripple Burst Mode Operation</b>	<b>\$2.95</b>
LTC3561A	2.5	5.5	0.8	V <sub>IN</sub>	1.0	1.3	yes	–	850kHz to 4MHz	330	<1	3×3 DFN-8	E,I	Synchronous, 100% Duty Cycle, 95% Efficiency	\$1.75
LT3503	3.6	20	0.78	0.85V <sub>IN</sub>	1.0	1.45	–	–	2.2MHz	1.9mA	<2	2×3 DFN-6	E	20V, 1A Buck in 2×3 DFN package	\$2.25
LTC3446	2.7	5.5	0.4	V <sub>IN</sub>	1.0/0.3×2	1.2	yes	–	2.25MHz	140	<1	4×3 DFN-14	E	Synchronous, 100% Duty Cycle, 95% Efficiency, Plus Dual VLDO	\$2.75
LTC3520	2.2	5.5	0.8	5.5	1.0/0.6	1.4	yes	–	100kHz to 2MHz	55	<1	4×4 QFN-24	E	Dual Output, Synchronous 1A Buck-Boost and a 600mA Buck	\$3.50
LT3653	7.5	30	4.0	5.5	1.2	1.5	–	yes	1.5MHz	2.8mA	<1	2×3 DFN-8	I	Battery Charger Pre-Regulator with Adjustable Current Limit	\$2.50
LT3505	3.6	36	0.78	0.87V <sub>IN</sub>	1.2	1.4	–	–	200kHz to 2.8MHz	1.9mA	2	3×3 DFN-8, MSOP-8E	I	1.2A Output Current from Tiny 3×3 DFN	\$2.40
LT3493	3.6	36	0.78	0.87V <sub>IN</sub>	1.2	1.4	–	–	750kHz	1.9mA	2	2×3 DFN-6	I	1.2A Output Current from Tiny 2×3 DFN	\$2.65
LT1767	3.0	25	1.2	0.8V <sub>IN</sub>	1.2	1.5	–	yes	1.25MHz	1mA	6	MSOP-8E	E	Fixed Outputs of 1.8V, 2.5V, 3.3V, 5V Available	\$2.95
LT1507	4.0	15	2.42	0.86V <sub>IN</sub>	1.2	1.5	–	yes	500kHz	4mA	20	DIP-8, SO-8	I	Inductor Size Reduced to 2μH, Fixed Output of 3.3V Available	\$3.50
LT1375/ LT1376/HV	5.0	25/30	2.42	0.86V <sub>IN</sub>	1.2	1.5	–	LT1375	500kHz	2.5mA	20	DIP-8, SO-8, SO-16	I	HV Version V <sub>IN</sub> to 30V, Inductor Size Reduced to 5μH	\$3.26
LT1956	5.5	60	1.2	0.75V <sub>IN</sub>	1.2	1.5	–	yes	500kHz	2.5mA	25	TSSOP-16E	I	Thermally Enhanced Package Fixed Output of 5V Available	\$3.65
LT1766	5.5	60	1.2	0.9V <sub>IN</sub>	1.2	1.5	–	yes	200kHz	2.5mA	25	TSSOP-16E	H	Fixed Output of 5V Available	\$3.65
LT1976/B	3.3	60	1.2	0.9V <sub>IN</sub>	1.2	1.5	–	yes	200kHz	100	<1	TSSOP-16E	H	60V Input and I <sub>Q</sub> =100μA	\$3.50
LT1977	3.3	60	1.2	0.9V <sub>IN</sub>	1.2	1.5	–	yes	500kHz	100	<1	TSSOP-16E	I	60V Input and I <sub>Q</sub> =100μA	\$4.00
LT31879	2.7	10	0.8	V <sub>IN</sub>	1.2	1.5	yes	yes	550kHz	15	<1	SSOP-16	E	Synchronous, 100% Duty Cycle, 95% Efficiency, Integrated PLL	\$3.60
<b>LTC3569</b>	<b>2.5</b>	<b>5.5</b>	<b>0.425</b>	<b>V<sub>IN</sub></b>	<b>1.2 &amp; 0.6×2</b>	<b>1.8</b>	<b>yes</b>	<b>yes</b>	<b>1MHz to 3MHz</b>	<b>47</b>	<b>&lt;1</b>	<b>3×3 QFN-20, TSSOP-16E</b>	<b>E, I</b>	<b>Triple, Synchronous, 100% Duty Cycle, PGOOD Pin, Programmable VFB Servo Voltage</b>	<b>\$3.10</b>
LTC3564	2.5	5.5	0.6	V <sub>IN</sub>	1.25	1.5	yes	no	2.25MHz	20	<1	2×3 DFN-10, ThinSOT	I	Synchronous, 100% Duty Cycle, Micropower, 95% Efficiency	\$1.95
<b>LTC3565</b>	<b>2.5</b>	<b>5.5</b>	<b>0.6</b>	<b>5</b>	<b>1.25</b>	<b>1.5</b>	<b>yes</b>	<b>yes</b>	<b>400kHz to 4MHz</b>	<b>40</b>	<b>&lt;1</b>	<b>3×3 DFN-10, MSOP-10E</b>	<b>E, I</b>	<b>Synchronous, 100% Duty Cycle, Micropower, Low Ripple Burst Mode Operation, Up to 4MHz Switching</b>	<b>\$2.00</b>
LTC3411/A	2.5	5.5	0.8	V <sub>IN</sub>	1.25	1.6	yes	yes	300kHz to 4MHz	60	<1	3×3 DFN-10, MSOP-10	E	Synchronous, 100% Duty Cycle, 95% Efficiency. "Plain" Version Has 2.625V Minimum V <sub>IN</sub>	\$2.00
LTC3417/A-x	2.25	5.5	0.8	V <sub>IN</sub>	1.4/0.8 or 1.5/1.0	1.8	yes	yes	600kHz to 4MHz	125	<1	TSSOP-20E, 5×3 DFN-16	E	Dual Synchronous, 100% Duty Cycle, 95% Efficiency, A Grade Offers Higher I <sub>OUT</sub>	\$3.45
LT3508	3.7	36	0.8	0.9V <sub>IN</sub>	1.4×2	2.0	–	yes	250kHz to 2.5MHz	4.6mA	<1	4×4 QFN-24, TSSOP-16E	I	Dual 2A, 36V Switches in TSSOP-16E	\$3.35
LT1940	3.6	25	1.25	0.78V <sub>IN</sub>	1.4×2	1.8	–	–	1.1MHz	3.8mA	30	TSSOP-16E	E	Dual Output, Thermally Enhanced Package	\$3.70
LT1940L	3.6	7.0	1.25	0.78V <sub>IN</sub>	1.4×2	1.8	–	–	1.1MHz	3.8mA	30	TSSOP-16E	E	Dual Output, Thermally Enhanced Package	\$2.70
LT1936	3.6	36	1.2	0.87V <sub>IN</sub>	1.4	1.9	–	–	500kHz	1.9mA	<1	MSOP-8E	H	36V Input, 1.9A Switch	\$2.75
LTC3417A-1/-2	2.25	5.5	0.8	V <sub>IN</sub>	1.5/1.0	1.8	yes	yes	600kHz to 4MHz	125	<1	TSSOP-20E, 5×3 DFN-16	I	Dual Synchronous, 100% Duty Cycle, 95% Efficiency, Low Ripple Burst Mode Operation. "A-1" Has POR. "A-2" Has PGOOD	\$2.93
LTC1875	2.7	6.0	0.8	V <sub>IN</sub>	1.5	1.6	yes	yes	550kHz	15	<1	TSSOP-16	E	Synchronous, 100% Duty Cycle, 95% Efficiency, Integrated PLL	\$3.50
LT1076/HV	7.3	45/64	2.21	0.85V <sub>IN</sub>	1.6	2.0	–	–	100kHz	8.5mA	10	DD-5/7, TO-220	I	HV Version V <sub>IN</sub> to 60V, Programmable Current Limit	\$3.40
LT3506/A	3.6	25	0.8	0.9V <sub>IN</sub>	1.6×2	2.0	–	–	575kHz/1.1MHz	3.8mA	<30	TSSOP-16E, 5×4 DFN	E	Dual Switcher, "A" Switches at 1.1MHz	\$2.95
LTC3568	2.5	5.5	0.8	V <sub>IN</sub>	1.8	2.4	yes	yes	850kHz to 4MHz	60	<1	3×3 DFN-10	E		\$2.95
LT3480	3.6	38/60	0.8	0.9V <sub>IN</sub>	2.0	3.0	–	yes	260kHz to 2MHz	70	<1	3×3 DFN-10, MSOP-10E	I	Transient Protection to 60V, 2A I <sub>OUT</sub> , Micropower, Low Ripple Burst Mode Operation	\$3.45
LT3685	3.6	38/60	0.8	0.9V <sub>IN</sub>	2.0	3.2	–	yes	260kHz to 2MHz	0.4mA	<1	3×3 DFN-10, MSOP-10E	I	Transient Protection to 60V, 2A I <sub>OUT</sub>	\$3.05
LT1912	3.6	36	0.79	0.9V <sub>IN</sub>	2.0	3.0	–	yes	200kHz to 500kHz	0.8mA	<1	3×3 DFN-10, MSOP-10E	I	2A, 36V Step-Down	\$2.95

† Primary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# MONOLITHIC BUCK (STEP-DOWN)

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Max Switch Current (A)	Synchronous	Ext SYNC <sup>(3)</sup>	Switching Frequency <sup>(4)</sup>	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SDON</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LT3481	3.5	34/36	1.3	0.9V <sub>IN</sub>	2.0	3.2	–	yes	300kHz to 2.8MHz	50	<1	3×3 DFN-10, MSOP-10E	I	2A, Low Ripple (15mV) Burst Mode Operation, I <sub>Q</sub> <50μA, Synchronizable	\$3.25
LT3681	3.6	34/36	1.3	20	2.0	3.2	–	yes	300kHz to 2.8MHz	50	<1	4×3 DFN-14	I	34V, 2A Micropower Part with Internal Schottky Diode	\$3.65
LT3684	3.5	34/36	1.3	0.9V <sub>IN</sub>	2.0	3.1	–	yes	300kHz to 2.8MHz	0.85mA	<1	3×3 DFN-10, MSOP-10E	I	2A Continuous Inductor Current Operation	\$2.95
LT3500	3.0	36	0.8	0.9V <sub>IN</sub>	2/5	2.3	–	yes	250kHz to 2.2MHz	2.5mA	<12	3×3 DFN-10	H	2A, 36V Step-Down with LDO Controller	\$3.25
LT1939	3.0	25	0.8	0.9V <sub>IN</sub>	2/5	2.3	–	yes	250kHz to 2.2MHz	2.5mA	<12	3×3 DFN-10	I	2A, 25V Step-Down with LDO Controller	\$3.05
LT3510	3.3	25	0.8	0.9V <sub>IN</sub>	2.0×2	2.5	–	yes	250kHz to 1.5MHz	3.5mA	<10	TSSOP-20E	E	Dual 2.5A Switches in TSSOP-20E	\$3.25
LT1938	3.6	25	1.265	0.9V <sub>IN</sub>	2.2	3.1	–	–	300kHz to 2.8MHz	0.8mA	<1	3×3 DFN-10	I	2A, 25V Step-Down	\$2.75
LT3434	3.3	60	1.2	0.9V <sub>IN</sub>	2.4	3.0	–	yes	200kHz	100	<1	TSSOP-16E	I	60V Input and I <sub>Q</sub> =100μA	\$5.25
LT3435	3.3	60	1.2	0.9V <sub>IN</sub>	2.4	3.0	–	yes	500kHz	100	<1	TSSOP-16E	I	60V Input and I <sub>Q</sub> =100μA	\$5.25
LT1765	3.0	25	1.2	0.8V <sub>IN</sub>	2.4	3.0	–	yes	1.25MHz	1mA	15	SO-8, TSSOP-16E	E	Thermally Enhanced Package	\$4.67
LT3507	4.0	36	0.8	0.9V <sub>IN</sub>	2.4/1.5×2	3	–	yes	250kHz to 2.5MHz	2mA	<1	5×7 QFN-38	H	40V Input with Triple Outputs Plus LDO Controller	\$4.25
<b>LTC3602</b>	<b>4.5</b>	<b>10</b>	<b>0.6</b>	<b>V<sub>IN</sub></b>	<b>2.5</b>	<b>3.8</b>	<b>yes</b>	<b>yes</b>	<b>300kHz to 3MHz</b>	<b>75</b>	<b>&lt;1</b>	<b>TSSOP-16E, 4×4 QFN-20</b>	<b>I</b>	<b>Synchronous, 99% Duty Cycle, 95% Efficiency, Ideal for Two Series Li-Ions</b>	<b>\$4.00</b>
<b>LTC3603</b>	<b>4.5</b>	<b>15</b>	<b>0.6</b>	<b>V<sub>IN</sub></b>	<b>2.5</b>	<b>3.8</b>	<b>yes</b>	<b>yes</b>	<b>300kHz to 3MHz</b>	<b>75</b>	<b>&lt;1</b>	<b>MSSOP-16E, 4×4 QFN-16</b>	<b>I</b>	<b>Synchronous, 99% Duty Cycle, 95% Efficiency, Ideal for 12V Inputs</b>	<b>\$4.00</b>
LTC3412	2.5	5.5	0.8	V <sub>IN</sub>	2.5	4.0	yes	yes	300kHz to 4MHz	60	<1	TSSOP-16E, 4×4 QFN-16	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$3.95
LT3430/-1	5.5	60	1.2	0.9V <sub>IN</sub>	2.75	3	–	yes	200kHz/100kHz	2.5mA	30	TSSOP-16E	E	V <sub>IN</sub> to 60V, Thermally Enhanced Package. "-1" Has 100kHz Switching	\$4.95
LT3431	5.5	60	1.2	0.8V <sub>IN</sub>	2.75	3.0	–	yes	500kHz	2.5mA	30	TSSOP-16E	E	V <sub>IN</sub> to 60V, Thermally Enhanced Package	\$4.95
LTC3412A	2.25	5.5	0.8	V <sub>IN</sub>	3.0	4.5	yes	yes	300kHz to 4MHz	64	<1	TSSOP-16E, 4×4 QFN-16	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$4.10
LTC3413	2.25	5.5	V <sub>REF</sub> /2	V <sub>REF</sub> /2	3.0	3.0	yes	–	2.0MHz	60	<1	TSSOP-16E	E	QDR and DDR Applications Only, Can Sink/Source 3A	\$3.95
LT3501	3.3	25	0.8	0.9V <sub>IN</sub>	3.0×2	3.5	–	yes	250kHz to 1.5MHz	3.5mA	<10	TSSOP-20E	E	Dual 3.5A Switches in TSSOP-20E	\$3.50
LT3680	3.6	36	0.8	30	3.5	4.6	–	yes	250kHz to 2.4MHz	75	<1	3×3 DFN-10, MSOP-10E	I	36V Operation and I <sub>Q</sub> =75μA	\$4.15
LT3693	3.6	36	0.8	30	3.5	4.6	–	yes	250kHz to 2.4MHz	1.3mA	<1	3×3 DFN-10, MSOP-10E	I	36V Operation	\$3.85
LT1913	3.6	25	0.79	30	3.5	4.6	–	–	250kHz to 2.4MHz	1.3mA	<1	3×3 DFN-10	I	25V Operation	\$3.65
<b>LT3972</b>	<b>3.6</b>	<b>33/62</b>	<b>0.79</b>	<b>30</b>	<b>3.5</b>	<b>4.6</b>	<b>–</b>	<b>yes</b>	<b>200kHz to 2.4MHz</b>	<b>75</b>	<b>&lt;1</b>	<b>3×3 DFN-10, MSOP-10E</b>	<b>E, I</b>	<b>Transient Protection to 62V, Micropower, Low Ripple Burst Mode Operation</b>	<b>\$4.25</b>
LT1506	4.0	15	2.42	0.86V <sub>IN</sub>	3.6	4.5	–	yes	500kHz	3.8mA	20	SO-8, DD-7	I	Cycle by Cycle Current Limiting, Inductor Size Reduced to 1.8μH	\$4.40
LT1959	4.0	15	1.21	0.86V <sub>IN</sub>	3.6	4.5	–	yes	500kHz	3.8mA	15	SO-8, DD-7	I	Cycle by Cycle Current Limiting, Inductor Size Reduced to 1.8μH	\$4.40
LTC3414	2.3	5.5	0.8	V <sub>IN</sub>	4.0	6.4	yes	–	300kHz to 4MHz	68	<1	TSSOP-20E	I	Synchronous, 100% Duty Cycle, 95% Efficiency	\$4.25
LTC3416	2.3	5.5	0.8	V <sub>IN</sub>	4.0	6.4	yes	–	300kHz to 4MHz	68	<1	TSSOP-20E	E	Tracking, Synchronous, 100% Duty Cycle, 95% Efficiency	\$4.62
LT1374/HV	5.0	25/32	2.42	0.86V <sub>IN</sub>	4.25	4.25	–	yes	500kHz	2.5mA	20	SO-8, DD-7, TO-220 TSSOP-16E	E	HV Version V <sub>IN</sub> to 32V, Inductor Size Reduced to 1.8μH, Thermally Enhanced Package	\$4.40
LT1074/HV	7.3	45/64	2.21	0.85V <sub>IN</sub>	4.4	5.5	–	–	100kHz	8.5mA	10	DD-5/7, TO-220	I	HV Version V <sub>IN</sub> to 60V, Programmable Current Limit	\$5.05
LTC3605	4.0	15	0.6	V <sub>IN</sub>	5.0	5.0	yes	yes	1MHz	2mA	<15	4×4 QFN-24	E	Synchronous, 99% Duty Cycle, 95% Efficiency, Ideal for 12V Inputs	\$4.25
<b>LTC3609</b>	<b>4.0</b>	<b>32/36</b>	<b>0.6</b>	<b>0.9V<sub>IN</sub></b>	<b>6.0</b>	<b>6.0</b>	<b>yes</b>	<b>–</b>	<b>Up to 2MHz</b>	<b>900</b>	<b>&lt;15</b>	<b>7×8 QFN-52</b>	<b>E, I</b>	<b>Valley Current Control, Optimized For Large Step-Down Ratios, Fast Transient Response, PGOOD Output</b>	<b>\$7.75</b>
LTC3415	2.5	5.5	0.6	V <sub>IN</sub>	7.0	11	yes	yes	2.25MHz	450	<1	5×7 QFN-38	E	Stackable, Tracking, Synchronous, 100% Duty Cycle, 95% Efficiency	\$6.50
LTC3418	2.3	5.5	0.8	V <sub>IN</sub>	8.0	12	yes	yes	300kHz to 4MHz	380	<1	5×7 QFN-38	E	Tracking, Synchronous, 100% Duty Cycle, 95% Efficiency	\$5.73
<b>LTC3608</b>	<b>4.0</b>	<b>18</b>	<b>0.6</b>	<b>V<sub>IN</sub></b>	<b>8.0</b>	<b>8.0</b>	<b>yes</b>	<b>–</b>	<b>1MHz</b>	<b>900</b>	<b>&lt;15</b>	<b>7×8 QFN-52</b>	<b>I</b>	<b>Synchronous, 99% Duty Cycle, 95% Efficiency, Ideal for 12V/15V Inputs</b>	<b>\$7.50</b>
LTC3611	4.0	32	0.6	V <sub>IN</sub>	10	15	yes	–	1MHz	900	<15	9×9 QFN-64	I	32V, 10A Monolithic	\$9.75
LTC3610	4.0	24	0.6	V <sub>IN</sub>	12	12	yes	–	1MHz	900	<15	9×9 QFN-64	E	24V, 12A Monolithic	\$8.50

† Primary Sort Column

- Notes:
1. Approximate value. See data sheet for detailed information.
  2. Approximately 80% of Switch Current
  3. External Frequency Synchronization
  4. COT = Constant Off Time

# HIGH VOLTAGE MONOLITHIC BUCK

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Max Switch Current (A)	SYNC Pin	Switching Frequency <sup>(3)</sup>	I <sub>o</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
<b>LTC3642</b>	<b>4.5</b>	<b>45/60</b>	<b>0.8</b>	<b>V<sub>IN</sub></b>	<b>0.05</b>	<b>0.02 or 0.1</b>	-	<b>50kHz to 580kHz</b>	<b>12</b>	<b>&lt;6</b>	<b>3×3 DFN-8, MSOP-8E</b>	<b>E, I</b>	<b>60V Transient Protection, Synchronous, Burst Mode Operation, UV/OV Lockout. Selectable Switch Current Limit; 3.3V, 5V or Adj V<sub>OUT</sub></b>	<b>\$2.65</b>
LT1934-1	3.2	34	1.25	0.85V <sub>IN</sub>	0.07	0.09	-	COT	12	<1	ThinSOT, 2×3 DFN-6	E	Same Electricals as LT1934 But with 90mA Switch Current	\$2.26
<b>LTC3631</b>	<b>4.5</b>	<b>45/60</b>	<b>0.8</b>	<b>V<sub>IN</sub></b>	<b>0.10</b>	<b>0.04 or 0.2</b>	-	<b>50kHz to 580kHz</b>	<b>12</b>	<b>&lt;6</b>	<b>3×3 DFN-8, MSOP-8E</b>	<b>E, I</b>	<b>60V Transient Protection, Synchronous, Burst Mode Operation, UV/OV Lockout. Selectable Switch Current Limit; 3.3V, 5V or Adj V<sub>OUT</sub></b>	<b>C.F.</b>
LT3470/A	4.0	40	1.25	16	0.2/0.25	0.25/0.32	-	Hysteretic	26/35	<1	ThinSOT, 3×2 DFN-8	H	Integrated Schottky and Catch Diodes	\$2.36
LT1934	3.2	34	1.25	0.85V <sub>IN</sub>	0.30	0.35	-	COT	12	<1	ThinSOT, 2×3 DFN-6	E	350mA Switch Current	\$2.26
LT3437	3.3	80	1.25	0.9V <sub>IN</sub>	0.40	0.5	yes	200kHz	75	<1	3×3 DFN-10, TSSOP-16E	H	80V, Burst Mode Device	\$2.25
LT3433	4.0	60	3.3	20	0.40	0.5	-	200kHz	100	<1	TSSOP-16E	I	True Buck-Boost Topology, 400mA in Buck Mode, 200mA in Boost Mode	\$3.25
LT1777	7.0	48	1.24	0.85V <sub>IN</sub>	0.44	0.55	yes	100kHz	620	12	SO-16	I	Programmable di/dt Limit for Low Noise Applications	\$2.65
LT1676	7.4	60	1.24	0.85V <sub>IN</sub>	0.44	0.55	yes	100kHz	3.2mA	2.5	SO-8	I	Wide Input Range	\$2.60
LT3502/A	3.4	40	0.8	0.9V <sub>IN</sub>	0.5	0.7	-	1.1MHz/2.2MHz	1.5mA	<1	2×2 DFN-8, MSOP-10	I	40V, 500mA From a 2×2 DFN. "A" Switches at 2.2MHz	\$1.95
LT1616	3.6	25	1.25	0.8V <sub>IN</sub>	0.5	0.63	-	1.4MHz	1.9mA	<1	ThinSOT	E	Circuit Footprint ≤ 50mm <sup>2</sup>	\$1.95
LT1776	7.4	40	1.24	0.85V <sub>IN</sub>	0.56	0.7	yes	200kHz	3.2mA	30	DIP-8, SO-8	I	Transients to 60V	\$2.45
LT1933	3.6	36	1.2	0.88V <sub>IN</sub>	0.6	0.75	-	500kHz	1.6mA	<1	ThinSOT	E	Integrated Soft-Start	\$2.20
LT3509	3.7	36	0.8	0.9V <sub>IN</sub>	0.7×2	1.2	yes	250kHz to 2.5MHz	2.8mA	<1	4×3 DFN-14	E, I, H	36V Input, Dual 0.7A Outputs	\$2.95
LT1107	2.0	30	1.25	0.64V <sub>IN</sub>	0.8	1.0	-	63kHz	320	n/a	DIP-8, SO-8	I	Step-Up or Step-Down, Fixed V <sub>OUT</sub> 5V, 12V or Adjustable Output	\$2.25
LT1173	2.0	30	1.25	0.43V <sub>IN</sub>	0.8	1.0	-	23kHz	110	n/a	DIP-8, SO-8	I	Step-Up or Step-Down, Fixed V <sub>OUT</sub> 5V, 12V or Adjustable Output	\$2.30
LT1108	2.0	30	1.25	0.63V <sub>IN</sub>	0.8	1.0	-	20kHz	110	n/a	DIP-8, SO-8	I	Step-Up or Step-Down, Fixed V <sub>OUT</sub> 5V, 12V or Adjustable Output	\$2.45
LT1111	2.0	30	1.25	0.24V <sub>IN</sub>	0.8	1.0	-	72kHz	300	n/a	DIP-8, SO-8	I	Step-Up or Step-Down, Fixed V <sub>OUT</sub> 5V, 12V or Adjustable Output	\$2.30
LT1176	7.3	35	2.2	0.85V <sub>IN</sub>	0.96	1.2	-	100kHz	8mA	10	DIP-8, SO-20	I	Fixed 5V or Adjustable Output	\$3.10
<b>LT3682</b>	<b>3.6</b>	<b>36/60</b>	<b>0.8</b>	<b>20</b>	<b>1.0</b>	<b>1.5</b>	<b>yes</b>	<b>250kHz to 2.2MHz</b>	<b>35</b>	<b>&lt;1</b>	<b>3×3 DFN-12</b>	<b>E, I</b>	<b>60V Transient Protection with OV Lockout, PGOOD, 15mV<sub>p-p</sub> Low Ripple Burst Mode Operation</b>	<b>\$2.95</b>
LT3493	3.6	36	0.78	0.87V <sub>IN</sub>	1.2	1.4	-	750kHz	1.9mA	2	2×3 DFN-6	I	1.2A Output Current from Tiny 2×3 DFN	\$2.65
LT3505	3.6	36	0.78	0.87V <sub>IN</sub>	1.2	1.4	-	200kHz to 2.8MHz	1.9mA	2	3×3 DFN-8, MSOP-8E	I	1.2A Output Current from Tiny 3×3 DFN	\$2.40
LT1767	3.0	25	1.2	0.8V <sub>IN</sub>	1.2	1.5	yes	1.25MHz	1mA	6	MSOP-8E	E	Fixed Outputs of 1.8V, 2.5V, 3.3V, 5V Available	\$2.95
LT1375/76/HV	5.0	25/30	2.42	0.86V <sub>IN</sub>	1.2	1.5	yes	500kHz	2.5mA	20	DIP-8, SO-8, SO-16	I	HV Version V <sub>IN</sub> to 30V, Inductor Size Reduced to 5μH	\$3.26
LT1956	5.5	60	1.2	0.75V <sub>IN</sub>	1.2	1.5	yes	500kHz	2.5mA	25	TSSOP-16E	I	Thermally Enhanced Package Fixed Output of 5V Available	\$3.65
LT1766	5.5	60	1.2	0.9V <sub>IN</sub>	1.2	1.5	yes	200kHz	2.5mA	25	TSSOP-16E	H	Fixed Output of 5V Available	\$3.65
LT1976	3.3	60	1.2	0.9V <sub>IN</sub>	1.2	1.5	yes	200kHz	100	<1	TSSOP-16E	H	Micropower Operation	\$4.00
LT1977	3.3	60	1.2	0.9V <sub>IN</sub>	1.2	1.5	yes	500kHz	100	<1	TSSOP-16E	I	Micropower Operation	\$4.00
LT1936	3.6	36	1.2	0.87V <sub>IN</sub>	1.4	1.9	-	500kHz	1.9mA	<1	MSOP-8E	H	36V Input, 1.9A Switch	\$2.75
LT3508	3.7	36	0.8	0.9V <sub>IN</sub>	1.4×2	2.0	yes	250kHz to 2.5MHz	4.6mA	<1	4×4 QFN-24, TSSOP-16E	I	Dual 2A, 36V Switcher in TSSOP-16E	\$3.35
LT1940	3.6	25	1.25	0.78V <sub>IN</sub>	1.4×2	1.8	-	1.1MHz	3.8mA	30	TSSOP-16E	E	Dual Output, Thermally Enhanced Package	\$3.70
LT1076/HV	7.3	45/64	2.21	0.85V <sub>IN</sub>	1.6	2.0	-	100kHz	8.5mA	10	DD-5/7, TO-220	I	HV Version V <sub>IN</sub> to 60V, Programmable Current Limit	\$3.40
LT3506/A	3.6	25	0.8	0.9V <sub>IN</sub>	1.6	2.0	-	575kHz/1.1MHz	3.8mA	<30	TSSOP-16E, 5×4 DFN-16	E	Dual Switcher, "A" Switches at 1.1MHz	\$2.95
LT3510	3.3	25	0.8	0.9V <sub>IN</sub>	2.0	2.5	yes	250kHz to 1.5MHz	3.5mA	<10	TSSOP-20E	E	Dual 2.5A Switcher in TSSOP-20E	\$3.25
LT3480	3.6	38/60	0.79	0.9V <sub>IN</sub>	2.0	3.0	yes	260kHz to 2MHz	70	<1	3×3 DFN-10, MSOP-10E	I	Transient Protection to 60V, 2A Continuous Inductor Current Operation, Micropower	\$3.45
LT3685	3.6	38/60	0.79	0.9V <sub>IN</sub>	2.0	3.2	yes	260kHz to 2MHz	70	<1	3×3 DFN-10, MSOP-10E	I	Transient Protection to 60V, 2A Continuous Inductor Current Operation	\$3.05
LT1912	3.6	36	0.79	0.9V <sub>IN</sub>	2.0	3.0	-	200kHz to 500kHz	0.8mA	<1	3×3 DFN-10, MSOP-10E	I	2A, 36V Step-Down	\$2.95
LT3481	3.5	34	1.265	0.9V <sub>IN</sub>	2.0	3.2	-	300kHz to 2.8MHz	50	<1	3×3 DFN-10, MSOP-10E	I	2A, Low Ripple (15mV) Burst Mode Operation, I <sub>o</sub> <50μA, Synchronizable	\$3.25
LT3681	3.6	34	1.265	20	2.0	3.2	-	300kHz to 2.8MHz	50	<1	4×3 DFN-14	I	34V, 2A Micropower Part with Internal Schottky Diode	\$3.65
LT3684	3.5	34	1.265	0.9V <sub>IN</sub>	2.0	3.1	-	300kHz to 2.8MHz	0.85mA	<1	3×3 DFN-10, MSOP-10E	I	2A Continuous Inductor Current Operation,	\$2.95
LT1938	3.6	25	1.265	0.9V <sub>IN</sub>	2.0	3.1	-	300kHz to 2.8MHz	0.8mA	<1	3×3 DFN-10	I	2A, 25V Step-Down	\$2.75
LT3500	3.0	36	0.8	0.9V <sub>IN</sub>	2/5	2.3	yes	250kHz to 2.2MHz	2.5mA	<12	3×3 DFN-10	H	2A, 36V Step-Down with LDO Controller	\$3.25
LT1939	3.0	25	0.8	0.9V <sub>IN</sub>	2/5	2.3	yes	250kHz to 2.2MHz	2.5mA	<12	3×3 DFN-10	I	2A, 25V Step-Down with LDO Controller	\$3.05
LT3434	3.3	60	1.2	0.9V <sub>IN</sub>	2.4	3.0	-	200kHz	100	<1	TSSOP-16E	I	60V Input and I <sub>o</sub> =100μA	\$5.25
LT3435	3.3	60	1.2	0.9V <sub>IN</sub>	2.4	3.0	-	500kHz	100	<1	TSSOP-16E	I	60V Input and I <sub>o</sub> =100μA	\$5.25
LT1765	3.0	25	1.2	0.8V <sub>IN</sub>	2.4	3.0	-	1.25MHz	1mA	15	SO-8, TSSOP-16E	E	Thermally Enhanced Package	\$4.67
LT3507	4	40	0.8	0.9V <sub>IN</sub>	2.4/1.5/1.5	3	yes	250kHz to 2.5MHz	2mA	<1	5×7 QFN-38	H	40V Input with Triple Outputs and LDO Controller	\$4.25
LT3430/-1	5.5	60	1.2	0.9V <sub>IN</sub>	2.75	3.0	-	200kHz/100kHz	2.5mA	30	TSSOP-16E	E	V <sub>IN</sub> to 60V, Thermally Enhanced Package. "-1" Has 100kHz Switching	\$4.95
LT3431	5.5	60	1.2	0.8V <sub>IN</sub>	2.75	3.0	-	500kHz	2.5mA	30	TSSOP-16E	E	V <sub>IN</sub> to 60V, Thermally Enhanced Package	\$4.95
LT3501	3.3	25	0.8	0.9V <sub>IN</sub>	3.0×2	3.5	yes	250kHz to 1.5MHz	3.5mA	<10	TSSOP-20E	E	Dual 3.5A Switcher in TSSOP-20E	\$3.50
LT3680	3.6	36	0.79	30	3.5	4.6	yes	250kHz to 2.4MHz	75	<1	3×3 DFN-10, MSOP-10E	I	36V Operation and I <sub>o</sub> =75μA	\$4.15

† Primary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# HIGH VOLTAGE MONOLITHIC BUCK

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Max Switch Current (A)	SYNC Pin	Switching Frequency <sup>(3)</sup>	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LT3693	3.6	36	0.79	30	3.5	4.6	yes	250kHz to 2.4MHz	1.3mA	<1	3×3 DFN-10, MSOP-10E	I	36V Operation	\$3.85
LT1913	3.6	25	0.79	30	3.5	4.6	–	250kHz to 2.4MHz	1.3mA	<1	3×3 DFN-10	I	25V Operation	\$3.65
<b>LT3972</b>	<b>3.6</b>	<b>33/62</b>	<b>0.79</b>	<b>30</b>	<b>3.5</b>	<b>4.6</b>	<b>yes</b>	<b>200kHz to 2.4MHz</b>	<b>75</b>	<b>&lt;1</b>	<b>3×3 DFN-10, MSOP-10E</b>	<b>E, I</b>	<b>Transient Protection to 62V, Micropower, Low Ripple Burst Mode Operation</b>	<b>\$4.25</b>
LT1374/HV	5.0	25/32	2.42	0.86V <sub>IN</sub>	3.6	4.5	yes	500kHz	2.5mA	20	SO-8, DD, TO-220, TSSOP-16E	E	HV Version V <sub>IN</sub> to 32V, Inductor Size Reduced to 1.8μH, Thermally Enhanced Package	\$4.40
LT1074/HV	7.3	45/64	2.21	0.85V <sub>IN</sub>	4.4	5.5	–	100kHz	8.5mA	10	DD-5/7, TO-220	I	HV Version V <sub>IN</sub> to 60V, Programmable Current Limit	\$5.05
<b>LTC3609</b>	<b>4.0</b>	<b>32/36</b>	<b>0.6</b>	<b>0.9V<sub>IN</sub></b>	<b>6.0</b>	<b>6.0</b>	<b>–</b>	<b>Up to 2MHz</b>	<b>900</b>	<b>15</b>	<b>7×8 QFN-52</b>	<b>E, I</b>	<b>Valley Current Control, Optimized For Large Step-Down Ratios, Fast Transient Response, PG00D Output</b>	<b>\$7.75</b>

† Primary Sort Column

- Notes:  
 1. Approximate value. See data sheet for detailed information.  
 2. Approximately 80% of Switch Current  
 3. COT = Constant Off Time

# MICROPOWER MONOLITHIC BUCK

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Max Switch Current (A)	Synchronous	Switching Frequency <sup>(3)</sup>	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
<b>LTC3642</b>	<b>4.5</b>	<b>45/60</b>	<b>0.8</b>	<b>V<sub>IN</sub></b>	<b>0.05</b>	<b>0.02 to 0.1</b>	<b>yes</b>	<b>50kHz to 580kHz</b>	<b>12</b>	<b>&lt;6</b>	<b>3×3 DFN-8, MSOP-8E</b>	<b>E, I</b>	<b>60V Transient Protection, Synchronous, Burst Mode Operation, UV/OV Lockout. Selectable Switch Current Limit; 3.3V, 5V or Adj V<sub>OUT</sub></b>	<b>\$2.65</b>
LT1934-1	3.2	34	1.25	0.85V <sub>IN</sub>	0.07	0.09	–	COT	12	<1	2×3 DFN-6, TSOT-23	E, I	Same Electricals as LT1934 with 90mA I <sub>sw</sub>	\$2.26
<b>LTC3631</b>	<b>4.5</b>	<b>45/60</b>	<b>0.8</b>	<b>V<sub>IN</sub></b>	<b>0.10</b>	<b>0.04 to 0.2</b>	<b>yes</b>	<b>50kHz to 580kHz</b>	<b>12</b>	<b>&lt;6</b>	<b>3×3 DFN-8, MSOP-8E</b>	<b>E, I</b>	<b>60V Transient Protection, Synchronous, Burst Mode Operation, UV/OV Lockout. Selectable Switch Current Limit; 3.3V, 5V or Adj V<sub>OUT</sub></b>	<b>C.F.</b>
LT3470/A	4	40	1.25	16	0.2/0.25	0.25/0.32	–	Hysteretic	26/35	<1	ThinSOT, 3×2 DFN-8	H	Integrated Schottky and Catch Diodes	\$2.36
LTC3549	1.6	5.5	0.61	V <sub>IN</sub>	0.25	0.3	yes	2.25MHz	50	<1	2×3 DFN-6, ThinSOT	E	Synchronous, 100% Duty Cycle, 95% Efficiency,	\$1.35
LTC1779	2.5	9.8	0.8	V <sub>IN</sub>	0.25	0.5	–	550kHz	135	8	ThinSOT	E	100% Duty Cycle, 94% Efficiency	\$1.90
LT1934	3.2	34	1.25	0.85V <sub>IN</sub>	0.30	0.35	–	COT	12	<1	2×3 DFN-6, TSOT-23	E, I	350mA Switch Current	\$2.26
LTC3410/B	2.5	5.5	0.8	V <sub>IN</sub>	0.3	0.38	yes	2.25MHz	26/200	<1	SC70	E	96% Efficiency in 2mm×2mm Footprint	\$1.56
LTC3405/A	2.7	6	0.8	V <sub>IN</sub>	0.3	0.38	yes	1.5MHz	20	<1	ThinSOT	E	Synchronous, 100% Duty Cycle, 95% Efficiency, "A" Version Uses All Ceramic Caps	\$1.61
LTC3547	2.5	5.5	0.6	V <sub>IN</sub>	0.3×2	0.4	yes	2.25MHz	40	<1	3×2 DFN-8	I	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency	\$1.95
LTC3544	2.25	5.5	0.8	V <sub>IN</sub>	0.3/0.2×2/0.1	0.4	yes	2.25MHz	80	<1	3×3 QFN-16	E	Quad Output, Synchronous, 100% Duty Cycle, 96% Efficiency	\$2.95
LTC1474/ LTC1475	3.0	18	1.23	V <sub>IN</sub>	0.32	0.4	–	COT	10	<6	MSOP-8	I	Pushbutton On/Off for LTC1475, 100% Duty Cycle, 92% Efficiency	\$3.75
LTC3670	2.5	5.5	0.8	V <sub>IN</sub>	0.4	0.6	yes	2.25MHz	70	<1	2×3 DFN-12	E	Triple Output, Synchronous Switchers + Dual LDOs, Adjustable Outputs	\$1.95
LTC3672B	2.9	5.5	0.8	V <sub>IN</sub>	0.4	1.2	yes	2.25MHz	260	<1	2×2 DFN-8	E	Triple Output, Synchronous Switchers + Dual LDOs, Fixed Outputs	\$1.95
LT3437	3.3	80	1.25	0.9V <sub>IN</sub>	0.4	0.5	–	200kHz	75	<1	3×3 DFN-10, TSSOP-16E	H	80V, Burst Mode Device	\$2.25
LTC1174/HV	4.0	13.5/18.5	1.25	0.7V <sub>IN</sub>	0.43	0.54	–	COT	130	<1	DIP-8, SO-8	I	Fixed Outputs of 3.3V, 5V Available	\$3.50
LTC1574	4.0	18.5	1.25	0.7V <sub>IN</sub>	0.43	0.54	–	COT	130	<2	SO-16	I	Fixed Outputs of 3.3V, 5V Available	\$3.50
LT1612	2.0	5.5	0.62	0.8V <sub>IN</sub>	0.48	0.6	yes	800kHz	160	<1	SO-8, MSOP-8	E	Synchronous	\$1.95
LTC3542	2.5	5.5	0.6	V <sub>IN</sub>	0.5	0.7	yes	2.25MHz	26	<1	2×2 DFN-6, ThinSOT	E	Synchronous, 100% Duty Cycle, 95% Efficiency,	\$1.60
LTC3563	2.5	5.5	1.28	1.87	0.5	0.7	yes	2.25MHz	26	<1	2×2 DFN-6	E	Pin-Selectable Output, Synchronous, 100% Duty Cycle, 95% Efficiency	\$1.60
LTC3403	2.5	5	0.3	V <sub>IN</sub>	0.6	0.7	yes	1.5MHz	20	<1	3×3 DFN-8	E	Synchronous, Integrated Bypass MOSFET	\$2.10
LTC3448	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.7	yes	1.5MHz/2.25MHz	32	<1	MSOP-8E, 3×3 DFN-8	E	LDO Mode for Low Noise Operation	\$2.05
LTC1707	2.9	8.5	0.8	V <sub>IN</sub>	0.56	0.7	yes	350kHz	200	11	SO-8	I	Synchronous, 100% Duty Cycle, 96% Efficiency	\$2.25
LTC3543	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.8	yes	2.25MHz	45	<1	2×3 DFN-6	E	Synchronous, 100% Duty Cycle, 95% Efficiency,	\$1.95
LTC3406A/AB	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.75	yes	1.5MHz	20/300	<1	ThinSOT	E, I	Synchronous, 100% Duty Cycle, "A" Version Has Low Ripple Pulse-Skipping Mode, "B" Version Disables Burst Mode Operation	\$1.83
LTC3406/B	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.75	yes	1.5MHz	20/300	<1	ThinSOT	E	Synchronous, 100% Duty Cycle, "B" Version Disables Burst Mode Operation for Lower Noise	\$2.01
LTC3406B-2	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.75	yes	2.25MHz	350	<1	ThinSOT	E	2.25MHz, Synchronous, 100% Duty Cycle, 96% Efficiency	\$2.16
LTC3409	1.6	5.5	0.62	V <sub>IN</sub>	0.6	0.75	yes	2.6MHz	60	<1	3×3 DFN-8	E	Minimum V <sub>IN</sub> =1.6V, Synchronous, 100% Duty Cycle, Ideal for 2-Cell AA Alkaline	\$2.15
LTC1877	2.7	10	0.8	V <sub>IN</sub>	0.6	0.8	yes	550kHz	10	<1	MSOP-8	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$2.95
LTC1878	2.7	6	0.8	V <sub>IN</sub>	0.6	0.8	yes	550kHz	10	<1	MSOP-8	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$2.60
LTC3404	2.7	6	0.8	V <sub>IN</sub>	0.6	0.8	yes	1.4MHz	10	<1	MSOP-8	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$2.70
LTC3419	2.5	5.5	0.6	V <sub>IN</sub>	0.6×2	1.2	yes	2.25MHz	55	<1	MSOP-10E, 3×3 DFN-10	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency, "-1" Has Fixed 1.575V & 1.8V Fixed Outputs	\$1.95
LTC3407/A	2.5	5.5	0.6	V <sub>IN</sub>	0.6×2	0.75	yes	1.5MHz	40	<1	MSOP-10	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency, "A" Has Soft-Start	\$2.60

† Primary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO



Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Max Switch Current (A)	Switching		I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
							Synchronous	Frequency <sup>(3)</sup>						
LTC1627	2.7	8.5	0.8	V <sub>IN</sub>	0.64	0.8	yes	350kHz	200	15	SO-8	I	Synchronous, 100% Duty Cycle, 96% Efficiency	\$2.05
LTC1701	2.5	5	1.25	V <sub>IN</sub>	0.72	0.9	–	1.0MHz	135	<1	ThinSOT	E	Synchronous, 100% Duty Cycle, 94% Efficiency	\$1.95
LTC3560	2.5	5.5	0.6	V <sub>IN</sub>	0.8	0.9	yes	2.25MHz	16	<1	ThinSOT	E	Synchronous, 100% Duty Cycle, 95% Efficiency,	\$1.90
LT1173	2.0	30	1.25	0.43V <sub>IN</sub>	0.8	1.0	–	23kHz	110	n/a	DIP-8, SO-8		Step-Up or Step Down, Fixed V <sub>OUT</sub> 5V, 12V or Adjustable Output	\$2.30
LT1108	2.0	30	1.25	0.63V <sub>IN</sub>	0.8	1.0	–	20kHz	110	n/a	DIP-8, SO-8		Step-Up or Step Down, Fixed V <sub>OUT</sub> 5V, 12V or Adjustable Output	\$2.45
LT1111	2.0	30	1.25	0.24V <sub>IN</sub>	0.8	1.0	–	72kHz	300	n/a	DIP-8, SO-8	I	Step-Up or Step Down, Fixed V <sub>OUT</sub> 5V, 12V or Adjustable Output	\$2.30
LTC3548	2.5	5.5	0.6	V <sub>IN</sub>	0.8/0.4	1.2	yes	2.25MHz	40	<1	MSOP-10E, 3×3 DFN-10	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency; "Plain Has Adjustable Outputs,"-1" Has Fixed 1.8V and 1.575V Outputs, "-2" Has Fixed 1.2V and Adjustable Outputs	\$2.60
LTC3407-x/A-2	2.5	5.5	0.6	V <sub>IN</sub>	0.8×2	0.95	yes	2.25MHz	40	<1	MSOP-10E, 3×3 DFN-10	I	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency; "-2" Version of LTC3407 Increases I <sub>OUT</sub> to 0.8A, "A" Has Soft-Start, "-4" Has Reduced POR time, "-3" Has Fixed 1.8V and 3.3V Outputs	\$2.95
LTC3545	2.3	5.5	0.6	V <sub>IN</sub>	0.8×3	1	yes	2.25MHz	60	<1	3×3 QFN-16	E	Synchronous Triple with 800mA Outputs. "-1" Replaces SYNC Pin with PGOOD and Forces Burst Mode Operation	\$3.10
LTC3562	2.9	5.5	0.6	V <sub>IN</sub>	0.8×2/0.6×2		yes	2.25MHz	100	<1	3×3 QFN-20	E	Quad Output with I <sup>2</sup> C Interface, Synchronous, 100% Duty Cycle, 96% Efficiency	\$3.25
<b>LT3682</b>	<b>3.6</b>	<b>36/60</b>	<b>0.8</b>	<b>20</b>	<b>1.0</b>	<b>1.5</b>	<b>yes</b>	<b>250kHz to 2.2MHz</b>	<b>35</b>	<b>&lt;1</b>	<b>3×3 DFN-12</b>	<b>E, I</b>	<b>60V Transient Protection with OV Lockout, PGOOD, 15mV<sub>P-P</sub> Low Ripple Burst Mode Operation</b>	<b>\$2.95</b>
LTC3561A	2.5	5.5	0.8	V <sub>IN</sub>	1.0	1.3	yes	850kHz to 4MHz	330	<1	3×3 DFN-8	E, I	Synchronous, 100% Duty Cycle, 95% Efficiency	\$1.75
LTC3520	2.2	5.5	0.8	5.5	1.0/0.6	0.9	yes	100kHz to 2MHz	55	<1	4×4 QFN-24	E	Dual Output, Synchronous 1A Buck-Boost and a 600mA Buck	\$3.50
LTC3446	2.7	5.5	0.4	V <sub>IN</sub>	1.0/0.3×2	1.2	yes	2.25MHz	140	<1	4×3 DFN-14	E	Synchronous, 100% Duty Cycle, 95% Efficiency Plus Dual VLDO	\$2.75
LTC1879	2.7	10	0.8	V <sub>IN</sub>	1.2	1.8	yes	550kHz	15	<1	TSSOP-16	E	Synchronous, 100% Duty Cycle, 95% Efficiency, Integrated PLL	\$3.60
<b>LTC3569</b>	<b>2.5</b>	<b>5.5</b>	<b>0.425</b>	<b>V<sub>IN</sub></b>	<b>1.2 &amp; 0.6×2</b>	<b>1.8</b>	<b>yes</b>	<b>1MHz to 3MHz</b>	<b>47</b>	<b>&lt;1</b>	<b>3×3 QFN-20, TSSOP-16E</b>	<b>E, I</b>	<b>Triple, Synchronous, 100% Duty Cycle, PGOOD Pin, Programmable VFB Servo Voltage</b>	<b>\$3.10</b>
LTC3564	2.5	5.5	0.6	V <sub>IN</sub>	1.25	1.5	yes	2.25MHz	20	<1	2×3 DFN-10, ThinSOT	I	Synchronous, 100% Duty Cycle, 95% Efficiency	\$1.95
<b>LTC3565</b>	<b>2.5</b>	<b>5.5</b>	<b>0.6</b>	<b>5</b>	<b>1.25</b>	<b>1.5</b>	<b>yes</b>	<b>400kHz to 4MHz</b>	<b>40</b>	<b>&lt;1</b>	<b>3×3 DFN-10, MSOP-10E</b>	<b>E, I</b>	<b>Synchronous, 100% Duty Cycle, Micropower, Low Ripple Burst Mode Operation, Up to 4MHz Switching</b>	<b>\$2.00</b>
LT1976	3.3	60	1.2	0.9V <sub>IN</sub>	1.24	1.5	–	200kHz	100	<1	TSSOP-16E	H	60V Operation and I <sub>Q</sub> =100μA	\$4.00
LT1977	3.3	60	1.2	0.9V <sub>IN</sub>	1.24	1.5	–	500kHz	100	<1	TSSOP-16E	I	60V Operation and I <sub>Q</sub> =100μA	\$4.00
LTC3411/A	2.5	5.5	0.8	V <sub>IN</sub>	1.25	1.6	yes	300kHz to 4MHz	60	<1	3×3 DFN-10, MSOP-10	I	Synchronous, 100% Duty Cycle, 95% Efficiency. "Plain" Version Has 2.625V Minimum V <sub>IN</sub>	\$2.00
LTC3417/A	2.25	5.5	0.8	V <sub>IN</sub>	1.4 & 0.8/1.5 & 1.0	1.8	yes	600kHz to 4MHz	125	<1	TSSOP-20E, 3×5 DFN-20	E	Dual Synchronous, 100% Duty Cycle, 95% Efficiency	\$3.45
LTC3417A-x	2.25	5.5	0.8	V <sub>IN</sub>	1.5/1.0	1.8	yes	600kHz to 4MHz	125	<1	TSSOP-20E, 5×3 DFN-20	I	Dual Synchronous, 100% Duty Cycle, 95% Efficiency, Low Ripple Burst Mode Operation. "A-1" Has POR. "A-2" Has PGOOD.	\$2.93
LTC1875	2.7	6	0.8	V <sub>IN</sub>	1.5	1.6	yes	550kHz	15	<1	TSSOP-16	E	Synchronous, 100% Duty Cycle, 95% Efficiency, Integrated PLL	\$3.35
LTC3568	2.5	5.5	0.8	V <sub>IN</sub>	1.8	2.4	yes	850kHz to 4MHz	60	<1	3×3 DFN-10	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$2.95
LT3480	3.6	38/60	0.79	0.9V <sub>IN</sub>	2.0	3.0	–	260kHz to 2MHz	70	<1	3×3 DFN-10, MSOP-10E	I	Transient Protection to 60V, 2A Continuous Inductor Current Operation, Micropower	\$3.45
LT3481	3.5	34	1.265	0.9V <sub>IN</sub>	2.0	3.2	–	2.8MHz	50	<1	3×3 DFN-10, MSOP-10	I	2A, Micropower Part	\$3.25
LT3681	3.6	34	1.265	20	2.0	3.2	–	300kHz to 2.8MHz	50	<1	4×3 DFN-14	I	34V, 2A Micropower Part with Internal Schottky Diode	\$3.65
LT3434	3.3	60	1.2	0.9V <sub>IN</sub>	2.4	3.0	–	200kHz	100	<1	TSSOP-16E	I	60V Input and I <sub>Q</sub> =100μA	\$5.25
LT3435	3.3	60	1.2	0.9V <sub>IN</sub>	2.4	3.0	–	500kHz	100	<1	TSSOP-16E	I	60V Input and I <sub>Q</sub> =100μA	\$5.25
<b>LTC3602</b>	<b>4.5</b>	<b>10</b>	<b>0.6</b>	<b>V<sub>IN</sub></b>	<b>2.5</b>	<b>3.8</b>	<b>yes</b>	<b>300kHz to 3MHz</b>	<b>75</b>	<b>&lt;1</b>	<b>TSSOP-16E, 4×4 QFN-20</b>	<b>I</b>	<b>Synchronous, 99% Duty Cycle, 95% Efficiency, Ideal for Two Series Li-Ion Batteries</b>	<b>\$4.00</b>
<b>LTC3603</b>	<b>4.5</b>	<b>15</b>	<b>0.6</b>	<b>V<sub>IN</sub></b>	<b>2.5</b>	<b>3.8</b>	<b>yes</b>	<b>300kHz to 3MHz</b>	<b>75</b>	<b>&lt;1</b>	<b>MSSOP-16E, 4×4 QFN-16</b>	<b>I</b>	<b>Synchronous, 99% Duty Cycle, 95% Efficiency, Ideal for 12V Inputs</b>	<b>\$4.00</b>
LTC3412	2.5	5.5	0.8	V <sub>IN</sub>	2.5	4.0	yes	300kHz to 4MHz	60	<1	TSSOP-16E, 4×4 QFN-16	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$3.95
LTC3413	2.5	5.5	V <sub>REF</sub> /2	V <sub>REF</sub> /2	3.0	3.8	yes	2MHz	60	<1	TSSOP-16E	E	QDR and DDR Applications Only, Can Sink/Source 3A	\$3.95
LTC3412A	2.25	5.5	0.8	V <sub>IN</sub>	3.0	4.5	yes	300kHz to 4MHz	64	<1	TSSOP-16E, 4×4 QFN-16	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$4.10
LT3680	3.6	36	0.79	0.9V <sub>IN</sub>	3.5	4.6	–	250kHz to 2.4MHz	75	<1	3×3 DFN-10, MSOP-10E	I	36V Operation and I <sub>Q</sub> =75μA	\$4.15
<b>LT3972</b>	<b>3.6</b>	<b>33/62</b>	<b>0.79</b>	<b>30</b>	<b>3.5</b>	<b>4.6</b>	<b>–</b>	<b>200kHz to 2.4MHz</b>	<b>75</b>	<b>&lt;1</b>	<b>3×3 DFN-10, MSOP-10E</b>	<b>E, I</b>	<b>62V Transient Protection, Micropower, Low Ripple Burst Mode Operation</b>	<b>\$4.25</b>
LTC3414	2.3	5.5	0.8	V <sub>IN</sub>	4.0	6.0	yes	300kHz to 4MHz	68	<1	TSSOP-20E	I	Synchronous, 100% Duty Cycle, 95% Efficiency	\$4.25
LTC3416	2.3	5.5	0.8	V <sub>IN</sub>	4.0	6.0	yes	300kHz to 4MHz	68	<1	TSSOP-20E	E	Tracking, Synchronous, 100% Duty Cycle, 95% Efficiency	\$4.62
LTC3415	2.5	5.5	0.6	V <sub>IN</sub>	7.0	11	yes	2.25MHz	450	<1	5×7 QFN-38	E	Stackable, Tracking, Synchronous, 100% Duty Cycle, 95% Efficiency	\$6.50
LTC3418	2.3	5.5	0.8	V <sub>IN</sub>	8.0	12.0	yes	300kHz to 4MHz	380	<1	5×7 QFN-38	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$6.75
<b>LTC3608</b>	<b>4</b>	<b>18</b>	<b>0.6</b>	<b>V<sub>IN</sub></b>	<b>8.0</b>	<b>8.0</b>	<b>yes</b>	<b>1MHz</b>	<b>900</b>	<b>&lt;15</b>	<b>7×8 QFN-52</b>	<b>I</b>	<b>Synchronous, 99% Duty Cycle, 95% Efficiency, Ideal for 12V Inputs</b>	<b>\$7.50</b>
LTC3611	4	32	0.6	V <sub>IN</sub>	10	15	yes	1MHz	900	<15	9×9 QFN-64	I	32V, 10A Monolithic	\$9.75
LTC3610	4	24	0.6	V <sub>IN</sub>	12	15	yes	1MHz	900	<15	9×9 QFN-64	E	24V, 12A Monolithic	\$8.50

† Primary Sort Column

- Notes:  
1. Approximate value. See data sheet for detailed information  
2. Approximately 80% of Switch Current  
3. COT = Constant Off Time

Amps, Refs,  
Filters, Comps  
Power  
Management  
Data  
Conversion  
Interface  
High  
Frequency  
Space, Military,  
Harsh Envir.  
Reference  
Material

# BUCK CONTROLLERS (STEP-DOWN)

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	† Max Output Current (A)	Synchronous	External SYNC <sup>(1)</sup>	Switching Frequency	No Sense Resistor	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC1622	2	9.8	0.8	V <sub>IN</sub>	5	–	yes	550kHz		270	MSOP-10	I	Synchronizable to 750kHz	\$1.85
LTC1772/B	2.5	9.8	0.8	V <sub>IN</sub>	5	–	–	550kHz		230/270	ThinSOT	E, I, H	"B" Version Disables Burst Mode Operation at Light Load	\$2.70
LTC3772/B	2.75	9.8	0.6	0.9V <sub>IN</sub>	5	–	–	550kHz	yes	40	3×2 DFN-8	E	Low I <sub>Q</sub> , No R <sub>SENSE</sub> ™, "B" Disables Burst Mode Operation	\$1.85
LTC3801/B	2.5	9.8	0.8	V <sub>IN</sub>	5	–	–	550kHz		16/195	ThinSOT	E	Very Low Standby Current, LTC1772 Pin-Out, "B" Disables Burst Mode Operation	\$1.95
LTC3808	2.75	9.8	0.6	V <sub>IN</sub>	5	yes	yes	250kHz to 750kHz	yes	350	4×3 DFN-14, SSOP-16	E	Optional R <sub>SENSE</sub> , Power Good Output, Tracking, Spread Spectrum Frequency Modulation	\$2.60
LTC3809/1	2.75	9.8	0.6	V <sub>IN</sub>	5	yes	yes	250kHz to 750kHz	yes	350	3×3 DFN-10, MSOP-10E	E	No R <sub>SENSE</sub> , Spread Spectrum Frequency Modulation, "-1" Adds Tracking	\$2.00
LTC3700	2.65	9.8	0.8	5	5/0.15	–	–	550kHz		210	MSOP-10	E	Controller with 150mA LDO	\$2.35
LTC3736	2.75	9.8	0.6	V <sub>IN</sub>	5×2	yes	yes	260kHz to 825kHz	yes	300	4×4 QFN-24, SSOP-24	E	Dual, 2-Phase, Output Tracking and Enhanced Gate Drivers. Burst Mode Operation at Light Loads	\$3.80
LTC3736-1/-2	2.75	9.8	0.6	V <sub>IN</sub>	5×2	yes	yes	260kHz to 825kHz	yes	500	4×4 QFN-24, SSOP-24	E	LTC3736 with Pulse-Skipping at Light Loads, "-1" Has Spread Spectrum Frequency Modulation	\$4.40
LTC3776	2.75	9.8	0.3	V <sub>IN</sub>	5×2	yes	yes	750kHz	yes	575	4×4 QFN-24	E	Dual, 2-Phase for DDR/QDR	\$3.75
LTC3737	2.75	9.8	0.6	V <sub>IN</sub>	5×2	–	yes	260kHz to 825kHz	yes	300	4×4 QFN, SSOP-24	E	Dual, 2-Phase, Output Tracking, Nonsynchronous	\$3.65
LTC3701	2.5	10	0.8	V <sub>IN</sub>	5×2	–	yes	300kHz to 750kHz		460	SSOP-16	E	Dual, Very Low V <sub>IN</sub> , Non-Synchronous, Dual Outputs	\$2.90
LTC1771	2.8	20	1.23	18	5	–	–	Constant Off-Time		10	MSOP-8, SO-8	I	Micropower Supply Current	\$2.65
LT3742	3.5	30	0.8	V <sub>IN</sub>	5×2	–	–	500kHz		5mA	4×4 QFN-24	E	100% Duty Cycle, High Output Voltage, Capacitor Charger	\$2.30
LT3724	4.5	60	1.23	36	5	–	–	200kHz	yes	1.7mA	TSSOP-16	I	<100μA No-Load Current, also see LT3800	\$3.10
LTC1773	2.65	8.5	0.8	V <sub>IN</sub>	6	yes	yes	550kHz		400	MSOP-10	E	PMOS Top MOSFET	\$4.10
LTC1649	2.7	6	1.265	0.9V <sub>IN</sub>	10	yes	–	200kHz	yes	3mA	SO-16	I		\$4.10
LTC3785/-1	2.7	10	2.7	10	10	yes	–	100kHz to 1MHz	yes	86	4×4 QFN-24	E	Buck-Boost, 96% Efficient, "-1" Adds Power Good Output	\$3.56
LTC1143	3.5	16	1.25	V <sub>IN</sub>	10×2	–	–	Variable		1.6mA	SO-16	I	Dual, See the LTC3850 or LTC3728 for Improved Performance and Smaller Design	\$3.95
LTC1142	3.5	20	1.25	V <sub>IN</sub>	10×2	yes	–	Variable		1.6mA	SSOP-28	I	Dual, See the LTC3850 or LTC3728 for Improved Performance	\$4.65
LTC1438	3.5	36	1.19	9	10×2	yes	–	125kHz to 250kHz		320	SSOP-28, SSOP-36	I	Dual, See the LTC3850 or LTC3728 for Improved Performance	\$7.00
LTC1439	3.5	36	1.19	9	10×2	yes	yes	125kHz to 250kHz		320	SSOP-28, SSOP-36	I	Dual, Phase-Lockable Version of the LTC1438; See the LTC3850 for Improved Performance	\$5.90
LTC1538	3.5	36	1.19	9	10×2	yes	–	125kHz to 250kHz		320	SSOP-28, SSOP-36	I	Dual, See the LTC3850 or LTC3728 for Improved Performance and Smaller Design	\$4.30
LTC1539	3.5	36	1.19	9	10×2	yes	yes	PLL: 125kHz to 250kHz		320	SSOP-28, SSOP-36	I	Dual, See the LTC3850 or LTC3728 for Improved Performance and Smaller Design	\$4.80
LTC1624	3.5	36	1.19	0.95V <sub>IN</sub>	10	–	–	200kHz		550	SO-8	I		\$3.50
LTC1625	3.7	36	1.19	V <sub>IN</sub>	10	yes	yes	150kHz	yes	500	SSOP-16	I	Excellent for No R <sub>SENSE</sub> DC/DC Conversion Where V <sub>OUT</sub> is Very Close to V <sub>IN</sub> (Also See the LTC1778 and LTC3778)	\$4.45
LTC1159	4.5	40	1.25	V <sub>IN</sub>	10	yes	–	Variable		200	SO-16, DIP-16, SSOP-20	I	PMOS for Top MOSFET	\$5.45
LTC3824	4	60	0.8	V <sub>IN</sub>	10	–	yes	200kHz to 600kHz		40	MSOP-10	E, I, MP	100% Duty Cycle, Low Quiescent Current	\$1.95
LT3844	4	60	1.23	36	10	–	yes	100kHz to 500kHz		120	TSSOP-16	E, I	60V Input, Low Quiescent Current	\$3.10
LTC3703-5	4.1	60	0.8	0.93V <sub>IN</sub>	10	yes	yes	100kHz to 600kHz	yes	1.7mA	SSOP-16, 28	E	Supports Use of External Logic N-Channel FETs	\$3.10
LTC3703	9.3	100	0.8	0.93V <sub>IN</sub>	10	yes	yes	100kHz to 600kHz	yes	1.7mA	SSOP-16, 28	E	Voltage Mode with Feedforward Compensation	\$3.10
LTC1530	3.5	7	1.9	0.86V <sub>IN</sub>	15	yes	–	300kHz	yes	15mA	SO-8	I	Fixed V <sub>OUT</sub> : 1.8V, 2.5V, 2.8V, 3.3V	\$3.05
LTC1430A	4.5	8	1.265	0.9V <sub>IN</sub>	15	yes	–	200kHz	yes	350	SO-8, SSOP-16	I	See the LTC3830 for Improved Performance	\$3.05
LTC3770	4.5	32	0.6	0.9V <sub>IN</sub>	15	yes	yes	Constant On-Time	yes	1.3mA	5×5 QFN-32, SSOP-28	E	Margining, Tracking, External Synchronization	\$3.55
LTC1435A	3.5	36	1.19	9	15	yes	–	Variable		280	SO-16	I	See the LTC1735 for Improved Performance	\$4.15
LT3800	4	60	1.231	36	15	yes	–	200kHz		100	TSSOP-16	I	97% Efficiency; Also See LT3724	\$3.10
LTC3822	2.75	4.5	0.6	0.99V <sub>IN</sub>	20	yes	–	250kHz to 750kHz	yes	360	3×3 DFN-10, MSOP-10	E	Low Input Voltage	\$1.55
LTC3822-1	2.75	4.5	0.6	0.99V <sub>IN</sub>	20	yes	–	250kHz to 750kHz	yes	105	3×3 DFN-12, SSOP-16	E	Low Input Voltage, Selectable Burst Mode Operation/Pulse-Skipping	\$1.75
LTC3836	2.75	4.5	0.6	0.97V <sub>IN</sub>	20×2	yes	yes	250kHz to 750kHz	yes	450	4×5 QFN-24, SSOP-28	E	Dual, 3.3V Nominal Input Voltage	\$2.75
LTC1704	3.15	6	0.8	6	20/2	yes	–	550kHz		4.5mA	SSOP-16	E	Synchronous Step-Down Controller and Linear Regulator Controller	\$4.10
LTC1702A	3	7	0.8	7	20×2	–	–	550kHz	yes	2.2mA	SSOP-24	I	Dual, Voltage Mode, 2-Phase	\$5.35
LTC3832	3	8	0.6	0.91V <sub>IN</sub>	20	yes	–	100kHz to 500kHz	yes	700	SO-8	E	0.6V Reference	\$3.10
LTC3830	3	8	1.265	0.91V <sub>IN</sub>	20	yes	–	100kHz to 500kHz	yes	700	SO-8, SSOP-16	E	Shutdown Function	\$3.05
LTC3830-1	3	8	1.265	0.91V <sub>IN</sub>	20	yes	–	100kHz to 500kHz	yes	700	SO-8	E	Soft-Start	\$3.05
LTC3831	3	8	1.265	V <sub>IN</sub> /2	20	yes	–	100kHz to 500kHz	yes	700	SO-8, SSOP-16	E	Bus Termination: QDR, DDR, SSTL	\$2.90
LTC3831-1	3	8	0.4	V <sub>IN</sub> /2	20	yes	–	100kHz to 500kHz	yes	700	SO-8, SSOP-16	E	Bus Termination: for 0.75V QDR, DDR, SSTL	\$2.90
LTC1698	6	12.6	1.233	6	20	yes	yes	4.5kHz		1.8mA	SO-16	I	Secondary Synchronous Rectifier Controller (Use LT3781 for Primary Side)	\$5.30
LT3740	2.2	22	0.8	0.77V <sub>IN</sub>	20	yes	–	300kHz	yes	2.5mA	5×3 DFN-16	E	Low Input Voltage, High Output Current, Boost Converter for Gate Drive, Drives 5V Logic Level MOSFETs	\$1.95
LT3710	8	24.5	0.8	7	20	yes	yes	200kHz to 500kHz		12mA	TSSOP-16	E	Secondary Side Synchronous Post Regulator; Generates Auxillary Output in Isolated Supplies; Use with the LT3781, LTC1698	\$3.95
LTC3823	4.5	30	0.6	3.3	20	yes	yes	Variable	optional	1.4mA	5×5 QFN-32, SSOP-28	E	Differential Amplifier For Remote Output Voltage Sensing	\$2.75

† Primary Sort Column  
 †† Secondary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

# BUCK CONTROLLERS (STEP-DOWN)

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	Max Output Current (A)	Synchronous	External SYNC <sup>(1)</sup>	Switching Frequency	No Sense Resistor	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3802	3	30	0.6	0.9V <sub>IN</sub>	20	yes	yes	330kHz to 750kHz	yes	6mA	5×5 QFN-32, SSOP-28	E	Dual, 2-Phase Synchronous Controller with Programmable Up/Down Tracking	\$4.80
LTC3811	4.5	30	0.6	3.3	20×2 or 40	yes	yes	150kHz to 900kHz	yes	10.5mA	5×7 QFN-38, SSOP-36	E	PolyPhase Single or Dual, No R <sub>SENSE</sub> , Diff Amplifier	\$3.75
LTC3834	4	36	0.8	10	20	yes	yes	140kHz to 650kHz		30	4×5 QFN-20, TSSOP-20	E, I	Low Quiescent Current (30μA)	\$3.88
LTC3834-1	4	36	0.8	10	20	yes	yes	140kHz to 650kHz		30	5×3 DFN-16, SSOP-16	E, I	LTC3834 with No PGOOD, EXT <sub>VCC</sub> or CLOCKOUT Pins	\$3.69
LTC3835	4	36	0.8	10	20	yes	yes	140kHz to 650kHz		80	4×5 QFN-20, TSSOP-20	E, I	Low Quiescent Current (80μA)	\$3.55
LTC3835-1	4	36	0.8	10	20	yes	yes	140kHz to 650kHz		80	3×5 DFN-16, SSOP-16	E	LTC3835 with No PGOOD, EXT <sub>VCC</sub> or CLOCKOUT Pins	\$3.40
LTC3773	3.3	36	0.6	5	20×3	yes	yes	160kHz to 700kHz		2.8mA	5×7 DFN-38, SSOP-36	E	Triple Output 3-Phase Controller with Tracking	\$3.95
LTC3732	4.5	36	0.8	5.25	20×3 or 60	yes	yes	250kHz to 600kHz		2.3mA	SSOP-28		3-Phase Operation	\$4.35
LTC1628	4.5	36	0.8	7	20×2	yes	–	150kHz to 300kHz		470	5×5 QFN-32, SSOP-28	I	Dual, 2-Phase	\$4.45
LTC1628-PG	4.5	36	0.8	7	20×2	yes	–	150kHz to 300kHz		470	SSOP-28	I	Power Good Output Signal	\$4.65
LTC1628-SYNC	4.5	36	0.8	7	20×2	yes	yes	150kHz to 300kHz		470	SSOP-28	I	PLL/Synchronizable	\$4.65
LTC1735	3.5	36	0.8	7	20	yes	–	200kHz to 600kHz		450	SSOP-16, TSSOP-20	I	Capacitor Sets Operating Frequency; Power Good Signal (TSSOP only)	\$3.10
LTC1735-1	3.5	36	0.8	7	20	yes	–	200kHz to 600kHz		450	SSOP-16, SO-16	I	LTC1735 with Power Good But No Forced-Continuous/SYNC Pin	\$3.20
LTC1775	3.7	36	1.19	V <sub>IN</sub>	20	yes	yes	150kHz	yes	500	SSOP-16	I	Excellent for No R <sub>SENSE</sub> DC/DC Conversion Where V <sub>OUT</sub> is Very Close to V <sub>IN</sub> (Also See the LTC1778 and LTC3778)	\$4.65
LTC1778/-1	4.5	36	0.8	0.9V <sub>IN</sub>	20	yes	–	Adjustable	yes	900	SSOP-16	E	Excellent for High V <sub>IN</sub> to Low V <sub>OUT</sub> No R <sub>SENSE</sub> DC/DC Conversion. "-1" Has Adjustable Top Gate ON-Time	\$2.70
LTC3713	1.5	36	0.8	0.9V <sub>IN</sub>	20	yes	–	200kHz to 1.5MHz		900	SSOP-24	E	Provides Its Own 5V for N-CH MOSFET Gate Drive	\$4.10
LTC3717/-1	4.5	36	0.7	V <sub>REF</sub> /2	20	yes	–	200kHz to 1.5MHz		1mA	SSOP-16 ("Plain"), 5×5 QFN-32 ("1")	E	Bus Termination: QDR, DDR, SSTL. "-1" Has Optional Sense Resistor and Settable Top Gate On-Time	\$2.95
LTC3718	1.5	36	0.7	V <sub>REF</sub> /2	20	yes	–	200kHz to 1.5MHz		1mA	SSOP-24	E	Bus Termination: QDR, DDR, SSTL; Very Low Input Voltage; On-Chip Boost Converter for Top Gate High-Side Drive	\$3.45
LTC3778	4.5	36	0.6	0.9V <sub>IN</sub>	20	yes	–	Constant On-Time	optional	900	SSOP-20	E	Current Mode, Optional R <sub>SENSE</sub>	\$3.35
LTC3780	4.5	36	0.8	30	20	yes	yes	200kHz to 400kHz		2.4mA	5×5 QFN-32, SSOP-24	I	Buck-Boost, 98% Efficient, Single Inductor	\$4.65
LT3845	4	60	1.23	36	20	yes	yes	100kHz to 500kHz		100	TSSOP-16	E, I	60V Input, Low Quiescent Current	\$3.56
LT1681	9	72	1.25	0.9V <sub>IN</sub>	20	yes	yes	350kHz		17mA	SO-20	I	Dual Transistor Synchronous Forward Controller	\$5.00
LT3781	8	72	1.25	V <sub>IN</sub>	20	yes	yes	350kHz		17mA	SSOP-20	I	Bootstrap Start Dual Transistor Synchronous Forward Controller	\$4.95
LTC3850	4	24 or 30	0.8	5.5	25×2	yes	yes	250kHz to 750kHz	optional	850	4×4 QFN-28, 4×5 QFN-28, SSOP-28	E, I	Dual, Tracking, PLL, Synchronizable and Adjustable Soft-Start. "1" Temp Grade Has 28V Operational and 30V Abs Max	\$2.40
LTC3853	4	24	0.8	5.5	25×3	yes	yes	250kHz to 750kHz	yes	1mA	6×6 QFN-40	E, I	Triple Output, High Frequency, with Tracking, DCR Current Sense, Powerful Onboard Drivers and Synchronizable	\$3.53
LTC3850-1/-2	4	24 or 30	0.8	5.5	25×2	yes	yes	250kHz to 750kHz	optional	850	SSOP-28	E, I	LTC3850 with I <sub>LM</sub> Replaced by EXT <sub>VCC</sub> in SSOP Package. "2" Has High Reliability Pinout	\$2.40
LTC3728LX	4.5	28	0.8	5.5	25×2	yes	yes	≤550kHz		450	5×5 QFN-32, SSOP-28		Dual, ±1.5% Reference Voltage Accuracy, 0°C to 85°C Operation, Latch-off Current Limit	\$4.30
LTC3728L/-1	4.5	28/35	0.8	5.5	25×2	yes	yes	≤550kHz		450	5×5 QFN-32, SSOP-28	E, I	Dual, Foldback Current Limit Defeated For "-1" Version. "LI-1" Has 35V Max V <sub>IN</sub>	\$4.65
LTC3728LC	4.5	28	0.8	5.5	25×2	yes	yes	≤550kHz		450	5×5 QFN-32, SSOP-28		LTC3728L with 1% Reference Voltage Accuracy. 0°C to 85°C Operation	\$4.40
LTC3707/-SYNC	4	30	0.8	6	25×2	yes	-/yes	100kHz to 300kHz		350	SSOP-28	E, I	Dual, 99% Duty Cycle, Low V <sub>IN</sub>	\$4.45
LTC3828	4.5	30	0.8	7	25×2	yes	yes	≤550kHz		2mA	5×5 QFN-32, SSOP-28	E	Dual, Onboard Tracking; Up to 6-Phase Operation	\$4.65
LTC3727LX-1	4	32	0.8	14.5	25×2	yes	yes	≤550kHz		1mA	5×5 QFN-32, SSOP-28	E	Dual, Output Latch Disabled	\$4.35
LTC3727/-1	4	36	0.8	14.5	25×2	yes	yes	≤550kHz		670	5×5 QFN-32, SSOP-28	E, I	Dual, >5V V <sub>OUT</sub> ; "-1" Disables Output Short Circuit Latch and Has 5×5 QFN-32 Pkg Option	\$4.85
LTC3727A-1	4	36	0.8	14.5	25×2	yes	yes	≤550kHz		670	SSOP-28	E	Dual, Improved LTC3727 (Lower V <sub>OUT</sub> Ripple, Shorter t <sub>ON</sub> (min))	\$4.85
LTC3728	4.5	36	0.8	5.5	25×2	yes	yes	≤550kHz		450	5×5 QFN-32, SSOP-28	E, I	Dual, Small Package, High Frequency	\$5.00
LTC1876	3.5	36	0.8	7	25×3	yes	yes	150kHz to 300kHz		350	SSOP-36	E	Triple, Very Low V <sub>IN</sub> , High Output Power	\$5.95
LTC3827	4	36	0.8	10	25×2	yes	yes	140kHz to 650kHz		115	5×5 QFN-32	E, I	Dual, Low I <sub>Q</sub> ; Continuous, Pulse-Skipping, or Low Ripple Burst Mode Operation	\$5.10
LTC3827-1	4	36	0.8	10	25×2	yes	yes	140kHz to 650kHz		115	SSOP-28	E, I	LTC3827 with No Phase Mode, CLKOUT, PGOOD2 or FoldBack Disable Pins	\$5.00
LTC3826	4	36	0.8	10	25×2	yes	yes	140kHz to 650kHz		50	5×5 QFN-32	E, I	Dual, Ultralow I <sub>Q</sub> (50μA); Selectable Continuous, Pulse-Skipping, or Low Ripple Burst Mode Operation	\$5.50
LTC3826-1	4	36	0.8	10	25×2	yes	yes	140kHz to 650kHz		50	SSOP-28	E, I	LTC3826 with No Phase Mode, CLKOUT, PGOOD2 or FoldBack Disable Pins	\$5.38
<b>LTC3878</b>	<b>4</b>	<b>38</b>	<b>0.8</b>	<b>0.9V<sub>IN</sub></b>	<b>25</b>	<b>yes</b>	<b>–</b>	<b>Adjustable</b>	<b>yes</b>	<b>1.5mA</b>	<b>SSOP-16</b>	<b>E, I</b>	<b>Fast Transient Response, PGOOD Pin, Similar to LTC1778 But with Wider V<sub>IN</sub> Range and No EXT<sub>VCC</sub>.</b>	<b>\$2.20</b>
LTC3879	4	38	0.6	0.9V <sub>IN</sub>	25	yes	–	Adjustable	yes	1.5mA	MSOP-16, 3×3 QFN-16	E, I	Same as LTC3878 But with Tracking.	\$2.35

† Primary Sort Column  
 †† Secondary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# BUCK CONTROLLERS (STEP-DOWN)

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	† Max Output Current (A)	Synchronous	External SYNC <sup>(1)</sup>	Switching Frequency	No Sense Resistor	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3851/-1	4	38	0.8	5.5	25	yes	yes	250kHz to 780kHz	yes	1mA	3×3 QFN-16, SSOP-16, MSOP-16E	E, I	Wide Input Voltage Range, High Frequency, with Tracking, DCR Current Sense, Powerful Onboard Drivers and Synchronizable. "-1" Version Has PGOOD (vs. I <sub>LIM</sub> )	\$1.71
LTC3812-5	4.2	60	0.8	0.93V <sub>IN</sub>	25	yes	—	100kHz to 1MHz	optional	3mA	TSSOP-16E	E, I	60V, Fast Transient Response, Strong Gate Drivers for Logic Level FETs	\$3.25
LTC3810-5	4.2	60	0.8	0.93V <sub>IN</sub>	25	yes	yes	100kHz to 1MHz	optional	3mA	5×5 QFN-32	E, I	60V, Fast Transient Response, Strong Gate Drivers for Logic Level FETs, Tracking, Synchronizable and Adj. UVLO	\$3.38
LTC3810	6.2	100	0.8	0.93V <sub>IN</sub>	25	yes	yes	100kHz to 1MHz	optional	3mA	SSOP-28	E, I	100V, Fast Transient Response, Strong Gate Drivers, Tracking, Synchronizable and Adj. UVLO	\$3.50
LTC3708	4.5	36	0.6	0.9V <sub>IN</sub>	30×2	yes	yes	85ns t <sub>ON</sub> min	yes	2.4mA	5×5 QFN-32	E	Dual, Output Tracking; Fast Transient Response	\$4.80
LT1339	9	60	1.25	0.9V <sub>IN</sub>	30	yes	yes	150kHz		14mA	SO-20	I	60V Input Voltage; Synchronizable	\$4.85
LTC1922-1	3.8	10.3	5	5	40	yes	yes	≤1MHz		7mA	SSOP-20, DIP-20	E	Synchronous Phase-Modulated Full-Bridge Controller; Adaptive DirectSense Zero Voltage Switching	\$3.05
LTC3709	5	31	0.6	0.9V <sub>IN</sub>	40	yes	yes	200kHz	yes	2.4mA	5×5 QFN-32	E	With Tracking and Sequencing	\$4.80
LTC1929	4.5	36	0.8	5.25	40	yes	yes	150kHz to 300kHz		470	SSOP-28	I	2-Phase Operation; Great Thermal Management	\$4.25
LTC3732	4.5	36	0.8	5.25	60 or 20×3	yes	yes	250kHz to 600kHz		2.3mA	SSOP-28	I	3-Phase Operation	\$4.35
LTC3811	4.5	30	0.6	3.3	240	yes	yes	150kHz to 900kHz	yes	10.5mA	5×7 QFN-38, SSOP-36	E	Single or Dual, No R <sub>SENSE</sub> , Diff Amplifier, PolyPhase <sup>®</sup> - Up to 12 Phases	\$3.75
LTC3729L-6	4.5	30	0.6	5.25	240	yes	yes	250kHz to 550kHz		450	SSOP-28	E	LTC3729 with 0.6V Reference	\$5.60
LTC3731	4	36	0.6	5.25	240	yes	yes	250kHz to 600kHz		2.3mA	5×5 QFN-32, SSOP-36	E, I, H	PolyPhase Operation	\$4.35
LTC3729	4.5	36	0.8	5.25	240	yes	yes	250kHz to 550kHz		450	SSOP-28	E	PolyPhase Operation (Up to 12 Phases), No Heat Sink	\$5.80
LTC1629	4.5	36	0.8	5.25	240	yes	yes	150kHz to 300kHz		470	SSOP-28	I	PolyPhase Operation (Up to 12 Phases), No Heat Sink	\$5.95
LTC1629-6	4.5	36	0.6	5.25	240	yes	yes	150kHz to 300kHz		470	SSOP-28	I	PolyPhase Operation with 0.6V Reference Voltage	\$5.95

† Primary Sort Column  
 †† Secondary Sort Column

Note:  
 1. External Frequency Synchronization

# MICROPOWER BUCK CONTROLLERS

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	† Max Output Current (A)	Synchronous	Dual Output	Switching Frequency	No Sense Resistor	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3772	2.75	9.8	0.6	0.9V <sub>IN</sub>	5	no		550kHz	yes	40	3×2 DFN-8	E	Low I <sub>Q</sub> , No Current Sense Resistor	\$1.85
LTC3801	2.5	9.8	0.8	V <sub>IN</sub>	5	no		550kHz		16	ThinSOT	E	Very Low Standby Current, LTC1772 Pin-Out	\$1.95
LTC3808	2.75	9.8	0.6	V <sub>IN</sub>	5	yes		250kHz to 750kHz	yes	105	3×4 DFN-14, SSOP-16	E	Low EMI, Spread Spectrum with Tracking. Optional R <sub>SENSE</sub>	\$2.60
LTC3809	2.75	9.8	0.6	V <sub>IN</sub>	5	yes		250kHz to 750kHz	yes	105	3×3 DFN-10, MSOP-10E	E	Low EMI, Spread Spectrum, No R <sub>SENSE</sub>	\$2.50
LTC3809-1	2.75	9.8	0.6	V <sub>IN</sub>	5	yes		500kHz	yes	105	3×3 DFN-10, MSOP-10E	E	Low Input Voltage with Tracking	\$2.50
LTC1771	2.8	20	1.23	18	5	no		Constant Off-Time		10	MSOP-8, SO-8	I	Micropower Supply Current	\$2.65
LT3724	4	60	1.23	36	5	no		200kHz		80	TSSOP-16	E, I	High Voltage, Medium Power, Fixed Frequency	\$3.10
LTC1773	2.65	8.5	0.8	V <sub>IN</sub>	6	no		500kHz to 750kHz		80	MSOP-10	E	Synchronizable, 100% Duty Cycle	\$2.50
LTC3785	2.7	10	2.7	10	10	yes		100kHz to 1MHz	yes	86	4×4 QFN-24	E	Buck-Boost, 96% Efficient, Single Inductor	\$3.56
LTC3785-1	2.7	10	2.7	10	10	yes		100kHz to 1MHz	yes	86	4×4 QFN-24	E	Buck-Boost, 96% Efficient, Single Inductor, with Power Good Output	\$3.75
LTC3824	4	60	0.8	V <sub>IN</sub>	10	no		200kHz to 600kHz		40	MSOP-10	E, I, MP	100% Duty Cycle, Small Package	\$1.95
LT3844	4	60	1.23	36	10	no		100kHz to 500kHz		120	TSSOP-16	E, I	High Voltage Low Quiescent Current	\$3.10
LT3800	4	60	1.23	36	20	yes		200kHz		100	TSSOP-16	I	High Voltage, Fixed Frequency	\$3.10
LTC3834	4	36	0.8	10	20	yes		140kHz to 650kHz		30	4×5 QFN-20, TSSOP-20	E, I	Low Quiescent Current	\$3.88
LTC3834-1	4	36	0.8	10	20	yes		140kHz to 650kHz		30	3×5 DFN-16, SSOP-16	E, I	LTC3834 without PGOOD, EXT <sub>CC</sub> , CLOCKOUT or Phase Mode Pins	\$3.69
LTC3835	4	36	0.8	10	20	yes		140kHz to 650kHz		80	4×5 QFN-20, TSSOP-20	E	Low Quiescent Current	\$3.55
LTC3835-1	4	36	0.8	10	20	yes		140kHz to 650kHz		80	3×5 DFN-16, SSOP-16	E, I	LTC3835 with No PGOOD, EXT <sub>CC</sub> or CLOCKOUT Pins	\$3.40
LT3845	4	60	1.23	36	20	yes		100kHz to 500kHz		120	TSSOP-16	E, I	High Voltage, Low Quiescent Current	\$3.55
LTC3826	4	36	0.8	10	25	yes	yes	140kHz to 650kHz		50	5×5 QFN-32	E	Ultralow I <sub>Q</sub> , Selectable Continuous, Pulse-Skipping, or Low Ripple Burst Mode Operation	\$5.50
LTC3826-1	4	36	0.8	10	25	yes	yes	140kHz to 650kHz		50	SSOP-28	E	Leaded Package Version of LTC3826	\$5.38
LTC3827	4	36	0.8	10	25	yes	yes	140kHz to 650kHz		115	5×5 QFN-32	E	Low I <sub>Q</sub> , Selectable Continuous, Pulse-Skipping, or Low Ripple Burst Mode Operation	\$5.10
LTC3827-1	4	36	0.8	10	25	yes	yes	140kHz to 650kHz		115	SSOP-28	E, I	Leaded Package Version of LTC3827	\$5.00

† Primary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO



Part Number	† # of V <sub>OUT</sub>	Number of Phases	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	†† Output Current (A)	I <sub>Q</sub> (μA)	Frequency Per Phase	No Sense Resistor	Package	Extended Temp Range	Comments	Price 1K Qty
LT3782/A <sup>(1)</sup>	1	2	6	40	>V <sub>IN</sub>	— <sup>(1)</sup>	30	11mA	150kHz to 500kHz		SSOP-28	E, I	2-Phase Operation; High Power, High Efficiency. "A" Grade Has Tighter Current Sense Mismatch Tolerance	\$4.53
LTC1929	1	2	4	36	0.8	5.25	40	470	150kHz to 300kHz		SSOP-28	I		\$4.25
LTC3709	1	2	5	31	0.6	0.9V <sub>IN</sub>	40	2.4mA	200kHz	x	5×5 QFN-32	E	With Tracking and Sequencing	\$4.80
LTC3862/-1 <sup>(1)</sup>	1	2 to 12	4/8.5	36	>V <sub>IN</sub>	— <sup>(1)</sup>	10 to 90	1.8mA	50kHz to 650kHz		SSOP-24, 5×5 QFN-24, TSSOP-24	E, I, H	Multiphase Step-Up Controller. "-1" Has Higher 10V Gate Drive and Higher Min V <sub>IN</sub>	\$3.29
LT3742	2	2	3.5	30	0.8	V <sub>IN</sub>	5×2	5mA	500kHz		4×4 QFN-24	E	100% Duty Cycle, High Output Voltage, Capacitor Charger	\$2.30
LTC3736	2	2	2.75	9.8	0.6	V <sub>IN</sub>	5×2	300	260kHz to 825kHz	x	4×4 QFN-24, SSOP-24	E	Output Tracking	\$3.80
LTC3737	2	2	2.75	9.8	0.6	V <sub>IN</sub>	5×2	300	260kHz to 825kHz	x	4×4 QFN-24, SSOP-24	E	Non-Synchronous, Output Tracking	\$3.65
LTC3701	2	2	2.5	10	0.8	V <sub>IN</sub>	5×2	460	300kHz to 750kHz		SSOP-16	E	Very Low V <sub>IN</sub> , Non-Synchronous	\$3.40
LTC3836	2	2	2.75	4.5	0.6	0.97V <sub>IN</sub>	20×2	450	300kHz to 750kHz	x	4×5 QFN-28, SSOP-28	E	3.3V Nominal V <sub>IN</sub> —High Current Outputs	\$2.75
LTC1628	2	2	4	36	0.8	7	20×2	350	150kHz to 300kHz		5×5 QFN-32, SSOP-28	I		\$4.45
LTC1628-PG	2	2	4	36	0.8	7	20×2	350	150kHz to 300kHz		SSOP-28	I	Power Good Output Signal	\$4.65
LTC1628-SYNC	2	2	4	36	0.8	7	20×2	350	150kHz to 300kHz		SSOP-28	I	PLL/Synchronizable	\$4.65
LTC1702A	2	2	3	7	0.8	7	20×2	2.2mA	550kHz	x	SSOP-24	I	Voltage Mode	\$4.75
LTC3802	2	2	3	30	0.6	V <sub>IN</sub> ×0.9	20×2	6.5mA	330kHz to 750kHz	x	5×5 QFN-32, SSOP-28	E	Programmable Up/Down Tracking	\$4.80
LTC3727/-1	2	2	4	36	0.8	14	20×2	670	150kHz to 300kHz		SSOP-28, 5×5 QFN-32 ("-1")	E, I	>5V Output Voltage Range; "-1" Disables Overcurrent Latch-Off	\$4.85
LTC3707	2	2	4	30	0.8	6	25×2	350	150kHz to 300kHz		SSOP-28	E, I	99% Duty Cycle, Low V <sub>IN</sub>	\$4.45
LTC3707-SYNC	2	2	4	28	0.8	6	25×2	350	150kHz to 300kHz		SSOP-28	E, I	Synchronizable Version	\$4.88
LTC1876	2	2	2.6	36	0.8	7	25×2	350	150kHz to 300kHz		SSOP-36	E	Very Low V <sub>IN</sub> , High Output Power	\$5.95
LTC3727A-1	2	2	4	36	0.8	14	25×2	670	150kHz to 300kHz		SSOP-28	E	Lower Dropout, 120ns On-Time	\$4.85
LTC3850	2	2	4	24, 30	0.8	5.5	25×2	850	250kHz to 750kHz	x	4×4 QFN-28, 4×5 QFN-28 SSOP-28	E, I	Tracking, PLL, Synchronizable and Adjustable Soft-Start	\$2.40
LTC3850-1	2	2	4	24, 30	0.8	5.5	25×2	850	250kHz to 750kHz	x	SSOP-28	E, I	LTC3850 with I <sub>LIM</sub> replaced by EXT <sub>VCC</sub> ; SSOP Package	\$2.40
LTC3728	2	2	3.5	36	0.8	5.25	25×2	450	250kHz to 550kHz		5×5 QFN-32, SSOP-28	E, I	36V Input Voltage	\$5.10
LTC3728L/LC/LXC	2	2	4	28	0.8	5.25	25×2	450	260kHz to 550kHz		5×5 QFN-32, SSOP-28	E, I	Small Package, High Frequency; LXC and LC Operate from 0°C to 85°C, L and LXC Have Relaxed V <sub>REF</sub> Accuracy	\$4.55
LTC3728L-1	2	2	4	28, 35	0.8	5.25	25×2	450	140kHz to 650kHz		5×5 QFN-32, SSOP-28	E	Overcurrent Latch-Off Disabled. "L1-1" Has 35V Max V <sub>IN</sub>	\$4.55
LTC3827	2	2	4	36	0.8	10	25×2	115	140kHz to 650kHz		5×5 QFN-32	E, I	Low I <sub>Q</sub> with PolyPhase	\$5.10
LTC3827-1	2	2	4	36	0.8	10	25×2	115	140kHz to 650kHz		SSOP-28	E, I	Low I <sub>Q</sub> with Both Channels Active	\$5.00
LTC3826	2	2	4	36	0.8	10	25×2	50	140kHz to 650kHz		5×5 QFN-32	E, I	Ultralow I <sub>Q</sub> with Both Channels Active	\$5.50
LTC3826-1	2	2	4	36	0.8	10	25×2	50	140kHz to 650kHz		SSOP-28	E, I	Ultralow I <sub>Q</sub> with PolyPhase	\$5.38
LTC3828	2	2 to 6	4	30	0.8	7	25×2	2mA	550kHz		5×5 QFN-32, SSOP-28	E	Onboard Tracking	\$4.65
LTC3708	2	2	4	36	0.6	V <sub>IN</sub> ×0.9	30×2	2.4mA	85ns t <sub>ON</sub> Min	x	5×5 QFN-32	E	Output Tracking, Fast Transient Response	\$4.80
LTC3773	1 to 3	3	3.3	36	0.6	5	20×3	1mA	160kHz to 700kHz		5×7 QFN-38, SSOP-36	E	Triple Output 3-Phase Controller with Tracking	\$3.95
LTC3853	3	3	4	24	0.8	5.5	25×3	4.1mA	250kHz to 750kHz	x	6×6 QFN-40	E, I	Triple Output with Tracking, PLL and Adjustable Soft-Start	\$3.53
LTC3731	1 to 4	3 to 12	4	36	0.6	5.25	60 to 200	2.3mA	250kHz to 600kHz		5×5 QFN-32, SSOP-36	E, I	Scalable PolyPhase DC/DC Controller	\$4.35
LTC3731H	1 to 4	3 to 12	4	36	0.6	5.25	60 to 200	2.3mA	250kHz to 600kHz		SSOP-36	H	-40°C to 125°C Operation	\$5.00
LTC3729	1 to 6	2 to 12	4	36	0.8	5.25	40 to 200	450	<=550kHz		5×5 QFN-32, SSOP-28	E	Scalable PolyPhase DC/DC Controller	\$5.80
LTC3729L-6	1 to 6	2 to 12	4	30	0.6	5.25	40 to 200	450	<=550kHz		5×5 QFN-32, SSOP-28	E	0.6V Reference Voltage	\$5.60
LTC1629/-6	1 to 6	2 to 12	4	36	0.8/0.6	5.25	40 to 200	470	150kHz to 300kHz		SSOP-28	E	Scalable PolyPhase DC/DC Controller. "-6" Has 0.6V V <sub>REF</sub>	\$5.95
LTC1629-PG	1 to 6	2 to 12	4	36	0.8	5.25	40 to 200	470	150kHz to 300kHz		SSOP-28	E	Power Good Output Signal	\$5.95
LTC3811	1 to 12	2 to 12	4.5	30	0.6	3.3	20 to 200	10.3mA	150kHz to 900kHz	x	5×7 QFN-38, SSOP-36	E	Dual or Single Output, Polyphase	\$3.75

† Primary Sort Column  
 †† Secondary Sort Column

Note:  
 1. Boost controller – voltage and current depend on the choice of external components

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# ACTIVE BUS TERMINATORS

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	† Output Current (A)	Switch Configuration	Switching Frequency	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3413	2.5	6	0.7	V <sub>REF</sub> /2	3	Integrated Synchronous	300kHz to 2MHz	TSSOP-16	E	Adjustable Switching Frequency, QDR, DDR, SSTL Termination	\$3.95
LTC3776	2.8	9.8	0.6	V <sub>REF</sub> /2	4	Dual External Synchronous	550kHz to 750kHz	4×4 QFN-24, NSSOP-24	E	Dual Phase, Second Output (V <sub>TT</sub> ) = 1/2* V <sub>OUT1</sub>	\$3.75
LTC3718	1.5	36	0.7	V <sub>REF</sub> /2	20	External Synchronous	200kHz to 1.5MHz	SSOP-24	E	Very Low Input Voltage; Provides Its Own 5V N-CH MOSFET Gate Drive; Current Mode	\$3.45
LTC3717	4	36	0.7	V <sub>REF</sub> /2	20	External Synchronous	200kHz to 1.5MHz	SSOP-16	E	Current Mode; DDR/QDR SSTL, HSTL Termination; "Plain" Has V <sub>OUT</sub> = 1/2V <sub>IN</sub> ; "-1" Has V <sub>OUT</sub> = 1/2V <sub>REF</sub>	\$2.95
LTC3831	3	8	0.7	V <sub>REF</sub> /2	20	External Synchronous	100kHz to 500kHz	SSOP-16	E, I	Voltage Mode, DDR/QDR Memory Termination	\$2.90
LTC3831-1	3	8	0.4	V <sub>REF</sub> /2	20	External Synchronous	100kHz to 500kHz	SSOP-16	E	Voltage Mode, for 0.75V Termination Voltage	\$2.90

† Primary Sort Column

# DIGITALLY PROGRAMMABLE DC/DC CONVERTERS

Part Number	VRM	# of Outputs	Interface	PolyPhase Operation	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	† Output Current (A)	Switch Configuration	Package	Extended Temp Range	Price 1K Qty
LTC3445		3	SMBus/I <sup>2</sup> C		2.5	5.5	0.69	2.05	0.6	Internal, Synchronous	4×4 QFN-24	E	\$2.45
LTC3447		1	SMBus/I <sup>2</sup> C		2.5	5.5	0.85	1.55	0.6	Internal, Synchronous	3×3 DFN-10	E	\$2.25
LTC1705	Mobile	3	VID		3.15	5.5	0.9	2	20	External, Synchronous	SSOP-28	E	\$5.35
LTC1736	Mobile	1	VID		4	36	0.9	2	20	External, Synchronous	SSOP-24	I	\$3.10
LTC1753	VRM8.4	1	VID		4.7	12	1.3	3.5	20	External, Synchronous	SSOP-20		\$2.80
LTC3711	Mobile	1	VID		4	36	0.9	2	20	External, Synchronous	SSOP-24	E	\$3.50
LTC3714	Mobile	1	VID		4	36	0.6	1.75	20	External, Synchronous	SSOP-28	E	\$3.05
LTC3716	Mobile	1	VID		4	36	0.6	1.75	20	External, Synchronous	SSOP-36	E	\$4.35
LTC3720	VRM8.5	1	VID	yes	4	36	1.05	1.825	20	External, Synchronous	SSOP-28	E	\$3.05
LTC3734	Centrino, Banias	1	VID		4	36	0.7	1.71	20	External, Synchronous	5×5 QFN-32	E	\$3.05
LTC1909-8	-	1	SMBus/I <sup>2</sup> C		4	36	1.3	3.5	25	External, Synchronous	SSOP-28	E	\$5.05
LTC1703	Mobile	2	VID	yes	3	7	0.9	2	25×2	External, Synchronous	SSOP-28	I	\$5.20
LTC1708	Mobile	2	VID	yes	4	36	0.9	2	25×2	External, Synchronous	SSOP-36	E	\$4.60
LTC1873	VRM8.4	2	VID	yes	2.7	7	1.3	3.5	25×2	External, Synchronous	SSOP-28	E	\$5.20
LTC1709-7	Mobile	1	VID	yes	4	36	0.9	2	40	External, Synchronous	SSOP-36	E, I	\$4.75
LTC1709-8	VRM8.4	1	VID	yes	4	36	1.3	3.5	40	External, Synchronous	SSOP-36	E, I	\$4.75
LTC1709-85	VRM8.5	1	VID	yes	4	36	1.05	1.825	40	External, Synchronous	SSOP-36	E, I	\$4.75
LTC1709-9	VRM9.0	1	VID	yes	4	36	1.1	1.85	40	External, Synchronous	SSOP-36	E, I	\$4.75
LTC3719	AMD Hammer	1		yes	4	36	0.8	1.55	40	External, Synchronous	SSOP-36	E	\$4.35
LTC3735	Centrino, Banias	1	VID	yes	4	36	0.7	1.71	40	External, Synchronous	SSOP-36	E	\$4.45
LTC3730	VRM9.X	1	VID	yes	4	36	0.6	1.75	60	External, Synchronous	SSOP-36	E	\$4.35
LTC3733	AMD Hammer	1	VID	yes	4	36	0.8	1.55	60	External, Synchronous	SSOP-36	E	\$4.35
LTC3732	VRM9.0, VRM9.1	1	VID	yes	4	36	1.1	1.85	60	External, Synchronous	SSOP-36	E	\$4.35
LTC3738	VRM9/10	1	VID	yes	4	28	0.84	1.6	60	External, Synchronous	7×5 QFN-32	E	\$4.65
LTC3819	-	1	SUN VID	yes	4	36	1.025	1.4125	60	External, Synchronous	SSOP-36	E	\$2.45
LTC1699	Mobile, VRM 8.4, VRM 9.0		SMBus/I <sup>2</sup> C				0.9	2	-	SMBus VID Programmer	MSOP-8, SSOP-16	E	\$2.15
LTC1706-81	VRM8.4						1.3	3.5	-	VID Programmer	MSOP-10	E, I	\$2.05
LTC1706-82	VRM9.0						1.1	1.85	-	VID Programmer	MSOP-10	E, I	\$2.05
LTC1706-85	VRM8.5						1.05	1.825	-	VID Programmer	MSOP-10	E, I	\$2.05

† Primary Sort Column

Part Number	V <sub>IN</sub> Min Operating <sup>(1,2)</sup> (V)	V <sub>IN</sub> Min Start-Up <sup>(2)</sup> (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Max (V)	Output Current <sup>(3)</sup> (A)	† Switch Current (A)	Synchronous	Switching Frequency <sup>(4)</sup>	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
<b>LT8410</b>		<b>2.5</b>	<b>16</b>	<b>40</b>	<b>0.013 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.006/0.02</b>	–	<b>VOT</b>	<b>8.5</b>	<b>&lt;1</b>	<b>2×2 DFN-8</b>	<b>E, I</b>	<b>Integrated Schottky, Output Disconnect, 0μA Shutdown Current, OV Protection, Comparator on SHDN Pin. “-1” Has Reduced 6mA Switch Current</b>	<b>\$1.75</b>
LTC3459		1.5	5.5	10	0.05 * V <sub>IN</sub> /V <sub>OUT</sub>	0.08	yes	COT	10	<1	ThinSOT	E	Synchronous Rectification, and Output Disconnect	\$1.95
LT1615-1		1	15	36	0.07 * V <sub>IN</sub> /V <sub>OUT</sub>	0.1	–	COT	20	<1	ThinSOT	E	Operates with V <sub>IN</sub> to 1V, “-1” Version Has 100mA Current Limit	\$1.65
LT3464		2.3	10	34	0.07 * V <sub>IN</sub> /V <sub>OUT</sub>	0.12	–	COT	25	<1	ThinSOT	E	Integrated Schottky Diode and Output Disconnect	\$1.50
LT3494		2.5	16	38	0.12 * V <sub>IN</sub> /V <sub>OUT</sub>	0.18	–	COT	65	<1	3×2 DFN-6	E	Integrated Schottky Diode, Soft-Start, Output Disconnect	\$1.45
LT3460-1		2.5	16	36	0.12 * V <sub>IN</sub> /V <sub>OUT</sub>	0.18	–	650kHz	1mA	<1	SC70, 2×2 DFN-6	E	180mA Switch in SC70, V <sub>OUT</sub> to 36V	\$1.60
LT1944-1		1.2	15	36	0.12 * V <sub>IN</sub> /V <sub>OUT</sub>	0.18×2	–	COT	20	<1	MSOP-10	E	Dual 350mA and 150mA Boost Converters in Single Package	\$2.00
LT3469		2.5	16	35	0.13 * V <sub>IN</sub> /V <sub>OUT</sub>	0.2	–	1.3MHz	2mA	<1	ThinSOT	E	Integrated Piezo Driver	\$1.65
LT3463		2.4	15	±40	0.16 * V <sub>IN</sub> /V <sub>OUT</sub>	0.25×2	–	COT	40	<1	3×3 DFN-10	E	Dual 250mA/250mA, Internal Schottkys. Boost/Inverter Converters in Single Package — Ideal for CCD Biasing	\$1.95
LT3461/A		2.5	16	38	0.20 * V <sub>IN</sub> /V <sub>OUT</sub>	0.3	–	1.3/3MHz	2.8mA	<1	ThinSOT	I	Integrated Schottky Diode, Soft-Start. “A” Grade Switches at 3MHz; “Plain” Switches at 1.3MHz	\$1.65
LT3460		2.5	16	36	0.20 * V <sub>IN</sub> /V <sub>OUT</sub>	0.3	–	1.3MHz	2mA	<1	SC70, TSOT-5	E	300mA Switch in SC70, V <sub>OUT</sub> to 36V	\$1.60
LT1937		2.5	10	36	0.21 * V <sub>IN</sub> /V <sub>OUT</sub>	0.32	–	1.2MHz	1.9mA	<1	ThinSOT	E	84%, Constant-Current/Voltage Ideal for Driving 4 White LEDs	\$1.20
LT1615		1.2	15	36	0.23 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35	–	COT	20	<1	ThinSOT	E	Operates with V <sub>IN</sub> Equals 1V	\$1.65
LT3495-1/B-1		2.5	16	40	0.23 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35	–	APC	60	<1	3×2 DFN-10	E	Output Disconnect, Low Noise, /B Version Disables Burst Mode Operation	\$1.75
LT3494A		2.5	16	38	0.23 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35	–	COT	65	<1	3×2 DFN-6	E	Integrated Schottky Diode, Soft-Start, Output Disconnect	\$1.45
LT1944		1.2	15	36	0.23 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35×2	–	COT	20	<1	MSOP-10	E	Dual 350mA Boost Converters in Single Package	\$2.00
LT1945		1.2	15	±34	0.23 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35×2	–	COT	20	<1	MSOP-10	E	Dual 350mA, @ ±34V Boost Converters in Single Package	\$2.06
LT3482		2.5	16	90	Up to 4mA	0.36	–	650k/1.1MHz	3.3mA	<1	3×3 QFN-16	E, I	APD Bias or General Purpose High Voltage (to 90V) Boost	\$3.45
LT3463A		2.4	15	±40	0.26 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4 & 0.25	–	COT	40	<1	3×3 DFN-10	E	Dual 250mA/400mA, Internal Schottkys. Boost/Inverter Converters in Single Package — Ideal for CCD Biasing	\$1.95
LT3472		2.2	16	±34	0.26 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4 & 0.35	–	1.2MHz	2.8mA	<1	3×3 DFN-10	E	Dual 350mA/400mA, Internal Schottkys. Boost/Inverter Converters in Single Package — Ideal for CCD Biasing	\$1.95
LT3465		2.7	16	30	0.26 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4	–	1.2/2.7MHz	2mA	<1	ThinSOT	E	Integrated Schottky Ideal for White LEDs	\$1.35
LTC3525	0.5	0.85/1	4	3/3.3/5	0.26 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4	yes	APC	7	<1	SC70-6	E	Output Disconnect, Fixed 3V, 3.3V or 5V Options, Only 3 External Components, “D-3.3” Connects V <sub>IN</sub> to V <sub>OUT</sub> When Shut Down	\$1.81
LTC3525L-3	0.5	0.7/0.88	4	3.3	0.26 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4	yes	APC	7	<1	SC70-6	E	Output Disconnect, Only 3 External Components, 0.7V Start-Up	\$1.90
LT1610		0.9/1	8	28	0.29 * V <sub>IN</sub> /V <sub>OUT</sub>	0.45	–	1.7MHz	30	<1	MSOP-8, SO-8	I	Operates with V <sub>IN</sub> = 1V, V <sub>OUT</sub> to 30V	\$1.65
LTC3526/B	0.5	0.85/1	5	5.25	0.325 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5	yes	1.0MHz or 2MHz	9/250	<1	2×2 DFN-6	E	Ideal for 1-/2-Cell Applications, Output Disconnect, “B” Disables Burst Mode Operation, “-2” Has Higher 2MHz Switching Frequency	\$1.75
LTC3526L/B	0.5	0.68/0.8	5	5.25	0.325 * V <sub>IN</sub> /V <sub>OUT</sub>	0.55	yes	1.0MHz	9/250	<1	2×2 DFN-6	E	Similar to LTC3526, “L” Has 0.7V Minimum Start-Up and Guaranteed Operation Down to V <sub>IN</sub> = 0.5V.	\$1.85
LTC3427		1.8	5	5.25	0.325 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5	yes	1.25MHz	350	<1	2×2 DFN-6	E	Ideal for Two Cell Applications, Low Noise Current Mode PWM, Output Disconnect	\$1.75
LT1316		1.5/1.65	12	30	0.33 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5	–	COT	33	<3	MSOP-8, SO-8	I	Programmable Input Current Limit, Low Battery Detect	\$2.45
LT1109A		2	9	50	0.33 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5	–	120kHz	360	<1	SO-8, DIP-8, TO-92	I	Logic Controlled Shutdown, Adj or Fixed 5V, 12V Output	\$2.35
LT1109		1.6	20	50	0.33 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5	–	120kHz	320	<1	SO-8, DIP-8, TO-92	I	Logic Controlled Shutdown, Adj or Fixed 5V, 12V Output	\$2.35
LT1307/B		0.92/1	5	30	0.33 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5	–	600kHz	50/1.1mA	<1	MSOP-8, DIP-8, SO-8	I	/B Version Disables Burst Mode Operation, Low Battery Detector	\$2.05
LT1613		0.9/1.1	10	34	0.36 * V <sub>IN</sub> /V <sub>OUT</sub>	0.55	–	1.4MHz	3mA	<1	ThinSOT	E	Operates with V <sub>IN</sub> = 1.1V, V <sub>OUT</sub> to 34V, Ideal for SEPIC	\$1.60
LT1932		1	10	36	0.36 * V <sub>IN</sub> /V <sub>OUT</sub>	0.55	–	1.2MHz	1.2mA	<1	ThinSOT	E	Low Noise, 80% Efficiency, Ideal for 4-6 LEDs, Regulates for V <sub>IN</sub> >V <sub>OUT</sub>	\$1.75
<b>LT3535</b>	<b>0.5</b>	<b>0.68/0.8</b>	<b>5</b>	<b>5.25</b>	<b>0.36 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.55×2</b>	<b>yes</b>	<b>1MHz</b>	<b>9</b>	<b>&lt;1</b>	<b>3×3 DFN-12</b>	<b>E</b>	<b>Dual Micropower Boost Converter with Output Disconnect, Soft-Start. Regulates For V<sub>IN</sub>&gt;V<sub>OUT</sub></b>	<b>\$2.95</b>
LTC3523/-2		1.6/1.8	5.5	5.5	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	yes	1.2/2.4MHz	45	<1	3×3 QFN-16	E	Synchronous Boost and Buck Converter, “-2” Has 2.4MHz Switching	\$2.95
LTC3537	0.5	0.68/0.8	5.25	5.5	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	yes	2.2MHz	15	<1	3×3 QFN-16	E	Synchronous Boost Converter with Output Disconnect and 100mA LDO	\$2.40
LTC3400/B	0.5	0.85/1	5	6	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	–	1.2MHz	19/300	<1	ThinSOT	E	/B Version Disables Burst Mode Operation, Logic Controlled Shutdown	\$1.95
LTC3429/B	0.5	0.85/1	4.4	5	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	yes	500kHz	20/380	<1	ThinSOT	E	/B Version Disables Burst Mode Operation, Output Disconnect in Shutdown	\$1.95
LT1317/B		1.5	12	30	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	–	600kHz	100/4.8mA	<1/3	MSOP-8, SO-8	I	/B Version Disables Burst Mode Operation, Low Battery Detector	\$2.25
LT3495/B		2.5	16	40	0.42 * V <sub>IN</sub> /V <sub>OUT</sub>	0.65	–	APC	60	<1	3×2 DFN-10	E	Output Disconnect, Low Noise, /B Version Disables Burst Mode Operation	\$1.75
LTC3499/B		1.6/1.8	5.5	6	0.49 * V <sub>IN</sub> /V <sub>OUT</sub>	0.75	yes	1.2MHz	20/300	<1	3×3 DFN-8, MSOP-8	E	/B Version Disables Burst Mode Operation, Reverse Battery Protection, Output Disconnect	\$2.15
LT1300		1.8	10	20	0.49 * V <sub>IN</sub> /V <sub>OUT</sub>	0.75	–	155kHz	120	<10	DIP-8, SO-8	I	Programmable Peak Current Limit, 5V or 3.3V Output	\$2.45
LT1301		1.8	10	20	0.49 * V <sub>IN</sub> /V <sub>OUT</sub>	0.75	–	155kHz	120	<10	DIP-8, SO-8	I	Programmable Peak Current Limit, 5V or 12V Output	\$2.45
LT1303		1.8	10	25	0.49 * V <sub>IN</sub> /V <sub>OUT</sub>	0.75	–	155kHz	120	<10	DIP-8, SO-8	I	Programmable Peak Current Limit, 5V or Adj Output, Low Batt Detect	\$2.45
LT1304		1.5	8	25	0.52 * V <sub>IN</sub> /V <sub>OUT</sub>	0.8	–	300kHz	120	<10	SO-8	I	Programmable Peak Current Limit, Low Battery Detect	\$2.45

† Primary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# MONOLITHIC BOOST (STEP-UP)

Part Number	V <sub>IN</sub> Min Operating <sup>(1,2)</sup> (V)	V <sub>IN</sub> Min Start-Up <sup>(2)</sup> (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Max (V)	Output Current <sup>(3)</sup> (A)	† Switch Current (A)	Synchronous	Switching Frequency <sup>(4)</sup>	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
	0.5 Typ	0.7/0.88	5.25	5.5	0.52 * V <sub>IN</sub> /V <sub>OUT</sub>	0.8 & 0.4			12	<1				
LT3572		2.7	10	40	0.58 * V <sub>IN</sub> /V <sub>OUT</sub>	0.9	yes	500kHz to 2.5MHz	3.4mA	<1	4×4 QFN-20	E	Dual Piezo Driver and Boost Regulator. Ext Frequency Synchronization	\$2.75
LT3487		2.3	16	28	0.59 * V <sub>IN</sub> /V <sub>OUT</sub>	0.9 & 0.75	–	2MHz	3.7mA	<5.3	3×3 DFN-10	E	Dual Boost/Inverter, Internal Schottkys	\$2.30
LTC3528/B/B-2	0.5 Typ	0.7/0.88	5.5	5.25	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	yes	1MHz/2MHz	12/300	<1	3×2 DFN-8	E	Output Disconnect in Shutdown, Regulates with V <sub>IN</sub> >V <sub>OUT</sub> . “B” Version Disables Burst Mode Operation, “B-2” Version Switches at 2MHz	\$1.95
LTC3401	0.5	0.85/1	5	6	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	yes	Up to 3MHz	38	<1	MSOP-10	E	Synchronous, Ext Frequency Synchronization, See LTC3528 for New Designs	\$2.60
LTC3423	0.5	0.9	5	6	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	yes	Up to 3MHz	38	<1	MSOP-10	E	Ext Frequency Synchronization, Output Voltages of 1.5V to 2.6V Require V <sub>DD</sub> >=2.7V	\$2.60
LT1073		1/1.15	12.6	50	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	–	19kHz	95	<1	DIP-8, SO-8		Can Use as Step-Up or Step-Down, Adj Current Limit, Low Battery Detect. In Boost Mode, V <sub>IN</sub> Max=12.6V	\$3.00
LT1173		2	12.6	50	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	–	23kHz	110	<1	DIP-8, SO-8		Can use as Step-Up or Step-Down, 5V or 12V or Adj Output	\$2.30
LT1949		1.5/1.7	12	30	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	–	600kHz/1.1MHz	4.5mA	<25	MSOP-8, SO-8	E, I	Operates with VIN to 1.5V, Low Battery Detect	\$2.25
LT1107		2	30	50	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	–	63kHz	320	<1	DIP-8, SO-8	I	Programmable Current Limit, Fixed V <sub>OUT</sub> 5V or 12V or Adj	\$2.25
LT1930/A		2.6	16	34	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	–	1.2MHz/2.2MHz	4.2mA/ 5.5mA	<1	ThinSOT	E	Pin for Pin Compatible with LT1613, Wide V <sub>IN</sub> Range	\$1.90
LT1533		2.7	23	30	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	–	250kHz	12	<1	SO-16	I	Greatly Reduced Conducted/Emitted EMI, (<100μV <sub>p-p</sub> ), Independent Control of Switch Voltage/Current Slew Rates	\$4.65
LT1082		3	75	100	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	–	60kHz	4.5mA	<120	DIP-8, DD-5, TO-220	I	V <sub>IN</sub> : 3V to 75V, Isolated Flyback Regulation	\$4.40
LT1947		2.7	8	30	0.72 * V <sub>IN</sub> /V <sub>OUT</sub>	1.1	–	3MHz	9.5mA	<1	MSOP-10/E	E	Triple Output for TFT-LCD Applications	\$2.50
LT3467/A		2.4	16	40	0.71 * V <sub>IN</sub> /V <sub>OUT</sub>	1.1	–	1.3/2.1MHz	1.2mA	<1	ThinSOT	E	Internal Soft-Start	\$1.75
<b>LTC3125</b>	<b>1.8</b>	<b>5.5</b>	<b>5.25</b>	<b>0.78 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>1.2</b>	<b>yes</b>	<b>1.6MHz</b>	<b>15</b>	<b>&lt;1</b>	<b>2×3 DFN-8</b>	<b>E</b>	<b>Programmable Avg Input Current Limit, Output Disconnect, Soft-Start; Supports GSM/GPRS Burst Currents</b>		<b>\$2.25</b>
LT3473/A		2.2	16	36	0.78 * V <sub>IN</sub> /V <sub>OUT</sub>	1.2	–	1.2MHz	150	<1	3×3 DFN-8, 4×3 DFN-12	E	Integrated Output Disconnect, Schottky Diode, “A” Version Has Two NPN Transistors for Intermediate Bias Voltages	\$1.95
LT1072/HV		3	40/60	40/60	0.81 * V <sub>IN</sub> /V <sub>OUT</sub>	1.25	–	40kHz	6mA	<50	TO-220, DIP-8, SO-8, SO-16	I	V <sub>IN</sub> : 3V to 60V, Operates in Nearly All Switching Topologies	\$2.35
LT1172/HV		3	40/60	40/60	0.81 * V <sub>IN</sub> /V <sub>OUT</sub>	1.25	–	100kHz	6mA	<50	DIP-8, SO(W)-16, TO-220, DD-5	I	V <sub>IN</sub> : 3V to 60V, Operates in Nearly All Switching Topologies, Synchronizable	\$2.35
LT1572		3	30	60	0.81 * V <sub>IN</sub> /V <sub>OUT</sub>	1.25	–	140kHz	6mA	<50	SO-16		V <sub>IN</sub> : 3V to 30V, Operates in Nearly All Switching Topologies	\$3.95
LTC3458L		1.5	4.3	6	0.91 * V <sub>IN</sub> /V <sub>OUT</sub>	1.4	yes	Up to 1.5MHz	15	<1	4×3 DFN-12	E	Output Up to 6V, Output Disconnect, Synchronizable	\$3.30
LTC3458		1.5	4	8	0.91 * V <sub>IN</sub> /V <sub>OUT</sub>	1.4	yes	Up to 1.5MHz	15	<1	4×3 DFN-12	E	Output Up to 7.5V, Output Disconnect, Synchronizable	\$3.30
<b>LTC3529</b>	<b>1.8</b>	<b>5</b>	<b>5</b>	<b>0.98 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>1.5</b>	<b>yes</b>	<b>1.5MHz</b>	<b>1mA</b>	<b>&lt;1</b>	<b>2×3 DFN-8</b>	<b>E</b>	<b>Fixed 5V Output, Output Disconnect, Fault Protection, Targets USB OTG, 5V @ 500mA From Single Li-Ion Battery</b>		<b>\$2.05</b>
LTC3422	0.5	0.88/1	4.5	5.25	0.98 * V <sub>IN</sub> /V <sub>OUT</sub>	1.5	yes	100kHz to 3MHz	25	<1	3×3 DFN-10	E	Output Disconnect, Inrush Current Limiting, Synchronizable	\$2.95
LT1618		1.6	18	36	0.98 * V <sub>IN</sub> /V <sub>OUT</sub>	1.5	–	1.4MHz or 550kHz	1.8mA	<1	MSOP-10, DFN-10	E	Constant Current/Voltage	\$1.75
LT1961		3	25	34	0.98 * V <sub>IN</sub> /V <sub>OUT</sub>	1.5	–	1.25MHz	0.9mA	<6	MSOP-8E	I	Synchronizable	\$1.69
LT1946/A		2.45/2.6	16	36	0.98 * V <sub>IN</sub> /V <sub>OUT</sub>	1.5	–	1.2/2.7MHz	3.2mA	<1	MSOP-8	E	Integrated Soft-Start, Ideal for TFT-LCD Applications	\$1.75
LT1372/LT1377		2.7	30	30	0.98 * V <sub>IN</sub> /V <sub>OUT</sub>	1.5	–	500kHz/1MHz	4mA	<12	DIP-8, SO-8	I	Regulates Positive or Negative Outputs, Synchronizable	\$3.30
LT1373/HV		2.7	30	35/42	0.98 * V <sub>IN</sub> /V <sub>OUT</sub>	1.5	–	250kHz	1mA	<12	DIP-8, SO-8	I	Regulates Positive or Negative Outputs, Synchronizable	\$3.50
LT1310		2.75	18	35	0.98 * V <sub>IN</sub> /V <sub>OUT</sub>	1.5	–	Up to 4.5MHz	12mA	<1	MSOP-10E	E	Low Noise Output, Synchronizable/Constant Frequency, Thermally Enhanced Package	\$2.85
LTC3539	0.5	0.7/0.88	5	5.25	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	yes	1.0/2.0MHz	10	<1	2×3 DFN-8	E	Output Disconnect in Shutdown, “-2” Uses 2MHz Switching Frequency	\$2.50
LT3580		2.5	32	42	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	–	200kHz to 2.5MHz	1mA	<1	3×3 DFN-8, MSOP-8	I	42V, 2A Switch for Boost or Inverting, Synchronizable	\$2.00
LTC3426		1.6	4.3	5.5	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	–	1.2MHz	600	<1	ThinSOT	E	2A Switch in ThinSOT	\$1.75
LT1935		2.3	16	40	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	–	1.2MHz	3mA	<1	ThinSOT	E	Soft-Start, Pin-to-Pin Comp with LT1930	\$2.44
LTC3402	0.5	0.85/1	5	6	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	yes	Up to 3MHz	38	<1	MSOP-10	E	Synchronous Rectification, Ext Frequency Synchronization, Up to 97% Efficiency	\$3.50
LTC3424	0.5	2.7	5	6	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	yes	Up to 3MHz	38	<1	MSOP-10	E	Output Voltages of 1.5V to 2.6V Require V <sub>DD</sub> >=2.7V, Ext Frequency Synchronization	\$3.50
LT1308A/B		1	10	34	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	–	600kHz	100	<5	SO-8	I	Ideal for Single Cell AA, /B Version disables Burst Mode Operation, Low Battery Detector	\$3.25
LT1302		2	8	25	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	–	400kHz	100	<15	SO-8, DIP-8		Logic Controlled Shutdown, Adj or Fixed 5V	\$3.25
LT1534		2.7	23	35	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	–	250kHz	12mA	<12	SO-16	I	Greatly Reduced Conducted/Emitted EMI, Independent Control of Switch Voltage/Current Slew Rates	\$3.95
LT1943		4.5	22	40	1.56 * V <sub>IN</sub> /V <sub>OUT</sub>	2.4	–	1.2MHz	10mA	<1	TSSOP-28E	E	High Current Quad Output Regulator for TFT LCD Displays	\$4.75
LT3489		2.4/2.6	16	38	1.625 * V <sub>IN</sub> /V <sub>OUT</sub>	2.5	–	2.2MHz	4mA	<1	MSOP-8E	E	40V, 2.5A Switch at 2.2MHz	\$1.95
LT1071/HV		3	40/60	40/60	1.63 * V <sub>IN</sub> /V <sub>OUT</sub>	2.5	–	40kHz	6mA	<50	TO-220	I	V <sub>IN</sub> : 3V to 60V, Operates in Nearly All Switching Topologies	\$4.60

† Primary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Part Number	V <sub>IN</sub> Min Operating <sup>(1,2)</sup> (V)	V <sub>IN</sub> Min Start-Up <sup>(2)</sup> (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Max (V)	Output Current <sup>(3)</sup> (A)	† Switch Current (A)	Synchronous	Switching Frequency <sup>(4)</sup>	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LT1171/HV		3	40/60	65/75	1.63 * V <sub>IN</sub> /V <sub>OUT</sub>	2.5	–	100kHz	6mA	<50	DIP-8, SO-8, SO(W)-16, TO-220, DD-5	I	V <sub>IN</sub> : 3V to 60V, Operates in Nearly All Switching Topologies, Synchronizable	\$4.60
LTC3421	0.5	0.88/1	4.5	5.25	1.95 * V <sub>IN</sub> /V <sub>OUT</sub>	3	yes	Up to 3MHz	12	<1	4x4 QFN-24	E	Integrated Output Disconnect, Programmable Soft-Start, Current Limit. Ext Frequency Synchronization	\$3.50
LT3436		3	25	34	1.95 * V <sub>IN</sub> /V <sub>OUT</sub>	3	–	800kHz	0.9mA	<1	TSSOP-16E	E	3A, 34V Internal Switch, Ext Frequency Synchronization From 1MHz to 1.4MHz	\$2.75
LT3479		2.5	24	40	1.95 * V <sub>IN</sub> /V <sub>OUT</sub>	3	–	200kHz to 3.5MHz	6.5mA	<1	TSSOP-20E, 4x3 QFN-20	E	3A, 40V Internal Switch, Regulates Positive or Negative Outputs	\$3.00
LT3477		2.5	25	42	1.95 * V <sub>IN</sub> /V <sub>OUT</sub>	3	–	200kHz to 3.5MHz	5mA	<1	TSSOP-20E, 4x4 QFN-20	E	3A, 42V Internal Switch, Ideal for Buck-Boost or Buck-Boost Configuration of High Current LEDs	\$3.15
LT1371/HV		2.7	30	35/42	1.95 * V <sub>IN</sub> /V <sub>OUT</sub>	3	–	500kHz	4mA	<12	DD-7, TO-220, SO(W)-20	I	Regulates Positive or Negative Outputs, Synchronizable	\$5.15
LT1269/LT1271		3.5	30	60	2.60 * V <sub>IN</sub> /V <sub>OUT</sub>	4	–	100kHz/60kHz	2	<100	DD-5, TO-220, SO(W)-20		V <sub>IN</sub> : 3.5V to 30V, Flyback Has Fully Floating Outputs	\$5.20
LTC3428		1.6	4.5	5.25	2.60 * V <sub>IN</sub> /V <sub>OUT</sub>	4	–	2MHz	1.3mA	<1	3x3 DFN-10	E	2-Phase (1MHz Per Phase) Operation for Small Size, Low Ripple	\$3.50
LTC3425	0.5	0.88/1	4.5	5.25	3.25 * V <sub>IN</sub> /V <sub>OUT</sub>	5	yes	8MHz	12	<1	5x5 QFN-32	E	4-Phase Operation for Small Size, Low Ripple	\$4.38
LT1070/HV		3	40/60	40/60	3.25 * V <sub>IN</sub> /V <sub>OUT</sub>	5	–	40kHz	6mA	<50	TO-220	I	V <sub>IN</sub> : 3V to 60V, Operates in Nearly All Switching Topologies	\$4.25
LT1170/HV		3	40/60	40/60	3.25 * V <sub>IN</sub> /V <sub>OUT</sub>	5	–	100kHz	6mA	<50	DIP-8, SO-8, SO(W)-16, TO-220, DD-5	I	V <sub>IN</sub> : 3V to 60V, Operates in nearly all Switching Topologies, Synchronizable	\$5.60
LT1370/HV		2.7	30	35/42	3.90 * V <sub>IN</sub> /V <sub>OUT</sub>	6	–	500kHz	4.5mA	<12	DD-7, TO-220	I	Regulates Positive or Negative Outputs, Synchronizable	\$6.05
LT1268/B		3	30	60	4.88 * V <sub>IN</sub> /V <sub>OUT</sub>	7.5	–	150kHz	7mA	<100	DD-5, TO-220		V <sub>IN</sub> : 3V to 30V, External Synchronization	\$6.25
LT1270/A		3.5	30	60	6.40 * V <sub>IN</sub> /V <sub>OUT</sub>	8/10	–	60kHz	7mA	<100	TO-220		V <sub>IN</sub> : 3.5V to 30V, Flyback Has Fully Floating Outputs	\$5.60

† Primary Sort Column

Notes:

1. If Different than V<sub>IN</sub> Min Start-Up
2. Two numbers indicate typical/guaranteed values
3. Output current is calculated using the equation  $0.65 \times I_{SWITCH} \times (V_{IN}/V_{OUT}) = I_{OUT}$ . This value is an estimate and can vary depending on external component choices.
4. COT = Constant Off Time, APC = Adaptive Power Control, VOT=Variable Off Time & Variable Peak Current

MICROPOWER BOOST REGULATORS

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Max (V)	Output Current <sup>(1)</sup> (A)	† Switch Current (A)	Synchronous	Switching Frequency <sup>(2)</sup>	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (μA)	Shut-Down Current (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
<b>LT8410</b>	<b>2.5</b>	<b>16</b>	<b>40</b>	<b>0.013 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.006/0.02</b>	–	<b>VOT</b>	<b>9</b>	<b>&lt;1</b>	<b>2x2 DFN-8</b>	<b>E, I</b>	<b>Integrated Schottky, Output Disconnect, 0μA Shutdown Current, 0V Protection, Comparator on SHDN Pin. “-1” Reduces Switch Current to 6mA</b>	<b>\$1.75</b>
LTC3459	1.5	5.5	10	0.05 * V <sub>IN</sub> /V <sub>OUT</sub>	0.075	–	COT	10	<1	ThinSOT	E	Synchronous Rectification, and Output Disconnect	\$1.95
LT1615-1	1	15	36	0.07 * V <sub>IN</sub> /V <sub>OUT</sub>	0.1	–	COT	20	<1	ThinSOT	E	Operates with V <sub>IN</sub> to 1V, -1 Version Has 100mA Current Limit	\$1.65
LT3464	2.3	10	34	0.07 * V <sub>IN</sub> /V <sub>OUT</sub>	0.12	–	COT	25	<1	ThinSOT	E	Integrated Schottky Diode and Output Disconnect	\$1.50
LT3494	2.3	16	38	0.12 * V <sub>IN</sub> /V <sub>OUT</sub>	0.18	–	APC	65	<1	3x2 DFN-6	E	Low Noise, Integrated Schottky Diode, Soft-Start, Output Disconnect	\$1.45
LT1944-1	1	15	36	0.12 * V <sub>IN</sub> /V <sub>OUT</sub>	0.18x2	–	COT	20	<1	MSOP-10	E	Dual 350mA and 150mA Boost Converters in Single Package	\$2.00
LT3495/B	2.3	16	40	0.27 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35	–	APC	60	<1	3x2 DFN-10	E	Low Noise, /B Version Disables Burst Mode	\$1.75
LT1615	1.2	15	36	0.23 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35	–	COT	20	<1	ThinSOT	E	Operates with V <sub>IN</sub> to 1V, LT1615 Has 350mA Current Limit	\$1.65
LT3494A	2.3	16	38	0.27 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35	–	APC	65	<1	3x2 DFN-6	E	Low Noise, Integrated Schottky Diode, Soft-Start, Output Disconnect	\$1.45
LT1944	1	15	36	0.23 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35x2	–	COT	20	<1	MSOP-10	E	Dual 350mA Boost Converters in Single Package	\$2.00
LT1945	1	15	±36	0.23 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35x2	–	COT	20	<1	MSOP-10	E	Dual 350mA, @ 34V Boost Converters in Single Package	\$2.06
LTC3525	0.85	4	3/3.3/5	0.26 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4	–	APC	7	<1	SC70-6	E	Output Disconnect, Fixed 3V, 3.3V or 5V Output. Only 3 Externals. “L” Version Has Guaranteed 0.88V Start-Up	\$1.81
LTC3525L	0.85	4	3	0.26 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4	–	APC	7	<1	SC70-6	E	Output Disconnect, Fixed 3V Output. Only 3 Externals. “L” Version Has Guaranteed 0.88V Start-Up	\$1.90
LT3463/A	2.3	15	±34	0.29 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4/0.25	–	COT	40	<1	3x3 DFN-10	E	Dual 250mA/250mA (400mA for “A”), Internal Schottkys. Boost/Inverter Converters in Single Package—Ideal for CCD Biasing	\$1.95
LT1610	1	8	30	0.29 * V <sub>IN</sub> /V <sub>OUT</sub>	0.45	–	1.7MHz	30	<1	MSOP-8, SO-8	I	Operates with V <sub>IN</sub> to 1V, V <sub>OUT</sub> to 30V	\$1.65
LTC3526/B	0.85	5	5.25	0.325 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5	yes	1.0MHz	9/250	<1	2x2 DFN-6	E	Ideal for Dual Cell Applications	\$1.75
LT1316	1.5	12	30	0.33 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5	–	COT	35	<3	MSOP-8, SO-8	I	Programmable Input Current Limit, Low Battery Detect	\$2.45
LT1307	1	12	30	0.33 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5	–	600kHz	50	<1	MSOP-8, DIP-8, SO-8	I	/B Version Disables Burst Mode, Low Battery Detector	\$2.05
LTC3427	1.8	5	5.25	0.33 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5	yes	1.2MHz	350	<1	2x2 DFN-6	E	2x2 DFN, Output Disconnect, Inrush Current Limit	\$1.75
<b>LTC3535</b>	<b>0.5</b>	<b>5</b>	<b>5.25</b>	<b>0.36 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.55x2</b>	<b>yes</b>	<b>1MHz</b>	<b>9</b>	<b>&lt;1</b>	<b>3x3 DFN-12</b>	<b>E</b>	<b>Dual Micropower Boost Converter with Output Disconnect, Soft-Start. Regulates For V<sub>IN</sub> &gt; V<sub>OUT</sub></b>	<b>\$2.95</b>

† Primary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

Space, Military, Harsh Envir.

Reference Material



# MICROPOWER BOOST REGULATORS

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Max (V)	Output Current <sup>(1)</sup> (A)	† Switch Current (A)	Synchronous	Switching Frequency <sup>(2)</sup>	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Shut-Down Current (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3523/-2	1.8	5.5	5.5	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	yes	1.2/2.4MHz	45	<1	3×3 QFN-16	E	Synchronous Boost and Buck Converter, "-2" Has 2.4MHz Switching	\$2.95
LTC3537	0.7	5.25	5.5	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	yes	2.2MHz	30	<1	3×3 QFN-16	E	Synchronous Boost Converter and LDO	\$2.40
LTC3400/B	0.85	5	6	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	yes	1.2MHz	19	<1	ThinSOT	E	/B Version Disables Burst Mode Operation, Logic Controlled Shutdown	\$1.95
LTC3429/B	0.5	4.4	5	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	yes	500kHz	20/380	<1	ThinSOT	E	/B Version Disables Burst Mode Operation, Output Disconnect in Shutdown	\$1.95
LT1317	1.5	12	30	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	-	600kHz	160	<1	MSOP-8, SO-8	I	/B Version Disables Burst Mode Operation, Low Battery Detector	\$2.25
LT3495-1/B-1	2.3	16	40	0.42 * V <sub>IN</sub> /V <sub>OUT</sub>	0.65	-	APC	60	<1	3×2 DFN-10	E	Low Noise, /B Version Disables Burst Mode Operation	\$1.75
LT1300	1.8	10	20	0.49 * V <sub>IN</sub> /V <sub>OUT</sub>	0.75	-	155kHz	120	<10	DIP-8, SO-8	I	Programmable Peak Current Limit, Programmable 3.3V or 5V Output	\$2.45
LT1301	1.8	10	20	0.49 * V <sub>IN</sub> /V <sub>OUT</sub>	0.75	-	155kHz	120	<10	DIP-8, SO-8	I	Programmable Peak Current Limit, Programmable 5V or 12V Output	\$2.45
LT1303	1.8	10	25	0.49 * V <sub>IN</sub> /V <sub>OUT</sub>	0.75	-	155kHz	120	<10	DIP-8, SO-8	I	Programmable Peak Current Limit, Programmable 5V or Adj. Output	\$2.45
LTC3499/B	1.8	5.5	6	0.49 * V <sub>IN</sub> /V <sub>OUT</sub>	0.75	yes	1.2MHz	20/300	<1	DFN-8, MSOP-8	E	/B Version Disables Burst Mode Operation, Reverse Battery Protection	\$2.15
LT1304	1.5	8	25	0.52 * V <sub>IN</sub> /V <sub>OUT</sub>	0.8	-	300kHz	120	<10	SO-8	I	Programmable Peak Current Limit, Low Battery Detect	\$2.45
LTC3527	0.7	5.25	5.5	0.52 * V <sub>IN</sub> /V <sub>OUT</sub>	0.8/0.4	yes	1.2 or 2.2MHz	12	<1	3×3 QFN-16	E	Dual Synchronous Outputs, "-1" Quickly Discharges V <sub>OUT</sub> when Entering Shutdown	\$2.95
LTC3528/B	0.7	5.5	5.25	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	yes	1.0MHz	12/300	<1	3×2 DFN-8	E	/B Version Disables Burst Mode Operation, Output Disconnect in Shutdown	\$2.40
LTC3401	0.5	5	6	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	yes	3MHz	38	<1	MSOP-10	E	Synchronous Rectification, Up to 97% Efficiency	\$2.60
LTC3423	0.5	5	6	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	yes	3MHz	38	<1	MSOP-10	E	For Output Voltages of 1.5V to 2.6V, Requires V <sub>DD</sub> of 2.7V	\$2.60
LT1073	1	30	50	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	-	19kHz	95	<1	DIP-8, SO-8	I	Can Use as Step-Up or Step-Down, Adj Current Limit, Low Battery Detect	\$3.00
LT1173	1	30	50	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	-	23kHz	110	<1	DIP-8, SO-8	I	Can Use as Step-Up or Step-Down, 5V or 12V or Adj Output	\$2.30
LT1533	2.7	23	30	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	-	250kHz	12	<1	SO-16	I	Greatly Reduced Conducted/Emitted EMI, (<100μV <sub>pp</sub> ), Independent Control of Switch Voltage/Current Slew Rates	\$4.65
<b>LTC3125</b>	<b>1.8</b>	<b>5.5</b>	<b>5.25</b>	<b>0.78 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>1.2</b>	<b>yes</b>	<b>1.6MHz</b>	<b>15</b>	<b>&lt;1</b>	<b>2×3 DFN-8</b>	<b>E</b>	<b>Programmable Avg Input Current Limit, Output Disconnect, Soft-Start; Supports GSM/GPRS Burst Currents</b>	<b>\$2.25</b>
LT3473/A	2.2	16	36	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1.2	-	1.2MHz	150	<1	3×3 DFN-8, 4×3 DFN-12	E	Integrated Output Disconnect, Schottky Diode; "A" Version Has Two NPN Transistors for Intermediate Bias Voltages	\$1.95
LTC3458	1.6	4.3	7.5	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1.4	yes	1.5MHz	15	<1	4×3 DFN-12	E	Outputs Up to 7.5V	\$3.30
LTC3458L	1.6	4.3	6	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1.4	yes	1.5MHz	15	<1	4×3 DFN-12	E	Outputs Up to 6V	\$3.30
LTC3422	0.85	4.5	5.25	0.98 * V <sub>IN</sub> /V <sub>OUT</sub>	1.5	yes	3MHz	25	<1	3×3 DFN-10	E	Output Disconnect, Inrush Current Limiting	\$2.95
LTC3539	0.7	5	5.25	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	yes	1.0/2.0MHz	10	<1	2×3 DFN-8	E	Output Disconnect in Shutdown, "-2" Uses 2MHz Switching Frequency	\$2.50
LTC3402	0.5	5	6	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	yes	3MHz	38	<1	MSOP-10	E	Synchronous Rectification, Up to 97% Efficiency	\$3.50
LTC3424	0.5	5	6	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	yes	3MHz	38	<1	MSOP-10	E	For Output Voltages of 1.5V to 2.6V, Requires V <sub>DD</sub> of 2.7V	\$3.50
LT1308A/B	1	10	30	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	-	600kHz	100	<5	SO-8	I	Ideal for Single Cell AA, /B Version Disables Burst Mode Operation, Low Battery Detector	\$3.25
LT1302	2	10	25	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	-	400kHz	100	<15	SO-8, DIP-8	I	Logic Controlled Shutdown, Adj or Fixed 5V	\$3.25
LTC3421	0.5	4.5	5.25	1.95 * V <sub>IN</sub> /V <sub>OUT</sub>	3	yes	3MHz	12	<1	4×4 QFN-24	E	Integrated Output Disconnect, Programmable Soft-Start, Current Limit	\$3.50
LTC3425	0.5	4.5	5.25	3.25 * V <sub>IN</sub> /V <sub>OUT</sub>	5	yes	8MHz	16	<1	5×5 QFN-32	E	4-Phase Operation for Small Size, Low Ripple	\$4.38

† Primary Sort Column

- Notes:  
 1. Output current is calculated using the equation  $0.65 \times I_{SWITCH} \times (V_{IN}/V_{OUT}) = I_{OUT}$ . This value is an estimate and can vary depending on external component choices.  
 2. COT = Constant Off Time, APC = Adaptive Power Control, VOT = Variable Off Time & Variable Peak Current

# BOOST CONTROLLERS (STEP-UP)

Part Number	V <sub>IN</sub> Min (V)	† V <sub>IN</sub> Max (V)	V <sub>OUT</sub> <sup>(1)</sup> Max (V)	† Output Current <sup>(1)</sup> (A)	Synchronous	Switching Frequency	Package	Extended Temp Range	Comments	Price 1K Qty
LTC1700	0.9	5	6	3	yes	550kHz	MSOP-10	E	Synchronizable to 750kHz	\$2.60
LT3724	4	60	36	5	-	200kHz	TSSOP-16	I	Also Buck and SEPIC	\$3.10
LTC3873	8.8	75 <sup>(1)</sup>	Up to 60V without R <sub>SENSE</sub> and higher with R <sub>SENSE</sub>	5	-	200kHz	ThinSOT-8, 3×2 DFN-8	E	Optional R <sub>SENSE</sub> , Constant Frequency	\$1.25
LTC3873-5	4	75 <sup>(1)</sup>	Up to 60V without R <sub>SENSE</sub> and higher with R <sub>SENSE</sub>	5	-	200kHz	ThinSOT-8, 3×2 DFN-8	E, I	Optional R <sub>SENSE</sub> , Constant Frequency	\$1.25
LTC3805	8.4	75 <sup>(1)</sup>	10V and higher	5	-	70kHz to 700kHz	MSOP-10, 3×2 DFN-10	E	Flyback, Boost and SEPIC, Adj Frequency and Synchronizable	\$1.39
LTC3805-5	4.5	75 <sup>(1)</sup>	6V and higher	5	-	70kHz to 700kHz	MSOP-10, 3×2 DFN-10	E, I	Flyback, Boost and SEPIC, Adj Frequency and Synchronizable	\$1.39
LTC1872/B	2.5	9.8	3, 5, 12 and higher	10	-	550kHz	ThinSOT	E	Burst Mode Operation at Light Load, ("B" Version Has Continuous Operation at Light Load)	\$1.80
LTC3872	2.75	9.8	3, 5, 12 and higher	10	-	550kHz	ThinSOT, 3×2 DFN-8	E	Pulse-Skipping at Light Load, No R <sub>SENSE</sub>	\$1.80
LT1619	1.9	18	3, 5, 12 and higher	10	-	300kHz to 550kHz	MSOP-8, SO-8	E	Synchronizable to 550kHz	\$1.99

† Primary Sort Column  
 †† Secondary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO



# BOOST CONTROLLERS (STEP-UP)

Part Number	V <sub>IN</sub> Min (V)	† V <sub>IN</sub> Max (V)	V <sub>OUT</sub> (1) Max (V)	† Output Current (A)	Synchronous	Switching Frequency	Package	Extended Temp Range	Comments	Price 1K Qty
LT1738	4	20	3, 5, 12 and higher	10	–	20kHz to 250kHz	SSOP-20	E, I	Ultralow Noise	\$4.10
LT1950	3	25 <sup>(1)</sup>	5, 12, 24 and higher	10	–	100kHz to 500kHz	SSOP-16	E, I	Boost, Flyback and Forward Controller; Transformer and MOSFET Protection	\$2.90
LTC1871-7	2.5	36	3, 5, 12 and higher	10	–	50kHz to 1MHz	MSOP-10	E, I	Drives 6V-Gate N-Channel MOSFETs for High Voltage Telecom and Automotive Apps.; Frequency Set with Resistor	\$2.55
LTC1871	2.5	36	3, 5, 12 and higher	10	–	50kHz to 1MHz	MSOP-10	E, I, H	Frequency Set with Resistor	\$2.55
LTC1871-1	2.5	36	3, 5, 12 and higher	10	–	50kHz to 1MHz	MSOP-10	E, I	Frequency Set with Resistor, Burst Mode Operation Starts at a Lighter Load	\$2.55
LT1680	4	60	12 and higher	10	–	200kHz	SO(W)-16	I	High Input Voltage, Synchronizable	\$4.00
LTC3703-5	4.1	60	60	10	yes	100kHz to 600kHz	SSOP-16, 28	E	Synchronous; No Current Sense Resistor Required	\$3.10
LTC3814-5	4.5	55	60	10	yes	100kHz to 1MHz	TSSOP-16	E, I	Synchronous; High Power, Optional R <sub>SENSE</sub> , ExtV <sub>CC</sub> Pin Allows Chip To Be Powered From V <sub>OUT</sub>	\$3.50
LT3844	4	60	5 and higher	10	–	100kHz to 600kHz	TSSOP-16	E, I	Synchronizable	\$3.10
LT1952	14.25	75 <sup>(1)</sup>	15 and higher	10	yes	100kHz to 500kHz	SSOP-16	I	Single Switch Synchronous Forward Controller	\$3.30
LT1952-1	8	75 <sup>(1)</sup>	10 and higher	10	–	100kHz to 500kHz	SSOP-16	E, I	Programmable Soft-Start and Slope Compensation	\$3.30
LTC3813	7	75	100	10	yes	100kHz to 1MHz	SSOP-28	E, I	Synchronous; Optional R <sub>SENSE</sub> , Onboard LDO Control	\$3.75
LTC3703	9.3	100	100	10	yes	100kHz to 600kHz	SSOP-16, 28	E	Synchronous; No Current Sense Resistor Required	\$3.10
LT3782/A	6	40	12 and higher	30	yes	150kHz to 500kHz	SSOP-28, 4x5 QFN-28	E, I	2-Phase Operation; High Power, High Efficiency. "A" Grade Has Tighter Current Sense Mismatch Tolerance, Optional Synchronous Operation	\$4.53
LTC3862	4	36	8 and higher	90		50kHz to 650kHz	SSOP-24, 5x5 QFN-24, TSSOP-24	E, I, H	PolyPhase High Power Current Mode Step-Up Controller	\$3.29
LTC3862-1	8.5	36	12 and higher	90		50kHz to 650kHz	SSOP-24, 5x5 QFN-24, TSSOP-24	E, I, H	LTC3862 with Higher Min V <sub>IN</sub> and 10V Gate Drive	\$3.29

† Primary Sort Column  
 †† Secondary Sort Column

Note:  
 1. Voltage and current depend on the choice of external components

# INVERTERS

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Max (V)	† Switch Current (A)	Switching Frequency	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Shutdown Current (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
<b>Monolithics</b>											
LT1617-1	1	15	-34	0.1	Constant Off-Time	20	<1	ThinSOT	E	V <sub>OUT</sub> up to -34V	\$1.65
LT3483	2.5	16	-38	0.2	PFM	40	<1	ThinSOT	E	V <sub>OUT</sub> up to -38V Integrated Schottky Diode	\$2.05
LT3462/A	2.5	16	-38	0.3	1.2MHz/2.7MHz	2.9mA	<6.5	ThinSOT	E	V <sub>OUT</sub> up to -38V, Integrated Schottky Diode	\$2.05
LT1617	1.2	15	-34	0.35	Constant Off-Time	20	<1	ThinSOT	E	V <sub>OUT</sub> up to -34V	\$1.65
LTC1174/HV	4	13.5/18.5	-18.5	0.5	Constant Off-Time	130	<1	DIP-8, SO-8	I	Fixed Outputs of 3.3V, 5V Available	\$3.50
LT1611	1.1	10	-34	0.55	1.4MHz	3mA	<1	ThinSOT		Low Noise <1mV <sub>PK-PK</sub>	\$1.95
LT1614	1	12	-24	0.75	600kHz	1mA	10	MSOP-8, SO-8	I	V <sub>IN</sub> to 1V, Low Battery Detect	\$2.46
LT1107/08	2	30	-30	1.0	63kHz	320	<1	DIP-8, SO-8	I	Programmable Current Limit, Fixed V <sub>OUT</sub> 5V or 12V or Adj	\$2.25
LT1111/73	2	30	-30	1.0	72kHz	300	<1	DIP-8, SO-8	I	Step-Up or Step-Down, Fixed V <sub>OUT</sub> 5V or 12V or Adj	\$2.30
LT1931/A	2.6	16	-34	1.0	1.2MHz/2.2MHz	5.8mA	<1	ThinSOT	I	Low Noise <1mV <sub>PK-PK</sub>	\$2.00
LT3471	2.4	16	-40	1.3	1.2MHz	2.5mA	<1	3x3 DFN-10	E	Dual Inverter or Boost/Inverter	\$2.80
LT1372/HV	2.7	30/42	-35/-42	1.5	500kHz	4mA	12	SO-8, TSSOP-16E	I	Inductor Size Reduced to 1.8μH	\$3.50
LT1377/HV	2.7	30/42	-35/-42	1.5	1MHz	4mA	12	SO-8, TSSOP-16E	I	Inductor Size Reduced to 1.8μH	\$3.50
LT3580	2.5	32	-42	2.0	200kHz to 2.5MHz	1mA	<1	3x3 DFN-8, MSOP-8	I	42V, 2A Switch for Boost or Inverting	\$2.00
LT1076/HV	5V	45/64	-35/-45	2.0	100kHz	8.5mA	140	DD-5/7, TO-220	I	HV Version Has V <sub>IN</sub> to 60V	\$5.05
LT3479	2.5	24	-38	3.0	3.5MHz	6.5mA	<1	4x3 DFN-14 TSSOP-16/E	E	Can be Used as Inverter or Boost	\$3.00
LT1074/HV	5V	45/64	-35/-45	5.0/2.0	100kHz	8.5mA	140	DD-5/7, TO-220	I	HV Version Has V <sub>IN</sub> to 60V	\$5.05
<b>Controllers<sup>(1)</sup></b>											
LT1619	1.9	18	-3, -5 and lower	5	300kHz to 550kHz	140	40	MSOP-8, SO-8	E	Low V <sub>IN</sub> , Synchronizable	\$1.99
LTC1871/-1	2.5	36	-3, -5 and lower	10	50kHz to 1MHz	550	20	MSOP-10	E, I, H	No R <sub>SENSE</sub> , Burst Mode Operation	\$2.55
LTC3704	2.5	36	-3, -5 and lower	10	50kHz to 1MHz	550	10	MSOP-10	E, I	No R <sub>SENSE</sub> , Burst Mode Operation	\$1.85

† Primary Sort Column

Note:  
 1. The maximum output current depends on external components



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# MULTIPLE OUTPUT BUCK (STEP-DOWN)

Part Number	† Number of Converters	Number of Step-Downs	Number of LDOs	Other	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	†† Output Current (A)	Synchronous PolyPhase	Switching Frequency	Package	Extended Temp Range	Comments	Price 1K Qty	
<b>Internal Switch</b>																
LTC3547/B	2	2	0		2.5	5.5	0.6	V <sub>IN</sub>	0.3×2	yes	–	2.25MHz	2×3 DFN-8	I	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency, "B" Version Disables Burst Mode Operation	\$1.95
LTC3523/-2	2	1	0	Boost (0.6A)	1.8	5.5	0.6	5.25	0.4(Buck)/0.25(Boost)	yes	–	1.2/2.4MHz	3×3 QFN-16	E	Synchronous Boost and Buck Converter	\$2.95
LTC3522	2	1	0	Buck-Boost (0.4A)	2.4	5.5	0.6	5.5	0.4(BB)/0.2(Buck)	yes	–	1MHz	3×3 QFN-10	E	Dual Output, Synchronous 400mA Buck-Boost and a 200mA Buck	\$2.50
LTC3541	2	1	1		2.7	5.5	0.8	V <sub>IN</sub>	0.5(Buck)/0.3(LDO)	yes	–	2.25MHz	3×3 DFN-10	E	Synchronous, 100% Duty Cycle, 95% Efficiency, with 0.3A Plus VLDO	\$1.95
LTC3419	2	2	0		2.5	5.5	0.6	V <sub>IN</sub>	0.6×2	yes	–	2.25MHz	MSOP-10E, 3×3 DFN-10	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency	\$1.95
LTC3407/A	2	2	0		2.5	5.5	0.6	V <sub>IN</sub>	0.6×2	yes	–	1.5MHz	MSOP-10E, 3×3 DFN-10	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency, "A" Has Soft-Start	\$2.60
LT3509	2	2	0		3.7	36/60	0.8	0.9V <sub>IN</sub>	0.7×2	–	–	250kHz to 2.5MHz	4×3 DFN-14	E, I, H	Dual, OV Lockout Provides 60V Transient Protection, Integrated Boost Diodes	\$2.95
LTC3548/-1/-2	2	2	0		2.5	5.5	0.6	V <sub>IN</sub>	0.8/0.4	yes	–	2.25MHz	MSOP-10E, 3×3 DFN-10	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency; "Plain" Has Adj. Outputs, "-1" Has Fixed 1.8V and 1.575V Outputs, "-2" Has Fixed 1.2V and Adjustable Outputs	\$2.60
LTC3552/-1	2	2	0		2.5	5.5	0.6	5	0.8/0.4	yes	–	2.25MHz	5×3 DFN-16	E	Dual Output, Adj 800mA and 400mA Bucks, 950mA Linear Battery Charger, 92% Efficiency. "-1" Has Fixed 1.8V and 1.575V Outputs	\$2.30
LTC3407-x/A-2	2	2	0		2.5	5.5	0.6	V <sub>IN</sub>	0.8×2	yes	–	2.25MHz	MSOP-10E, 3×3 DFN-10	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency; "-2" Version of LTC3407 Increases I <sub>OUT</sub> to 0.8A, "A" Has Soft-Start, "-4" Has Reduced POR Time, "-3" Has Fixed 1.8V and 3.3V Outputs	\$2.95
LTC3417	2	2	0		2.25	5.5	0.8	V <sub>IN</sub>	1.4/0.8	yes	–	600kHz to 4MHz	TSSOP-20E, 5×3 DFN-20	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$3.35
LT3508	2	2	0		3.7	36	0.8	0.9V <sub>IN</sub>	1.4×2	–	–	250kHz to 2.5MHz	4×4 QFN-24, TSSOP-16E	I	Dual 2A, 36V Switches in TSSOP-16E	\$3.35
LT1940	2	2	0		3.6	25	1.25	0.9V <sub>IN</sub>	1.4×2	–	–	1.1MHz	TSSOP-16E	E	Dual Switches in Single TSSOP-16E	\$3.70
LT1940L	2	2	0		3.6	7	1.25	0.9V <sub>IN</sub>	1.4×2	–	–	1.1MHz	TSSOP-16E	E	Dual Internal Switches, 7V max V <sub>IN</sub>	\$2.70
LTC3417A	2	2	0		2.25	5.5	0.8	V <sub>IN</sub>	1.5/1	yes	–	600kHz to 4MHz	TSSOP-20E, 5×3 DFN-20	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$3.45
LT3506/A	2	2	0		3.6	25	0.8	0.9V <sub>IN</sub>	1.6×2	–	–	575kHz/1.1MHz	TSSOP-16E, 5×4 DFN-16	E	Dual Switches in TSSOP-16E or DFN	\$2.95
LT1939	2	1	1		3	25	0.8	0.9V <sub>IN</sub>	2 (Buck)/5 (LDO) <sup>(1)</sup>	–	–	250kHz to 2.2MHz	3×3 DFN-10	E, I, H	2A 25V Step-Down with LDO Controller	\$3.05
LT3500	2	1	1		3	36	0.8	0.9V <sub>IN</sub>	2 (Buck)/5 (LDO) <sup>(1)</sup>	–	–	250kHz to 2.2MHz	3×3 DFN-10	E, I	2A 36V Step-Down with LDO Controller	\$3.25
LT3510	2	2	0		3.3	25	0.8	0.9V <sub>IN</sub>	2.0×2	–	–	250kHz to 1.5MHz	TSSOP-20E	E	Dual 2.5A Switches in TSSOP-20E, Tracking	\$3.25
LT3501	2	2	0		3.3	25	0.8	0.9V <sub>IN</sub>	3.0×2	–	–	250kHz to 1.5MHz	TSSOP-20E	E	Dual 3.5A Switches in TSSOP-20E	\$3.50
LTC3100	3	1	1	Boost (0.7A)	0.7	5	0.6	5.25	0.25 (Buck)/0.1 (LDO)/0.7 (Boost)	yes	–	1.5MHz	3×3 QFN-10	E	Boost with LDO on Output Plus Buck	\$3.10
LTC3670	3	1	2		2.5	5.5	0.8	V <sub>IN</sub>	0.4(Buck)/0.15(LDO) × 2	yes	–	2.25MHz	2×3 DFN-12	E	Triple Output with Two Low Noise LDOs	\$1.95
LTC3672B	3	1	2		2.9	5.5	1.2	V <sub>IN</sub>	0.4(Buck)/0.15(LDO) × 2	yes	–	2.25MHz	2×3 DFN-8	E	Triple Output with Two Low Noise LDOs, Fixed 1.2V and 2.8V Outputs	\$1.95
LTC3445	3	1	2		2.5	5.5	0.85	1.55	0.6(Buck)/0.05(LDO) × 2	yes	–	1.5MHz	4×4 QFN-24	E	I <sup>2</sup> C Controllable Output Voltage	
LTC3545/-1	3	3	0		2.25	5.5	0.6	V <sub>IN</sub>	0.8×3	yes	–	2.25MHz	3×3 QFN-16	E	Triple Synchronous, 95% Efficiency; "-1" Forces Burst Mode Operation and Has PGOOD Pin In Place Of SYNC	\$3.10
LTC3520	3	1	1	Buck-Boost (1A)	2.2	5.5	0.6	V <sub>IN</sub>	1.0(BB)/0.6(Buck)	yes	–	1.1MHz	4×4 QFN-24	E	1A Synchronous Buck-Boost, 0.6A Buck and LDO Controller	\$3.50
LTC3446	3	1	2		2.7	5.5	0.4	V <sub>IN</sub>	1.0(Buck)/0.3(LDO) × 2	yes	–	2.25MHz	4×3 DFN-14	E	Synchronous, 100% Duty Cycle, 95% Efficiency, Plus Dual LDOs	\$2.75
<b>LTC3569</b>	<b>3</b>	<b>3</b>	<b>0</b>		<b>2.5</b>	<b>5.5</b>	<b>0.425</b>	<b>V<sub>IN</sub></b>	<b>1.2 &amp; 0.6×2</b>	<b>yes</b>	<b>–</b>	<b>1MHz to 3MHz</b>	<b>3×3 QFN-20, TSSOP-16E</b>	<b>E, I</b>	<b>Triple, Synchronous, 100% Duty Cycle, PGOOD Pin, Programmable VFB Servo Voltage</b>	<b>\$3.10</b>
<b>LT3570</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>Boost (1.5A)</b>	<b>2.5</b>	<b>36/40</b>	<b>0.8</b>	<b>0.95 V<sub>IN</sub></b>	<b>1.5(Buck)/1.5(Boost)/LDO</b>	<b>–</b>	<b>–</b>	<b>500kHz to 2.1MHz</b>	<b>4×4 QFN-24, TSSOP-20E</b>	<b>I, E</b>	<b>Synchronizable to 2.5MHz Boost Converter Has 60V Max V<sub>SWITCH</sub>, LDO Controller Drives External NPN</b>	<b>\$2.95</b>

† Primary Sort Column  
 †† Secondary Sort Column

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

# MULTIPLE OUTPUT BUCK (STEP-DOWN)

Part Number	† Number of Converters	Number of Step-Downs	Number of LDOs	Other	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	†† Output Current (A)	Synchronous	PolyPhase	Switching Frequency	Package	Extended Temp Range	Comments	Price 1K Qty
LT1941	3	2	0	Boost/Inv	3.5	25	0.6	V <sub>IN</sub> ×0.9	2.5 & 1.5 (Bucks) & 0.5 (Boost/Inv)	–	–	1.1MHz	TSSOP-28E	E	Integrated Power Sequencing, Soft-Start	\$5.25
LTC3544/B	4	4	0		2.25	5.5	0.8	V <sub>IN</sub>	0.3/0.2/0.2/0.1	yes	–	2.25MHz	3×3 QFN-16	E	Quad Output, Synchronous, 100% Duty Cycle, 96% Efficiency. "B" Has Burst Mode Operation Disabled	\$2.95
LTC3562	4	4	0		2.9	5.5	0.6	V <sub>IN</sub>	0.6×2/0.4×2	yes	–	2.25MHz	3×3 QFN-20	E	Quad Output with I <sup>2</sup> C Interface, Synchronous, 100% Duty Cycle, 96% Efficiency	\$3.25
LT3507	4	3	1		4	40	0.8	0.9V <sub>IN</sub>	2.4/1.5/1.5	–	–	250kHz to 2.5MHz	5×7 QFN-38	H	Triple Output Plus LDO Controller	\$4.25
<b>External Switch<sup>(2)</sup></b>																
LTC3700	2	1	1		2.65	9.8	0.8	V <sub>IN</sub>	5/0.15	–	–	550kHz	MSOP-10	E	Onboard LDO	\$2.35
LTC3736/-1/-2	2	2	0		2.75	9.8	0.6	V <sub>IN</sub>	5×2	yes	2	260kHz to 825kHz	4×4 QFN-24, SSOP-24	E	Dual, 2-Phase, Output Tracking, Burst Mode Operation at Light Loads. "1" and "2" Pulse-Skipping at Light Loads, "1" Has Spread Spectrum	\$3.80
LTC3701	2	2	0		2.5	10	0.8	V <sub>IN</sub>	5×2	–	2	300kHz to 750kHz	SSOP-16	E	Very Low V <sub>IN</sub> , Non-Synchronous	\$3.40
LTC3737	2	2	0		2.75	9.8	0.6	V <sub>IN</sub>	5×2	–	2	260kHz to 825kHz	4×4 QFN-24, SSOP-24	E	Output Tracking	\$3.65
LT3742	2	2	0		3.5	30	0.8	V <sub>IN</sub>	5×2	–	2	500kHz	4×4 QFN-24	E	100% Duty Cycle, High Output Voltage, Capacitor Charger	\$2.30
LTC3713	2	1	0	Boost	1.5	36	0.8	0.9V <sub>IN</sub>	20/0.13 (Boost)	yes	–	200kHz to 1.5MHz	SSOP-24	E	Provides its Own 5V for N-CH MOSFET Gate Drive	\$4.10
LTC3836	2	2	0		2.75	4.5	0.6	0.97V <sub>IN</sub>	20×2	yes	2	300kHz to 750kHz	4×5 QFN, SSOP-28	E	Low V <sub>IN</sub> , Synchronous, No R <sub>SENSE</sub> PLL	\$2.75
LTC1702A	2	2	0		3	7	0.8	7	20×2	yes	2	550kHz	SSOP-24	I	Voltage Mode	\$4.75
LTC1703	2	2	0		3	7	0.8	7	20×2	yes	2	550kHz	SSOP-24	I	Voltage Mode; 5-bit V <sub>ID</sub> Interface	\$5.20
LTC3802	2	2	0		3	30	0.6	0.9V <sub>IN</sub>	20×2	yes	2	330kHz to 750kHz	5×5 QFN, SSOP-28	E	Programmable Up/Down Tracking	\$4.80
LTC1704	2	1	1		3.15	5.5	0.8	6	20/2 <sup>(1)</sup>	yes	–	550kHz	SSOP-16	E	Voltage Mode Plus LDO Controller	\$4.10
LTC3850/-1/-2	2	2	0		4	24,30	0.8	5.5	25×2	yes	2	250kHz to 750kHz	4×4 QFN-28, 4×5 QFN-28, SSOP-28	E, I	Tracking, PLL, Synchronizable, Adj Soft-Start, "1" (SSOP-28 Only) Has EXT <sub>VCC</sub> in Place of I <sub>LIM</sub> . "2" Has High Reliability Pinout	\$2.40
LTC3826	2	2	0		4	36	0.8	10	25×2	yes	2	140kHz to 650kHz	5×5 QFN-32	E, I	Ultralow 50μA I <sub>Q</sub> with Both Channels Active	\$5.50
LTC3826-1	2	2	0		4	36	0.8	10	25×2	yes	2	140kHz to 650kHz	SSOP-28	E, I	Ultralow 50μA I <sub>Q</sub> with PolyPhase	\$5.38
LTC3827/-1	2	2	0		4	36	0.8	10	25×2	yes	2	550kHz	5×5 QFN-32 (plain), SSOP-28 (-1)	E, I	160μA I <sub>Q</sub> , PLL Input, PGOOD. "Plain" Version Has Current Foldback Disable	\$5.10
LTC3828	2	2	0		4	30	0.8	7	25×2	yes	2 to 6	550kHz	5×5 QFN-32, SSOP-28	E	Onboard Tracking	\$4.65
LTC1628	2	2	0		4.5	36	0.8	6	25×2	yes	2	150kHz to 300kHz	5×5 QFN-32, SSOP-28	I	"-PG" Version Adds Power Good Signal. "-SYNC" Version Adds PLL Input	\$4.45
LTC3727/-1/A-1	2	2	0		4.5	36	0.8	14	25×2	yes	2	250kHz to 550kHz	SSOP-28	E	>5V V <sub>OUT</sub> Range, "1" Disables Overcurrent Latch-Off, "A" Grade Has Improved Performance	\$4.85
LTC3727LX-1	2	2	0		4.5	32	0.8	14	25×2	yes	2	250kHz to 550kHz	SSOP-28, 5×5 QFN-32	E	LTC3727-1 with Relaxed Ref Accuracy (1.5%), Lower V <sub>IN</sub> Range	\$4.35
LTC3728	2	2	0		4.5	36	0.8	5.5	25×2	yes	2	250kHz to 550kHz	SSOP-28, 5×5 QFN-32	E, I	Like LTC3728L but with Higher Input Voltage	\$5.00
LTC3728L/LX/L-1	2	2	0		4.5	28,35	0.8	5.5	25×2	yes	2	250kHz to 550kHz	5×5 QFN, SSOP-28	E, I	Lower V <sub>IN</sub> Version of the LTC3728, "LX" Has 0°C to 85°C Operation, "L-1" Has Overcurrent Latchoff Disabled	\$4.40
LTC3707/-SYNC	2	2	0		4.5	30	0.8	6	25×2	yes	2	150kHz to 300kHz	SSOP-28	E, I	Low V <sub>IN</sub> Version of LTC1628. "-SYNC" Version Has PLL Input	\$4.45
LTC3708	2	2	0		4	36	0.6	0.9V <sub>IN</sub>	25×2	yes	2	85ns t <sub>ON</sub> Min	5×5 QFN-32	E	Output Tracking; Fast Transient Response	\$4.80
LTC1876	3	2	0	Boost	2.5	36	0.8	6	25×2/1.0	yes	2	150kHz to 300kHz	SSOP-36	E	Very Low V <sub>IN</sub> , High Output Current	\$5.95
LTC1705	3	2	1		3.15	5.5	0.9	2	20×2/0.15	yes	–	550kHz	SSOP-28	E		\$5.35
LTC3773	3	3	0		3.3	36	0.6	5	20×3	yes	1 to 3	160kHz to 700kHz	5×7 DFN-36, SSOP-36	E	3-Phase Controller with Tracking	\$3.95
LTC3853	3	3	0		4.5	24	0.8	5.5	25×3	yes	3	250kHz to 750kHz	6×6 QFN-40	E, I	Tracking, PLL, 98% Duty Cycle and Adj Soft-Start	\$3.53

† Primary Sort Column  
 †† Secondary Sort Column

- Notes:  
 1. LDO Controller output current depends on external components  
 2. Voltage and current depend on the choice of external components



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# MULTIPLE OUTPUT BOOST/INVERTERS

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Max (V)	Output Current <sup>(1)</sup> (A)	† Switch Current <sup>(2)</sup> (A)	Switch Configuration	Switching Frequency	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (μA)	Shutdown Current (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3450	1.4	4.6	±15	0.07 * V <sub>IN</sub> /V <sub>OUT</sub>	0.09	Internal	550kHz	75	<2	3×3 DFN-16	E	Triple Output for TFT-LCD Applications	\$2.50
LT1942	2.6	16	36/45	0.10 * V <sub>IN</sub> /V <sub>OUT</sub>	0.15	Internal	1MHz	7	<1	4×4 QFN-24	E	Quad; Dual Boost Plus Inverter for TFT LCD, Boost for LED Driver	\$2.75
LT1944-1	1.2	15	34	0.15 * V <sub>IN</sub> /V <sub>OUT</sub>	0.18×2	Internal	Constant Off-Time	20	<1	MSOP-10	E	Dual 350mA and 150mA Boost Converters in Single Package	\$2.00
LT3463	2.4	15	±40	0.21 * V <sub>IN</sub> /V <sub>OUT</sub>	0.25×2	Internal	Constant Off-Time	20	<1	3×3 DFN-10	E	Dual Boost/Inverter V <sub>OUT</sub> Up to ±40V, Integrated Schottkys	\$1.95
LT1945	1.2	15	±34	0.21 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35×2	Internal	Constant Off-Time	20	<1	MSOP-10	E	Dual 250mA, @ ±34V Boost Converters in Single Package	\$2.06
LT1944	1.2	15	34	0.29 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35×2	Internal	Constant Off-Time	20	<1	MSOP-10	E	Dual 350mA Boost Converters in Single Package	\$2.00
LT3463A	2.4	15	±40	0.29 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4/0.25	Internal	Constant Off-Time	40	<1	3×3 DFN-10	E	Dual Boost/Inverter V <sub>OUT</sub> Up to ±40V, Integrated Schottkys, Negative Output Has I <sub>SW</sub> =400mA	\$1.95
LT3472	2.2	16	±40	0.29 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4/0.35	Internal	1.2MHz	2.8mA	<1	3×3 DFN-10	E	Dual Boost/Inverter Converter in Single Package—Ideal for CCD Biasing, Internal Schottkys, 350mA/400mA I <sub>SW</sub>	\$1.95
LTC3524	2.5	6	±20	0.33 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5/0.15	Internal	1.5MHz	4mA	<1	4×4 QFN-24	E	Quad (0.5A Boost LED Driver, 0.15A Boost, ±Charge Pump) Provides LCD Bias and Drives LEDs	\$2.25
<b>LTC3535</b>	<b>0.5</b>	<b>5</b>	<b>5.25</b>	<b>0.36 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.55×2</b>	<b>Internal</b>	<b>1MHz</b>	<b>9</b>	<b>&lt;1</b>	<b>3×3 DFN-12</b>	<b>E</b>	<b>Dual Micropower Boost Converter with Output Disconnect, Soft-Start. Regulates for V<sub>IN</sub>&gt;V<sub>OUT</sub></b>	<b>\$2.95</b>
LTC3523/-2	1.8	5.5	5.5	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	Internal	1.2/2.4MHz	45	<1	3×3 QFN-16	E	Synchronous Boost and Buck Converter, "-2" Has 2.4MHz Switching	\$2.95
LTC3537	0.7	5.25	5.5	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	Internal	2.2MHz	30	<1	3×3 QFN-16	E	Synchronous Boost Converter and LDO	\$2.40
LTC3527/-1	0.7	5.25	5.5	0.52 * V <sub>IN</sub> /V <sub>OUT</sub>	0.8/0.4	Internal	1.2 or 2.2MHz	12	<1	3×3 QFN-16	E	Dual Synchronous Outputs, "-1" Quickly Discharges V <sub>OUT</sub> When Entering Shutdown	\$2.95
LT3487	2.3	16	28	0.59 * V <sub>IN</sub> /V <sub>OUT</sub>	0.9/0.75	Internal	2MHz	3.7mA	<5.3	3×3 DFN-10	E	Dual Boost/Inverter	\$2.30
LT3587	2.5	6	32	0.59 * V <sub>IN</sub> /V <sub>OUT</sub>	0.9/0.8/0.4	Internal	1MHz	2.4mA	<5.5	3×3 QFN-20	E	Dual Boost (0.9A and 0.4A) Plus 0.8A Inverter	\$2.95
LT1947	2.6	8	34	0.72 * V <sub>IN</sub> /V <sub>OUT</sub>	1.1	Internal	3MHz	9.5mA	<1	MSOP-10/E	E	Triple Output for TFT-LCD Applications	\$2.50
LT3471	2.4	16	±40	0.85 * V <sub>IN</sub> /V <sub>OUT</sub>	1.3/1.3	Internal	1.2MHz	2.5mA	<1	3×3 DFN-10	E	Dual 1.3A @ ±40V Dual Boost (or Dual Inverter or Boost-Inverter) in Single Package	\$2.80
<b>LT3570</b>	<b>2.5</b>	<b>36</b>	<b>60</b>	<b>0.98 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>1.5/1.5(Buck)</b>	<b>Internal</b>	<b>500kHz to 2.5MHz</b>	<b>7mA</b>	<b>&lt;1.5</b>	<b>4×4 QFN-24, TSSOP-20E</b>	<b>I, E</b>	<b>Triple Output (1.5A Boost, 1.5A Buck, LDO Controller), Soft-Start, Synchronizable to 2.5MHz, Boost Converter Has 60V Max V<sub>SWITCH</sub></b>	<b>\$2.95</b>
LT3513	4.5	30	40	0.98 * V <sub>IN</sub> /V <sub>OUT</sub>	1.5/0.25/0.25(Inv)/2.2(Buck)	Internal	2MHz	7.5mA	<30	5×7 QFN-38	I	High Current Five Output Regulator for TFT LCD Displays	\$4.25
LT1943	4.5	22	40	1.69 * V <sub>IN</sub> /V <sub>OUT</sub>	2.6/0.35/2.4(Buck)/0.35(Inv)	Internal	1.2MHz	10mA	<1	TSSOP-28E	E	High Current Quad Output Regulator for TFT-LCD Displays	\$4.75

† Primary Sort Column

Notes:

1. Output current is calculated using the equation  $0.65 \times I_{SWITCH} \times (V_{IN}/V_{OUT}) = \text{estimated } I_{OUT}$ . This value is an estimate and can vary depending on external component choices.
2. For buck converters, the current listed is the output current.

# SYNCHRONOUS BUCK-BOOST

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	† Output Current <sup>(1)</sup> (A)	Switch Current (A)	Switching Frequency	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (μA)	Shutdown Current (μA)	Synchronous	Package	Extended Temp Range	Comments	Price 1K Qty
<b>Monolithics</b>														
LTC3531	1.8	5.5	2.0	5	0.2	0.5	600kHz	16	<1	yes	3×3 DFN-8, ThinSOT™	E	Adjustable or Fixed 3V or 3.3V Output	\$1.95
LT3433	4.0	60	3.3	20	0.4 or 0.2	0.5	200kHz	100	<1	–	TSSOP-16E	E	True Buck-Boost, V <sub>IN</sub> : 4V-60V, V <sub>OUT</sub> : 3.3V-20V	\$3.25
LTC3444	2.7	5.5	0.5	5	0.4	0.6	1.5MHz	700	<1	yes	3×3 DFN-8	E	Ideal for WCDMA PA Applications	\$2.40
LTC3522	2.4	5.5	0.6	5.5	0.4/0.2	0.8	1MHz	25	<1	yes	3×3 QFN-10	E	Dual Output-Synchronous 400mA Buck-Boost and a 200mA Buck	\$2.50
LTC3452	2.7	5.5	2.4	4.5	0.43	1.0	1MHz	600	7	yes	4×4 QFN-20	E	True Buck-Boost Topology, 2 Camera /5 Main LEDs	\$1.80
LTC3532	2.4	5.5	2.5	5.25	0.5	0.9	2MHz	35	<1	yes	MSOP-10, 3×3 DFN-10	E	True Buck-Boost Topology, Ideal for Single Cell Li-Ion to 3.3V <sub>OUT</sub> Applications	\$2.35
LTC3440	2.5	5.5	2.5	5.5	0.6	1.0	300kHz to 2MHz	25	<1	yes	MSOP-10, 3×3 DFN-10	E	True Buck-Boost Topology, Ideal for Single Cell Li-Ion to 3.3V <sub>OUT</sub> Applications	\$2.74
LTC3530	1.8	5.5	1.8	5.25	0.6	1.0	300kHz to 2MHz	40	<1	yes	MSOP-10, 3×3 DFN-10	E	True Buck-Boost Topology, Ideal for Single Cell Li-Ion and Dual Alkaline to 3.3V <sub>OUT</sub> Applications	\$2.75
LTC3538	2.4	5.5	1.5	5.25	0.8	1.4	1MHz	35	<1	yes	2×3 DFN-8	E	True Buck-Boost Topology, Ideal for Single Cell Li-Ion to 3.3V <sub>OUT</sub> Applications	\$2.55
LTC3520	2.2	5.5	0.6	5.5	1.0/0.6	1.4	100kHz to 2MHz	55	<1	yes	4×4 QFN-24	E	Dual Output-Synchronous 1A Buck-Boost and a 600mA Buck	\$3.50

† Primary Sort Column

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	† Output Current <sup>(1)</sup> (A)	Switch Current (A)	Switching Frequency	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Shutdown Current (μA)	Synchronous	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3453	2.7	6	2.4	4.5	1.0	1.3	1MHz	2.5mA	<1	yes	4×4 QFN-16	E	High Current LED Driver—Delivers up to 800mA	\$2.10
<b>LTC3127</b>	<b>1.8</b>	<b>5.5</b>	<b>1.8</b>	<b>5.25</b>	<b>1.2</b>	<b>1.7</b>	<b>1.2MHz</b>	<b>18</b>	<b>&lt;1</b>	<b>yes</b>	<b>3×3 DFN-10, MSOP-10E</b>	<b>E</b>	<b>True Buck-Boost Topology, Programmable Avg Input Current Limit, Output Disconnect</b>	<b>C.F.</b>
LTC3441	2.4	5.5	2.4	5.25	1.2	2.0	1MHz	50	<1	yes	4×3 DFN-12	E	True Buck-Boost Topology, Ideal for Single Cell Li-Ion to 3.3V <sub>OUT</sub> Applications	\$3.55
LTC3442	2.4	5.5	2.4	5.25	1.2	2.0	300kHz to 2MHz	35	<1	yes	4×3 DFN-12	E	True Buck-Boost Topology, Adj. Burst Mode Operation, Current Limit	\$3.95
LTC3443	2.4	5.5	2.4	5.25	1.2	2.0	600kHz	28	<1	yes	4×3 DFN-12	E	True Buck-Boost Topology, High Efficiency at Light Loads	\$3.55
LTC3533	1.8	5.5	1.8	5.25	2.0	3.5	300kHz to 2MHz	40	<1	yes	4×3 DFN-14	E	True Buck-Boost Topology, High Efficiency at Light Loads	\$3.55
<b>Controllers</b>														
LTC3785	2.7	10	2.7	10	10 <sup>(2)</sup>	— <sup>(2)</sup>	100kHz to 1MHz	86	8	yes	4×4 QFN-24	E	4-Switch, High Efficiency Controller	\$3.56
LTC3785-1	2.7	10	2.7	10	10 <sup>(2)</sup>	— <sup>(2)</sup>	100kHz to 1MHz	86	8	yes	4×4 QFN-24	E	4-Switch, High Efficiency Controller, with Power Good Output	\$3.75
LTC3780	4.0	36	0.8	30	20 <sup>(2)</sup>	— <sup>(2)</sup>	200kHz to 400kHz	2.4mA	55	yes	5×5 QFN, SSOP-24	E, I, MP	4-Switch, High Efficiency Controller	\$4.65

† Primary Sort Column

- Notes:  
 1. Estimated value  
 2. Depends on external MOSFET selection

SEPIC

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Max (V)	† Switch Current (A)	Switching Frequency	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Shutdown Current (μA)	Package	Comments	Price 1K Qty
<b>Monolithic</b>										
LT1615-1	1	15	34	0.08	Constant Off-Time	20	<1	ThinSOT	Operates with V <sub>IN</sub> to 1V, -1 Version Has 75mA Current Limit	\$1.65
LT3464	2.3	10	34	0.085	Constant Off-Time	25	<1	ThinSOT	Integrated Schottky Diode and Output Disconnect	\$1.50
LT3463/A	2.4	15	40	0.25/0.4	Constant Off-Time	40	<1	3×3 DFN-10	Dual with Integrated Schottky Diodes	\$1.95
LT1615	1	15	34	0.3	Constant Off-Time	20	<1	ThinSOT	Operates with V <sub>IN</sub> to 1V, LT1615 Has 350mA Current Limit	\$1.65
LT3461	2.5	16	38	0.3	1.3/3MHz	2.8mA	<1	ThinSOT	300mA Switch with Integrated Schottkys in ThinSOT, V <sub>OUT</sub> to 38V	\$1.65
LT3460	2.5	16	36	0.32	1.3MHz	2mA	<1	SC70, ThinSOT	320mA Switch in SC70, V <sub>OUT</sub> to 36V	\$1.60
LT3472	2.2	16	34	0.35/0.4	1.2MHz	2.8mA	<1	3×3 DFN-10	Dual with Dual Integrated Schottky Diodes	\$1.95
LT1610	0.9	8	28	0.45	1.7MHz	30	<1	MSOP-8, SO-8	Operates with V <sub>IN</sub> to 0.9V, V <sub>OUT</sub> to 28V	\$1.65
LT1316	1.5	12	28	0.50	Constant Off-Time	33	<3	MSOP-8, SO-8	Programmable Input Current Limit, Low Battery Detect	\$2.45
LT1613	0.9	10	34	0.55	1.4MHz	3mA	<1	ThinSOT	Operates with V <sub>IN</sub> to 0.9V, V <sub>OUT</sub> to 34V, Ideal for SEPIC	\$1.60
LT1307/B	1	12	28	0.60	600kHz	50/1mA	<1	MSOP-8, DIP-8, SO-8	B Version Disables Burst Mode Operation, Low Battery Detector	\$2.05
LT1317/B	1.5	12	28	0.66	600kHz	100/4.8mA	<30/28	MSOP-8, SO-8	B Version Disables Burst Mode Operation, Low Battery Detector	\$2.25
LT1300	1.8	10	20	0.75	155kHz	120	<10	DIP-8, SO-8	Programmable Peak Current Limit, Programmable 5V, 3.3V or Adj Output, Low Battery Detect	\$2.45
LT1301	1.8	10	20	0.75	155kHz	120	<10	DIP-8, SO-8	Programmable Peak Current Limit, Programmable 5V or 3.3V Output	\$2.45
LT1303	1.8	10	20	0.75	155kHz	120	<10	DIP-8, SO-8	Programmable Peak Current Limit, Programmable 5V or 12V Output	\$2.45
LT1304	1.5	8	25	0.8	300kHz	120	<10	SO-8	Programmable Peak Current Limit, Low Battery Detect, 5V or Adj. Output	\$2.45
LT1930/A	2.6	16	34	1	1.2MHz/2.2MHz	5.5mA	<1	ThinSOT	Pin-for-Pin Compatible with LT1613, Wide V <sub>IN</sub> Range	\$1.90
LT1949	1.5	12	28	1	600kHz/1.1MHz	4.5mA	<25	MSOP-8, SO-8	Operates with V <sub>IN</sub> to 1.5V, Low Battery Detect	\$2.25
LT3467/A	2.4	16	40	1.1	1.3/2.1MHz	1mA	<1	ThinSOT	Soft-Start, Pin-to-Pin Comp with LT1930/LT1613	\$1.90
LT1961	3	25	34	1.5	1.25MHz	0.9mA	<6	MSOP-8E		\$1.69
LT1618	1.6	18	35	1.5	1.4MHz	1.8mA	<1	MSOP-10	Constant Current/Voltage	\$1.75
LT3580	2.5	32	42	2	200kHz to 2.5MHz	1mA	<1	3×3 DFN-8, MSOP-8	42V, 2A Switch for Boost or Inverting	\$2.00
LT1302	2	8	24	2	400kHz	200	<15	SO-8, DIP-8	Logic Controlled Shutdown, Adj or Fixed 5V	\$3.25
LT1308A/B	1	10	30	2	600kHz	100	<5	SO-8	Ideal for Single Cell AA, /B Version Disables Burst Mode Operation, Low Battery Detector	\$3.25
LT1935	2.3	16	40	2	1.2MHz	3mA	<1	ThinSOT	2A Switch in ThinSOT	\$2.44
LT3477	2.5	25	40	3	3.5MHz	2.6mA	<1	4×4 QFN-20, TSSOP-20E	Two Rail-to-Rail Current Sense Amps	\$3.15
LT3436	3	25	34	3	800kHz	0.9mA	<1	TSSOP-16E	3A, 34V Internal Switch	\$2.75
LT1370/HV	2.7	30	35/42	6	500kHz	4.5mA	<12	DD, TO-220	Regulates Positive or Negative Outputs, Synchronizable	\$6.05

† Primary Sort Column



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Space, Military,  
Harsh Envir.

Reference  
Material

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Max (V)	† Switch Current (A)	Switching Frequency	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Shutdown Current (μA)	Package	Comments	Price 1K Qty
<b>Controllers</b>										
LTC3872	2.75	9.8	8	3	550kHz	250	<20	ThinSOT-8, 3×2 DFN-8	No R <sub>SENSE</sub> , Pulse-Skipping at Light Loads	\$1.80
LT1619	1.9	18	15	3	300kHz to 550kHz	9mA	<40	MSOP-8, SO-8	Low V <sub>IN</sub> Capability	\$1.99
LTC1624	3.5	36	30	3	200kHz	550	<30	SO-8	Wide V <sub>IN</sub> Range, Burst Mode Operation	\$3.50
LTC3803/-3	9.2	75 <sup>(1)</sup>	52	3	200kHz or 300kHz	240	<10	ThinSOT-6	Small Package, Programmable Slope Compensation	\$1.12
LTC3803-5	5.7	75 <sup>(1)</sup>	52	3	200kHz	240	<10	ThinSOT-6	Small Package, Programmable Slope Compensation	\$1.12
LTC3873	8.8	75 <sup>(1)</sup>	52	3	200kHz	300	<100	ThinSOT, DFN-8	No R <sub>SENSE</sub> , Constant Frequency	\$1.25
LTC3873-5	4	75 <sup>(1)</sup>	52	3	200kHz	300	<80	ThinSOT, DFN-8	No R <sub>SENSE</sub> , Constant Frequency	\$1.25
LTC3805	8.8	75 <sup>(1)</sup>	52	3	70kHz to 700kHz	360	<40	3×3 DFN-10, MSOP-10	Synchronizable, Programmable Slope Compensation	\$1.39
LTC3805-5	4.5	75 <sup>(1)</sup>	52	3	70kHz to 700kHz	360	<40	3×3 DFN-10, MSOP-10	Synchronizable, Programmable Slope Compensation	\$1.39
LTC1871-1	2.5	36	30	3	50kHz to 1MHz	250	<10	MSOP-10	Boost Controller, Burst Mode Operation Begins at a Lighter Load than the LTC1871	\$2.55
LTC1871-7	6	36	30	3	50kHz to 1MHz	250	<10	MSOP-10	Boost Controller, Drives 6V Gate MOSFETs	\$2.55
LTC1871	2.5	36	30	3	50kHz to 1MHz	250	<10	MSOP-10	Boost Controller, E, I and H Grades	\$2.55
LT3844	4	60	36	3	100kHz to 600kHz	80	<15	TSSOP-16	Very Low Quiescent Current	\$3.10
LT3724	4	60	36	3	200kHz	1.7mA	<10	TSSOP-16	Also Buck and Boost	\$3.10
LT1950	3	75 <sup>(1)</sup>	52	3	100kHz to 500kHz	2.3mA	<20	SSOP-16	Programmable Slope Compensation	\$2.90

† Primary Sort Column

Note:  
1. Depends on external components

## CCFL BACKLIGHT AND LCD BIAS

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Max (V)	Output Current <sup>(1)</sup> (A)	† Switch Current (A)	Switching Frequency	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Shutdown Current (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LT1615-1	1	15	34	0.06 *V <sub>IN</sub> /V <sub>OUT</sub>	0.08	Constant Off-Time	20	<1	ThinSOT	E	Operates with V <sub>IN</sub> to 1V, -1 Version Has 75mA Current Limit	\$1.65
LT3464	2.3	10	34	0.06 *V <sub>IN</sub> /V <sub>OUT</sub>	0.085	Constant Off-Time	25	<1	ThinSOT	E	Integrated Schottky Diode and Output Disconnect	\$1.50
LTC3450	1.4	4.6	±15	0.07 *V <sub>IN</sub> /V <sub>OUT</sub>	0.09	550kHz	75	<2	3×3 DFN-16	E	Triple Output for TFT-LCD Applications	\$2.50
LT1944-1	1.2	15	34	0.15 *V <sub>IN</sub> /V <sub>OUT</sub>	0.18×2	Constant Off-Time	20	<1	MSOP-10	E	Dual 350mA and 150mA Boost Converters in Single Package	\$2.00
LT1945	1.2	15	±34	0.21 *V <sub>IN</sub> /V <sub>OUT</sub>	0.25×2	Constant Off-Time	20	<1	MSOP-10	E	Dual 350mA, @ ±34V Boost Converters in Single Package	\$2.06
LT3463/A	2.3	15	±34	0.29 *V <sub>IN</sub> /V <sub>OUT</sub>	0.25/0.4	Constant Off-Time	40	<1	DFN-10	E	Dual 400mA/250mA (400mA for "A") Internal Schottkys. Boost/Inverter Converters in Single Package—Ideal for CCD Biasing	\$1.95
LT3461/A	2.5	16	38	0.20 *V <sub>IN</sub> /V <sub>OUT</sub>	0.3	1.3/3MHz	2.8mA	<1	ThinSOT	E	Integrated Schottky Diode, Soft-Start	\$1.65
LT1615	1	15	34	0.25 *V <sub>IN</sub> /V <sub>OUT</sub>	0.3	Constant Off-Time	20	<1	ThinSOT	E	Operates with V <sub>IN</sub> to 1V, LT1615 Has 350mA Current Limit	\$1.65
LT1617	1.2	15	-34	0.29 *V <sub>IN</sub> /V <sub>OUT</sub>	0.35	Constant Off-Time	20	<1	ThinSOT	E	V <sub>OUT</sub> Up to -34V, -1 Version Has a 100mA Current Limit	\$1.65
LT1944	1.2	15	34	0.29 *V <sub>IN</sub> /V <sub>OUT</sub>	0.35×2	Constant Off-Time	20	<1	MSOP-10	E	Dual 350mA Boost Converts in Single Package Current Limit	\$1.65
LT3472	2.2	16	±40	0.29 *V <sub>IN</sub> /V <sub>OUT</sub>	0.35/0.4	1.2MHz	2.8mA	<1	3×3 DFN-10	E	Dual 250mA/250mA Internal Schottkys. Boost/Inverter Converters in Single Package—Ideal for CCD Biasing	\$1.95
LT1173	2.0	30	50	0.33 *V <sub>IN</sub> /V <sub>OUT</sub>	0.4	23kHz	110	n/a	DIP-8, SO-8		Can Use as Step-Up or Step-Down, 5V or 12V or Adj. Output	\$2.30
LT1610	0.9	8	28	0.37 *V <sub>IN</sub> /V <sub>OUT</sub>	0.45	1.7MHz	30	<1	MSOP-8, SO-8	I	Operates with V <sub>IN</sub> to 0.9V, V <sub>OUT</sub> to 28V	\$1.65
LT1316	1.5	12	28	0.42 *V <sub>IN</sub> /V <sub>OUT</sub>	0.5	Constant Off-Time	33	<3	MSOP-8, SO-8	I	Programmable Input Current Limit, Low Battery Detect	\$2.45
LT3466	2.7	24.0	42	0.46 *V <sub>IN</sub> /V <sub>OUT</sub>	0.55×2	1.0MHz	5mA	<16	3×3 DFN-10, TSSOP-16	E	Dual Outputs/Integrated Schottkys, Soft-Start	\$2.20
LT1942	2.6	16.0	36	0.46 *V <sub>IN</sub> /V <sub>OUT</sub>	0.55	1.0MHz	7mA	<1	4×4 QFN-24	E	Both LED Driver and TFT Biasing, Integrated Schottkys and Output Disconnect	\$2.75
LT1611	1.1	10	-34	0.46 *V <sub>IN</sub> /V <sub>OUT</sub>	0.55	1.4MHz	3mA	<1	ThinSOT		Low Noise <1mV <sub>p-p</sub>	\$1.65
LT1613	0.9	10	34	0.46 *V <sub>IN</sub> /V <sub>OUT</sub>	0.55	1.4MHz	3mA	<1	ThinSOT		Operates with V <sub>IN</sub> to 0.9V, V <sub>OUT</sub> to 34V, Ideal for SEPIC	\$1.65
LT1307/B	1.0	12	28	0.50 *V <sub>IN</sub> /V <sub>OUT</sub>	0.6	600kHz	50μA/1.1mA	<1	MSOP-8, DIP-8, SO-8	I	/B Version Disables Burst Mode Operation, Low Battery Detector	\$2.05
LT1317/B	1.5	12	28	0.55 *V <sub>IN</sub> /V <sub>OUT</sub>	0.66	600kHz	100μA/4.8mA	<30/28	MSOP-8, SO-8	I	/B Version Disables Burst Mode Operation, Low Battery Detector	\$2.31
LT1614	1.0	12	-24	0.62 *V <sub>IN</sub> /V <sub>OUT</sub>	0.75	600kHz	1mA	10	MSOP-8, SO-8	I	V <sub>IN</sub> to 1V, Low Battery Detect	\$2.40

† Primary Sort Column

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Max (V)	Output Current <sup>(1)</sup> (A)	† Switch Current (A)	Switching Frequency	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Shutdown Current (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LT1300	1.8	10	20	0.62 *V <sub>IN</sub> /V <sub>OUT</sub>	0.75	155kHz	120	<10	DIP-8, SO-8		Programmable Peak Current Limit, Programmable 5V or 3.3V Output	\$2.55
LT1304	1.5	8	25	0.67 *V <sub>IN</sub> /V <sub>OUT</sub>	0.8	300kHz	120	<10	SO-8		Programmable Peak Current Limit, Low Battery Detect	\$2.45
LT3587	2.5	6	±32		0.8, 0.4, 0.9	1MHz	2.4mA	<5.5	3×3 QFN-20	E	CCD/LCD Bias Plus LED Driver	\$2.95
LT1186F	3.5	30	60		0.9	200kHz	6mA	5	SO-16	I	Precision 50μA Full Scale DAC Programming Current CCFL	\$5.15
LT1786F	3.5	30	60		0.9	100kHz	6mA	5	SO-16		Precision 100μA Full Scale DAC Programming Current CCFL	\$4.25
LTC1697	2.8	5.5	6		0.9	300kHz	0.9mA	2	MSOP-10	E	1W CCFL, Switching Regulator with Internal FETs	\$1.95
LT1930/A	2.6	16	34	0.83 *V <sub>IN</sub> /V <sub>OUT</sub>	1.0	1.2MHz/2.2MHz	5.5mA	<1	ThinSOT	E	Pin-for-Pin Compatible with LT1613, Wide V <sub>IN</sub> Range	\$1.90
LT1931/A	2.6	16	-34	0.83 *V <sub>IN</sub> /V <sub>OUT</sub>	1.0	1.2MHz/2.2MHz	5.8mA	<1	ThinSOT	E	Low Noise <1mV <sub>p-p</sub>	\$2.00
LT1947	2.6	8	30	0.83 *V <sub>IN</sub> /V <sub>OUT</sub>	1.0	3MHz	9.5mA	<1	MSOP-10E	E	Triple Output for TFT-LCD Applications	\$2.50
LT1949	1.5	12	30	0.83 *V <sub>IN</sub> /V <sub>OUT</sub>	1.0	600kHz/1.1MHz	4.5mA	<25	SO-8, MSOP-8	E, I	Operates with V <sub>IN</sub> to 1.5V, Low Battery Detect	\$2.25
LT3467	2.4	16	40	0.72 *V <sub>IN</sub> /V <sub>OUT</sub>	1.1	1.3MHz	1mA	<1	ThinSOT	E	Soft-Start Pin-to-Pin Comp with LT1930/LT1613	\$1.90
LT1182/ LT1183	3	30	60		1.2	200kHz	9mA	3	SO-16	I	LT1182 for Positive V <sub>OUT</sub> , LT1183 for Pos/Neg Outputs	\$5.15
LT3471	2.4	16	±40	1.10 *V <sub>IN</sub> /V <sub>OUT</sub>	1.3×2	1.2MHz	2.5mA	<1	3×3 DFN-10	E	Dual 1.3A @ ±40V Dual Boost/Dual Inverter/Boost, Inverter Converters in Single Package	\$2.80
LT1946/A	2.5	16	34	1.25 *V <sub>IN</sub> /V <sub>OUT</sub>	1.5	1.2/2.7MHz	3.2mA	<1	MSOP-8	E	Integrated Soft-Start, Ideal for TFT-LCD Applications	\$1.75
LT1768	8	24	28		1.5	350kHz	7mA	65	SSOP-16	I	High Power CCFL Controller	\$4.05
LT1308A/B	1.0	10	30	1.67 *V <sub>IN</sub> /V <sub>OUT</sub>	2.0	600kHz	100	<5	SO-8	I	Ideal for Single Cell AA, B Version Disables Burst Mode Operation, Low Battery Detector	\$3.25
LT3489	2.4	16	38	1.95 *V <sub>IN</sub> /V <sub>OUT</sub>	2.5	2.2MHz	2mA	<1	MSOP-8E	E	40V, 2.5A Switch at 2.2MHz	\$1.95
LT3513	4.5	30	40		2.2, 1.5, 0.25, 0.25	2MHz	7.5mA	<30	5×7 QFN-38	I	Up to 5 Outputs for TFT Biasing	\$4.25
LT1943	4.5	22	40	1.69 *V <sub>IN</sub> /V <sub>OUT</sub>	2.6	1.2MHz	10mA	<1	TSSOP-28E	E	High Current Quad Output Regulator for TFT LCD Displays	\$4.75
LT3436	3	25	34	1.95 *V <sub>IN</sub> /V <sub>OUT</sub>	3.0	800kHz	0.9mA	<1	TSSOP-16E	E	3A, 34V Internal Switch	\$2.75

† Primary Sort Column

Note:

1. Output current is estimated using the equation in the column, i.e., 0.06 × V<sub>IN</sub> / V<sub>OUT</sub>. This value can vary depending on external component choices.

XENON PHOTO FLASH CHARGERS

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	Switch Current (A)	Efficiency	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (mA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LT3484-0/-1/-2	1.8	16	1.4/0.7/1.0	>75%	5	<1	2×3 DFN-6	E	Smallest Xenon Flash Solution	\$2.10
LT3485-0/-1/-2/-3	1.8	10	1.4/1.0/0.7/2.0	>75%	5	<1	3×3 DFN-10	E	Integrated IGBT Driver	\$2.25
LT3585-0/-1/-2/-3	1.5	16	0.5/0.23/0.35/0.75	>75%	5	<1	3×2 DFN-10	E	Integrated IGBT Driver, Adjustable Input Current	\$1.10
LT3468/-1/-2	2.5	16	1.4/0.7/1.0	>75%	5	<1	ThinSOT	E	Can Charge 100μF Capacitor to 320V in 4.6sec from 3.6V <sub>IN</sub> , Tiny Transformer	\$2.10
LT3750	3.0	24	Ext FET	>75%	1.6	<1	MSOP-10	E	Flyback, Can Charge Any Size Capacitor	\$3.50
<b>LT3751</b>	<b>4.8</b>	<b>24</b>	<b>Ext FET</b>	<b>&gt;84%</b>	<b>5.5</b>	<b>&lt;1</b>	<b>4×5 QFN-20</b>	<b>E, I</b>	<b>Flyback, Can Charge Any Size Capacitor, UV/OV Detection, Internal Gate Driver Clamp</b>	<b>\$3.65</b>
LT3420/-1	1.8	16	1.4/1.0	>75%	90μA	<1	MSOP-10	E	Can Charge 220μF Capacitor to 320V in 3.7sec from 5V, Can Operate from 2 × AA Alkaline Cells or Li-Ion	\$2.50

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

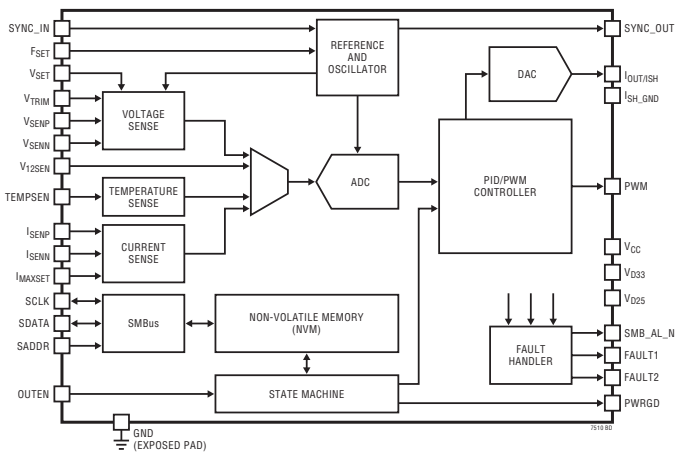
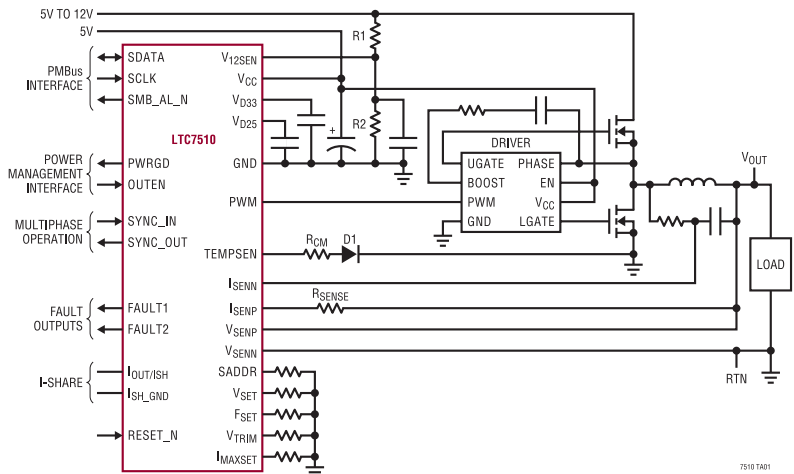
# HIGH TEMPERATURE POWER SUPPLIES (T<sub>J</sub> = -40°C TO 140°C)

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Switch Current (A)	Switch Configuration	Switching Frequency	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Temp Range	Comments	Price 1K Qty
LT3010H	1.5	80	1.275	60	0.05	N/A	Internal	N/A	30	<1	MSOP-8	H	Low Noise <100μV <sub>RMS</sub> , Stable with 1μF Ceramic	\$2.05
LT3012H	4.0	80	1.24	60	0.2	N/A	Internal	N/A	40	<1	TSSOP-16	H	Low Noise <100μV <sub>RMS</sub> , Stable with 3.3μF Ceramic	\$2.73
LT3013H	4.0	80	1.24	60	0.2	N/A	Internal	N/A	65	<1	TSSOP-16	H	Power Good, Low Noise <100μV <sub>RMS</sub> , Stable with 3.3μF Ceramic	\$2.95
LT3470H	4.0	40	1.25	16V	0.2	0.25	Internal	Hysteretic	26	<1	2×3 DFN-8, ThinSOT	H	T <sub>JMAX</sub> = 150°C, Tiny 40V Solution	\$3.07
LT3437H	3.3	60	1.25	0.90V <sub>IN</sub>	0.4	0.5	Internal	200kHz	100	<1	TSSOP-16E	H	60V, I <sub>O</sub> = 100μA	\$3.00
LT1933H	3.6	36	1.25	0.90V <sub>IN</sub>	0.6	0.8	Internal	500kHz	1.2mA	<2	ThinSOT, 2×3 DFN-6	H	36V Input	\$2.49
LT3509H	3.7	36	0.8	0.9V <sub>IN</sub>	0.7×2	1	Internal	250kHz to 2.5MHz	2.8mA	<1	TBD	H	36V Input, Dual 0.7A Outputs	C.F.
LT1766H	5.5	60	1.2	0.90V <sub>IN</sub>	1.2	1.5	Internal	200kHz	2.5mA	25	TSSOP-16E	H	Fixed 5V Output Option Available	\$4.70
LT1976H	3.3	60	1.2	0.90V <sub>IN</sub>	1.2	1.5	Internal	200kHz	100	<1	TSSOP-16E	H	Micropower Operation	\$4.85
LT1936H	3.6	36	1.2	0.87V <sub>IN</sub>	1.4	1.9	Internal	500kHz	1.9mA	<1	SSOP-36	H	36V Input, 1.9A Switch	\$3.55
LT3481H	3.6	34	1.265	20	2.0	3.2	-	300kHz to 2.8MHz	50	<1	3×3 DFN-10, MSOP-10	H	34V, 2A, Micropower Part	\$4.15
LT3508H	3.7	36	0.8	0.87V <sub>IN</sub>	1.4×2	2.0	Internal	250kHz to 2.5MHz	4.6mA	<1	4×4 QFN-24, TSSOP-16E	H	Dual 36V, 1.4A Channels	\$4.27
LT3500H	3.6	40	0.8	0.9V <sub>IN</sub>	2	2.6	Internal + LDO	250kHz to 2.5MHz	2.5mA	<12	3×3 DFN-12	H	40V, 2A Switcher Plus LDO Controller	\$4.15
LTC3803H/-5H	7.7/3.9	75 <sup>(3)</sup>	0.8	- <sup>(3)</sup>	2 <sup>(3)</sup>	- <sup>(3)</sup>	External	200kHz	350	no spec	ThinSOT-6	H	Flyback Controller with Adjustable Slope Compensation	\$1.63
LT3507H	4	40	0.8	0.9V <sub>IN</sub>	2.4/1.5/1.5	3	Internal	250kHz to 2.5MHz	2mA	<1	5×7 QFN-38	H	40V Input with Triple Outputs and LDO Controller	\$5.35
LTC1772H	2.5	9.8	0.8	V <sub>IN</sub>	5	N/A	External	550kHz	270	<22	ThinSOT	H	Burst Mode at Light Load; Continuous Operation at Light Load	\$2.36
LTC1871H	2.5	36	1.23	52	10 <sup>(3)</sup>	- <sup>(3)</sup>	External	50kHz to 1MHz	550	<20	MSOP-10	H	Boost, Flyback and SEPIC Controller	\$3.38
LTC3703H	9.3	100	0.8	0.93V <sub>IN</sub>	10 <sup>(3)</sup>	- <sup>(3)</sup>	External	100kHz to 600kHz	1.7mA	<50	SSOP-16, TSSOP-28	H	100V Synchronous Switching Regulator Controller	\$3.81
LT3755H	4.5	40		60	20 <sup>(3)</sup>	- <sup>(3)</sup>	External	100kHz to 1MHz	1.4mA	<1	3×3 QFN-16, MSOP-16E	H	40V Max V <sub>IN</sub> ; Boost, Buck, Buck-Boost or SEPIC; 3000:1 Dimming. "Plain" Has Open LED Status Pin, "-1" Has Frequency Synchronization	C.F.
LT3756H	6.0	100		100	20 <sup>(3)</sup>	- <sup>(3)</sup>	External	100kHz to 1MHz	1.4mA	<1	3×3 QFN-16, MSOP-16E	H	100V Max V <sub>IN</sub> ; Boost, Buck, Buck-Boost or SEPIC; 3000:1 Dimming. "Plain" Has Open LED Status Pin, "-1" Has Frequency Synchronization	C.F.
LTC3731H	4	36	0.6	7	60 to 200	N/A	External	250kHz to 600kHz	2.3mA	<100	SSOP-36	H	3 to 12 Phases, 1 to 4 Outputs	\$5.00
LTC3862H	4/8.5	36	8/12	- <sup>(3)</sup>	90 <sup>(3)</sup>	- <sup>(3)</sup>	External	50kHz to 650kHz	1.8mA	<80	SSOP-24, 5×5 QFN-24, TSSOP-24	H	PolyPhase High Power Current Mode Step-Up Controller, "-1" Has Higher Min V <sub>IN</sub> and 10V Gate Drive	\$4.00

† Primary Sort Column

- Notes:
1. Approximate value. See data sheet for detailed information
  2. Approximately 80% of Switch Current
  3. Depends on external components and design requirements

Part Number	V <sub>SUPPLY</sub> typ (V)	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	Output Current (A)	Serial Interface	Tracking/Margining	Architecture	Switching Frequency	Package	Features	Price 1K Qty <sup>(1)</sup>
LTC7510*	5	5	12	0.7	3.6	10	PMBus	yes	Sync PWM Controller	150kHz to 2MHz	5×5 QFN-32	Digital Control Loop, Integrated Non-Volatile Memory, Monitors V, I, Frequency, Temp and Faults, PolyPhase Operation Using Multiple LTC7510s	C.F.



\*Also see the LTC2978 Octal PMBus Power Supply Monitor & Controller with EEPROM and the LTC2970 Dual Digital Power Monitor & Margining Controller for DC/DC Converters

POWER MANAGEMENT ICs (PMICs)  
DC/DC CONVERTERS WITHOUT BATTERY CHARGERS

Part Number	† Number of Regulators <sup>(1)</sup>	Buck(s)	Buck-Boost (BB)/ Boost	LDO(s)	Input Voltage (V)	Interface	Package (mm <sup>2</sup> )	Notes	Price 1K Qty
<b>DC/DC Converters without Battery Chargers</b>									
LTC3537	2	–	0.6A Boost	100mA	0.68 to 5	–	3×3 QFN-16	Sync Boost + LDO	\$2.40
LTC3522	2	200mA	0.3A BB	–	2.4 to 5.5	–	3×3 QFN-16	Sync Buck-Boost and Buck	\$2.50
LTC3523	2	400mA	0.6A Boost	–	1.8 to 5.5	–	3×3 QFN-16	Sync Boost + Buck. “Plain” Switches at 1.2MHz, “-2” Switches at 2.4MHz	\$2.95
LTC3541	2	500mA	–	300mA (VLDO)	2.7 to 5.5	–	3×3 DFN-10	High Efficiency Low Noise Dual	\$1.95
LTC3456	3	250mA×2	–	1mA always on	2 AA cells, 5, USB	–	4×4 QFN-24	for AA Cells	\$3.95
LTC3100	3	250mA	0.7A Boost	100mA	0.65 to 5.5	–	3×3 QFN-16	Boost + Buck + LDO	\$3.10
LTC3445	3	600mA	–	100mA × 2	2.5 to 5.5	I <sup>2</sup> C	4×4 QFN-24	Sync Buck with Dual LDOs	\$2.45
LTC3446	3	1A	–	300mA × 2	2.7 to 5.5	–	4×3 DFN-14	Sync Buck with Dual LDOs	\$2.75
LTC3520	3	600mA	1A BB	1 LDO controller	2.2 to 5.25	–	4×4 QFN-24	Synchronous Dual	\$3.50
LTC3545	3	600mA×3	–	–	2.5 to 5.5	–	3×3 QFN-16	Synchronous Triple	\$3.10
LTC3544	4	300mA, 200mA×2, 100mA	–	–	2.25 to 5.5	–	3×3 QFN-16	Synchronous Quad	\$2.95
LTC3101	5	350mA×2	0.8A BB	50mA always on	1.8 to 5.5	–	4×4 QFN-24	PowerPath™ Control, 200mA Max Output Tracks Higher of USB or V <sub>BAT</sub> , Protected 100mA Hot Swap Output	\$3.95

† Primary Sort Column



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# POWER MANAGEMENT ICs (PMICs)

## DC/DC CONVERTERS WITH BATTERY CHARGERS

Part Number	† Number of Regulators <sup>(1)</sup>	Buck(s)	Buck-Boost (BB)/ Boost	LDO(s)	Li-Ion/ Polymer Charger	Max Charge Current (A)	PowerPath™ Topology <sup>(4)</sup>	Ideal Diode	Input Voltage (V)	Interface	Package (mm <sup>2</sup> )	Notes	Price 1K Qty
<b>DC/DC Converters with Battery Chargers</b>													
LTC4080/X	1	300mA	–	–	linear	0.5	–	–	3.75 to 5.5	–	3×3 DFN-10	AC Present (ACPR) Output, “X” Version Disables Trickle Charge	\$1.90
LTC4081	1	300mA	–	–	linear	0.5	–	–	3.75 to 5.5	–	3×3 DFN-10	NTC, no ACPR Signal	\$1.90
LTC3550	1	600mA	–	–	linear	0.95	–	–	4.3 to 8	–	3×5 DFN-16	Dual Input Battery Charger, Adjustable Output Buck. “-1” Has Fixed 1.875V Output Buck	\$2.00
LTC4089	1	1.2A	–	–	HV buck + linear	1.2 <sup>(2)</sup>	linear	int + ext (opt.)	6 to 36 (40V max), USB	–	3×6 DFN-22	Bat-Track™ Buck Regulator, “-1” Has 4.1V V <sub>FLOAT</sub>	\$2.95
LTC4089-5	1	1.2A	–	–	HV buck + linear	1.2 <sup>(2)</sup>	linear	int + ext (opt.)	6 to 36 (40V max), USB	–	3×6 DFN-22	DC/DC Provides Fixed 5V Output	\$2.95
LTC4088	1	1.5A	–	–	sync buck + linear	1.2 <sup>(2)</sup>	switching	int + ext (opt.)	4.25 to 5.5	–	3×4 DFN-14	Bat-Track (DC/DC Output = 300mV Above V <sub>BAT</sub> ), “Plain” Version Has 3.3V LDO. Power-Up Charger State is Off for “-1” and On for “-2”.	\$2.20
LTC4090	1	2A	–	–	HV buck + linear	1.5 <sup>(2)</sup>	linear	int + ext (opt.)	6 to 36 (60V max), USB	–	3×6 DFN-22	Bat-Track	\$3.25
LTC3558	2	400mA	0.4A BB	–	linear	0.95	–	–	5, USB	–	3×3 QFN-20		\$2.35
LTC3559	2	400mA×2	–	–	linear	0.95	–	–	5, USB	–	3×3 QFN-16	“-1” Has 4.1V V <sub>FLOAT</sub>	\$2.15
LTC3552	2	800mA/400mA	–	–	linear	0.95	–	–	4.25 to 8	–	3×5 DFN-16	Adjustable Output Bucks. “-1” Has Fixed 1.575V and 1.8V Outputs	\$2.30
LTC3566	2	–	1A BB	3.3V, 25mA always on	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	4.25 to 5.5	–	4×4 QFN-24	Bat-Track, “-2” Reduces Charge Current for Low V <sub>BAT</sub>	\$3.85
LTC3567	2	–	1A BB	3.3V, 25mA always on	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	4.25 to 5.5	I <sup>2</sup> C	4×4 QFN-24	Bat-Track	\$3.85
LTC3455	3	600mA <sup>(3)</sup> /400mA	–	Flexible Gain Block for LDO Controller	linear	0.5	linear	–	5, USB, Li-Ion	–	4×4 QFN-24	Dual Synchronous Bucks, Hot Swap Output, “-1” Version Has 4.1V V <sub>FLOAT</sub>	\$3.95
LTC3556	4	400mA×2	1A BB	3.3V, 25mA always on	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	5, USB, Li-Ion	I <sup>2</sup> C	4×5 QFN-28	Bat-Track (DC/DC Output = 300mV Above V <sub>BAT</sub> )	\$4.70
LTC3557	4	600mA/400mA×2	–	3.3V, 25mA always on	linear	1.5 <sup>(2)</sup>	linear	int + ext (opt.)	5, USB, Li-Ion, Hi-V 38V max	–	4×4 QFN-28	Bat-Track, “-1” Has 4.1V V <sub>FLOAT</sub>	\$3.95
LTC3555	4	1A/400mA×2	–	3.3V, 25mA always on	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	5, USB, Li-Ion	I <sup>2</sup> C	4×5 QFN-24	Bat-Track; “-1” and “-3” Have Enhanced “Instant-On” Operation & Undervoltage Current Limit While the “Plain” Does Not, “-3” Has 4.1V V <sub>FLOAT</sub>	\$4.65
LTC3576	4	1A/400mA×2	–	3.3V, 20mA always on	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	5, USB, Li-Ion, Hi-V 38V with 60V transients; OVP: 68V	I <sup>2</sup> C	4×6 QFN-38	Bat-Track, Bi-Directional USB On-The-Go (OTG), “-1” Has 4.1V V <sub>FLOAT</sub>	\$4.80
LTC3586	5	400mA×2	1A BB, 0.8A Boost	3.3V, 20mA always on	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	5, USB, Li-Ion	–	4×6 QFN-38	Bat-Track, Integrated Buck-Boost and Boost Regulators, “-1” Has 4.1V V <sub>FLOAT</sub>	\$5.30
<b>LTC3577/-1/-3</b>	<b>5</b>	<b>600mA, 400mA×2</b>	<b>–</b>	<b>2×150mA</b>	<b>linear</b>	<b>1.5<sup>(2)</sup></b>	<b>linear</b>	<b>int + ext (opt.)</b>	<b>5, USB, Li-Ion, Hi-V 38V max, OVP</b>	<b>–</b>	<b>4×7 QFN-44</b>	<b>OVP; Bat-Track, 10-LED Series Driver, Pushbutton Control, “-1” Has 4.1V V<sub>FLOAT</sub>, “-3” Version Compatible with Atlas IV Processor</b>	<b>C.F.</b>

† Primary Sort Column

### Notes:

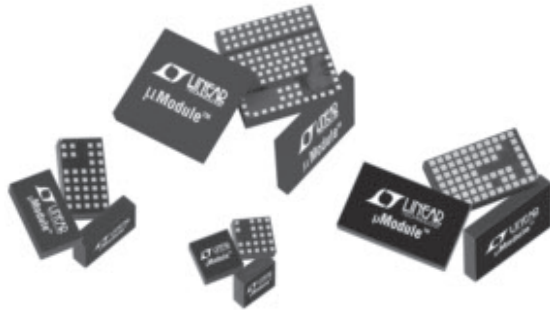
1. Excludes the linear regulator of the battery charger
2. The DC/DC converter can provide charge current and system power but the total cannot exceed the max charge current
3. May be increased to 1A with additional components
4. Switching PowerPath means a switcher is on the USB input allowing more than 500mA charge current from USB



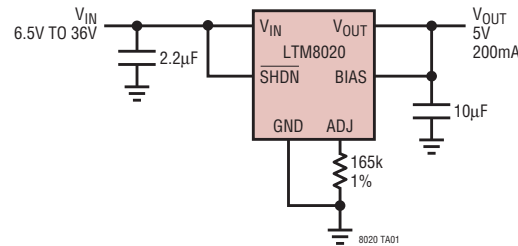
Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	† Continuous Output Current (A)	PLL	Track Margin	Remote Sense	Max. ICs Paralleled for Current Share	External Components	LGA Package (mm)	Maximum Junction Temperature	Price 1K Qty
<b>Buck</b>													
LTM8020	4	36	1.25	5	0.2					C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	6.25 × 6.25 × 2.3	125°C	\$4.95
LTM8021	3.6	36	0.8	5	0.5					C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	8.25 × 11.25 × 2.8	125°C	\$5.85
LTM8022	3.6	36	0.8	10	1					C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	9 × 11.25 × 2.8	125°C	\$6.95
LTM8023	3.6	36	0.8	10	2					C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	9 × 11.25 × 2.8	125°C	\$7.95
<b>LTM8032</b>	<b>3.6</b>	<b>36</b>	<b>0.8</b>	<b>10</b>	<b>2</b>		•		<b>2</b>	<b>C<sub>BULK</sub>; R to adjust V<sub>OUT</sub></b>	<b>9 × 15 × 2.8</b>	<b>125°C</b>	<b>\$10.95</b>
LTM4604/A	2.375	5.5	0.8	5	4		•		2	C <sub>BULK</sub> ; R to adjust V <sub>OUT</sub>	9 × 15 × 2.3	125°C	\$8.50
<b>LTM4614</b>	<b>2.375</b>	<b>5.5</b>	<b>0.8</b>	<b>5</b>	<b>4×2</b>		•		<b>2</b>	<b>C<sub>BULK</sub>; R to adjust V<sub>OUT</sub></b>	<b>15 × 15 × 2.8</b>	<b>125°C</b>	<b>C.F.</b>
LTM4612	5	36	3.3	15	5		•		4	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$19.89
LTM4612MP	5	36	3.3	15	5		•	•	4	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$40.45
LTM4602	4.5	20	0.6	5	6				2	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$11.95
LTM4603	4.5	20	0.6	5	6		•	•	4	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$13.50
LTM4603-1	4.5	20	0.6	5	6		•	•	2	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$12.95
LTM4602HV	4.5	28	0.6	5	6				2	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	16 × 15 × 2.8	125°C	\$14.58
LTM4603HV	4.5	28	0.6	5	6		•	•	4	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$16.47
LTM4606	4.5	28	0.6	5	6		•	•	4	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$16.50
LTM4606MP	4.5	28	0.6	5	6		•	•	4	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$37.10
LTM4608/A	2.7	5.5	0.6	5	8		•	•	3	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	9 × 15 × 2.8	125°C	\$11.30
LTM4616	2.7	5.5	0.6	5	8×2		•	•	2	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$19.45
LTM4600	4.5	20	0.6	5	10				2	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$14.70
LTM4600HV	4.5	28	0.6	5	10				2	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$18.00
LTM4600HVMP	4.5	28	0.6	5	10				2	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$36.95
LTM4601	4.5	20	0.6	5	12		•	•	4	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$16.50
LTM4601-1	4.5	20	0.6	5	12		•	•	2	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$15.95
LTM4601A	4.5	20	0.6	5	12		•	•	4	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$16.85
LTM4601HV	4.5	28	0.6	5	12		•	•	4	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$20.15
LTM4601AHV	4.5	28	0.6	5	12		•	•	4	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$20.40
LTM4601AHVMP	4.5	28	0.6	5	12		•	•	4	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$39.95
LTM4616	2.7	5.5	0.6	5	16		•	•	2	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$19.45
<b>Buck-Boost</b>													
<b>LTM4609</b>	<b>4.5</b>	<b>36</b>	<b>0.8</b>	<b>34</b>	<b>4</b>		•		<b>2</b>	<b>Inductor; R<sub>SENSE</sub>; C<sub>BULK</sub>; R to adjust V<sub>OUT</sub></b>	<b>15 × 15 × 2.8</b>	<b>125°C</b>	<b>\$22.55</b>
LTM4607	4.5	36	0.8	24	5		•		2	Inductor; R <sub>SENSE</sub> ; C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$21.55
LTM4605	4.5	20	0.8	16	5		•		2	Inductor; R <sub>SENSE</sub> ; C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	15 × 15 × 2.8	125°C	\$18.80

† Primary Sort Column

LGA (Land Grid Array) Package



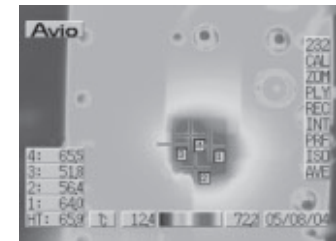
Simple DC/DC µModule



See [www.linear.com/micromodule](http://www.linear.com/micromodule) for Design Support Documents Including:

- App Note 100 - Recommended Land Pad, Assembly and Rework Guidelines
- App Note 103 - Thermal Performance
- App Note 114 - Evaluating the Integrity of LGA Package, 2nd Level Interconnect
- Design Note 411 - Simple and Compact 4-Output Point-of-Load DC/DC µModule System
- Materials Declaration
- Altera and Xilinx Reference Design Support

Thermal Performance Analysis



CONDITIONS: 25°C, NO AIR FLOW, NO HEATSINK, NO EXT<sub>VCC</sub>  
LTM4600 12V TO 3.3V AT 10A. TOP VIEW

# CHARGE PUMP DC/DC CONVERTERS

Part Number	V <sub>IN</sub> Range (V)	Min V <sub>OUT</sub> (V)	† Max I <sub>OUT</sub> (mA)	Switching Frequency	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (µA)	Shutdown Current (µA)	Package	Extended Temp Range	Comments	Price 1K Qty
<b>Regulated Step-Up Charge Pump Converters</b>										
LTC1502-3.3	0.9 to 1.8	3.3	10	500kHz	40	5	MSOP-8, SO-8	I	Quadrupler	\$1.95
LTC1986	2.6 to 4.4	5 or V <sub>IN</sub>	10	900kHz	14	<1	TSOT-6	E	SIM Power Supply	\$1.45
LTC1517-3.3	2.2 to 4.4	3.3	15	700kHz	6	n/a	SOT-23-5	E	Micropower Charge Pump, 3.3V V <sub>OUT</sub>	\$1.95
LTC1517-5	2.7 to 5	5	20	800kHz	6	n/a	SOT-23-5	E	Micropower Charge Pump, 5.5V V <sub>OUT</sub>	\$1.95
LTC1522	2.7 to 5	5	20	700kHz	6	<1	MSOP-8, SO-8	I	Micropower, Shutdown Disconnects Load	\$1.75
LTC1555	2.7 to 10	5	20	650kHz	60	<1	SSOP-16	E, I	SIM Power Supply and Level Translator	\$2.00
LTC1555L	2.6 to 6.6	3 or 5	20	1MHz	40	<1	SSOP-16	E, I	SIM Power Supply and Level Translator	\$2.00
LTC1555L-1.8	2.6 to 6.6	1.8, 3 or 5	20	1MHz	32	<1	SSOP-16	E, I	SIM Power Supply and Level Translator	\$2.20
LTC1556	2.7 to 10	5	20	650kHz	60	<1	SSOP-20	E, I	SIM Power Supply and Level Translator; Aux 4.3V LDO	\$2.00
LTC1262	5	12	30	300kHz	500	<1	SO-8, DIP-8	I	12V ±5% Out; Good for Flash Memory V <sub>PP</sub>	\$2.15
LTC1928-5	2.7 to 4.4	5	30	550kHz	190	4	TSOT-6	E	Doubler with Internal LDO Linear Regulator, Low Noise	\$1.76
LTC1754-3.3	2 to 4	3.3	40	600kHz	13	<1	SOT-23-6	E	Micropower Charge Pump, 3.3V V <sub>OUT</sub>	\$1.45
LTC3204-3.3	1.8 to 4.5	3.3	50	1.2MHz	48	<1	2×2 DFN-6	E	Low Noise, Doubler, 2×2 DFN, Only 3 Externals	\$1.50
LTC3204B-3.3	1.8 to 4.5	3.3	50	1.2MHz	1.25mA	<1	2×2 DFN-6	E	No Burst Mode Operation, Low Noise, Doubler, 2×2 DFN, 3 Externals	\$1.50
LTC1754-5	2.7 to 5.5	5	50	600kHz	13	<1	SOT-23-6	E	Micropower Charge Pump, 5.5V V <sub>OUT</sub>	\$1.45
LTC1514	2.7 to 10	3 or 5	50	650kHz	60	10	SO-8	I	Step-Up/-Down Operation; Low Battery Comparator	\$3.50
LTC1515	2.7 to 10	3.3 or 5	50	650kHz	60	<1	SO-8	I	Step-Up/-Down Operation; Power on Reset	\$3.50
LTC1516	2 to 5	5	50	600kHz	12	<1	SO-8	I	Doubler/Tripler; High Efficiency	\$3.35
LTC1682	1.8 to 4.4	3.3, 5, Adj.	50	550kHz	150	<1	MSOP-8, SO-8	I	Boost Charge Pump with 500µV <sub>P-P</sub> Low Noise LDO	\$1.70
LTC1263	5	12	60	300kHz	300	<1	SO-8	I	12V ±5% Out; Good for Flash Memory	\$3.30
LTC1755	2.7 to 6	3 or 5	60	PFM	60	<1	SSOP-16, SSOP-24	E	Universal Smart Card Interface	\$2.55
LTC1756	2.7 to 6	3 or 5	60	PFM	60	<1	SSOP-16, SSOP-24	E	Universal Smart Card Interface	\$2.30
LTC3221	1.8 to 5.5	Adjustable	60	600kHz	8	<1	2×2 DFN-6	E	Micropower, Burst Mode Operation, Adj. Output	\$1.60
LTC3221-3.3	1.8 to 4.4	3.3	60	600kHz	8	<1	2×2 DFN-6	E	Micropower, Burst Mode Operation, 3.3V Output	\$1.60
LTC3221-5	2.7 to 5.5	5	60	600kHz	8	<1	2×2 DFN-6	E	Micropower, Burst Mode Operation, 5V Output	\$1.60
LTC1751-3.3	2 to 4.4	3.3	80	800kHz	20	2	MSOP-8	E	PGOOD Output, 3.3V Output	\$2.25
LTC1751	2 to 5.5	Adjustable	100	PFM	20	2	MSOP-8	E	Adj. Output	\$2.25
LTC1751-5	2.7 to 5.5	5	100	PFM	20	2	MSOP-8	E	PGOOD Output, 5V Output	\$2.25
LTC3200	2.7 to 4.5	Adjustable	100	2MHz	3.5mA	<1	MSOP-8	I	Low Noise, Doubler/White LED Driver	\$1.60
LTC3200-5	2.7 to 4.5	5	100	2MHz	3.5mA	<1	TSOT-6	I	Low Noise, Doubler/White LED Driver	\$1.60
LTC3201	2.7 to 4.5	Adjustable	100	1.8MHz	4mA	<1	MSOP-10	E	Ultralow Noise, White LED Driver	\$1.90
LT1054	3.5 to 15	Adjustable	100	25kHz	2.5mA	n/a	DIP-8, SO-8	I	High Voltage/Current, Doubler or Inverter	\$2.65
LT1054L	3.5 to 7	Adjustable	125	25kHz	2.5mA	n/a	SO-8	I	High Current, Doubler or Inverter	\$2.00
LTC3202	2.7 to 4.5	Adjustable	125	1.5MHz	2.5mA	<1	3×3 DFN-10, MSOP-10	E	Low Noise, Fractional White LED Driver	\$1.90
LTC3204-5	2.7 to 5.5	5	150	1.2MHz	60	<1	2×2 DFN-6	E	Low Noise, Doubler, 2×2 DFN, Only 3 Externals	\$1.50
LTC3204B-5	2.7 to 5.5	5	150	1.2MHz	3.6mA	<1	2×2 DFN-6	E	No Burst Mode Operation, Low Noise, Doubler, 2×2 DFN, 3 Externals	\$1.50
LTC3203	2.7 to 5.5	Adjustable	500	1MHz	120	<1	3×3 DFN-10	E	Burst Mode Operation	\$2.00
LTC3203B	2.7 to 5.5	Adjustable	500	1MHz	7mA	<1	3×3 DFN-10	E	Constant Frequency at All Loads, Burst Mode Operation Defeated	\$2.00
LTC3203-1	2.7 to 5.5	4.5, 5	500	1MHz	120	<1	3×3 DFN-10	E	Burst Mode Operation	\$2.00
LTC3203B-1	2.7 to 5.5	4.5, 5	500	1MHz	7mA	<1	3×3 DFN-10	E	Constant Frequency at All Loads, Burst Mode Operation Defeated	\$2.00
<b>Regulated Inverting Charge Pump Converters</b>										
LTC1261	3 to 8	-4, -4.5, Adj	12	550kHz	600	5	SO-8, SO-14	I	Adjustable Output, Doubler or Tripler, PGOOD (REG) Output	\$1.75
LTC1550	2.7 to 6.5	-2, -2.5, -4.1, Adj	20	900kHz	4.2mA	<1	SO-8, SSOP-16	I	1mV <sub>P-P</sub> Ripple, 900kHz, Active High Shutdown, PGOOD (REG) Output	\$1.90
LTC1550L	2.7 to 5.25	-2, -2.5, -4.1, Adj	20	900kHz	3.5mA	<1	MSOP-8, SO-8, SSOP-16	I	1mV <sub>P-P</sub> Ripple, 900kHz, Active Low Shutdown, PGOOD (REG) Output	\$1.70
LTC1551	2.7 to 6.5	-4.1, Adj	20	900kHz	4.2mA	<1	SO-8, SSOP-16	I	1mV <sub>P-P</sub> Ripple, 900kHz, Active High Shutdown, PGOOD (REG) Output	\$1.90
LTC1551L	2.7 to 5.25	-4.1, Adj	20	900kHz	3.5mA	<1	MSOP-8, SO-8, SSOP-16	I	1mV <sub>P-P</sub> Ripple, 900kHz, Active Low Shutdown, PGOOD (REG) Output	\$1.70
LTC1261L	2.7 to 5.25	-4, -4.5, Adj	20	650kHz	650	5	MSOP-8, SO-8	I	Adjustable Output, Doubler or Tripler, PGOOD (REG) Output	\$1.70
LTC1983-3	3 to 5.5	-3	100	900kHz	25	<1	TSOT-6	E	Regulated Inverter	\$1.75
LTC1983-5	2.3 to 5.5	-5	100	900kHz	25	<1	TSOT-6	E	Regulated Inverter	\$1.75
LT1054	3.5 to 15	Adjustable	100	25kHz	2.5mA	n/a	DIP-8, SO-8	I	High Voltage/Current, Doubler or Inverter	\$2.65
LT1054L	3.5 to 7	Adjustable	125	25kHz	2.5mA	n/a	SO-8	I	High Current, Doubler or Inverter	\$2.00

† Primary Sort Column

Part Number	V <sub>IN</sub> Range (V)	Min V <sub>OUT</sub> (V)	† Max I <sub>OUT</sub> (mA)	Switching Frequency	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Shutdown Current (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
<b>Unregulated Doubling/Inverting Converters</b>										
LT1026	4 to 10	2V <sub>IN</sub> or -V <sub>IN</sub>	15	n/a	7mA	n/a	DIP-8, SO-8	I	Dual Supply Generator (+5V to -5V or ±10V)	\$2.05
LTC1044	1.5 to 9	2V <sub>IN</sub> , -V <sub>IN</sub> or 0.5V <sub>IN</sub>	20	5kHz	200	1.5	SO-8	I	Industry Standard (7660) Charge Pump	\$1.65
LTC1044A	1.5 to 12	2V <sub>IN</sub> , -V <sub>IN</sub> or 0.5V <sub>IN</sub>	20	5kHz	200	1.5	SO-8	I	Higher V <sub>IN</sub> (12V) than LTC1044/7660	\$2.20
LTC1046	1.5 to 6	2V <sub>IN</sub> , -V <sub>IN</sub> or 0.5V <sub>IN</sub>	50	20kHz	165	n/a	SO-8	I	Higher Current than LTC1044/7660	\$2.15
LTC1144	2 to 18	2V <sub>IN</sub> , -V <sub>IN</sub> or 0.5V <sub>IN</sub>	50	10kHz	1.1mA	8	SO-8	I	High Voltage, Shutdown	\$2.45
LTC660	1.5 to 5.5	2V <sub>IN</sub> , -V <sub>IN</sub> or 0.5V <sub>IN</sub>	100	80kHz	230	n/a	SO-8, DIP-8		High Current, +5V to -5V	\$2.75
LT1054	3.5 to 15	Adjustable	100	25kHz	2.5mA	n/a	DIP-8, SO-8	I	High Voltage/Current, Doubler or Inverter	\$2.65
LT1054L	3.5 to 7	Adjustable	125	25kHz	2.5mA	n/a	SO-8	I	High Current, Doubler or Inverter	\$2.00
<b>Regulated Step-Down Charge Pump Converters</b>										
LTC1503-1.8	2.4 to 6	1.8	100	600kHz	25	5	MSOP-8, SO-8	I		\$1.70
LTC1503-2	2.4 to 6	2	100	600kHz	25	5	MSOP-8, SO-8	I		\$1.75
LTC1911	2.7 to 5.5	1.5 or 1.8	250	1.5MHz	180	10	MSOP-8	E	Low Noise, 70% Efficiency	\$2.34
LTC3250	3.1 to 5.5	1.5 or 1.2	250	1.5MHz	35	<1	TSOT-6	E	Low Noise, 85% Efficiency	\$1.60
LTC3252	2.7 to 5.5	0.9 to 1.6	250×2	1MHz-1.6MHz	60	<1	4×3 DFN-12	E	Dual Output Spread Spectrum, Ultralow Noise	\$2.60
LTC3251	2.7 to 5.5	1.2, 1.5, Adj	500	1MHz-1.6MHz	9	<1	MSOP-10	E	Spread Spectrum, Ultralow Noise, 2-Phase Operation	\$1.95
<b>Regulated Buck-Boost Charge Pump Converters</b>										
LTC1517-3.3	2.2 to 4.4	3.3	15	700kHz	6	n/a	SOT-23-5	E	Micropower Charge Pump	\$1.95
LTC1555	2.7 to 10	5	20	650kHz	60	<1	SSOP-16	E, I	SIM Power Supply & Level Translator	\$2.00
LTC1555L	2.6 to 6.6	3 or 5	20	1MHz	40	<1	SSOP-16	E, I	SIM Power Supply & Level Translator	\$2.00
LTC1555L-1.8	2.6 to 6.6	1.8, 3 or 5	20	1MHz	32	<1	SSOP-16	E, I	SIM Power Supply & Level Translator	\$2.20
LTC1556	2.7 to 10	5	20	650kHz	60	<1	SSOP-20	E, I	SIM Power Supply & Level Translator; Aux 4.3V LDO	\$2.00
LTC1754-3.3	2 to 4	3.3	40	600kHz	13	<1	SOT-23-6	E	Micropower Charge Pump	\$1.45
LTC3204-3.3	1.8 to 4.5	3.3	50	1.2MHz	48	<1	2×2 DFN-6	E	Low Noise, Doubler, 2×2 DFN, Only 3 Externals	\$1.60
LTC3204B-3.3	1.8 to 4.5	3.3	50	1.2MHz	1.25mA	<1	2×2 DFN-6	E	No Burst Mode Operation, Low Noise, Doubler, 2×2 DFN, 3 Externals	\$1.60
LTC1514	2.7 to 10	3, 5	50	650kHz	60	10	SO-8	I	Step Up/Down Operation; Low Battery Comparator	\$3.50
LTC1515	2.7 to 10	3.3 or 5	50	650kHz	60	<1	SO-8	I	Step Up/Down Operation; Power on Reset	\$3.50
LTC3221-3.3	1.8 to 4.4	3.3	60	600kHz	8	<1	2×2 DFN-6	E	Micropower Charge Pump with Burst Mode Operation	\$1.60
LTC1755	2.7 to 6	3 or 5	60	PFM	60	<1	SSOP-16, SSOP-24	E	Universal Smart Card Interface, Can Be Paralleled, DV <sub>CC</sub> & Aux Pins	\$2.55
LTC1756	2.7 to 5.5	3 or 5	60	PFM	60	<1	SSOP-16, SSOP-24	E	Universal Smart Card Interface	\$2.30
LTC3240-2.5	1.8 to 5.5	2.5	150	1.2MHz	65	1	2×2 DFN-6	E	Burst Mode Operation	\$1.60
LTC3240-3.3	1.8 to 5.5	3.3	150	1.2MHz	65	1	2×2 DFN-6	E	Burst Mode Operation	\$1.60
<b>GaAs FET Bias Converters</b>										
LTC1261	3 to 8	-4, -4.5, Adj.	12	550kHz	600	5	SO-8, SO-14	I	Adjustable Output, Doubler or Tripler	\$1.75
LTC1550	2.7 to 6.5	-2, -2.5, -4.1, Adj.	20	900kHz	4.2mA	<1	SO-8, SSOP-16	I	1mV <sub>p-p</sub> Ripple, 900kHz, Active High Shutdown	\$1.90
LTC1550L	2.7 to 5.25	-2, -2.5, -4.1, Adj.	20	900kHz	3.5mA	<1	MSOP-8, SO-8, SSOP-16	I	1mV <sub>p-p</sub> Ripple, 900kHz, Active Low Shutdown	\$1.70
LTC1551	2.7 to 6.5	-4.1, Adj.	20	900kHz	4.2mA	<1	SO-8, SSOP-16	I	1mV <sub>p-p</sub> Ripple, 900kHz, Active High Shutdown	\$1.90
LTC1551L	2.7 to 5.25	-4.1, Adj.	20	900kHz	3.5mA	<1	MSOP-8, SO-8, SSOP-16	I	1mV <sub>p-p</sub> Ripple, 900kHz, Active Low Shutdown	\$1.70
LTC1261L	2.7 to 5.25	-4, -4.5, Adj.	20	650kHz	650	5	MSOP-8, SO-8	I	Adjustable Output, Doubler or Tripler	\$1.70

† Primary Sort Column

SUPERCAPACITOR CHARGER

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	Switch Current (mA)	Efficiency	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3225	2.9	5.5	150	>80%	20	<1	2×3 DFN-10	E	Charges Two Series Supercaps; Auto Cell Balancing	\$2.00

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# BOOST/BUCK-BOOST LED DRIVERS (Require an Inductor): LEDs in Series

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Max (V)	† Max Switch Current (A)	Number of White LEDs	Dimming Control	Switching Frequency	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (mA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty <sup>(3)</sup>
LT3491	2.5	12	27	0.26	6	True Color PWM	2.3MHz	2.6	<8	2×2 DFN-6, SC70	E	Integrated Schottky, Overvoltage Protection, 300:1 Dimming	\$1.25
LT1615	1.2	15	34	0.3	8	PWM	PFM	20μA	<1	ThinSOT	E	Constant-Current, Constant Off Time	\$1.65
LT3497	2.5	10	32	0.3×2	6×2	PWM	2.3MHz	6	<1	3×2 DFN-10	E	Dual Output, Integrated Schottkys, Soft-Start	\$1.70
LT1937	2.5	10	34	0.32	4	PWM	1.2MHz	1.9	<1	ThinSOT, SC70	E	Low Noise, 84% Efficiency, Ideal for 2-4 LEDs	\$1.30
LT3466	2.7	24	42	0.32×2	10×2	PWM	1.0MHz	5	<16	3×3 DFN-10, TSSOP-16E	E	Dual Outputs/Integrated Schottkys, Soft-Start	\$2.20
LT3466-1	2.7	24	42	0.32×2	10×1	PWM	1.0MHz	5	<16	3×3 DFN-10	E	LED Driver Plus Boost Converter, Integrated Schottkys, Soft-Start	\$1.95
LT1932	1.0	10	34	0.4	8	PWM	1.2MHz	1.2	<1	ThinSOT	E	Low Noise, 80% Efficiency, Ideal for 4-8 LEDs	\$1.75
LT3465/A	2.7	16	30	0.4	6	PWM	1.2/2.7MHz	2	<1	ThinSOT	E	Integrated Schottky, Soft-Start	\$1.35
LT3498	2.5	12	27	0.4/0.25	8	Analog	2.3MHz	1.65	<8	2×3 DFN-12	E	Dual, Integrated Schottky Diodes, Output Disconnect. Drives OLED and LED Display	\$1.95
LT3591	2.5	12	40	0.45	10	True Color PWM	1.0/2.3MHz	3	<1	3×2 DFN-8	E	Integrated Schottky, Soft-Start, 80:1 Dimming Range	\$1.40
LT3593	2.7	5.5	45	0.55	10	Analog	1MHz	0.3	<10	2×2 DFN-6, SOT-23-6	E	Drives Up to 10 LEDs. Output Disconnect, One Pin I <sub>LED</sub> Adjust.	\$1.40
LT3496	3.0	30	45	0.75×3	30	True Color PWM	330kHz to 2.1MHz	6	<1	4×5 QFN-28	I	Triple Output, Can be Used in Buck, Buck-Boost or Boost Mode, 3000:1 True Color PWM™ Dimming	\$3.50
LT1942	2.6	16	36	1	12	PWM	1.0MHz	7	<1	4×4 QFN-24	E	Both LED Driver and TFT Biasing, Integrated Schottkys and Output Disconnect	\$2.75
LT3453	2.7	5.5	5	1.15	1	DC	1.0MHz	2.5	<6	4×4 QFN-16	E	High Current Buck-Boost LED Driver — Delivers Up to 500mA	\$2.10
LT3486	2.5	24	36	1.3×2	20	True Color PWM	200kHz to 2MHz	9	<1	5×3 DFN-16, TSSOP-16E	E	Dual 1.3A LED Driver with 1000:1 Dimming	\$2.50
LT3598	3.1	30	44	1.5	60	True Color PWM	200kHz to 2.5MHz	3.5	<1	4×4 QFN-24	E, I	Up to Six Strings of 10 LEDs in Series, 30mA per LED	\$2.95
LT3517	3.0	30	45	1.5	8	True Color PWM	250kHz to 2.5MHz	4.5	<1	4×4 QFN-16	I	Buck, Buck-Boost or Boost Mode, 5000:1 Dimming	\$2.70
LT1618	1.6	18	34	1.5	20	PWM	1.4MHz	1.8	<1	MSOP-10	E	Constant Current/Voltage, Ideal for 8+ LEDs	\$1.75
LT3476	2.8	16	40	1.5×4	32+	True Color PWM	200kHz to 2MHz	22	<1	5×7 QFN-38	I	Quad Driver, 1000:1 True Color PWM, For Buck, Boost and Buck-Boost Applications	\$4.64
<b>LT3599</b>	<b>3.1</b>	<b>30</b>	<b>44</b>	<b>2</b>	<b>40</b>	<b>True Color PWM</b>	<b>200kHz to 2.1MHz</b>	<b>3.5</b>	<b>&lt;1</b>	<b>5×5 QFN-32, TSSOP-28E</b>	<b>E, I</b>	<b>Up to Four Strings of 10 LEDs in Series, 120mA per LED</b>	<b>\$3.25</b>
LTC3490	1.0	3.2	4	2	2	PWM	1.3MHz	1	<50	3×3 DFN-8, SO-8	E	High Current LED Driver for Flash Lighting	\$2.10
LT3518	3.0	30	45	2.3	8	True Color PWM	250kHz to 2.5MHz	4.5	<1	4×4 QFN-16	I	Buck, Buck-Boost or Boost Mode, 3000:1 Dimming	\$2.95
LT3454	2.7	5.5	5	2.4	1	DC	1.0MHz	0.825	<6	3×3 DFN-10	E	High Current Buck-Boost LED Driver, Delivers Up to 1A LED Current	\$1.95
LT3477	2.5	25	42	3	10	PWM	200kHz to 3.5MHz	5	<1	TSSOP-20E, 4×4 QFN-20	E	Boost, Buck, Buck-Boost LED Driver, 3A, 42V Internal Switch	\$3.15
LT3479	2.5	24	40	3	20	PWM	200kHz to 3.5MHz	6.5	<1	TSSOP-16, 4×3 DFN-14	E	High Current LED Driver — Delivers Up to 2A	\$3.00
LT3478/-1	2.8	36	40	4.5	16	True Color PWM	200kHz to 2.25MHz	22	<1	TSSOP-16E	I	Buck, Boost and Buck-Boost Applications, 3000:1 Dimming; "-1" Has Integrated R <sub>SENSE</sub>	\$3.60
LTC3783	3.0	36	100 <sup>(1)</sup>	20 <sup>(1)</sup>	25 <sup>(1)</sup>	PWM, Analog	20k to 1MHz	1.5	20	5×4 DFN-16, TSSOP-16	I	Boost, Flyback, SEPIC; 3000:1 Dimming Ratio	\$2.85
LT3755/-1	4.5	40	60 <sup>(1)</sup>	20 <sup>(1)</sup>	25 <sup>(1)</sup>	True Color PWM	100kHz to 1MHz	1.1	<1	3×3 QFN-16	E, I	40V Max V <sub>IN</sub> ; Boost, Buck Mode, Buck-Boost Mode, SEPIC; 3000:1 Dimming	\$2.75
LT3756/-1	6.0	100	100 <sup>(1)</sup>	20 <sup>(1)</sup>	25 <sup>(1)</sup>	True Color PWM	100kHz to 1MHz	1.1	<1	3×3 QFN-16	E, I	100V Max V <sub>IN</sub> ; Boost, Buck Mode, Buck-Boost Mode, SEPIC; 3000:1 Dimming	\$2.90

† Primary Sort Column

Notes:

1. Output voltage and current depend on the choice of external components.

# CHARGE PUMP LED DRIVERS (Inductorless): LEDs in Parallel

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	Conversion Ratio	Switch Current (mA)	† Number of White LEDs	Dimming Control	Switching Frequency	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3218	2.9	4.5	1/1 : 2/1	400	1	Ext	1	980	<2	2×3 DFN-10	E	High-Side (1-Wire) Current Sensing, Flash Current Timeout	\$1.44
LTC3214	2.9	4.4	1/1 : 3/2 : 2/1	500	1	Ext	900kHz	980	<2.5	3×3 DFN-10	E	Ideal for Med/Low Current LEDs: AOT, LumiLEDs, etc. 3×3 DFN	\$1.65
LTC3215	2.9	4.4	1/1 : 3/2 : 2/1	700	1	Ext	900kHz	300	<2.5	3×3 DFN-10	E	Ideal for High/Med Current LEDs: AOT, LumiLEDs, etc. 3×3 DFN	\$1.75
LTC3216	2.9	4.4	1/1 : 3/2 : 2/1	1,000	1	Ext	900kHz	300	<2.5	4×3 DFN-12	E	Ideal for High Current LEDs Like LumiLEDs	\$2.00
LTC3212	2.7	5.5	1/1 : 2/1	75	3 RGB	1-wire	900kHz	400	<3	3×2 DFN-12	E	Drives RGB LEDs, No Ballast Resistors, 2×3	\$1.30
LTC3217	2.9	4.5	1/1 : 3/2 : 2/1	600	4	Ext	900kHz	400	<4	3×3 QFN-16	E	Drives Up to 4 LEDs for Camera Lighting, No Ballast Resistors	\$1.70
LTC3230	2.7	5.5	1/1 : 3/2 : 2/1	125	5	1-wire	900kHz	400	<1	3×3 QFN-20	E	Drives 5 LEDs: 4 Main, 1 Sub; Linear 32-Step LED Brightness Control	\$1.55
LTC3210/-1	2.9	4.5	1/1 : 3/2 : 2/1	500	5	1-wire	0.8	400	<3	3×3 QFN-16, UTQFN-16 ("-1" only)	E	Drives 5 LEDs: 4 Main, 1 CAM/Flash; "Plain" Has Exponential 8-Step MAIN Brightness Control, "-1" Has Linear 64-Step MAIN Brightness Control	\$1.70
LTC3210-2/-3	2.9	4.5	1/1 : 3/2 : 2/1	500	5	1-wire	0.8	400	<3	3×3 QFN-16	E	Linear 32-Step MAIN Brightness Control, "-2" Drives 5 LEDs: 4 Main, 1 CAM/Flash, "-3" Drives 4 LEDs, 3 Main, 1 CAM/Flash	\$1.70
LTC3200-5	2.7	4.5	2/1	100	6	Ext	2MHz	3.5mA	<1	ThinSOT	E, I	Low Noise, Inductorless, Ideal for Up to 4 LEDs	\$1.60

† Primary Sort Column

## CHARGE PUMP LED DRIVERS (Inductorless): LEDs in Parallel

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	Conversion Ratio	Switch Current (mA)	† Number of White LEDs	Dimming Control	Switching Frequency	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3200	2.7	4.5	2/1	100	6	Ext	2MHz	3.5mA	<1	MSOP-10	E, I	Low Noise, Inductorless, Ideal for Up to 4 LEDs	\$1.70
LTC3201	2.7	4.5	2/1	100	6	DAC	1.7MHz	4mA	<1	MSOP-10	E	Ultralow Noise, Inductorless, Ideal for Up to 4 LEDs	\$1.90
LTC3205	2.8	4.5	1/1 to 3/2	250	4, 2, 1 RGB	SPI	800kHz	50	<1	4×4 QFN-24	E	Drives 4 Main LEDs, 2 Sub Display, and RGB LEDs	\$2.10
LTC3202	2.7	4.5	3/2	125	8	DAC	1.5MHz	2.5mA	<1	3×3 DFN-10, MSOP-10	E	Low Noise, High Efficiency, Inductorless, Ideal for Up to 6 LEDs	\$1.90
LTC3209	2.9	4.5	1/1 : 3/2 : 2/1	600	8	I <sup>2</sup> C	850kHz	400	<3	4×4 QFN-20	E	Drives 8 LEDs: "Plain" Drives 6 Main, 1 CAM/Flash, 1 AUX; "-1" Drives 5 Main, 2 CAM/Flash, 1 AUX	\$1.80
LTC3219	2.9	5.5	1/1 : 3/2 : 2/1	250	9	I <sup>2</sup> C	850kHz	400	<2	3×3 QFN-20	E	Drives 9 Universal LEDs	\$1.80
LTC3206	2.8	4.5	1/1 to 3/2	400	6, 4, 1 RGB	I <sup>2</sup> C	800kHz	50	<1	4×4 QFN-24	E	Drives 6 Main LEDs, 4 Sub Display, RGB LEDs	\$2.20
LTC3207	2.9	5.5	1/1 : 3/2 : 2/1	600	12 + 1	I <sup>2</sup> C	850kHz	500	<3	4×4 QFN-24	E	Drives 13 LEDs: 12 Universal + One 425mA CAM, "-1" Has Different I <sup>2</sup> C Address	\$2.55
LTC3208	2.9	4.5	1/1 : 3/2 : 2/1	1,000	17	I <sup>2</sup> C	850kHz	250	<1	5×5 QFN-32	E	Drives 17 LEDs: 4 Main, 2 Sub Display, 4 CAM, 3 RGB, 4 AUX	\$2.55
LTC3220	2.9	5.5	1/1 : 3/2 : 2/1	360	18	I <sup>2</sup> C	850kHz	500	<1	4×4 UTQFN-28	E, I	Drives 18 Universal LEDs. "-1" Has Different I <sup>2</sup> C Address	\$2.35

† Primary Sort Column

## HIGH CURRENT BUCK LED DRIVERS

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	† Max LED Current (A)	Max Number of White LEDs	Dimming Control	Frequency	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (mA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LT3590	4.5	55	0.05	10	Analog	850kHz	0.5	15	SC70, 2×2 DFN-6	E	48V Buck LED Driver, Internal Schottky	\$1.40
LT3595/A	4.5	45	0.05×16	160	True Color PWM	2MHz	0.25	15	5×9 QFN-56	E	Buck LED Driver, 16 Channels, 5000:1 Dimming. "A" Version Has Tighter LED Current Accuracy/Matching and Improved Pinout	\$6.95
LT3592	3.0	36	0.5	8	Analog	400kHz to 2.2MHz	2.0	1	2×3 DFN-10, MSOP-10E	I	36V Buck LED Driver	\$1.65
LT3496	3	30/40	0.5×3	30	True Color PWM	330kHz to 2.1MHz	6	<1	4×5 QFN-28	I	Triple Output, Can be Used in Buck, Buck-Boost or Boost Mode, 3000:1 Dimming	\$3.50
LT1618	1.6	18	0.7	Varies	Analog	1.4MHz or 550kHz	1.8	<1	3×3 DFN-10, MSOP-10	E	Constant Current/Voltage Switcher; 35V Max V <sub>OUT</sub> ; Buck, Buck-Boost or Boost Mode	\$1.75
LT3477	2.5	25	1	Varies	Analog + PWM	200kHz to 3.5MHz	5	<1	4×4 QFN-20, TSSOP-20E	E, I	42V Internal Switch, Dual Rail-to-Rail Current Sense Amps	\$3.15
LT3474	4	36	1	4	True Color PWM	200kHz to 2MHz	2.6	<1	TSSOP-16E	I	Buck LED Driver, 400:1 Dimming. "Plain" Has 13.8V V <sub>OUT</sub> Clamp, "-1" Allows Outputs to 26V	\$2.95
LT3517	3	30/40	1	8	True Color PWM	250kHz to 2.5MHz	4.5	<1	4×4 QFN-16, TSSOP-16E	I	Buck, Buck-Boost or Boost Mode, 5000:1 Dimming	\$2.70
LT3518	3	30/40	1.5	8	True Color PWM	250kHz to 2.5MHz	4.5	<1	4×4 QFN-16	I	Buck, Buck-Boost or Boost Mode, 3000:1 Dimming	\$2.95
LT3475	4	36	1.5×2	8	True Color PWM	200kHz to 2MHz	5	<1	TSSOP-20E	I	Dual Buck LED Driver, 3000:1 Dimming, "Plain" for Up to 15V LED Strings, "-1" for Up to 25V LED Strings	\$3.50
LT3476	2.8	16	1.5×4	32+	True Color PWM	200kHz to 2MHz	22	<1	5×7 QFN-38	I	Quad Driver, 1000:1 Dimming, for Buck, Boost and Buck-Boost Applications	\$4.64
LT3478	2.8	36	4.5	16	True Color PWM	200kHz to 2.25MHz	22	<1	TSSOP-16E	I	3000:1 Dimming, for Buck, Boost and Buck-Boost Applications; "-1" Has Integrated I <sub>SENSE</sub> Resistor	\$3.60
LT3755	4.5	40	20 <sup>(1)</sup>	25 <sup>(1)</sup>	True Color PWM	100kHz to 1MHz	1.1	<1	3×3 QFN-16, MSOP-16E	I	40V Max V <sub>IN</sub> ; Boost, Buck Mode, Buck-Boost or SEPIC; 3000:1 Dimming, "-1" Has SYNC Pin	\$2.75
LT3756	6.0	100	20 <sup>(1)</sup>	25 <sup>(1)</sup>	True Color PWM	100kHz to 1MHz	1.1	<1	3×3 QFN-16, MSOP-16E	I	100V Max V <sub>IN</sub> ; Boost, Buck Mode, Buck-Boost or SEPIC; 3000:1 Dimming, "-1" Has SYNC Pin	\$2.90

† Primary Sort Column

Notes:

1. Output voltage and current depend on the choice of external components.

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# HIGH CURRENT LED DRIVERS FOR PHOTO FLASH/TORCH LIGHTING

Part Number	Inductor or Charge Pump	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	Output Current (A)	Efficiency (%)	I <sub>SUPPLY</sub> (μA)	I <sub>SHDN</sub> (μA)	Package	High Current LED Flash/Torch	Extended Temp Range	Comments	Price 1K Qty
LTC3490	Inductor	1.0	3.2	0.35	90	1mA	20	3×3 DFN-8, SO-8	–	E	Boost, For 1- or 2-Cell Nickel or Alkaline Batteries	\$2.10
LT3453	Inductor	2.7	6	0.5	90	600	<1	4×4 QFN-16	✓	E	Buck-Boost, Delivers Up to 500mA, Supports Torch Mode	\$1.85
LT3486	Inductor, Dual	24	35.5	0.8	90	9mA	<1	5×5 DFN-16, TSSOP-16E	✓	E	Dual 1.3A LED Boost Driver with 1000:1 Dimming	\$2.50
LT3454	Inductor	2.7	6	1.0	90	825	<1	3×3 DFN-10	✓	E	Buck-Boost, Delivers Up to 1A, Supports Torch Mode	\$1.95
LT3479	Inductor	2.5	24	2.0	85	6.5mA	<1	TSSOP-16E, 4×3 DFN-14	✓	E	Boost, 3A, 40V Internal Switch, Ideal for High Current LED Strings	\$3.00
LTC3214	Charge Pump	2.9	4.4	0.5	90	980	<2.5	3×3 DFN-10	✓	E	Ideal for Med/High Current LEDs: AOT, LumiLEDs, etc.	\$1.65
LTC3217	Charge Pump	2.9	4.4	0.6	92	400	<4	3×3 QFN-16	✓	E	Drives Up to 4 LEDs for Camera Lighting, No Ballast Resistors	\$1.70
LTC3215	Charge Pump	2.9	4.4	0.7	90	300	<2.5	3×3 DFN-10	✓	E	Ideal for Med/High Current LEDs: AOT, LumiLEDs, etc.	\$1.75
LTC3216	Charge Pump	2.9	4.4	1.0	90	300	<2.5	4×3 DFN-12	✓	E	Ideal for High Current LEDs Like LumiLEDs	\$2.00

† Primary Sort Column  
 †† Secondary Sort Column

# ULTRALOW NOISE REGULATORS

Part Number	Type	Function	Noise (μV <sub>RMS</sub> )	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	Output Current (A)	Switch Configuration	Switching Frequency	Package	Extended Temp Range	Comments	Price 1K Qty
<b>Singles</b>														
LTC1911	Charge Pump	Step-Down	<1mV <sub>RMS</sub>	2.7	5.5	1.5	1.8	0.25	Internal	1.5MHz	MSOP-8	E	Fixed 1.5V/1.8V Output	\$2.34
LTC3250	Charge Pump	Step-Down	<1mV <sub>RMS</sub>	3.1	5.5	1.2	1.5	0.25	Internal	1.5MHz	ThinSOT	E	Fixed 1.2V/1.5V Output	\$1.35
LTC3251	Charge Pump, Spread Spectrum	Step-Down	<1mV <sub>RMS</sub>	2.7	5.5	0.9	1.6	0.5	Internal	1MHz to 1.6MHz	MSOP-10	E	Spread Spectrum Switching Noise @ -80dB	\$1.95
<b>LT3060</b>	<b>Low Drop Out Reg</b>	<b>Step-Down</b>	<b>&lt;30</b>	<b>1.7</b>	<b>45</b>	<b>0.6</b>	<b>36</b>	<b>0.04</b>	<b>Internal</b>	<b>–</b>	<b>2×2 DFN-8, ThinSOT</b>	<b>E</b>	<b>Stable with 2.2μF Ceramic Caps</b>	<b>C.F.</b>
LT3010	Low Drop Out Reg	Step-Down	<100	3	80	1.28	60	0.05	Internal	–	ThinSOT	E	Adj, 5V Output	\$1.55
LT1761	Low Drop Out Reg	Step-Down	<20	1.8	20	1.2	20	0.1	Internal	–	ThinSOT	E	Adj, 1.5V, 1.8V, 2V, 2.5V, 2.8V, 3V, 3.3V, 5V Output	\$0.90
LT1762	Low Drop Out Reg	Step-Down	<20	1.8	20	1.2	20	0.15	Internal	–	MSOP-8	E	Adj, 2.5V, 3V, 3.3V, 5V Output	\$1.10
LT3012/B	Low Drop Out Reg	Step-Down	<100	4.0	80	1.24	60	0.25	Internal	–	TSSOP-16, 4×3 DFN-12	E	Stable with 3.3μF Caps	\$2.05
LT3013/B	Low Drop Out Reg	Step-Down	<100	4.0	80	1.24	60	0.25	Internal	–	TSSOP-16, 4×3 DFN-12	E	PowerGood, Stable with 3.3μF Caps	\$2.25
LT1962	Low Drop Out Reg	Step-Down	<20	1.5	20	1.2	20	0.3	Internal	–	MSOP-8	E	Adj, 1.5V, 1.8V, 2.5V, 3V, 3.3V, 5V Output	\$1.65
LTC3025	Low Drop Out Reg	Step-Down	<80	0.9	5.5	0.4	3.6	0.3	Internal	–	2×2 DFN-6	E, I	Adj, 2×2 DFN	\$1.65
LT1763	Low Drop Out Reg	Step-Down	<20	1.8	20	1.2	20	0.5	Internal	–	SO-8	E	Adj, 1.5V, 1.8V, 2.5V, 3V, 3.3V, 5V Output	\$1.95
LT1965	Low Drop Out Reg	Step-Down	<40	1.8	20	1.2	19.5	1.1	Internal	–	TO-220, DD-5, MSOP-8, 3×3 DFN-8	E, I	Adj, 1.5V, 1.8V, 2.5V, 3.3V, Reverse Battery Protection, No Reverse Current	\$1.88
LT3080/-1	Low Drop Out Reg	Step-Down	<40	1.2	36	0	34.7	1.1	Internal	–	TO-220, SOT-223, MSOP-8, 3×3 DFN-8	E	V <sub>OUT</sub> (Set with Single Resistor) Down to 0V. Parallel Devices for Higher I <sub>OUT</sub> or to Spread PCB Heat, “-1” Has Integrated Ballast Resistor	\$1.81
LT1963/A	Low Drop Out Reg	Step-Down	<40	2.1	20	1.2	20	1.5	Internal	–	TO-220, DD-5, SOT-223, SO-8	E, I, MP	Adj, 1.5V, 1.8V, 2.5V, 3.3V Output	\$2.15
LT1764/A	Low Drop Out Reg	Step-Down	<40	2.7	20	1.2	20	3	Internal	–	DD-5, TO-220	E	Adj, 1.8V, 2.5V, 3.3V Output	\$3.30
LT1964	Negative Low Drop Out Reg	Step-Down	<30	-1.9	-20	-1.2	-20	0.2	Internal	–	ThinSOT	E	Adj, -5V Output	\$1.35
LT1777	Switching Reg	Buck	<100μV <sub>p,p</sub>	6.7	48	5	30	0.7	Internal	100kHz to 250kHz	SO-16	I		\$2.65

† Primary Sort Column  
 †† Secondary Sort Column

Part Number	†	Type	Function	Noise (µV <sub>RMS</sub> )	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	††	Output Current (A)	Switch Configuration	Switching Frequency	Package	Extended Temp Range	Comments	Price 1K Qty
LT1533		Switching Reg	Push-Pull	<100µV <sub>p-p</sub>	2.7	23	1.3	n/a	1	1	Internal	20kHz to 250kHz	S0-16	I	See LT1683 for Higher Power	\$4.65
LT3439		Switching Reg, Isolated	Push-Pull	<200µV <sub>p-p</sub>	2.8	20	2.8	n/a	1	1	Internal	20kHz to 250kHz	TSSOP-16E	E	Adjustable Slew Rates. 40dB Decrease in Noise	\$3.50
<b>LTM8032</b>		<b>µModule Switching Reg</b>	<b>Step-Down</b>	<b>6mV</b>	<b>3.6</b>	<b>36</b>	<b>0.8</b>	<b>10</b>	<b>2</b>	<b>2</b>	<b>Internal</b>	<b>200kHz to 2.4MHz</b>	<b>9x15 LGA</b>	<b>E, I, MP</b>	<b>Low Noise µModule DC/DC Converter, EMC Compliant</b>	<b>\$10.95</b>
LT1534		Switching Reg	Boost, Inverting	<100µV <sub>p-p</sub>	2.7	23	1.3	n/a	2	2	Internal	20kHz to 250kHz	S0-16	I	See LT1738 for Higher Power	\$3.93
LT1683		Switching Controller, Push-Pull	Boost, Flyback, Cuk	<200µV <sub>p-p</sub>	4	20	5	100	5	5	External	20kHz to 250kHz	SSOP-20	E	See LT1533 for Lower Power	\$4.75
LT1738		Switching Controller	Boost, Flyback, Cuk	<200µV <sub>p-p</sub>	4	20	5	100	5	5	External	20kHz to 250kHz	SSOP-20	E, I	See LT1534 for Lower Power	\$4.10
<b>Duals</b>																
LTC3252		Dual Charge Pump, Spread Spectrum	Step-Down	<2mV <sub>RMS</sub>	2.7	5.5	0.9	1.6	0.25x2	2	Internal	1MHz to 1.6MHz	4x3 DFN-12	E	Spread Spectrum Switching Noise @ -70dB	\$2.60
LT3023		Dual 100mA Low Drop Out Reg	Step-Down	<20	1.8	20	1.2	20	0.1x2	2	Internal	-	MSOP-10E, 3x3 DFN-10	I	Adjustable	\$1.60
LT3027		Dual 100mA Low Drop Out Reg	Step-Down	<20	1.8	20	1.2	20	0.1x2	2	Internal	-	MSOP-10E, 3x3 DFN-10	I	Adjustable, Dual Inputs	\$1.65
LT3024		Dual 500/100mA Low Drop Out Reg	Step-Down	<20	1.8	20	1.22	20	0.5/0.1	2	Internal	-	TSSOP-16E, 4x3 DFN-12	I	Dual 500mA/100mA Output, Low Noise <20µV <sub>RMS</sub>	\$2.45
LT3028		Dual 500/100mA Low Drop Out Reg	Step-Down	<20	1.8	20	1.22	20	0.5/0.1	2	Internal	-	TSSOP-16E, 5x3 DFN-16	I	Adjustable, Dual Inputs	\$2.55
LT3029		Dual 500mA Low Drop Out Reg	Step-Down	<20	1.9	20	1.218	19.5	0.5x2	2	Internal	-	MSOP-16E, 3x4 DFN-16	E, I	Adj, Dual Inputs, Stable with 3.3µF Output Cap, Low 50µA I <sub>q</sub> Per Regulator	C.F.

† Primary Sort Column  
 †† Secondary Sort Column

BATTERY CHARGERS

Part Number <sup>(1)</sup>	†	Maximum Charge Current (A)	Input Voltage (V)	USB Compatible	Number of Cells (Series)	Type of Charger	Pass Element (MOSFET or BJT)	Package	Charge Termination	Comments and Features	Price 1K Qty
<b>NiMH, NiCd, SLA Battery Chargers</b>											
LT1512		0.75	2.4 to 29	-	1 to 12	switching	Internal	S0-8	Microcontroller	SEPIC, Input Supply Voltage Can Be Above or Below Battery Voltage	\$3.60
LT1510-5		1	7 to 29	-	1 to 12	switching	Internal	S0-8, SSOP-16, S0-16	Microcontroller	500kHz Integrated Switching Frequency for Small Solution	\$4.05
LT1769		2	7 to 29	-	1 to 12	switching	Internal	TSSOP-20, SSOP-28	Microcontroller	Integrated Switching Charger in Thermally Enhanced Exposed PAD TSSOP-20	\$4.95
LTC4060		2	4.5 to 10	-	1 to 4	linear	External	DFN-16, TSSOP-16	Delta V, t, T	No Microcontroller or Firmware Required	\$3.70
LT1513		2	2.4 to 29	-	1 to 12	switching	Internal	DD and T7	Microcontroller	SEPIC, Input Supply Voltage Can Be Above or Below Battery Voltage	\$4.20
LT1511		3	7 to 29	-	1 to 12	switching	Internal	S0-24	Microcontroller	Integrated Switching Charger with 4A Internal Switch	\$6.50
LTC4010		4	4.5 to 34	-	1 to 16	switching	External, Synchronous	TSSOP-16E	-dV, dT/dt, t, T	High Efficiency, Fast Charging	\$4.45
LTC4011		4	4.5 to 34	-	1 to 16	switching	External, Synchronous	TSSOP-20E	-dV, dT/dt, t, T	High Efficiency, Fast Charging, Integrated PowerPath Control	\$4.60
LTC4008/-1		4	6 to 28	-	4 to 18	switching	External, Synchronous	SSOP-20	Microcontroller	Small Design, Low Profile Inductors. "-1" Has No Input MOSFET for Isolation of Battery From Input	\$3.70
LTC4009		4	6 to 28	-	1-4 Li, up to 18 Ni	switching	External, Synchronous	4x4 QFN-20	Microcontroller	Multi-Chemistry, External Resistor Sets V <sub>FLOAT</sub> , V <sub>OUT</sub> Range: 3V to 28V	\$2.95
LTC4009-1/-2		4	6 to 28	-	1-4 Li	switching	External, Synchronous	4x4 QFN-20	Microcontroller	Multi-Chemistry, "-1" Has Fixed V <sub>FLOAT</sub> of 4.1V, 8.2V, 12.3V, 16.4V; "-2" Has Fixed V <sub>FLOAT</sub> of 4.2V, 8.4V, 12.6V, 16.8V	\$2.95
LT1505/-1		6	6.7 to 26	-	1 to 12	switching	External, Synchronous	SSOP-28	Microcontroller	Synchronous Switching Controller, High Efficiency. "-1" Does Not Have Adapter Current Limit Control	\$4.60
LTC1759		6	6.7 to 26	-	1 to 17	switching	External, Synchronous	SSOP-36	Microcontroller	SMBus Charger with Integrated SMBus Accelerator™	\$5.40
LTC1960		6	6 to 28	-	1 to 18	switching	External, Synchronous	SSOP-36	Microcontroller	Dual Battery Selector and Charger; Fast Charge; Crisis Management	\$6.95

† Primary Sort Column

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# BATTERY CHARGERS

Part Number <sup>(1)</sup>	Maximum Charge Current (A)	Input Voltage (V)	USB Compatible	Number of Cells (Series)	Type of Charger	Pass Element (MOSFET or BJT)	Package	Charge Termination	Comments and Features	Price 1K Qty
<b>Li-Ion and Li-Polymer Battery Chargers</b>										
LTC4054L	0.15	4.25 to 6.5	yes	1	linear	Internal	ThinSOT	C/10	Standalone Precision 150mA Charge Current Linear Charger	\$1.40
LTC1734L	0.18	4.55 to 8	–	1	linear	External	ThinSOT	Microcontroller	Precision 180mA Charge Current Linear Charger	\$1.25
LTC4065L/X	0.25	3.75 to 5.5	yes	1	linear	Internal	2×2 DFN-6	Timer + C/10 Detect	2×2 DFN, Precision 250mA Charge Current, For Coin Cells	\$1.10
LTC4080/X	0.5	3.75 to 5.5	yes	1	linear	Internal	3×3 DFN-10, MSOP-10	Timer + C/10 Detect	“Integrated High Efficiency 300mA Sync Buck, AC Present (ACPR) Output, “X” Version Disables Trickle Charge”	\$1.90
LTC4081	0.5	3.75 to 5.5	yes	1	linear	Internal	3×3 DFN-10	Timer + C/10 Detect	NTC Input; Integrated High Efficiency 300mA Sync Buck	\$1.90
LTC4056	0.7	4.5 to 6.5	yes	1	linear	External	ThinSOT	Onboard Timer	No Charging Interruption Due to Input Voltage Fluctuation	\$1.35
LTC1734	0.7	4.55 to 8	–	1	linear	External	ThinSOT	Microcontroller	ThinSOT Linear Charger; Only Three Components for Complete Solution	\$1.25
LTC4065/-4.4	0.75	3.75 to 5.5	yes	1	linear	Internal	2×2 DFN-6	Timer + C/10 Detect	2×2 DFN with Enable, Standalone, -4.4 Has 4.4V Float Voltage	\$1.05
LTC4065A	0.75	3.75 to 5.5	yes	1	linear	Internal	2×2 DFN-6	Timer + C/10 Detect	2×2 DFN with AC/DC Power Detection, Standalone	\$1.05
LTC4069/-4.4	0.75	3.75 to 5.5	yes	1	linear	Internal	2×2 DFN-6	Timer + C/10 Detect	2×2 DFN with Thermistor Input, Standalone, -4.4 Has 4.4V Float Voltage	\$1.10
LTC4054X	0.8	4.25 to 6.5	yes	1	linear	Internal	ThinSOT	C/10	Standalone Operation, Thermal Regulation	\$1.40
LTC4057	0.8	4.25 to 6.5	yes	1	linear	Internal	ThinSOT	Microcontroller	LTC4054 with External Charge Termination Control	\$1.35
LT1512	0.8	2.4 to 29	–	1 to 6 Li	switching	Internal	SO-8	Microcontroller	Input Supply Voltage Can Be Above or Below Battery Voltage	\$3.75
LTC4059	0.9	3.75 to 8	yes	1	linear	Internal	2×2 DFN-6	Microcontroller	2×2 DFN	\$1.35
LTC4059A	0.9	3.75 to 8	yes	1	linear	Internal	2×2 DFN-6	Microcontroller	2×2 DFN with AC/DC Power Detection	\$1.45
LTC4058/X	0.95	4.25 to 6.5	yes	1	linear	Internal	3×3 DFN-8	C/10	Standalone Linear Charger in 3×3 DFN	\$1.70
LTC4068/X	0.95	4.25 to 6.5	yes	1	linear	Internal	3×3 DFN-8	C/x	Adjustable Charge Termination Current	\$1.70
LTC4075	0.95	4.3 to 8	yes	1	linear	Internal	3×3 DFN-10	C/x	Dual Input: USB or AC Adapter, USBPWR Status Pin, 650mA USB Compatible	\$1.88
LTC4075X	0.95	4.3 to 8	yes	1	linear	Internal	3×3 DFN-10	C/x	Dual Input: USB or AC Adapter, No Trickle Charge, USBPWR Status Pin, 650mA USB Compatible	\$1.88
LTC4075HVX	0.95	4.3 to 5.5 22V abs max	yes	1	linear	Internal	3×3 DFN-10	C/x	22V Abs Max; Dual Input: USB or AC Adapter, No Trickle Charge, USBPWR Status Pin, 650mA USB Compatible	\$2.00
LTC4076	0.95	4.3 to 8	yes	1	linear	Internal	3×3 DFN-10	C/x	Dual Input: USB or AC Adapter, Hpw Input for Low or High Power USB, 650mA USB Compatible	\$1.88
LTC4077	0.95	4.3 to 8	yes	1	linear	Internal	3×3 DFN-10	C/10	Dual Input: USB or AC Adapter, Hpw Input for Low or High Power USB, 650mA USB Compatible	\$1.88
LTC4078/X/-2	0.95	4.3 to 5.5 22V abs max	yes	1	linear	Internal	3×3 DFN-10	C/x	22V Abs Max; Dual Input: USB or AC Adapter, BAT Detect Pin, 650mA USB Compatible; “X” Version Disables Trickle Charge; “-2” Version Has Reduced 2.5V Trickle Charge Threshold	\$2.00
LTC3550/-1	0.95	4.3 to 8	yes	1	linear	Internal	5×3 DFN-16	C/x	Dual Input: USB or AC Adapter, No Trickle Charge, 600mA Synchronous Buck with Fixed 1.875V Output (“-1” Has Adjustable V <sub>OUT</sub> )	\$2.00
LTC3552/-1	0.95	4.25 to 8	yes	1	linear	Internal	5×3 DFN-16	C/x	Integrated 0.8A and 0.4A Dual Synchronous Buck. “-1” Has Fixed 1.8V and 1.575V Outputs, Respectively	\$2.30
LTC4095	0.95	4.3 to 5.5	yes	1	linear	Internal	2×2 DFN-8	Timer + C/10 Detect	HPWR + SUSP USB Pins, 2×2 DFN-8 with NTC, 4 Indicator /CHRG States	\$1.15
LTC4064	1	4.25 to 6.5	yes	1	linear	Internal	MSOP-10	Timer + C/10 Detect	For Battery Backup; 4.0V Float Voltage	\$1.85
LT1510-5	1	6.2 to 29	–	1 to 4	switching	Internal	SO-8, SSOP-16, SO-16	LTC1729	500kHz Integrated Switching Frequency for Small Solution	\$4.05
LTC4061	1	4.3 to 8	yes	1	linear	Internal	3×3 DFN-10	Timer + C/x	Complete, Standalone Linear Charger in DFN Package + Thermistor + AC Present Status	\$1.95
LTC4061-4.4	1	4.5 to 8	–	1	linear	Internal	3×3 DFN-10	Timer + C/x	Complete, Standalone Linear Charger in DFN Package, for New 4.4V Batteries	\$2.05
LTC4062	1	4.3 to 8	yes	1	linear	Internal	3×3 DFN-10	Timer + C/x	Complete, Standalone Linear Charger in DFN Package + Micropower Comparator	\$1.95
LTC4063	1	4.3 to 8	yes	1	linear	Internal	3×3 DFN-10	Timer + C/x	Complete, Standalone Linear Charger in DFN Package + LDO	\$2.10
LTC4055/-1	1	4.3 to 5.5	yes	1	linear	Internal	4×4 QFN-16	Onboard Timer	USB Power Manager and Battery Charger with Low-Loss 200mΩ Ideal Diode; “-1” Has 4.1V V <sub>FLOAT</sub>	\$2.20
LTC4089/-1/-5	1.2	4.35 to 5.5 USB, 6 to 36 wall	yes	1	linear	Internal	6×3 DFN-22	Timer + C/10 Detect	USB Power Manager and High Voltage, High Efficiency Charger, Battery Tracking, “-1” and “-5” Have Fixed 5V Output. “-1” Has 4.1V Float Voltage	\$2.95
LTC4096/X	1.2	4.25 to 5.5	yes	1	linear	Internal	3×3 DFN-10	C/x	Dual Input: USB or AC Adapter, 950mA USB Compatible, “X” Version is ISL6299 Replacement	\$1.50
LTC4097	1.2	4.25 to 5.5	yes	1	linear	Internal	3×2 DFN-12	C/x	2×3 DFN Package; NTC, Dual Input: USB or AC Adapter, HPWR + SUSP Pins	\$1.50
LTC4053	1.25	4.25 to 6.5	yes	1	linear	Internal	MSOP-10, 3×3 DFN-10	Timer + C/10 Detect	USB Compatible; Complete and Standalone; Thermal Regulation Prevents Overheating	\$1.90
LTC4067	1.25	4.35 to 5.5	yes	1	linear	Internal	4×3 DFN-12	Timer	13V OVP; USB Power Manager with Optional External Ideal Diode Controller	\$1.70
LTC4052	1.3	4.5 to 10	yes	1	Pulse	Internal	MSOP-10	Timer + C/10 Detect	Minimum Heat Dissipation; Current Limit for Safety; Standalone	\$1.85

† Primary Sort Column

Part Number <sup>(1)</sup>	† Maximum Charge Current (A)	Input Voltage (V)	USB Compatible	Number of Cells (Series)	Type of Charger	Pass Element (MOSFET or BJT)	Package	Charge Termination	Comments and Features	Price 1K Qty
LTC4066/-1	1.5	4.3 to 5.5	yes	1	linear	Internal	4×4 QFN-24, 4×4 UTQFN-24 (Plain)	Timer + C/10 Detect	USB Power Manager and Battery Charger with Low-Loss 50mΩ Ideal Diode, “-1” Has 4.1V Li-Ion Cell Float Voltage	\$2.30
LTC4088/-1/-2	1.5	4.25 to 5.5	yes	1	linear	Internal	4×3 DFN-14	Timer + C/x Detect	Switching USB PowerPath Manager, Bat-Track, Charge Current Reduces to Maintain 3.6V Output @ Load. Plain Version Has 3.3V LDO, “-1” and “-2” Do Not. Default Power-Up State is Off for “-1” and On for “-2”	\$2.20
LTC4098/-1	1.5	4.25 to 5.5	yes	1	Linear	Internal	3×4 UTQFN-20	Timer + C/x Detect	Switching PowerPath, 66V OVP, Up to 38V V <sub>IN</sub> (60V abs max) with HV Buck, High Efficiency Charger, Bat-Track, Instant-On Operation, “-1” Has 4.1V V <sub>FLOAT</sub>	\$2.50
LTC4099	1.5	4.35 to 5.5	yes	1	linear	Internal	3×4 UTQFN-20	Timer + C/x Detect	IC Operation; Overtemp Battery Conditioning Circuit; Switching PowerPath, 66V OVP, Up to 38V V <sub>IN</sub> (60V abs max) with HV Buck, High Efficiency Charger, Bat-Track, Instant-ON Operation	\$2.80
LTC4085/-1	1.5	4.35 to 5.5	yes	1	linear	Internal	4×3 DFN-14	Timer + C/10 Detect	USB Power Manager and Charger, Optional External Ideal Diode Controller. “-1” Has 4.1V Float Voltage	\$1.65
LTC1733	1.5	4.5 to 6.5	–	1	linear	Internal	MSOP-10E	Timer + C/10 Detect	Thermal Regulation for No Overheating; Integrated MOSFET, R <sub>SENSE</sub> , Diode; Standalone; Thermistor Interface	\$2.35
LTC4090/-5	1.5	4.35 to 5.5 USB, 6-36V wall	yes	1	linear	Internal	3×6 DFN-22	Timer + C/10 Detect	High Voltage, High Efficiency Charger, Bat-Track, Instant-On Operation, 60V Abs Max V <sub>IN</sub> ; “-5” Version Has Fixed 5V Output without Bat-Track	\$3.25
LT1571	1.5	6.2 to 27	–	1, 2, adj.	switching	Internal	SSOP-16, SSOP-28	LTC1729	Integrated Switching Charger with C/10 Detection/Indicator	\$3.95
LT1513	1.6	2.4 to 29	–	1 to 6 Li	switching	Internal	DD, TO-220	Microcontroller	Input Supply Voltage Can Be Above or Below Battery Voltage	\$4.00
<b>LT3650</b>	<b>2</b>	<b>9 to 32 (40 Max)</b>	–	<b>1, 2</b>	<b>switching</b>	<b>Internal</b>	<b>3×3 DFN-12</b>	<b>C/10 or Timer</b>	<b>Programmable Input Current Limit, 1MHz Fixed Switching, NTC Monitor, Bad Battery Detect. “-8.2” for Two 4.1V Li-Ion Cells &amp; “-4.1” for Single Cell, “-8.4” for Two 4.2V Cells &amp; “-4.2” for Single Cell</b>	<b>\$2.80</b>
LTC4001/-1	2	4.0 to 5.5	–	1	switching	Internal	4×4 QFN-16	Timer or C/x	Integrated R <sub>SENSE</sub> , Small Inductor, Synchronous, High Efficiency; “-1” for 4.1V Li Cells	\$2.20
LTC4050	2	4.5 to 12	–	1	linear	External	MSOP-10	Timer + C/10 Detect	LTC1732 + Thermistor Interface	\$2.25
LTC1731	2	4.5 to 12	–	1, 2	linear	External	MSOP-8, SO-8	Timer + C/10 Detect	Standalone Linear Charger	\$1.55
LTC1732	2	4.5 to 12	–	1, 2	linear	External	MSOP-10	Timer + C/10 Detect	Standalone Linear Charger with AC Adapter Detection	\$2.15
LT1769	2	7 to 29	–	1 to 4	switching	Internal	SSOP-28, TSSOP-20	LTC1729	Integrated Switching Charger in Thermally Enhanced Exposed Pad, 20-Lead SSOP	\$4.95
LT1511	3	7 to 29	–	1 to 4	switching	Internal	SO-24	LTC1729	Integrated Switching Charger with 4A Internal Switch	\$6.50
LTC4002	3	4.7 to 24	–	1, 2	switching	External	3×3 DFN-10, SO-8	Timer + C/10 Detect	Charges 1- or 2-cell Li-Ion Battery From High V <sub>IN</sub>	\$1.80
<b>LT3651</b>	<b>4</b>	<b>4.75 to 32 (40 Max)</b>	–	<b>1, 2</b>	<b>switching</b>	<b>Internal</b>	<b>5×6 QFN-36</b>	<b>C/10 or Timer</b>	<b>Synchronous, Programmable Input Current Limit, 200kHz to 1MHz Adj. Switching Frequency, “-4.2” Version for Single Li-Ion Cell, “-8.4” for Two Cells</b>	<b>C.F.</b>
LTC4006	4	6 to 28	–	2 to 4	switching	External, Synchronous	SSOP-16	Timer + C/10 Detect	Small IC, Standalone	\$3.60
LTC4007/-1	4	6 to 28	–	3 to 4	switching	External, Synchronous	SSOP-24 (Plain), 4×5 QFN-24 (“-1”)	Timer + C/10 Detect	Full-Featured, Standalone Operation, Auto-Restart Enabled. “-1” Has Auto-Restart Disabled	\$3.80
LTC4008	4	6 to 28	–	2 to 6	switching	External, Synchronous	SSOP-20	Microcontroller	Multi-Chemistry Charger, μC for Termination	\$3.70
LTC4009/-1/-2	4	6 to 28	–	1 to 4 Li, 2V to 28V	switching	External, Synchronous	4×4 QFN-20	Microcontroller	Multi-Chemistry Charger, Requires μC for Termination; “Plain” and “-3” Have Adjustable V <sub>FLOAT</sub> , “Plain” Has AC Present Status Pin, “-1” Has 4.1V V <sub>FLOAT</sub> , “-2” Has 4.2V V <sub>FLOAT</sub>	\$2.95
LTC4012	4	6 to 28	–	1 to 4 Li, 2V to 28V	switching	External, Synchronous	4×4 QFN-20	Microcontroller	PowerPath Control; Multi-Chemistry Charger, Requires μC for Termination; “Plain” and “-3” Have Adjustable V <sub>FLOAT</sub> , “Plain” Has AC Present Status Pin, “-1” Has 4.1V V <sub>FLOAT</sub> , “-2” Has 4.2V V <sub>FLOAT</sub>	\$3.15
LT1505	6	6.7 to 26	–	1 to 4	switching	External, Synchronous	SSOP-28	Microcontroller	Synchronous Switching Controller for High Current, High Efficiency with Adapter Current Limit	\$4.60
<b>Buck/Boost Battery Chargers</b>										
LT1512	0.8	2.4 to 29	–	1 to 6 Li, 1 to 12 Ni	switching	Internal	SO-8	LTC1729	Input Supply Voltage Can Be Above or Below Battery Voltage	\$3.75
LT1513	1.6	2.4 to 29	–	1 to 6 Li, 1 to 12 Ni	switching	Internal	DD, TO-220	LTC1729	Input Supply Voltage Can Be Above or Below Battery Voltage	\$4.00
LTC1980	2	4.1 to 12	–	1, 2	switching	External	SSOP-24	Timer + C/10 Detect	Combination Battery Charger and System DC/DC Converter	\$3.75

† Primary Sort Column

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# BATTERY CHARGERS

Part Number <sup>(1)</sup>	Maximum Charge Current (A)	Input Voltage (V)	USB Compatible	Number of Cells (Series)	Type of Charger	Pass Element (MOSFET or BJT)	Package	Charge Termination	Comments and Features	Price 1K Qty
<b>SMBus, I<sup>2</sup>C, SPI Controlled Battery Chargers</b>										
LTC4110	3	6 to 20	-	1-4 Li, up to 10 Ni, up to 6 SLA	switching	External, Synchronous	5x7 QFN-38	C/10, Timer, Microcontroller	Backup Smart/Standard Battery System Manager, Battery Charger and Calibrator, I <sup>2</sup> C/SMBus Interface, Shutdown. V <sub>BAT</sub> Voltage Range: 3.5V to 18V; Flyback Topology	\$9.25
LTC1960	4	6 to 28	-	1 to 6	switching	External, Synchronous	SSOP-36, 5x7 QFN-38	Microcontroller	Dual Battery Selector and Charger; Fast Charge; Crisis Management; SPI Interface	\$6.95
LTC1760	4	6 to 28	-	2 to 6	switching	External, Synchronous	TSSOP-48	Standalone or Microcontroller	Dual Battery Selector and Charger; Crisis Management; SMBus v. 1.1, Level 2 Charger; Operates with or without Host Microcontroller	\$7.95
LTC4100	4	6 to 28	-	2 to 6	switching	External, Synchronous	SSOP-24	Standalone or Microcontroller	SMBus v. 1.1, Level 2 Charger; Operates with or without Host Microcontroller	\$5.00
LTC4101	4	6 to 28	-	1	switching	External, Synchronous	SSOP-24	Standalone or Microcontroller	3.0V to 5.5V Battery Voltage, Optimized for 1-Cell Li or 3-4 Cell Ni, SMBus v. 1.1, Level 2 Charger; Operates with or without Host Microcontroller	\$5.00
LTC1759	8	6.7 to 26	-	1 to 4	switching	External, Synchronous	SSOP-36	Microcontroller	SMBus Charger with Integrated SMBus Accelerator	\$5.40

† Primary Sort Column

Notes:  
1. "X" Version Has Trickle Charge Disabled

# BATTERY CHARGER MULTI-FUNCTION PMICs

Part Number	Number of Regulators <sup>(1)</sup>	Buck(s)	Buck-Boost (BB)/Boost	LDO(s)	Li-Ion/Polymer Charger	Max Charge Current (A)	PowerPath™ Topology	Ideal Diode	Input Voltage (V)	Interface	Package (mm <sup>2</sup> )	Notes	Price 1K Qty
LTC3554	2	200mA×2	-	-	linear	0.5 <sup>(2)</sup>	linear	internal	4.35 to 5.5	-	3×3 UTQFN-20	10µA Standby Mode I <sub>Q</sub> , Pushbutton ON/OFF Control, RESET Function	C.F.
LTC3566	2	-	1A BB	3.3V, 25mA always on	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	4.25 to 5.5	-	4×4 QFN-24	Bat-Track, "-2" Reduces Charge Current for Low V <sub>BAT</sub>	\$3.85
LTC3567	2	-	1A BB	3.3V, 25mA always on	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	4.25 to 5.5	I <sup>2</sup> C	4×4 QFN-24	Bat-Track	\$3.85
LTC3455	3	400mA, 600mA <sup>(3)</sup>	-	Flexible Gain Block for LDO Controller	linear	0.5	linear	-	5, USB, Li-Ion	-	4×4 QFN-24	Dual Synchronous Buck, Hot Swap Output. "-1" Has 4.1V V <sub>FLOAT</sub>	\$3.95
LTC3101	4	350mA×2	0.8A BB	3.3V, 50mA always on	n/a	-	linear	internal	1.8V to 5.5V, USB	-	4×4 QFN-24	Ideal for 2A/3A Alkaline Cells, 38µA I <sub>Q</sub> , Hot Swap Output, Pushbutton Control, Prog Power-On Sequencing,	\$3.95
LTC3555	4	1A, 400mA×2	-	3.3V, 25mA always on	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	5, USB, Li-Ion	I <sup>2</sup> C	4×5 QFN-24	Bat-Track; "-1" and "-3" Have Enhanced 'Instant-On' Operation While the "Plain" Does Not; "-3" Has 4.1V V <sub>FLOAT</sub>	\$4.65
LTC3557	4	600mA, 400mA×2	-	3.3V, 25mA always on	HV buck + linear	1.5 <sup>(2)</sup>	linear	int + ext (opt.)	5, USB, Li-Ion, Hi-V 38V Max	-	4×4 QFN-28	Bat-Track (DC/DC Output = 300mV Above V <sub>BAT</sub> ), 38V Buck Interface; "-1" Has 4.1V V <sub>FLOAT</sub>	\$3.95
LTC3556	4	400mA×2	1A BB	3.3V, 25mA always on	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	5, USB, Li-Ion	I <sup>2</sup> C	4×5 QFN-28	Bat-Track	\$4.80
LTC3576	4	400mA×2, 1A	-	3.3V, 25mA always on	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	5, USB, Li-Ion, Hi-V 38V with 60V transients; OVP: 68V	I <sup>2</sup> C	4×6 QFN-38	Bat-Track; Bidirectional USB On-The-Go (OTG) "-1" Has 4.1V V <sub>FLOAT</sub>	\$4.80
LTC3586	5	400mA×2	1A BB, 0.8A Boost	3.3V, 25mA always on	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	5, USB, Li-Ion	-	4×6 QFN-38	Bat-Track, Integrated Buck-Boost and Boost Regulators	\$5.30
LTC3577	7	600mA, 400mA×2	20mA Boost/LED Drvr	150mA×2, 3.3V 20mA always on	HV buck + linear	1.5 <sup>(2)</sup>	linear	int + ext (opt.)	5, USB, Li-Ion, Hi-V 38V with 60V transients; OVP	I <sup>2</sup> C	4×7 QFN-44	3 Bucks (0.6A, 0.4A×2), 150mA×2 LDOs, 40V 20mA Buck Drives Up to 10 LEDs, Interfaces to HV Buck, Instant-On Operation, Input Current Limiting, OVP	C.F.

† Primary Sort Column

Notes:  
1. Excludes the DC/DC converter used for battery charging  
2. The DC/DC converter can provide charge current and system power but the total cannot exceed the max charge current  
3. May be increased to 1A with additional components



Part Number	Maximum Charge Current (A)	USB Compatible	Power Manager Topology	Input Voltage (V)	Number of Cells (Series)	Charger Topology	Pass Element (MOSFET OR BJT)	Package	Charge Termination	Comments and Features	Price 1K Qty
<b>Li-Ion and Li-Polymer Battery Chargers</b>											
LTC4055	1	yes	linear	4.3 to 5.5	1	linear	Internal	4x4 QFN-16	Onboard Timer	Integrated 200mΩ Ideal Diode; "-1" Version Has 4.1V V <sub>FLOAT</sub>	\$2.20
LTC4089	1.2	yes	linear	4.35 to 5.5 USB, 6-36V wall	1	linear	Internal	3x6 DFN-22	Timer + C/10	40V V <sub>IN</sub> Abs Max, High Efficiency Charger, Bat-Track, 4.2V V <sub>FLOAT</sub> , Instant-On Operation	\$2.95
LTC4089-1/-5	1.2	yes	linear	4.35 to 5.5 USB, 6-36V wall	1	linear	Internal	3x6 DFN-22	Timer + C/10	5V Output, 40V V <sub>IN</sub> Abs Max, High Efficiency Charger; Instant-On Operation; "-1" for 4.1V Li-Ion, "-5" for 4.2V Li-Ion	\$2.95
LTC4067	1.25	yes	linear	4.35 to 5.5	1	linear	Internal	3x4 DFN-14	Onboard Timer	13V OVP; Integrated 200mΩ Ideal Diode with 50mΩ Optional External Ideal Diode Controller	\$1.70
LTC4088	1.5	yes	switching	4.25 to 5.5	1	linear	Internal	3x4 DFN-14	Timer + C/x	Switching USB PowerPath Manager, Synchronous Buck, Bat-Track, Charge Current Reduces to Maintain 3.6V Output @Load. Plain Version Has 3.3V LDO While "-1" and "-2" Do Not. Power-Up Charger State is Off for "-1" and On for "-2".	\$2.20
LTC4098	1.5	yes	switching	4.35 to 5.5 USB	1	linear	Internal	3x4 UTQFN-20	Timer + C/x	66V OVP, up to 38V V <sub>IN</sub> (60V Abs Max) with HV Buck, High Efficiency Charger, Bat-Track, Instant-On Operation; "-1" for 4.1V Li-Ion/Polymer	\$2.50
LTC4099	1.5	yes	switching	4.35 to 5.5 USB	1	linear	Internal	3x4 UTQFN-20	Timer + C/x	I <sup>2</sup> C Control, Overtemp Battery Conditioning Circuit; 66V OVP, up to 38V V <sub>IN</sub> (60V Abs Max) with HV Buck, High Efficiency Charger, Bat-Track, Instant-On Operation	\$2.80
LTC4090	1.5	yes	linear	4.35 to 5.5 USB, 6-36 wall	1	linear	Internal	3x6 DFN-22	Timer + C/10	60V V <sub>IN</sub> Abs Max, High Efficiency Charger, Bat-Track, Instant-On Operation, "-5" Has 5V Output and No Bat-Track	\$3.25
LTC4066	1.5	yes	linear	4.3 to 5.5	1	linear	Internal	4x4 UTQFN-24, 4x4 QFN-24	Onboard Timer	Integrated Low-Loss 50mΩ Ideal Diode; "-1" Has 4.1V V <sub>FLOAT</sub>	\$2.30
LTC4085	1.5	yes	linear	4.35 to 5.5	1	linear	Internal	3x4 DFN-14	Onboard Timer	Integrated 200mohm Ideal Diode with 50mΩ Optional External Ideal Diode Controller; "-1" Has 4.1V V <sub>FLOAT</sub>	\$1.65

BATTERY CHARGER PLUS DC/DC

Part Number	Number of Regulators <sup>(1)</sup>	Buck(s)	Buck-Boost (BB)/ Boost	Li-Ion/Polymer Charger	Max Charge Current (A)	Input Voltage (V)	Package (mm <sup>2</sup> )	Notes	Price 1K Qty
LTC3550	1	600mA	-	linear	0.95	4.3 to 8	3x5 DFN-16	Dual Input Battery Charger, Adjustable Output Buck. "-1" Has Fixed 1.875V Output Buck	\$2.00
LTC3552	2	400mA, 800mA	-	linear	0.95	4.25 to 8	3x5 DFN-16	Dual Adjustable Output Bucks. "-1" Has Fixed Output Bucks (1.575V & 1.8V)	\$2.30
LTC3559	2	400mAx2	-	linear	0.95	5, USB	3x3 QFN-16	Dual Buck Regulator, "-1" Has 4.1V V <sub>FLOAT</sub>	\$2.15
LTC3558	2	400mA	0.4A BB	linear	0.95	5, USB	3x3 QFN-20	Buck Plus Buck-Boost Regulator	\$2.35
LTC4080/X	1	300mA	-	linear	0.5	3.75 to 5.5(2)	3x3 DFN-10, MSOP-10E	Integrated 300mA Sync Buck, AC Present (ACPR) Output, "X" Version Disables Trickle Charge	\$1.90
LTC4081	1	300mA	-	linear	0.5	3.75 to 5.5(2)	3x3 DFN-10	Integrated 300mA Sync Buck, NTC Input	\$1.90

4.1V/4.0V Li-Ion BATTERY CHARGERS

Part Number	Number of Cells	† Max Charge Current (A)	Battery Charger Type	USB Compatible	Interface to High Voltage Buck	PowerPath™ Control	Integrated DC/DC Converters <sup>(1)</sup>	Input Voltage (V)	Package (mm)	Notes	Price 1K Qty
LTC3455-1	1	0.5	linear	yes	-	yes	2 Bucks	2.7 to 5.5	4x4 QFN-24	Hot Swap Output	\$3.95
LTC1734-4.1	1	0.7	linear	yes	-	-	-	4.55 to 8	ThinSOT		\$1.25
LTC3559-1	1	0.95	linear	yes	-	-	1 Buck-Boost, 1 Buck	4.3 to 5.5	3x3 QFN-20	400mA Sync Buck-Boost, 400mA Sync Buck	\$3.95
LTC4055-1	1	1	linear	yes	-	yes	-	4.3 to 5.5	4x4 QFN-24	Integrated 200mΩ Ideal Diode	\$2.30
LTC4064 (4.0V)	1	1	linear	yes	-	-	-	4.25 to 6.5	MSOP-10	4.0V Float Voltage	\$1.85
LTC4089-1	1	1.2	linear	yes	-	yes	-	6 to 36	3x6 DFN-22	High Voltage Charger, 1.2A Buck Precedes Linear Charger for High Efficiency, Bat-Track	\$2.95
LTC1733	1	1.5	linear	yes	-	-	-	4.5 to 6.5	MSOP-10E	set 4.1V via SEL Pin	\$2.35
LTC4066-1	1	1.5	linear	yes	-	yes	-	4.3 to 5.5	4x4 QFN-24	Integrated 50mΩ Ideal Diode	\$2.30

† Primary Sort Column



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

## 4.1V/4.0V Li-Ion BATTERY CHARGERS

Part Number	Number of Cells	† Max Charge Current (A)	Battery Charger Type	USB Compatible	Interface to High Voltage Buck	PowerPath™ Control	Integrated DC/DC Converters <sup>(1)</sup>	Input Voltage (V)	Package (mm)	Notes	Price 1K Qty
LTC4085-1	1	1.5	linear	yes	–	yes	–	4.35 to 5.5	3×4 DFN-14	Integrated 200mΩ Ideal Diode with Optional External Ideal Diode	\$1.65
LTC3557-1	1	1.5	linear	yes	yes	yes	3 Buck, 1 LDO	4.35 to 5.5	4×4 QFN-28	3 Buck (0.6A, 0.4A×2), 25mA Always-On LDO, Interfaces to HV (8V to 38V) Buck for Efficient Charging	\$3.95
<b>LTC3577-1</b>	<b>1</b>	<b>1.5</b>	<b>linear</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>3 Buck, 2 LDO</b>	<b>4.35 to 5.5</b>	<b>4×7 QFN-44</b>	<b>3 Buck (0.6A, 0.4A×2), 2×150mA LDOs, Interfaces to HV Buck for Efficient Charging, Linear PowerPath Control, OVP</b>	<b>C.F.</b>
LTC3576-1	1	1.5	linear	yes	yes	yes	3 Buck, 1 LDO	4.35 to 5.5	4×6 QFN-38	3 Buck (1A, 0.4A×2), 20mA Always-On LDO, Interfaces to HV Buck for Efficient Charging, Linear PowerPath Control, USB OTG Support, OVP to 68V	\$4.80
LTC3555-3	1	1.5	linear	yes	no	yes	3 Buck, 1 LDO	4.35 to 5.5	4×5 QFN-28	3 Buck (1A, 0.4A×2), 25mA Always-On LDO, Undervoltage Current Limit, Switching PowerPath Control	\$4.65
LTC3586-1	1	1.5	linear	yes	no	yes	1 Boost, 1 Buck-Boost, 2 Buck, 1 LDO	4.35 to 5.5	4×6 QFN-38	1 Boost (800mA I <sub>OUT</sub> ), 1 Buck-Boost (1A), 2 Buck (0.4A×2), 20mA Always-On LDO, Switching PowerPath Control	\$5.30
LTC4098-1	1	1.5	linear	yes	yes	yes	–	4.35 to 5.5	3×4 UTQFN-20	OVP, Up to 38V Continuous with LTC Hi-V Buck (60V Transient), Bat-Track, Instant-On Operation	\$2.50
LTC4099	1	1.5	linear	yes	yes	yes	–	4.35 to 5.5	3×4 UTQFN-20	I <sup>2</sup> C Interface, OVP, Up to 38V Continuous with LTC Hi-V Buck (60V Transient), Bat-Track, Instant-On Operation	\$2.80
LTC1731-4.1	1,2	2	linear	–	–	–	–	4.5 to 12	MSOP-8, SO-8	External R <sub>SENSE</sub>	\$1.55
LTC1732-4	1,2	2	linear	–	–	–	–	4.5 to 12	MSOP-10	External R <sub>SENSE</sub> , AC Present Status Pin; Set V <sub>FLOAT</sub> 4.1V or 4.2V Via SEL Pin	\$2.15
LTC4050-4.1	1	2	linear	–	–	–	–	4.5 to 12	MSOP-10	Thermistor Interface	\$2.25
<b>LTC3650-4.1/-8.2</b>	<b>1, 2</b>	<b>2</b>	<b>switchmode</b>	–	–	–	–	<b>C/10 or Timer</b>	<b>3×3 DFN-12</b>	<b>Programmable Input Current Limit, 1MHz Switching, NTC Monitor, Bad Battery Detect</b>	<b>\$2.80</b>
LTC4001-1	1	2	switchmode	–	–	–	–	4 to 5.5	4×4 QFN-16	Synchronous, Integrated R <sub>SENSE</sub>	\$2.20
LTC1980	1,2	2	switchmode	–	–	–	–	4.1 to 12	SSOP-24	Buck-Boost, Combination Charger & DC/DC Converter; Set 4.1V Via BATT1/BATT2 Pins	\$3.75
LTC4007-1	3,4	4	switchmode	–	–	–	–	6 to 28	SSOP-24	Synchronous, NTC Thermistor Input, Full-Featured; Set 4.1V Via CHEM Pin	\$3.80
LTC4100	2-6	4	switchmode	–	–	–	–	6 to 28	SSOP-24	Smart Charger, SMBus v 1.1, Level 2 Charger	\$5.00
LTC4101	1	4	switchmode	–	–	–	–	6 to 28	SSOP-24	Smart Charger, SMBus v 1.1, Level 2 Charger, Optimized for 1-Cell Li-Ion/Polymer or 3-4 Cell Ni	\$5.00
LTC4008	2-6	4	switchmode	–	–	–	–	6 to 28	SSOP-20	Multi-Chemistry, Needs μC for Charge Termination	\$3.70
LTC4009-1	1-4	4	switchmode	–	–	–	–	6 to 28	4×4 QFN-20	Multi-Chemistry, Needs μC for Charge Termination	\$2.95
LTC4012-1	1-4	4	switchmode	–	–	–	–	6 to 28	4×4 QFN-20	PowerPath Control; Multi-Chemistry, Needs μC for Charge Termination	C.F.
LTC1960	1-6	4	switchmode	–	–	–	–	6 to 28	SSOP-36, 5×7 QFN-38	Dual Smart Battery Selector and Charger; SPI Interface	\$3.70
LTC1760	2-6	4	Switchmode	–	–	–	–	6 to 28	TSSOP-48	Dual Smart Battery Selector and Charger; SMBus v1.1; Operates with or without μC	\$3.70

† Primary Sort Column

Note:

1. Excludes DC/DC converter used for battery charging

## BATTERY STACK MONITOR

Part Number	Description	Input Voltage (V)	Individual Cell Monitoring	Passive Cell Balancing	Monitor Method	Maximum Measurement Error	Thermistor Inputs	On-Chip Temperature Sensor	Open Wire Fault Detect	Interface	UV/OV Detect	Comments	Package	Price 1K Qty
LTC6802-1	Multi-Cell Batter Stack Manager with UV/OV Detect. Stackable Architecture for High Voltage Systems	10 to 50 (60 Max)	yes	Int or Ext	12-Bit ΔΣ ADC	0.25%	2	yes	yes	Serial, Level-Shifted Daisy-Chain	yes	Daisy-Chained SPI Interface. Up to 12 Li-Ion Cells Per IC	SSOP-44	\$9.95
LTC6802-2	Multi-Cell Batter Stack Manager with UV/OV Detect. Stackable Architecture for High Voltage Systems	10 to 50 (60 Max)	yes	Int or Ext	12-Bit ΔΣ ADC	0.25%	2	yes	yes	Serial, Individually Addressable	yes	Individually Addressable SPI interface. Up to 12 Li-Ion Cells Per IC	SSOP-44	\$9.95
LTC6801	Standalone Multi-Cell Battery Stack Monitor. Stackable Architecture for High Voltage Systems	10 to 50 (60 Max)	yes	–	Comparator Plus Reference	0.5%	2	–	yes	n/a, Stand-Alone	yes	Pin-Strapped Configurations and Limits; Simplified, Stand-Alone Monitoring Only Version of the LTC6802. Up to 12 Li-Ion Cells Per IC	SSOP-36	C.F.

Part Number	Basic Function	Package	Comments and Features	Price 1K Qty
<b>PowerPath Control</b>				
LTC4411	2.6A PowerPath Control IC with Internal P-FET	ThinSOT	Integrated Switch: Replaces Power Supply OR'ing Diodes with High Efficiency Solution	\$1.60
LTC4412	5A PowerPath Controller for P-FETs	ThinSOT	Replaces Power Supply OR'ing Diodes; Higher Efficiency; Simplifies Load Sharing with Multiple Batteries; External MOSFET. HV Version Features $V_{IN}$ Up to 36V and $-40^{\circ}\text{C}$ to $125^{\circ}\text{C}$ Operation.	\$1.30
LTC4412HV	Rugged 5A PowerPath Controller for P-FETs	ThinSOT	Rugged Version of the LTC4412, $V_{IN}$ Up to 36V, Guaranteed Operatoin from $-40^{\circ}\text{C}$ to $125^{\circ}\text{C}$	\$1.30
LTC4414	36V 75A PowerPath Controller for Large P-FETs	MSOP-8	Higher Gate Drive vs. LTC4412; Faster Gate Turn-On/Off Times	\$1.85
LTC4413	Dual 2.6A PowerPath Control IC with Internal P-FETs	3x3 DFN-10	Integrated Switches.	\$2.13
LTC1473L	Dual 6A PowerPath Controller for N-FETs	SSOP-16	PowerPath Management for Multiple DC Sources, 3.3V to 10V Input, All N-Channel MOSFETs for Low-Loss	\$3.55
LTC4416	Dual 75A PowerPath Controller for P-FETs	MSOP-10	$-40^{\circ}\text{C}$ to $125^{\circ}\text{C}$ , High Gate Drive for Large P-FETs, "-1" Version Has Fast-Off Feature	\$2.45
<b>Battery Monitor Building Blocks</b>				
LT6700-1/2/3	Battery Monitoring Building Blocks	ThinSOT	Micropower Dual Comparators with 400mV Reference, 1.4V to 18V	\$1.90
LTC1440	Battery Monitoring Building Blocks	MSOP-8, SO-8, PDIP-8,	Ultralow Power Comparator with Reference	\$1.45
LTC1540		3x3 DFN-8		
LTC1441	Battery Monitoring Building Blocks	DIP-8, SO-8	Dual Ultralow Power Comparators with Reference	\$1.80
LTC1442				
LTC1842				
LTC1843				
LTC1443	Battery Monitoring Building Blocks	DIP-16, SO-16	Quad Ultralow Power Comparators with Reference	\$2.45
LTC1444				
LTC1445				
LTC1541	Battery Monitoring Building Blocks	MSOP-8, SO-8, 3x3 DFN-8	Combined Amplifier, Comparator and Reference	\$1.50
LTC1542				
<b>Other</b>				
LTC4110	Backup Battery System Manager	5x7 QFN-38	Battery Charge, Discharge, Back-Up, Calibration, Shutdown for Li, Ni, SLA, Supercaps; Flyback/Buck-Boost Topologies Can Charge $V_{BAT} > V_{IN}$	\$9.25
LTC4150	Coulomb Counter	MSOP-10	Indicates Charge Quantity and Polarity; 2.7V to 8.5V Operation;	\$1.50
LTC4410	USB Power Manager	ThinSOT	Allows Faster Charging from USB Port and Complies with USB Spec.	\$1.20
LTC1729	Li-Ion Battery Charger Termination Controller	MSOP-8, SO-8	Operates with All LTC Switching Chargers; Built-In 3-Hour Time-Out Termination; C/10 Detection with Status Indicator	\$2.70
LTC1998	Programmable Low Battery Voltage Detector	ThinSOT	Precision 1% Trip Voltage; Adjustable Trip Voltage and Hysteresis; 2.5 $\mu\text{A}$ Supply Current	\$0.95
LTC1325	Microprocessor-Controlled Battery Mgmt System	SO-18	Fast Charge NiCd, NiMH, Li-Ion or Lead-Acid Batteries Under $\mu\text{P}$ Control	\$7.25

PowerPath™ AND IDEAL DIODE-OR CONTROLLERS

Part Number	Input Supply Range	Typical Current Capability	† Number of Channels	Supply for FET Gate Drive	Comments	Ext. Temp.	Package	Price 1K Qty
<b>P-Channel FET</b>								
LTC4411	2.6 to 5.5	$\leq 2.6\text{A}$	Single	n/a	Dual, One Integrated Switch, One External Switch	E	ThinSOT	\$1.60
LTC4412	2.5 to 28	$\leq 5\text{A}$	Single	n/a	Dual, Two External Switches	E, I	ThinSOT	\$1.30
LTC4412HV	2.5 to 36	$\leq 5\text{A}$	Single	n/a	$-40^{\circ}\text{C}$ to $125^{\circ}\text{C}$ , High Input Voltage	I	ThinSOT	\$1.70
LTC4414	3 to 36	$\leq 5\text{-}75\text{A}^{(1)}$	Single	n/a	$-40^{\circ}\text{C}$ to $125^{\circ}\text{C}$ , High Gate Drive for Large PFETs, Load Current up to 75A	E, I	MSOP-8	\$1.85
LTC4413	2.5 to 5.5	$\leq 2.6\text{A}$	Dual	n/a	Dual, Two Internal Switches	E	3x3 DFN-10	\$2.15
LTC4413-1/-2	2.5 to 5.5	$\leq 2.6\text{A}$	Dual	n/a	Dual, Two Internal Switches, Faster Version of LTC4413, "-2" Version Has 13V (max) OVP	E	3x3 DFN-10	\$2.15
LTC2952	2.7 to 28	$> 5\text{A}^{(1)}$	Dual	n/a	PowerPath Controller with Pushbutton Interface	I	TSSOP-20, 4x4 QFN-20	\$2.95
LTC4416	3 to 36	$\leq 5\text{-}75\text{A}^{(1)}$	Dual	n/a	Dual, $-40^{\circ}\text{C}$ to $125^{\circ}\text{C}$ , High Gate Drive for Large PFETs, "-1" Version Has Fast-Off Feature	E, I	MSOP-10	\$2.45
<b>N-Channel FET</b>								
LTC4358	9 to 26.5	$\leq 5\text{A}$	Single	Charge Pump	Positive High Voltage Ideal Diode Controller with Internal MOSFET	I	TSSOP-16, 4x3 DFN-14	\$2.10
LTC4350	1.5 to 12	$> 5\text{A}^{(1)}$	Single	Charge Pump	Single Hot Swappable Load Current Sharing Controller, Shared Bus for N+1 Redundant Supplies	I	SSOP-16	\$4.25
LTC4352	0 to 18	$> 5\text{A}^{(1)}$	Single	Charge Pump	Single Fast Switch-Over, High Gate Drive	I	MSOP-12, 3x3 DFN-12	\$2.50
LTC4357	9 to 80	$> 5\text{A}^{(1)}$	Single	n/a	Positive High Voltage Ideal Diode Controller	I, H	MSOP-8, 2x3 DFN-6	\$1.70
LTC1473	4.75 to 30	$\leq 5\text{A}$	Dual	Onboard Boost Regulator	Dual, Battery and AC Wall Adapter Input Power Sources ("L" Version Has 3.3V to 10V $V_{IN}$ )	I	SSOP-16	\$3.55
LTC4354	-4.5 to -80	$> 5\text{A}^{(1)}$	Dual	n/a	Negative Voltage Diode-OR Controller and Monitor	I	SO-8, 3x2 DFN-8	\$1.95
LTC4355	9 to 80	$> 5\text{A}^{(1)}$	Dual	n/a	Positive High Voltage Ideal Diode-OR and Monitor	I	MSOP-16, SO-16, 4x3 DFN-14	\$2.50
LTC1479	6 to 28	$\leq 5\text{A}$	Triple	Onboard Boost Regulator	Triple PowerPath Controller for Dual Battery Systems and Wall Adapter	I	SSOP-36	\$7.05

† Primary Sort Column

Note:  
1. Depends on external FET



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

## HIGH SIDE SWITCHES AND MOSFET DRIVERS

Part Number	Function	V <sub>IN</sub> Range (V)	V <sub>IN</sub> Max (V)	Packages	Extended Temp Range	Comments	Price 1K Qty
<b>Single</b>							
LTC1693-5	P-Channel MOSFET Driver	4.5 to 13	14	MSOP-8	I	1.5A Peak Output Current	\$1.70
LTC1693-3	N-Channel MOSFET Driver	4.5 to 13	14	MSOP-8	I	1.5A Peak Output Current; Selectable Output Polarity	\$1.70
LTC4441	N-Channel MOSFET Driver	5	25	MSOP-10, SO-8	E, I	6A Peak Output Current; Adjustable Gate Drive 5V to 8V; Adjustable Blanking Ignores Ringing	\$1.70
LTC1981	N-Channel MOSFET Driver	1.8 to 5.5	7.5	TSOT	E	Ultralow Power; Small	\$1.20
LTC1154	N-Channel MOSFET Driver	4.5 to 18	22	SO-8, DIP-8	H	Short Circuit Protection	\$1.80
LTC4440	High Speed, High Voltage High Side MOSFET Driver	6.5 to 80	100	MSOP-8E, TSOT	E	1.5A Pull-Down, 2.4A Pull-Up Drivers	\$1.75
LTC4440-5	High Speed, High Voltage High Side MOSFET Driver	3.2 to 60	80	MSOP-8E, TSOT	E	4V to 15V MOSFET Gate Drive for 5V Logic Level FETs	\$1.75
LT1910	Protected High Side MOSFET Driver	8 to 48	60	SO-8	E	-15V to 60V Transient Protected; Quad Driver: LT1161	\$2.05
LTC1477	Protected High Side MOSFET Driver	2.7 to 6	7	SO-8, SO-16		Good for Subsystem Power Switches	\$3.35
<b>Dual</b>							
LTC1693-1	Dual MOSFET Driver	4.5 to 13	14	SO-8	I	Two Noninverting Drivers; 1.5A Peak Output Current	\$1.60
LTC1693-2	Dual MOSFET Driver	4.5 to 13	14	SO-8	I	One Inverting, One Noninverting Driver; 1.5A Peak Output Current	\$1.60
LTC1982	Dual N-Channel MOSFET Driver	1.8 to 5.5	7.5	TSOT	E	Ultralow Power; Small	\$1.50
LTC1255	Dual High Side MOSFET Driver	9 to 24	30	SO-8, DIP-8	I	Good for 24V Automotive Operation	\$2.90
LTC1155	Dual High Side MOSFET Driver	4.5 to 18	22	SO-8, DIP-8	I	Dual Version of LTC1154	\$2.90
LTC1478	Dual Protected High Side Switches	2.7 to 6	7	SO-8, SO-16		Good for Subsystem Power Switches	\$5.30
LTC1623	Dual SMBus Switch Driver	2.7 to 6	5.5	MSOP-8, SO-8	I	Control Up to 16 Peripherals on Same Bus	\$1.60
LTC1710	Dual SMBus Switches	2.7 to 6	5.5	MSOP-8, SO-8	I	Control Up to 6 Peripherals on Same Bus	\$2.75
LTC1157	Dual 3.3V High Side Driver	2.7 to 7	7	SO-8, DIP-8		3.3V or 5V Operation, Low Cost	\$2.45
<b>Triple</b>							
LTC1163	Triple High Side Driver	1.8 to 6	6	SO-8, DIP-8		Good for 2 Cell Battery Management	\$2.70
LTC1165	Triple High Side Driver	1.8 to 6	6	SO-8, DIP-8		Operates from 2 Cells, P-Channel Replacement	\$2.70
<b>Quad</b>							
LT1161	Quad High Side Driver	8 to 48	60	SO-20, DIP-20	I	Short Circuit Protection with Restart Timers; Single Driver: LT1910	\$3.20
LTC1156	Quad High Side Driver	4.5 to 18	22	SO-16, DIP-8		Quad Version of LTC1154	\$4.75
<b>Synchronous MOSFET Drivers</b>							
LTC4442	N-Channel Synchronous Driver	6 to 9	38	MSOP-8E	E, I	Synchronous Step-Down or Step-Up Applications. "-1" Has Higher Gate Driver UVLO	\$1.25
LTC4444	High Voltage N-Channel Synchronous Driver	7.2 to 13.5	100	MSOP-8E	E, I	Synchronous Step-Down, Step-Up or Buck-Boost Applications	\$1.69
LTC4444-5	High Voltage N-Channel Synchronous Driver	4.5 to 13.5	100	MSOP-8E	E, I	Synchronous Step-Down, Step-Up or Buck-Boost Applications	\$1.69
LTC4446	High Voltage, High Side/Low Side MOSFET Driver	7.2 to 13.5	100	MSOP-8E	E, I	2-Transistor Forward Converter Applications, No Shoot-Thru Protection	\$1.69

## PCMCIA SWITCHES AND SWITCH DRIVERS

Part Number	Function	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	Packages	Comments	Price 1K Qty
LT1313	Dual V <sub>PP</sub> Driver/Regulator	13	20	SO-16	Useful with Overwinding	\$3.10
LT1314	V <sub>PP</sub> + V <sub>CC</sub> Switch Matrix	4.5	5.5	SO-14	Internal Drivers for V <sub>CC</sub> MOSFETs	\$2.30
LT1315	Dual V <sub>PP</sub> + V <sub>CC</sub> Switch Matrix	4.5	5.5	SSOP-24	Internal Drivers for V <sub>CC</sub> MOSFETs	\$3.30
LTC1470	5V/3.3V V <sub>CC</sub> Switch Matrix	4.75/2.7	5.25/3.6	SO-8	Fully Integrated V <sub>CC</sub> Switch with SafeSlot™ Protection	\$2.45
LTC1471	Dual 5V/3.3V V <sub>PP</sub> Matrix	4.75/2.7	5.25/3.6	SO-16	Fully Integrated V <sub>CC</sub> Switch with SafeSlot Protection	\$4.10
LTC1472	Single V <sub>PP</sub> + V <sub>CC</sub> Matrix	4.75/2.7	5.25/3.6	SO-16	Switch Matrix with SafeSlot Protection	\$3.40

## BRIDGE DRIVERS

Part Number	Function	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	Packages	Extended Temp Range	Comments	Price 1K Qty
LT1158	Half-Bridge Driver	4.5	36	SO-16, DIP-16	I	On-Chip Charge Pump, Drives N-Channel MOSFETs	\$4.90
LT1160	Half-Bridge Driver	9	60	SO-14, DIP-14	I	Input UV Lockout, High Side Gate Drive UV Lockout	\$2.80
LT1162	Dual Half-Bridge Driver	8	60	SO-24	I	Input UV Lockout, High Side Gate Drive UV Lockout	\$4.80
LT1336	Half-Bridge Driver	9	60	SO-16	I	0% to 100% Duty Cycle Operation for Servo Motor Drive	\$3.00
LTC1923	Thermoelectric Cooler; Full-Bridge Controller	2.7	5.5	5×5 QFN-32, SSOP-28	E	High Efficiency, Low Noise Topology	\$18.17

24V/48V DC/DC CONTROLLERS  
FLYBACK, FORWARD, PUSH-PULL, HALF-/FULL-BRIDGE

Part Number	† Output Power <sup>(1)</sup>	Input Voltage <sup>(1)</sup>	Output Voltage	Operating Frequency	Package	Synchronous	Extended Temp Range	Description	Price 1K Qty
<b>Flyback Monolithics/Controllers</b>									
LT1425	up to 6W	3V to 20V	1.23V and higher <sup>(1)</sup>	285kHz	SO-16	no	C, I	Monolithic No Opto Flyback	\$2.90
LT1424-5/-9	up to 6W	3V to 20V	5V or 9V	285kHz	DIP-8, SO-8	no	C, I	Monolithic No Opto Flyback, Fixed 5V or 9V Output Voltage	\$3.05
<b>LT3573</b>	<b>up to 7W</b>	<b>3V to 40V</b>	<b>1.23V and higher</b>	<b>40kHz to 1MHz</b>	<b>MSOP-16E</b>	<b>no</b>	<b>E, I</b>	<b>Monolithic No Opto and No 3rd Winding Flyback, Integrated 1.25A NPN Power Switch</b>	<b>\$2.76</b>
LTC3803	up to 15W	36V to 75V	0.8V and higher <sup>(1)</sup>	200kHz	TSOP-6	no	E, I, H	Constant Frequency Current Mode Controller in TSOT, 8.7V V <sub>CC</sub> Turn-On Voltage	\$1.12
LTC3803-3	up to 15W	36V to 75V	0.8V and higher <sup>(1)</sup>	300kHz	TSOP-6	no	E, I	LTC3803 with 300kHz Switching Frequency	\$1.12
LTC3803-5	up to 15W	36V to 75V	0.8V and higher <sup>(1)</sup>	200kHz	TSOP-6	no	E, I, H	LTC3803 with 4.8V V <sub>CC</sub> Turn-On Voltage	\$1.12
LT1737	5W to 25W	4.5V to 20V	1.25V and higher <sup>(1)</sup>	50kHz to 250kHz	SSOP-16, SO-16	no	C, I	Controller Used with or without Optocoupler	\$2.90
LTC3873	up to 25W	8.4V to 75V	1.2V and higher <sup>(1)</sup>	200kHz	TSOT-8, 3×2 DFN-8	no	E	No R <sub>SENSE</sub> Current Mode, Constant Frequency	\$1.25
LTC3873-5	up to 25W	4V to 75V	1.2V and higher <sup>(1)</sup>	200kHz	TSOT-8, 3×2 DFN-8	no	E, I	No R <sub>SENSE</sub> Current Mode, Constant Frequency	\$1.25
LTC3805	5W to 25W	8.8V to 75V	0.8V and higher <sup>(1)</sup>	70kHz to 700kHz	MSOP-10, 3×3 DFN-10	no	E, H	Adjustable Frequency Current Mode Controller with Programmable Soft-Start, 8V V <sub>CC</sub> Turn-On	\$1.45
LTC3805-5	5W to 35W	4.5V to 75V	0.8V and Higher <sup>(1)</sup>	70kHz to 700kHz	MSOP-10, 3×3 DFN-10	no	E, I, H	LTC3805 with 4.5V V <sub>CC</sub> Turn-On	\$1.45
LTC1871	10W to 50W	2.5V to 36V	1.23V to 0.92% V <sub>IN</sub>	50kHz to 1MHz	MSOP-10	no	E, I, H	Boost, Flyback, SEPIC and Inverter Controller	\$2.65
LTC1871-1	10W to 50W	2.5V to 36V	1.23V to 0.92% V <sub>IN</sub>	50kHz to 1MHz	MSOP-10	no	E, I	Boost, Flyback and SEPIC Controller, Burst Mode Operation at Lighter Load	\$2.65
LTC1871-7	10W to 50W	6V to 36V	1.23V to 0.92% V <sub>IN</sub>	50kHz to 1MHz	MSOP-10	no	E, I	Boost, Flyback, SEPIC and Inverter Controller	\$2.65
LT1725	5W to 50W	16V to 75V	1.23V and higher <sup>(1)</sup>	50kHz to 250kHz	SSOP-16, SO-16	no	C, I	Controller Used with or without Optocoupler	\$2.90
LTC3806	5W to 60W	10V to 75V	1.23V and higher <sup>(1)</sup>	250kHz	4×3 DFN-12	yes	E	Non-Isolated Controller, Very Good Cross-Regulation with Multiple Outputs	\$3.40
LT1950	10W to 60W	3V to 25V	1.23V to 0.90% V <sub>IN</sub>	100kHz to 500kHz	SSOP-16	no	E, I	Forward, Flyback and SEPIC Controller	\$2.90
LT3837	5W to 80W	4.5V to 20V	1.23V and higher <sup>(1)</sup>	50kHz to 250kHz	TSSOP-16	yes	E	Controller Used with or without Optocoupler	\$3.10
LT3825	5W to 80W	16V to 75V	1.23V and higher <sup>(1)</sup>	50kHz to 250kHz	TSSOP-16	yes	E	Controller Used with or without Optocoupler	\$3.10
<b>Primary Side Single Transistor Forward Controllers</b>									
LT1952	40W to 300W	15.75V to 75V	1.23V to 52V	100kHz to 500kHz	SSOP-16	yes	E, I	Works with Secondary Side LTC3900 Driver	\$3.30
LT1952-1	40W to 300W	8.13 to 75V	1.23V to 52V	100kHz to 500kHz	SSOP-16	yes	E, I	Works with Secondary Side LTC3900 Driver, "-1" Has Lower V <sub>IN</sub>	\$3.30
LTC3723	40W to 300W	10.7V to 75V	1.23V to 52V	Up to 1MHz	SSOP-16	yes	E	Single or 2-Switch Forward. Works with LTC3900 Driver, Low Start-Up Current. "-1" is Current Mode, "-2" is Voltage Mode	\$4.55
LTC3725	40W to 300W	9 to 75V	1.23V to 52V	70kHz to 300kHz	MSOP-10	no	E, I	Single Switch Forward with Gate Driver. Works Stand-Alone or with LTC3706/LTC3726	\$2.56
LT1950	40W to 300W	3V to 25V	1.23V to 0.90% V <sub>IN</sub>	100kHz to 500kHz	SSOP-16	no	E, I	Use As a Forward, Flyback and SEPIC	\$2.90
<b>Primary Side Two Transistor Forward Controllers</b>									
LT1681	40W to 300W	9V to 75V	1.25V to 52V	350kHz	SSOP-20	yes	E, I	2-Switch Synchronous Forward. Works with LTC1698 Secondary Side Driver	\$5.00
LTC3705	40W to 300W	18V to 80V	8V to 52V	70kHz to 300kHz	TSSOP-16	yes	E, I	2-Switch Forward with Gate Driver. Works Stand-Alone or with LTC3706/LTC3726	\$2.63
LT3781	40W to 300W	16V to 75V	1.25V to 52V	350kHz	SSOP-20	yes	E, I	2-Switch Synchronous Forward. Works with LTC1698 Secondary Side Driver	\$4.95
LTC3723	40W to 300W	10.7V to 75V	1.23V to 52V	Up to 1MHz	SSOP-16	yes	E	Single or 2-Switch Forward. Works with LTC3900 Driver, Low Start-Up Current. "-1" is Current Mode, "-2" is Voltage Mode	\$4.55
<b>Secondary Side Forward Controllers</b>									
LTC3706	40W to 300W	9V to 75V	0.60V to 52V	70kHz to 500kHz	SSOP-24	yes	E, I	PolyPhase Capability, Works with Primary Side LTC3705 or LTC3725 Drivers	\$3.88
LTC3726	40W to 300W	9V to 75V	0.60V to 52V	70kHz to 500kHz	SSOP-16	yes	E, I	Works with Primary Side LTC3705 or LTC3725 Smart Drivers	\$3.19
<b>Primary Side Smart Drivers for Secondary Side Forward Controllers</b>									
LTC3705	2A <sup>(2)</sup>			70kHz to 500kHz	SSOP-16		E, I	Smart Driver for 2 Switch Forward. Works with LTC3726 or LTC3706 Secondary Controllers	\$2.63
LTC3725	2A <sup>(2)</sup>			70kHz to 500kHz	MSOP-10		E, I	Smart Driver for Forward Converter. Works with LTC3726 or LTC3706 Secondary Controllers	\$2.56
<b>Primary Side Push-Pull, Half-Bridge and Full-Bridge Controllers</b>									
LT3439	10W	2.8V to 20V	1.2V to 52V	20kHz to 250kHz	TSSOP-16	no	E	Monolithic Low Noise, Low Power Push-Pull	\$3.50
LTC3721-1	100W to 750W	10.7V to 75V	1.2V to 52V	Up to 1MHz	4×4 QFN-16, SSOP-16	no	E	Push-Pull, Half-Bridge and Full-Bridge Topologies	\$4.45
LTC3723-1	100W to 750W	10.7V to 75V	1.2V to 52V	Up to 1MHz	SSOP-16	yes	E	Push-Pull, Half-Bridge and Full-Bridge Current Mode Topologies	\$4.55
LTC3723-2	100W to 750W	10.7V to 75V	1.2V to 52V	Up to 1MHz	SSOP-16	yes	E	Push-Pull, Half-Bridge and Full-Bridge Voltage Mode Topologies	\$4.55
LTC3722-1	200W to 1kW	10.5V to 75V	5V to 24V	300kHz to 1MHz	SSOP-24	yes	E	Sync. Phase Shift, Current Mode PWM Controller, Full-Bridge, Zero Voltage Switching	\$5.50
LTC3722-2	200W to 1kW	10.5V to 75V	5V to 24V	300kHz to 1MHz	SSOP-24	yes	E	Sync. Phase Shift, Current Mode PWM Controller, Full-Bridge, Zero Voltage Switching	\$5.50

† Primary Sort Column

Notes:

- In some cases V<sub>IN</sub> is dependent on external components
- MOSFET drive current



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# 24V/48V DC/DC CONTROLLERS

## FLYBACK AND PRIMARY SIDE CONVERTER

### FET Drivers

Part Number	MOSFET Drive Current	Switching Frequency	Package	Temp Range	Description	Price 1K Qty
LTC3900	2A	100kHz to 500kHz	SO-8	E, I	Sync Rectifier Driver for Forward Controllers, Works with LT1952 and LTC3723	\$2.50
LTC3901	2A	100kHz to 500kHz	SSOP-16	E	Sync Rectifier Driver for Push-Pull/Full-Bridge Controllers, Works with LTC3722 and LTC3723.	\$2.60
LTC1698	2A	350kHz	SSOP-16, SO-16	E, I	Sync Rectifier Driver for Forward Controllers, Works with LT3781, LT1952 and LTC3723	\$5.30
LTC4440	2.4A Pull-Up	Up to 500kHz	MSOP-8E, TSOT	E	High-Side Driver for Isolated Power Supplies	\$1.75
LTC4440-5	1.1A Pull-Up	Up to 500kHz	MSOP-8E, TSOT	E	High-Side Logic Level (5V) FET Driver	\$1.75
LTC1693-1	1.5A	Up to 1MHz	SO-8	C, I	Dual N-Channel FET Driver, One Inverting One Non-Inverting	\$1.60
LTC1693-2	1.5A	Up to 1MHz	SO-8	C, I	Dual N-Channel Non-Inverting FET Driver	\$1.60
LTC1693-3	1.5A	Up to 1MHz	MSOP-8	C, I	Single N-Channel FET Driver with Output Polarity Select	\$1.70
LTC1693-5	1.5A	Up to 1MHz	MSOP-8	C, I	Single P-Channel FET Driver	\$1.70

### Multiple Topology Controllers/Accessory Parts

Part Number	Output Power <sup>(1)</sup>	Input Voltage Range	Description	Package	Temp Range	Output Voltage	Price 1K Qty
LTC3803	Up to 25W	9.2V to 75V	Flyback, Boost, SEPIC	TSOT-6	E, I, H	0.8V and Higher <sup>(1)</sup>	\$1.12
LTC3803-3	Up to 25W	9.2V to 75V	Flyback, Boost, SEPIC	TSOT-6	E, I	0.8V and Higher <sup>(1)</sup>	\$1.12
LTC3803-5	Up to 25W	5.7V to 75V	Flyback, Boost, SEPIC	TSOT-6	E, I, H	0.8V and Higher <sup>(1)</sup>	\$1.12
LTC3873	Up to 35W	8.4V to 75V	Flyback, Boost, SEPIC	TSOT-8, 3x2 DFN-8	E	1.2V and Higher <sup>(1)</sup>	\$1.25
LTC3873-5	Up to 35W	4V to 75V	Flyback, Boost, SEPIC	TSOT-8, 3x2 DFN-8	E, I	1.2V and Higher <sup>(1)</sup>	\$1.25
LTC3805	Up to 35W	8.8V to 75V	Flyback, Boost, SEPIC	MSOP-10, 3x3 DFN-10	E, H	0.8V and Higher <sup>(1)</sup>	\$1.45
LTC3805-5	Up to 35W	4.5V to 75V	Flyback, Boost, SEPIC	MSOP-10, 3x3 DFN-10	E, I, H	0.8V and Higher <sup>(1)</sup>	\$1.45
LTC1871	Up to 100W	2.5V to 36V	Boost, Flyback, SEPIC, Inverter	MSOP-10	E, I, H	1.23V and Higher <sup>(1)</sup>	\$2.65
LTC1871-7	Up to 100W	6V to 36V	Boost, Flyback, SEPIC, Inverter	MSOP-10	E, I	1.23V and Higher <sup>(1)</sup>	\$2.65
LT1950	25W to 500W	3V to 25V	Forward, Flyback, Boost, SEPIC	SSOP-16	E, I	1.23V to 0.9V <sub>IN</sub>	\$2.90
LT1952/-1	25W to 500W	8V to 75V	Forward, Boost, SEPIC, Inverter	SSOP-16	E, I	1.23V to 0.9V <sub>IN</sub>	\$3.30
LT1619	Up to 100W	1.9V to 18V	Flyback, Boost, SEPIC, Inverter	MSOP-8, SO-8	E	1.24V and Higher <sup>(1)</sup>	\$1.99
LT3710	— <sup>(1)</sup>	8V to 54V	Secondary Side Synchronous Post Regulator	TSSOP-16	E	0.8V to 0.85V <sub>IN</sub>	\$3.95
LT3804	— <sup>(1)</sup>	8V to 54V	Secondary Side Dual Output Synchronous Post Regulator with Opto Driver	TSSOP-16	E	0.6V to 0.75V <sub>IN</sub>	\$5.35

Notes:  
1. Dependent on external components.

## OPTOCOUPLER DRIVER

Part Number	Input Voltage (V)	Driver Current Limit (mA)	Accuracy (-40°C to 125°C)	Reference Voltage (V)	Amplifier Bandwidth (MHz)	Package	Comments	Price 1K Qty
LT4430	3 to 20	10	1.25%	0.6	9	ThinSOT	Prevents Output Overshoot on Start-Up, Short-Circuit Recovery	\$1.75

## PWM CONTROLLERS

Part Number	Min Operating Threshold (V)	Input Voltage Range (V)	Output Current Drive Capability (A)	Reference Voltage (V)	Frequency (kHz)	Supply Current (mA)	Other Features	Price 1K Qty
LT1241	9.6	8.2-25	1	5	to 500	7	Low Start-Up Current, to 500kHz	\$1.95
LT1242	16	11-25	1	5	to 500	7	Improved 1842, to 100% Duty Cycle	\$1.95
LT1243	8.4	8.2-25	1	5	to 500	7	Improved 1843, to 100% Duty Cycle	\$1.95
LT1244	16	11-25	1	5	to 500	7	Improved 1844	\$1.95
LT1245	8.4	8.2-25	1	5	to 500	7	Improved 1845	\$1.95
LT1246	16	10-25	1	5	to 1000	13	Improved 1842, Built-In Blanking	\$2.15
LT1247	8.4	7.6-25	1	5	to 1000	13	Improved 1843, Built-In Blanking	\$2.10

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Part Number	Minimum Operating Threshold (V)	Input Voltage Range (V)	Output Current Drive Capability (A)	Reference Voltage (V)	Frequency (kHz)	Supply Current (mA)	Other Features	Price 1K Qty
LT1248	15.5	11.5 - 25	1.5	7.5	to 200	1.5	Power Factor Corrector in 16-Pin DIP, SO	\$3.25
LT1249	15.5	11.5 - 25	1.5	7.5	to 200	1.5	Power Factor Corrector in 8-Pin DIP, SO	\$3.25
LT1509	15.5	11.5 - 25	1.5	7.5	to 300	19	PFC/PWM Single Chip Solution, Soft-Start	\$3.95

HOT SWAP/CIRCUIT BREAKERS

Part Number	† Circuit Breakers	‡‡ Input Voltage Range (V)	Start-Up In-Rush <sup>(1)</sup> Current	Current Limit Methods			Outputs			Ext. Temp.	Package	Comments	Price 1K Qty
				Active Limiting	Foldback	Fast Comparator	Fault	Reset	PWRGD				
LTC4213	1	0 to 6				yes				I	3×2 DFN-8	No R <sub>sense</sub> Electronic Circuit Breaker for 0V to 6V with a Separate Supply of 2.3V to 6V	\$1.50
LTC4216	1	0 to 6	Active	yes			yes	yes		I	MSOP-10, 4×3 DFN-12	Ultralow Voltage Hot Swap Controller for 0V to 6V with a Separate Supply of 2.3V to 6V. Adjustable Current Limit, Soft-Start and Response Time for Overcurrent Protection	\$1.85
LTC4210	1	2.7 to 16.5	Active	yes						I	TSOT-6	Active Current Limiting with Circuit Breaker. Auto-Retry (LTC4210-1/-3) or Latch-Off (LTC4210-2/-4) on Overcurrent Fault; "-3" and "-4" Feature 2.7V to 7V V <sub>IN</sub>	\$1.65
LTC4211	1	2.5 to 16.5	Active/SS			yes	yes	yes		I	SO-8, MSOP-8, MSOP-10	Active Current Limiting on In-Rush, Timed Circuit Breaker or Fast Response to Catastrophic Faults	\$1.95
LTC4212	1	2.5 to 16.5	Active			yes				I	MSOP-10	PWRGD Input with Timer and Glitch Filter for Proper Power-Up and Monitoring of DC/DC Converters	\$2.25
LTC4215/-1	1	2.9 to 16.5	Active/SS		yes		yes	yes		I	SSOP-16, 4×5 QFN-24	I <sup>2</sup> C, Internal 8-Bit ADC, di/dt Controlled Soft-Start, "-1" Features 3 GPIO Ports	\$3.75
LTC1642A	1	2.97 to 16.5	Ramp	yes	yes		yes	yes		I	SSOP-16	Protected Against Surges to 33V, Output Driver for SCR	\$3.50
LTC1422	1	2.55 to 13.2	Ramp					yes		I	SO-8	System Reset, Programmable Current Limit	\$2.50
LTC4217	1	2.9 to 26.5	Active	yes	yes		yes	yes		I	TSSOP-20, 5×3 DFN-16	Integrated MOSFET and Sense Resistor, 5% Accurate Current Limit, Current/Temperature Outputs. "-12" Has Fixed 12V Output and Is Only in 5×3 DFN Package	\$3.35
LTC4218	1	2.9 to 26.5	Ramp	yes			yes	yes		I	SSOP-16, 5×3 DFN-16	Wide Operating Voltage, 5% Accurate, 15mV Current Limit, Current Monitor Output	\$2.65
LTC1153	1	4.5 to 18					yes			I	DIP-8, SO-8	Prog Trip Current to 20A, Prog Delay, Auto-Retry on Fault. Not Recommended for New Designs	\$2.05
LT4254	1	10.8 to 36	Active	yes	yes			yes		I	SSOP-16	Positive High Voltage Hot Swap Controller with Open Circuit Detect Output	\$1.95
LT4356	1	4 to 80	Active	yes			yes	yes	yes	H	SO-16, MSOP-10, 4×3 DFN-12	Surge Stopper! Overvoltage Protection Regulator with Overcurrent Protection, Reverse Input Protection and Inrush Current Limiting. Spare Amplifier for UV/OV Monitor or Linear Regulator. "-2" Keeps Aux Amp and V <sub>REF</sub> Alive in Shutdown. "-3" Has Fault Latch-Off	\$1.98
LT4256	1	10.8 to 80	Active	yes	yes			yes		I	SO-8	Positive High Voltage Hot Swap. Pin-Compatible with LT1641. Latch-Off (LT4256-1) or Auto-Retry (LT4256-2) Operation	\$1.75
LT4256-3	1	10.8 to 80	Active	yes	yes			yes		I	SSOP-16	Positive High Voltage Hot Swap Controller with Open Circuit Detect Output. Higher Voltage Version of LT4254	\$2.05
LTC4260	1	8.5 to 80	Active	yes	yes		yes			I	SO-24, SSOP-24, 5×5 QFN-32	Onboard 8-Bit ADC for Card Voltage and Current Monitoring, I <sup>2</sup> C Compatible Interface. Optional Latch-Off or Auto-Retry	\$5.50
LT1641	1	9 to 80	Active	yes	yes			yes		I	SO-8	For 48V DC/DC Modules, Latch-Off (LT1641-1) or Auto-Retry (LT1641-2)	\$2.35
LTC4214	1	-6 to -16	Active	yes		yes		yes		I	MSOP-10	Multilevel Current Limiting, Controls -5V Supplies if Positive Supply is Available. Latch-Off (LTC4214-1) or Auto-Retry (LTC4214-2) on Overcurrent Fault	\$2.35
LT1640/A	1	-10 to -80	Miller Cap					yes		I	SO-8	High Voltage Controller for -48V DC/DC Modules. A-Grade Has Improved Drain Pin Ruggedness	\$1.90
LT4250	1	-18 to -80	Miller Cap	yes				yes		I	SO-8	Pin-Compatible with LT1640 But with Active Current Limiting	\$2.35
LTC4251	1	-15 to -80 (floating)	Active/SS <sup>(2)</sup>	yes		yes				I	TSOT-6	Timed Circuit Breaker, Active Current Limiting and Fast Response to Catastrophic Faults. "-1" Version Has Wider Operating Range Between UV and OV Thresholds. "-2" Version Has OV Comparator Disabled.	\$1.95
LTC4252/A	1	-15 to -80 (floating)	Active/SS	yes		yes		yes		I	MSOP-8, MSOP-10	Power Good Output, Timed Circuit Breaker, Active Current Limiting with Drain Accelerated Response and Fast Response to Catastrophic Faults. Latch-Off (LTC4252-1) or Auto-Retry (LTC4252-2). ±1% Undervoltage/Overvoltage Threshold Accuracy (LTC4252A)	\$2.00
LTC4253/A	1	-15 to -80 (floating)	Active/SS	yes		yes		yes		I	SSOP-16	Similar to LTC4252 but Enables Three DC/DC Converters in Sequence. Asynchronous Reset Input. ±1% UV/OV Threshold Accuracy (LTC4253A)	\$2.95
LTC4253A-ADJ	1	-15 to -80 (floating)	Active/SS	yes		yes		yes		I	SSOP-20, 4×4 QFN-20	Adjustable Threshold and Hysteresis on the UV/OV Detectors	\$3.25
LTC4261	1	-12 to -100	Active	yes			yes	yes		I	SSOP-28, 4×5 QFN-24	Onboard 10-Bit ADC for Card Voltage and Current Monitoring. I <sup>2</sup> C Compatible Interface. Latch-Off Operation (LTC4261) or Auto-Retry (LTC4261-2)	\$5.95
LTC1646	2	2.7 to 7	Active	yes	yes	yes	yes	yes	yes	I	SSOP-16	3.3V and 5V Supplies for CompactPCI, Local_PCI_RST Logic, 1V Precharge for Data Bus	\$3.40

† Primary Sort Column  
‡‡ Secondary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# HOT SWAP/CIRCUIT BREAKERS

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Space, Military,  
Harsh Envir.

Reference  
Material

Part Number	† Circuit Breakers	‡‡ Input Voltage Range (V)	Start-Up In-Rush <sup>(1)</sup> Current	Current Limit Methods			Outputs			Ext. Temp.	Package	Comments	Price 1K Qty
				Active Limiting	Foldback	Fast Comparator	Fault	Reset	PWRGD				
LTC1647	2	2.7 to 16.5	Ramp				yes			I	SO-8, SSOP-16	Dual on Pins for Power Sequencing or Enabling Separate Loads from a Common Supply	\$2.95
LTC4221	2	(1) 2.7 to 13.5, (1) 1 to 13.5	Active	yes		yes	yes	yes	yes	I	SSOP-16	Dual Hot Swap Controller/Power Sequencer with Dual Speed and Dual Level Fault Protection, One Channel Operates from 1V	\$3.10
LTC1645	2	(1) 1.18 to 13.2, (1) 2.3 to 13.2	Ramp					yes		I	SO-8, SO-14	Power Supply Sequencing, Reset, Fault Outputs and Spare Comparator in 14-Pin Version	\$2.95
LT4220	2	(1) 2.7 to 16.5, (1) -2.7 to -16.5	Active	yes	yes		yes	yes	yes	I	SSOP-16	Controls Positive and Negative Voltages. Selectable Tracking Mode	\$3.50
LTC4223	2	(1) 10 to 14, (1) 2.7 to 6	Active	yes		yes	yes	yes	yes	I	SSOP-16, 5x4 DFN-16	Dual Supply Hot Swap Controller for Advanced Mezzanine Cards and MicroTCA. Latch-Off Operation (LTC4223-1) or Auto-Retry (LTC4223-2)	\$1.95
LTC1421	2	(2) 2.6 to 13.2, (1) -5 to -12	Ramp				yes	yes	yes	I	SO(W)-24, SSOP-24	Controls a Third Negative Supply without a Circuit Breaker. Reset and Power Good Outputs, Connection Sense Inputs	\$4.90
LTC4222	2	2.9 to 29	Active/SS	yes	yes		yes	yes	yes	I	SSOP-36, 5x5 QFN-32	Dual Hot Swap Controller with I <sup>2</sup> C, Internal 10-Bit ADC, di/dt Controlled Soft-Start	\$5.85
LTC4224	2	1 to 6	Active	yes			yes			I	MSOP-10, 3x2 DFN-10	Compact Dual Low Voltage Hot Swap Controller	\$2.40
LTC4230	3	(1) 2.7 to 16.5, (1) 2.375 to 16.5, (1) 1.7 to 15.5	Active/SS			yes	yes	yes		I	SSOP-20	Controls Three Supplies; Active Current Limiting on In-Rush, Timed Circuit Breaker or Fast Response to Catastrophic Faults	\$3.65
LTC4242	3	(2) 2.7 to 6, (1) 10.1 to 14.4	Active	yes		yes	yes	yes	yes	I	SSOP-36, 5x7 QFN-38	Dual Slot Controller for PCI-Express, External N-Channel FETs for 3.3V and 12V, Internal 0.2Ω Switch for AUX 3.3V	\$3.30
LTC4240	4	(1) 2.55 to 5, (1) 4.45 to 12, (1) 10.8 to 14, (1) -10.5 to -14	Active	yes	yes		yes	yes	yes	I	SSOP-28	Controls 3.3V and 5V with N-Channel Fets, ±12V Supplies Controlled with Internal Switches. I <sup>2</sup> C Compatible Interface	\$4.25
LTC4244	4	(1) 2.25 to 13.5, (1) 4.25 to 13.5, (1) 10 to 14.4, (1) -10.25 to -14.4	Active	yes	yes		yes	yes	yes	I	SSOP-20	Pin-Compatible with the LTC1644 But with Higher Absolute Maximum Ratings	\$3.90
LTC1643A	4	(2) 2.75 to 12, (1) 10.8 to 13.2, (1) -10.8 to -13.2	Active	yes	yes		yes	yes	yes	I	SSOP-16	Controls 3.3V and 5V with N-Channel Fets, ±12V Supplies Controlled with Internal Switches for PCI and CompactPCI	\$4.25
LTC1644	4	(2) 2.75 to 13.2, (1) 10.8 to 13.2, (1) -10.8 to -14	Active	yes	yes		yes	yes	yes	I	SSOP-20	3.3V, 5V and ±12V Supplies for CompactPCI, Local_PCI_RST# Logic, 1V Precharge for Data Bus	\$3.60
LTC4245	4	(1) 4.25 to 10, (1) 2.7 to 10 (1) 10.2 to 20, (1) -10.2 to -20	Active/SS	yes	yes		yes	yes	yes	I	SSOP-36, 5x7 QFN-38	I <sup>2</sup> C, Internal 8-Bit ADC, di/dt Controlled Soft-Start	\$5.95
LTC4241	5	(1) 2.75 to 12, (1) 2.85 to 7, (1) 4.15 to 12, (1) 10.8 to 14, (1) -10.8 to -14	Active	yes	yes		yes	yes	yes	I	SSOP-20	Controls 3.3V, 5V, and 3.3V Aux with N-Channel FETS, ±12V Supplies Controlled with Internal Switches. Active High ON Pin for PCI	\$1.75

† Primary Sort Column  
‡‡ Secondary Sort Column

Notes:  
1. Active = Active current limit for in-rush current set by gate dv/dt; SS = softstart limits di/dt; Miller Cap = in-rush current set by drain dV/dt  
2. SS not on "plain" version

# HIGH VOLTAGE HOT SWAP/CIRCUIT BREAKERS

Part Number	† Input Voltage Range (V)	Start-Up In-Rush Current	Current Limit Methods			Outputs			Ext. Temp.	Package	Comments	Price 1K Qty	
			Active Limiting	Fast Comparator	UV	OV	Fault	Reset					PWRGD
<b>Negative Input</b>													
LTC4261/-2	-12 to -100	Active	yes	yes	yes	yes	yes	yes	yes	I	SSOP-28, 4x5 QFN-24	Onboard 10-Bit ADC for Card Voltage and Current Monitoring, I <sup>2</sup> C Interface. Default Latch-Off (LTC4261) or Auto-Retry (LTC4261-2)	\$5.95
LT1640A	-10 to -80	Miller Cap			yes	yes		yes		I	SO-8	Improved Drain Pin Ruggedness	\$1.90
LT1640	-10 to -80	Miller Cap			yes	yes		yes		I	SO-8	PWRGD# (L) or PWRGD (H) Output	\$1.90
LT4250	-18 to -80	Miller Cap	yes		yes	yes		yes		I	SO-8	LT1640 Pin-Compatible with Active Current Limiting	\$2.35
LTC4251	-15 to -80 (floating)	Active	yes	yes	Combined					I	TSOT-6	Three-Level Circuit Breaker, UV/OV Combined on Same Pin	\$1.95
LTC4251-1	-15 to -80 (floating)	Active/SS	yes	yes	Combined					I	TSOT-6	Wider Operating Range Between UV and OV Thresholds	\$1.95
LTC4251-2	-15 to -80 (floating)	Active/SS	yes	yes	yes					I	TSOT-6	OV Comparator Disabled	\$1.95
LTC4252-1/ LTC4252A-1	-15 to -80 (floating)	Active/SS	yes	yes	yes	yes		yes		I	MSOP-8, MSOP-10	Soft-Start (SS) Ramps Inrush Current During Start-Up. Drain Accelerated Response. Latch-Off Operation. ±1% Undervoltage/Overvoltage Threshold Accuracy (LTC4252A-1) for Advanced TCA Applications	\$2.00

† Primary Sort Column

# HIGH VOLTAGE HOT SWAP/CIRCUIT BREAKERS

Part Number	† Input Voltage Range (V)	Start-Up In-Rush Current	Current Limit Methods				Outputs			Ext. Temp.	Package	Comments	Price 1K Qty
			Active Limiting	Fast Comparator	UV	OV	Fault	Reset	PWRGD				
LTC4252-2/ LTC4252A-2	-15 to -80 (floating)	Active/SS	yes	yes	yes	yes	yes		I	MSOP-8, MSOP-10	Soft-Start (SS) Ramps Inrush Current During Start-Up. Drain Accelerated Response. Auto-Retry Operation. ±1% Undervoltage/Overvoltage Threshold Accuracy (LTC4252a-2) for AdvancedTCA Applications	\$2.00	
LTC4253/ LTC4253A	-15 to -80 (floating)	Active/SS	yes		yes	yes	yes	yes	I	SSOP-16	Similar to LTC4252 and Enables Three DC/DC Converters in Sequence. Asynchronous Reset Input. ±1% UV/OV Threshold Accuracy (LTC4253A)	\$2.95	
LTC4253A-ADJ	-15 to -80 (floating)	Active/SS	yes		yes	yes	yes	yes	I	SSOP-20, 4×4 QFN-20	Adjustable Threshold and Hysteresis on the UV/OV Detectors	\$3.25	
<b>Positive Input</b>													
LT4254	10.8 to 36	Active	yes		yes	yes	yes		I	SSOP-16	Positive High Voltage Hot Swap Controller with Open Circuit Detect Output	\$1.95	
LT1641	9 to 80	Active	yes		yes		yes		I	SO-8	For +48V DC/DC Modules, Latch-Off (LT1641-1) or Auto-Retry (LT1641-2)	\$2.35	
LT4256	10.8 to 80	Active	yes		yes		yes		I	SO-8	Positive High Voltage Hot Swap. Pin-Compatible with LT1641. Latch-Off/ Auto-Retry Operation	\$1.75	
LT4256-3	10.8 to 80	Active	yes		yes	yes	yes		I	SSOP-16	Positive High Voltage Hot Swap Controller with Open Circuit Detect Output. Higher Voltage Version of LT4254	\$2.05	
LTC4260	8.5 to 80	Active	yes		yes	yes	yes		I	SO-24, SSOP-24, 5×5 QFN-32	Onboard 8-bit ADC for Card Voltage and Current Monitoring, I <sup>2</sup> C Compatible Interface. Optional Latch-Off or Auto-Retry	\$5.95	
LT4356	4 to 80	Active	yes				yes	yes	H	SO-16, MSOP-10, 4×3 DFN-12	Surge Stopper! Overvoltage Protection Regulator with Overcurrent Protection, Reverse Input Protection and Inrush Current Limiting. Spare Amplifier for UV/OV Monitor or Linear Regulator. "-2" Keeps Aux Amp and V <sub>REF</sub> Alive in Shutdown. "-3" Has Fault Latch-Off	\$1.98	

† Primary Sort Column

# LOW VOLTAGE HOT SWAP/CIRCUIT BREAKERS

Part Number	† Circuit Breakers	Input Voltage Range (V)	Start-Up In-Rush Current	Current Limit Methods			Outputs			Supply Sequencing	Ext. Temp.	Package	Comments	Price 1K Qty
				Active Limiting	Foldback	Fast Comparator	Fault	Reset	PWRGD					
LTC4213	1	0 to 6				yes					I	3×2 DFN-8	No R <sub>SENSE</sub> Electronic Circuit Breaker for 0V to 6V Supply with a Separate Supply of 2.3V to 6V	\$1.50
LTC4216	1	0 to 6	Active	yes	yes		yes	yes			I	MSOP-10, 4×3 DFN-12	Ultralow Voltage Hot Swap Controller for 0V to 6V Supply with a Separate Supply of 2.3V to 6V. Adjustable Current Limit, Soft-Start and Response Time for Overcurrent Protection	\$1.85
LTC4210-1/-2	1	2.7 to 16.5	Active	yes			yes				I	TSOT-6	Active Current Limiting with a Circuit Breaker. Automatic Retry (LTC4210-1) or Latch-Off (LTC4210-2) on an Overcurrent Fault	\$1.65
LTC4210-3/-4	1	2.7 to 7	Active	yes			yes				I	TSOT-6	An Extension of LTC4210-1/-2, But for Supplies Ranging From 2.7V to 7V	\$1.65
LTC4211	1	2.5 to 16.5	Active				yes	yes	yes		I	SO-8, MSOP-8, MSOP-10	No Gate Capacitor Required	\$1.95
LTC4212	1	2.5 to 16.5	Active				yes	yes			I	MSOP-10	Power Good Input with Timer and Glitch Filter for Assuring Proper Power-Up and Monitoring of DC/DC Converters	\$2.25
LTC4215/-1	1	2.9 to 16.5	Active/SS		yes		yes	yes			I	SSOP-16, 4×5 QFN-24	I <sup>2</sup> C, Internal 8-Bit ADC, di/dt Controlled Soft-Start, "-1" Features 3GPIO Ports	\$3.75
LTC1642A	1	2.97 to 16.5	Ramp	yes	yes		yes	yes			I	SSOP-16	Protected up to 33V, Output Driver for SCR, Spare Comparator	\$3.50
LTC1422	1	2.55 to 13.2	Ramp					yes			I	SO-8	System Reset, Programmable Current Limit	\$2.50
LTC4214-1/-2	1	-6 to -16	Active	yes	yes		yes	yes			I	MSOP-10	Multi Level Current Limiting, Controls -5V Supplies if Positive Supply is Available. Latch Off (LTC4214-1) and Auto-Retry (LTC4214-2) on Overcurrent Fault	\$2.35
LTC4217	1	2.9 to 26.5	Active	yes	yes		yes	yes			I	TSSOP-20, 5×3 DFN-16	Integrated MOSFET and Sense Resistor, 5% Accurate Current Limit, Current/Temperature Outputs. "-12" Has Fixed 12V Output and Is Only in 5×3 DFN Package	\$3.35
LTC4218	1	2.9 to 26.5	Ramp	yes			yes	yes			I	SSOP-16, 5×3 DFN-16	Wide Operating Voltage, 5% Accurate, 15mV Current Limit, Current Monitor Output	\$2.65
LT4220	2	(1) 2.7 to 16.5 (1) -2.7 to -16.5	Active	yes	yes		yes	yes	Together		I	SSOP-16	Controls Positive and Negative Voltages. Selectable Tracking Mode	\$4.25
LTC4221	2	(1) 2.7 to 13.5 (1) 1 to 13.5	Active	yes			yes	yes	Together or Sequenced		I	SSOP-16	Dual Hot Swap Controller/Power Sequencer with Dual Speed and Dual Level Fault Protection, One Channel Operates from 1V	\$3.10
LTC4223	2	(1) 2.7 to 6 (1) 10 to 14	Active	yes			yes	yes	Together or Sequenced		I	SSOP-16, 5×4 DFN-16	Dual Supply Hot Swap Controller for Advanced Mezzanine Cards. Latch Off (LTC4223-1) or Auto-Retry (LTC4223-2) On Overcurrent Fault.	\$1.95
LTC1645	2	(1) 1.18 to 13.2 (1) 2.3 to 13.2	Ramp					yes	Together or Sequenced		I	SO-8, SO-14	Dual-Level ON Pin for Power Supply Sequencing, Spare Comparator in 14-Pin Version	\$2.95
LTC1646	2	2.7 to 7	Active	yes	yes		yes	yes	Together		I	SSOP-16	For CompactPCI, includes LOCAL_PCI_RST Logic, 1V Precharge for Data Bus	\$3.40
LTC1647-1	2	2.7 to 16.5	Ramp						Together or Sequenced		I	SO-8	Dual ON Pins for Power Sequencing or Enabling Separate Loads from a Common Supply	\$2.95
LTC1647-2	2	2.7 to 16.5	Ramp				yes		Together or Sequenced		I	SO-8	Dual ON/FAULT Pins for Power Sequencing or Enabling Separate Loads from a Common Supply	\$2.95
LTC1647-3	2	2.7 to 16.5	Ramp				yes		Together or Sequenced		I	SSOP-16	Dual ON Pins, Dual/FAULT Pins for Power Sequencing or Enabling Separate Loads from a Common Supply	\$3.20

† Primary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# LOW VOLTAGE HOT SWAP/CIRCUIT BREAKERS

Part Number	Circuit Breakers	Input Voltage Range (V)	Start-Up In-Rush Current	Current Limit Methods			Outputs			Supply Sequencing	Ext. Temp.	Package	Comments	Price 1K Qty
				Active Limiting	Foldback	Fast Comparator	Fault	Reset	PWRGD					
LTC1421	2	(2) 2.6 to 13.2 (1) -5 to -12	Ramp				yes	yes	yes	Together	I	SO(W)-24, SSOP-24	Controls a Third Negative Supply without a Circuit Breaker. Reset and Power Good Outputs, Connection Sense Inputs	\$4.90
LTC4222	2	2.9 to 29	Active/SS	yes	yes		yes	yes			I	SSOP-36, 5x5 QFN-32	Dual Hot Swap Controller with I <sup>2</sup> C, Internal 10-Bit ADC, di/dt Controlled Soft-Start	\$5.85
LTC4224	2	1 to 6	Active	yes			yes				I	MSOP-10, 3x2 DFN-10	Compact Dual Low Voltage Hot Swap Controller	\$2.40
LTC4230	3	(1) 2.7 to 16.5 (1) 2.375 to 16.5 (1) 1.7 to 15.5	Active/SS			yes	yes	yes		Together	I	SSOP-20	Controls Three Supplies; Active Current Limiting on Inrush, Timed Circuit Breaker or Fast Response to Catastrophic Faults	\$3.65
LTC4240	4	(1) 2.55 to 5, (1) 4.45 to 12, (1) 10.8 to 14, (1) -10.5 to -14	Active	yes	yes		yes	yes		Together	I	SSOP-28	Controls 3.3V, 5V with N-Channel FETs, ±12V Supplies Controlled with Internal Switches. I <sup>2</sup> C Compatible Interface	\$4.25
LTC4244	4	(1) 2.25 to 13.5, (1) 4.25 to 13.5, (1) 10 to 14.4, (1) -10.25 to -14.4	Active	yes	yes		yes	yes		Together	I	SSOP-20	Pin-Compatible with LTC1644 But with Higher Absolute Maximum Ratings	\$3.90
LTC4245	4	(1) 4.25 to 10 (1) 2.7 to 10 (1) 10.2 to 20 (1) -10.2 to -20	Active/SS	yes	yes		yes	yes			I	SSOP-36, 5x7 QFN-38	I <sup>2</sup> C, Internal 8-bit ADC, di/dt Controlled Soft-Start	\$5.95
LTC1643A	4	(2) 2.75 to 12 (1) 10.8 to 13.2 (1) -10.8 to -13.2	Active	yes	yes		yes	yes		Together	I	SSOP-16	LTC1643AH for PCI and LTC1643AL/LTC1643AL-1 CompactPCI	\$4.25
LTC1644	4	(2) 2.75 to 13.2 (1) 10.8 to 13.2 (1) -10.8 to -14	Active	yes	yes		yes	yes		Together	I	SSOP-20	For CompactPCI, Includes LOCAL_PCI_RST Logic, 1V Precharge for Data Bus	\$3.60
LTC4241	5	(1) 2.75 to 12 (1) 2.85 to 7 (1) 4.15 to 12 (1) 10.8 to 14 (1) -10.8 to -14	Active	yes	yes		yes	yes		Together	I	SSOP-20	Controls 3.3V, 5V, and Independent 3.3V Aux with N-Channel FETs, ±12V Supplies Controlled with Internal Switches. Active High ON Pin for PCI	\$1.75

† Primary Sort Column

## PCI HOT SWAP

Part Number	PCI / cPCI Supplies				Internal Switch		Outputs					Package	Comments	Price 1K Qty
	3.3V	5V	12V	-12V	Current Limit @ 12V (mA)	Current Limit @ -12V (mA)	PWRGD	Local PCI Reset	Fault	Precharge	Ext. Temp.			
LTC1644	yes <sup>(1)</sup>	yes <sup>(1)</sup>	yes	yes <sup>(1)</sup>	840	320	yes	yes	yes	yes	I	SSOP-20	Active Current Limiting with Foldback, Active Low ON Pin for CompactPCI	\$3.60
LTC1643A	yes	yes	yes	yes	850	450	yes		yes		I	SSOP-16	Active Current Limiting with Foldback, "L" Version Has Active Low ON Pin for CompactPCI; "H" Has Active High ON Pin for PCI. See LTC4244 For New Designs	\$4.25
LTC1643AL-1	yes	yes	yes		850	450	yes		yes		I	SSOP-16	Active Current Limiting with Foldback, Does Not Require -12V Supply	\$4.25
LTC4241	yes	yes	yes	yes	850	450	yes		yes		I	SSOP-20	Controls 3.3V, 5V, and Independent 3.3V Aux with N-Channel FETs, ±12V Supplies Controlled with Internal Switches. Active High ON Pin for PCI	\$1.75
LTC4244	yes	yes	yes	yes	850	610	yes	yes	yes	yes	I	SSOP-20	Pin-Compatible with the LTC1644 but with Higher Absolute Maximum Ratings	\$3.90
LTC4240	yes	yes	yes	yes	1250	500	yes	yes	yes	yes	I	SSOP-28	Active Current Limiting with Foldback. I <sup>2</sup> C Interface and Active Low ON Pin for CompactPCI	\$4.25
LTC4242	×2		×2		(ext. FET and R <sub>SENSE</sub> )	n/a	yes		yes		I	SSOP-36, 5x7 QFN-38	Dual Slot Controller for PCI-Express, External N-Channel FETs for 3.3V and 12V, Internal 0.2Ω Switch for AUX 3.3V	\$3.30
LTC4245	yes	yes	yes	yes	(ext. FET and R <sub>SENSE</sub> )	(ext. FET and R <sub>SENSE</sub> )	yes	yes	yes	yes	I	SSOP-36, 5x7 QFN-38	I <sup>2</sup> C, Internal 8-Bit ADC, di/dt Controlled Soft-Start, Configurable for cPCI or PCI-Express	\$5.95
LTC1646	yes <sup>(1)</sup>	yes <sup>(1)</sup>			n/a	n/a	yes	yes	yes	yes	I	SSOP-16	Active Current Limiting with Foldback, Can Operate with Either 3.3V or 5V-Only, Does Not Require ±12V Supplies	\$3.40

† Primary Sort Column

Note:

1. Optional supply, see data sheet for details



Part Number	PSE/PD	Channels	Description	IEEE-Compliant Detection	IEEE-Compliant Classification	IEEE-Compliant Disconnection	Ext. Temp	Package	Comments	Price 1K Qty
LTC4257	PD	1	IEEE 802.3af PD PoE Interface Controller	yes <sup>(1)</sup>	yes (Programmable)	n/a	I	SO-8, 3×3 DFN-8	100V, 400mA Internal FET	\$1.65
LTC4257-1	PD	1	IEEE 802.3af PD PoE Interface Controller with Dual Current Limit	yes <sup>(1)</sup>	yes (Programmable)	n/a	I	SO-8, 3×3 DFN-8	100V, 400mA Internal FET, Dual Current Limit For Legacy Applications	\$1.75
LTC4264	PD	1	35W PoE PD Interface Controller with 750mA Current Limit	yes <sup>(1)</sup>	yes (Programmable)	n/a	I	4×3 DFN-12	See LTC4265 For New Designs	\$1.80
<b>LTC4265</b>	<b>PD</b>	<b>1</b>	<b>IEEE 802.3at PD PoE+ Interface Controller</b>	<b>yes<sup>(1)</sup></b>	<b>yes (Programmable)</b>	<b>n/a</b>	<b>I</b>	<b>4×3 DFN-12</b>	<b>For High Power (Up to 26W) Applications, Onboard 100V/100mA Power MOSFET</b>	<b>C.F.</b>
LTC4268-1	PD	1	35W High Power PD with Synchronous NoOpto Flyback Controller	yes <sup>(1)</sup>	yes (Programmable)	n/a	I	7×4 DFN-32	See LTC4269-1 For New Designs	\$2.40
LTC4267/-1/-3	PD	1	IEEE 802.3af PD PoE Interface Controller with Integrated 200kHz/300kHz Switching Regulator	yes <sup>(1)</sup>	yes (Programmable)	n/a	I	SSOP-16, 3×5 DFN-16	Onboard Switching Regulator, 100V, 400mA Internal FET, Dual Current Limit for Legacy Applications. "Plain" and "-1" Have 200kHz Switcher. "-1" and "-3" Have Increased 450mA Current Limit. "-3" Has 300kHz Switcher	\$2.10
<b>LTC4269-1/-2</b>	<b>PD</b>	<b>1</b>	<b>IEEE 802.3at PD PoE+ Interface Controller with Integrated Flyback/Forward Controller</b>	<b>yes<sup>(1)</sup></b>	<b>yes (Programmable)</b>	<b>n/a</b>	<b>I</b>	<b>7×4 DFN-32</b>	<b>Up to 30W, Onboard Switching Reg, Dual Current Limit for Legacy Applications, 100V Internal FET. "-1" Has Adj. 50kHz to 250kHz Flyback Converter; "-2" Has Adj. 100kHz to 500kHz Forward Converter</b>	<b>C.F.</b>
LTC4263/-1	PSE	1	Single PoE Controller with AC and DC Disconnect	yes	yes	yes (DC- or AC-current)	I	SO-14, 4×3 DFN-14	Fully Autonomous, Internal MOSFET with Thermal Protection, Internal R <sub>SENSE</sub> Resistor. "-1" Has Increased Output Power and DFN-14 Only Package	\$2.95
LTC4258	PSE	4	Quad IEEE 802.3af PoE Controller with Integrated Detection	yes	yes	yes (DC-current)	I	SSOP-36	Same as LTC4259 but with DC Disconnect Only	\$6.30
LTC4259A-1	PSE	4	Quad IEEE 802.3af PoE Controller with AC Disconnect	yes	yes	yes (DC- or AC-current)	I	SSOP-36	Fully Autonomous, Semi-Auto and Manual Modes. Programmable PD Disconnect Using AC or DC Sensing. Recommend for New Designs	\$6.95
<b>LTC4266</b>	<b>PSE</b>	<b>4</b>	<b>Quad IEEE 802.3at PoE+ Controller</b>	<b>yes</b>	<b>yes</b>	<b>yes (DC-current)</b>	<b>I</b>	<b>SSOP-36, 5×7 DFN-38</b>	<b>Fully Autonomous, Semi-Auto and Manual Modes. Programmable PD Disconnect Using DC Sensing, 4 Point PD Detection, High Capacitance Legacy Device Detection</b>	<b>C.F.</b>

Note:  
1. Internal 25kΩ resistor

SYSTEM MONITORING AND CONTROL  
μP SUPERVISORY

Part Number	† Number of Voltage Monitors	Fixed Voltage Range, (V)	Adjustable Inputs	Minimum Adj Threshold, (V)	OV Monitor	Negative Monitor	Reset Threshold Tolerance	Minimum Reset Level (V)	Reset Pulse Width	Supply Current (μA)	Watchdog Timer	Power Fail Warning	Comments	Ext. Temp.	Package	Price 1K Qty
LTC2910	8		8	0.5	yes	yes		0.5	Adj.	70			RST, RST# Outputs, Optional Shunt Regulator for High Supply Voltage Operation	I	SSOP-16, 5×3 DFN-16	\$3.20
LTC2908-A1	6	5, 3.3, 2.5, 1.8	2	0.5				0.5	200ms	26				I	TSOT-8, 3×2 DFN-8	\$2.50
LTC2908-B1	6	3.3, 2.5, 1.8, 1.5	2	0.5			5%	0.5	200ms	26				I	TSOT-8, 3×2 DFN-8	\$2.50
LTC2908-C1	6	2.5	5	0.5			5%	0.5	200ms	26				I	TSOT-8, 3×2 DFN-8	\$2.50
LTC2930	6	5 to 1.5	up to 4	0.5	yes		5%	1	Adj	52			16 Selectable Thresholds, Adj. Reset Timer, Manual Reset	I, H	3×3 DFN-12	\$2.56
LTC2931	6	5 to 1.5		0.5	yes		5%	1	Adj	52	Adj		16 Selectable Thresholds, Adj. Reset Timer, Watchdog Timer, Separate Voltage Monitor Outputs	I, H	TSSOP-20	\$2.80
LTC2932	6	5 to 1.5	up to 4	0.5	yes		5%, 7.5%, 10%, 12.5%	1	Adj	52			16 Selectable Thresholds, Adj. Reset Timer and Threshold Tolerance, Separate Voltage Monitor Outputs	I, H	TSSOP-20	\$2.80
LTC2900	4	5 to 1.5	up to 2	0.5	yes		5%	1	Adj	43			Single Pin Programs Threshold Combination. Open Drain Or Push-Pull Reset Output. Pushbutton Input	I	MSOP-10, 3×3 DFN-10	\$1.85
LTC2901	4	5 to 1.5	up to 2	0.5	yes		5%, 10%	1	Adj	43	Adj		Single Pin Programs Threshold Combination. Separate Voltage Monitor Outputs, Open Drain or Push-Pull Reset. Selectable 5% or 10% Tolerances (LTC2901-3/-4)	I	SSOP-16	\$2.35

† Primary Sort Column

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# SYSTEM MONITORING AND CONTROL

## µP SUPERVISORY

Part Number	Number of Voltage Monitors	Fixed Voltage Range, (V)	Adjustable Inputs	Minimum Adj Threshold, (V)	OV Monitor	Negative Monitor	Reset Threshold Tolerance	Minimum Reset Level (V)	Reset Pulse Width	Supply Current (µA)	Watchdog Timer	Power Fail Warning	Comments	Ext. Temp.	Package	Price 1K Qty
LTC2902 <sup>(†)</sup>	4	5 to 1.5	up to 2	0.5		yes	5%, 7.5%, 10%, 12.5%	1	Adj	43			Single Pin Programs Threshold Combination. Separate Voltage Monitor Outputs, Open Drain ("1") or Push-Pull ("2") Reset Output. Selectable 5%, 7.5%, 10% or 12.5% Tolerances	I	SSOP-16	\$2.35
LTC2903-A1	4	3, 2.5, 1.8	1	0.5			10%	0.5	200ms	20				I	TSOT-6	\$1.65
LTC2903-B1	4	5, 3.3, 2.5, 1.8					10%	0.5	200ms	20				I	TSOT-6	\$1.65
LTC2903-C1	4	5, 3.3, 1.8, -5.2				yes	10%	0.5	200ms	20				I	TSOT-6	\$1.75
LTC2903-D1	4	3.3	3	0.5			5%	0.5	200ms	20				I	TSOT-6	\$1.75
LTC2903-E1	4	5	3	0.5			5%	0.5	200ms	20				I	TSOT-6	\$1.75
LTC2914	4		4	0.5	yes	yes				70			Quad UV/OV Positive/Negative Monitor, UV/OV Outputs, Optional Shunt Regulator For High Supply Voltage Operation	I	SSOP-16, 5x3 DFN-16	\$3.75
LTC1326	3	5, 3.3	1	1			5%	1	200ms	40			Pushbutton input, RESET and Soft RESET Outputs	I	MSOP-8, SO-8	\$2.20
LTC1326-2.5	3	3.3, 2.5	1	1			5%	1	200ms	40			Pushbutton input, RESET and Soft RESET Outputs	I	MSOP-8, SO-8	\$2.20
LTC1536	3	5, 3.3	1	1			5%	1	200ms	40			Pushbutton input, RESET and Soft RESET Outputs, Added Tests for PCI Conformity	I	MSOP-8, SO-8	\$2.65
LTC1726-2.5	3	3.3, 2.5	1	1			5%	1	Adj	20	Adj			E, I	MSOP-8, SO-8	\$1.75
LTC1726-5	3	5, 3.3	1	1			5%	1	Adj	20	Adj			E, I	MSOP-8, SO-8	\$1.75
LTC1727-2.5	3	3.3, 2.5	1	1			5%	1	200ms	15			Separate Voltage Monitor Outputs	E, I	MSOP-8, SO-8	\$1.75
LTC1727-5	3	5, 3.3	1	1			5%	1	200ms	15			Separate Voltage Monitor Outputs	E, I	MSOP-8, SO-8	\$1.75
LTC1728-1.8	3	3, 1.8	1	1			5%	1	200ms	15				E	TSOT-5	\$1.35
LTC1728-2.5	3	3.3, 2.5	1	1			5%	1	200ms	15				E	TSOT-5	\$1.35
LTC1728-3.3	3	3.3, 1.8	1	1			5%	1	200ms	15				E	TSOT-5	\$1.35
LTC1728-5	3	5, 3.3	1	1			5%	1	200ms	15				E, H	TSOT-5	\$1.35
LTC1985-1.8	3	3, 1.8	1	1			5%	1	200ms	15			Push-Pull Active Low RESET	E	TSOT-5	\$1.35
LTC2919	3	2.5/3.3/5	2	0.5	yes	yes	1.5%	0.5	200ms	50			Selectable Polarity For Negative and OV Monitoring, Shunt Regulator, ADJ Comparator Outputs	I, H	MSOP-10, 3x2 DFN 10	\$1.75
LTC2909-5	3	5	2	0.5	yes	yes		0.5	200ms	50			Selectable Polarity for Negative and OV Monitoring, Shunt Regulated for High Supply Voltage Operation	I	TSOT-8, 3x2 DFN-8	\$1.55
LTC2909-3.3	3	3.3	2	0.5	yes	yes		0.5	200ms	50			Selectable Polarity for Negative and Ov Monitoring, Shunt Regulated for High Supply Voltage Operation	I	TSOT-8, 3x2 DFN-8	\$1.55
LTC2909-2.5	3	2.5	2	0.5	yes	yes		0.5	200ms	50			Selectable Polarity for Negative and Ov Monitoring, Shunt Regulated for High Supply Voltage Operation	I	TSOT-8, 3x2 DFN-8	\$1.55
LTC2913	2		2	0.5	yes					60			Dual UV/OV Monitor, UV/OV Outputs, Shunt Regulated for High Voltage Operation	I	MSOP-10, 3x3 DFN-10	\$2.30
LTC1696	2		2	0.88	yes			0.88		1.1mA			±2% OV Threshold Accuracy. Gate Drive For SCR Crowbar or External N-Channel FET	E	TSOT-6	\$1.70
LTC2904	2	5 to 1					5%, 7.5%, 10%	1	200ms	65			Pin Selectable Thresholds and Tolerances of 5%, 7.5%, 10%.	I	TSOT-8, 3x2 DFN-8	\$1.35
LTC2905	2	5 to 1					5%, 7.5%, 10%	1	Adj	65			Pin Selectable Thresholds and Tolerances of 5%, 7.5%, 10%.	I	TSOT-8, 3x2 DFN-8	\$1.35
LTC2906	2	5, 3.3, 2.5	1	0.5			5%, 7.5%, 10%	1	200ms	50			Pin Selectable Thresholds and Tolerances of 5%, 7.5%, 10%	I	TSOT-8, 3x2 DFN-8	\$1.35
LTC2907	2	5, 3.3, 2.5	1	0.5			5%, 7.5%, 10%	1	Adj				Pin Selectable Thresholds and Tolerances of 5%, 7.5%, 10%	I	TSOT-8, 3x2 DFN-8	\$1.35
LTC1921	2	48			yes					160	no	no	Dual -48V Supply Monitor	I	DIP-8, SO-8	\$2.50
LT6700	2		2	0.4	yes					6.3	no	no	Dual Comparator and 400mV Voltage Reference	I	SOT23, 2x3 DFN-6	\$1.25
LTC1442	2		2	1.182	yes					3.5	no	no	Dual Comparator and 1.182mV Voltage Reference	I	DIP-8, SO-8	\$2.20
LTC1843	2		2	1.182	yes					3.5	no	no	Dual Comparator and 1.182mV Voltage Reference. Open Drain Outputs	I	DIP-8, SO-8	\$1.40
LTC2934	1	1.6 to 6	1	0.4			5%	0.4	15ms/200ms	0.5		yes	500nA Supply Current, Resistor-Set Reset and Power Fail Thresholds	I	TSOT-8, 2x2 DFN-8	\$1.15
LTC2935	1	1.6 to 6	1	0.4			5%	2.25	200ms	0.5		yes	500nA Quiescent Current, Single Supervisor, Eight Pre-Set Reset/Power-Fail Threshold Levels, Ideal For Li-Ion Batteries	I	TSOT-8, 2x2 DFN-8	\$1.22
LTC2915	1	12 to 0.5	1	0.5			5%, 10%, 15%	0.5	Adj	30			Single Supervisor Monitors 27 Unique Thresholds Between 12V and 0.5V	I, H	TSOT-8, 3x2 DFN-8	\$1.05

† Primary Sort Column

Part Number	† Number of Voltage Monitors	Fixed Voltage Range, (V)	Adjustable Inputs	Minimum Adj Threshold, (V)	OV Monitor	Negative Monitor	Reset Threshold Tolerance	Minimum Reset Level (V)	Reset Pulse Width	Supply Current (μA)	Watchdog Timer	Power Fail Warning	Comments	Ext. Temp.	Package	Price 1K Qty
LTC2916	1	12 to 0.5	1	0.5			5%	0.5	Adj	30			Single Supervisor Monitors 9 Unique Thresholds Between 12V and 0.5V, Manual Reset	I, H	TSOT-8, 3×2 DFN-8	\$1.05
LTC2917	1	12 to 0.5	1	0.5			5%, 10%, 15%	0.5	Adj	30	Adj		Single Supervisor Monitors 27 Unique Thresholds Between 12V and 0.5V	I, H	MSOP-10, 3×2 DFN-10	\$1.30
LTC2918	1	12 to 0.5	1	0.5			5%	0.5	Adj	30	Adj		Single Supervisor Monitors 9 Unique Thresholds Between 12V and 0.5V, Manual Reset	I, H	MSOP-10, 3×2 DFN-10	\$1.30
LTC2912	1		1	0.5	yes					40			Single UV/OV Monitor, UV/OV Outputs, Shunt Regulated for High Voltage Operation	I	TSOT-8, 3×2 DFN-8	\$1.45
LTC1232	1	5					5%, 10%	1	600ms	500	yes		Pushbutton Input	I	DIP-8, SO-8	\$1.75
LTC1235	1	5					7%	1	200ms	600	yes	yes	UL Recognized and Conditional Battery Backup. Ram Protect and Pushbutton Input	I	DIP-16, SO-16	\$3.70
LTC1998	1		1	2.5 to 3.25				2.5		2.5			1% Accuracy Battery Monitor, Comparator/V <sub>REF</sub>	I	TSOT-6	\$0.90
LTC690	1	5					7%	1	50ms	600	yes	yes	UL Recognized Battery Backup	I	DIP-8, SO-8	\$3.40
LTC691	1	5					7%	1	50ms	600	yes	yes	UL Recognized and Conditional Battery Backup. Ram Protect	I	DIP-16, SO-16	\$3.70
LTC692	1	5					12%	1	200ms	600	yes	yes	UL Recognized Battery Backup	I	DIP-8, SO-8	\$3.40
LTC693	1	5					12%	1	200ms	600	yes	yes	UL Recognized and Conditional Battery Backup. Ram Protect	I	DIP-16, SO-16	\$3.70
LTC694	1	5					7%	1	200ms	600	yes	yes	UL Recognized Battery Backup	I	DIP-8, SO-8	\$3.40
LTC694-3.3	1	3.3					12%	1	200ms	600	yes	yes	UL Recognized Battery Backup	I	DIP-8, SO-8	\$3.65
LTC695	1	5					7%	1	200ms	600	yes	yes	UL Recognized and Conditional Battery Backup. Ram Protect	I	DIP-16, SO-16	\$3.70
LTC695-3.3	1	3.3					12%	1	200ms	600	yes	yes	UL Recognized and Conditional Battery Backup. Ram Protect	I	DIP-16, SO-16	\$4.00
LTC699	1	5					7%	1	200ms	600	yes		UL Recognized and Conditional Battery Backup. Ram Protect	I	DIP-8, SO-8	\$2.45

† Primary Sort Column

## PUSHBUTTON CONTROLLERS

Part Number	Supply Voltage (V)	Supply Current (μA)	ON Timer (ms)	OFF Timer	Kill Timer (ms)	Ideal Diode	External FET	Ext. Temp	Comments	Package	Price 1K Qty
LTC2950	2.7 to 26	6	Adj	Adj	512			I	Active High Enable Output (LTC2950-1), Active Low Enable Output (LTC2950-2)	TSOT-8, 3×2 DFN-8	\$1.75
LTC2951	2.7 to 26	6	128	Adj	Adj			I	Active High Enable Output (LTC2951-1), Active Low Enable Output (LTC2951-2)	TSOT-8, 3×2 DFN-8	\$1.75
LTC2952	2.7 to 28	25	Adj	Adj	400	yes	P-Channel	I	Pushbutton PowerPath Controller with System Monitoring	TSSOP-20, 4×4 QFN-20	\$2.95
LTC2953	2.7 to 27	14	32	Adj	512			I	Pushbutton Controller with Dual Input Battery Monitor and Output Supervisor	3×3 DFN-12	\$2.30
LTC2954	2.7 to 26	6	Adj	Adj	512			I	Interrupt Logic for Menu Driven Applications. Active High Enable output (LTC2954-1), Active Low Enable Output (LTC2954-2)	TSOT-8, 3×2 DFN-8	\$1.81

# SUPPLY TRACKERS, SEQUENCERS AND MARGINING CONTROLLERS

Part Number	Supply Voltage (V)	Max Voltage (V)	† Total Supplies	Tracking Methods										Ext. Temp.	Comments	Package	Price 1K Qty	
				Tracking <sup>(1)</sup>	Sequencing	Series FETs	DC/DC Feedback	Up/Down	Circuit Breakers	Input Monitors	DC/DC Enable	Margining	PWRGD					
LTC2927	2.9 to 5.5		1	Flexible	yes		1	Both							I	Single Power Supply Tracking Controller for Point of Load or Distributed Applications	TSOT-8, 3x2 DFN-8	\$1.55
LTC2920-1/-2	2.3 to 6		1/2										yes		I	Symmetric and Asymmetric High and Low Voltage Margining. Single (LTC2920-1) or Dual (LTC2920-2)	TSOT-5, MSOP-8	\$1.20
LTC2970	5 or 12		2	Coincident	yes		2	Both			6 (14-Bit ADC)		yes (8-Bit DAC)	yes	I	Dual Digital Power Monitor and Margining Controller, ±0.5% Unadjusted Error, 14-Bit ADC, 8-Bit DACs, Internal Temp Sensor, Automatic Servo to Programmed Voltage, Under/Overvoltage and Under/Overcurrent Measurements	4x5 QFN-24	\$3.99
LTC2923	2.9 to 5.5		3	Flexible	yes	1	2	Both	1						I	Closed Loop (Feedback) Tracking for Two Supplies without Series FETs or a Third Supply with a Series FET (Open Loop)	MS-10, 4x3 DFN-12	\$2.95
LTC2926	2.9 to 5.5		3	Flexible	yes	3	2	Both							I	Closed Loop (Feedback) Tracking for Three Supplies with Series FETs, Integrated Remote Sense Switching for Voltage Drop Compensation	SSOP-20, 4x5 QFN-20	\$3.50
LTC2925	2.9 to 5.5		4	Flexible	yes	1	3	Both	1						I	Closed Loop (Feedback) Tracking for Three Supplies without Series FETs or a Fourth Supply with a Series FET (Open Loop). Remote Sense Switch for Voltage Drop Compensation	SSOP-24, 4x4 QFN-24	\$3.75
LTC2928	2.9 to 16.5		4		yes			Both		4	yes				I	Hardware Configuration of Power Turn-On/Off Sequence with Adjustable Time Positions, Supply Monitoring with 1.5% Accuracy, Supply Failures Diagnostics	SSOP-36, 5x7 QFN-38	\$3.95
LTC2921	2.5, 3.3 or 5	12	5	Coincident	no <sup>(2)</sup>	5		Up Only	1	5				yes	I	Open Loop Tracking Using Common FET. 3 Remote Sense Switches for Voltage Drop Compensation	SSOP-16	\$3.15
LTC2922	2.5, 3.3 or 5	12	5	Coincident	no <sup>(2)</sup>	5		Up Only	1	5				yes	I	Open Loop Tracking Using Common FET. 5 Remote Sense Switches for Voltage Drop Compensation	SSOP-20	\$3.40
LTC2924	3 to 6.5		6		yes	4		Both		yes	yes				I	On/Off Power Supply Sequencer	SSOP-16	\$2.65
<b>LTC2978</b>	<b>5 or 12</b>		<b>8</b>	<b>Coincident</b>	<b>yes</b>		<b>8</b>	<b>Both</b>		<b>9 (15-bit ADC)</b>			<b>yes (10-bit DAC)</b>	<b>yes</b>	<b>I</b>	<b>Octal Digital Power Monitor and Margining Controller, Configurable EEPROM, ±0.25% Unadjusted Error, 15-Bit ADC, 10-Bit DACs, Internal Temp Sensor, Automatic Servo to Programmed Voltage, Under/Overvoltage and Under/Overcurrent Measurements</b>	<b>9x9 QFN-64</b>	<b>C.F.</b>

† Primary Sort Column

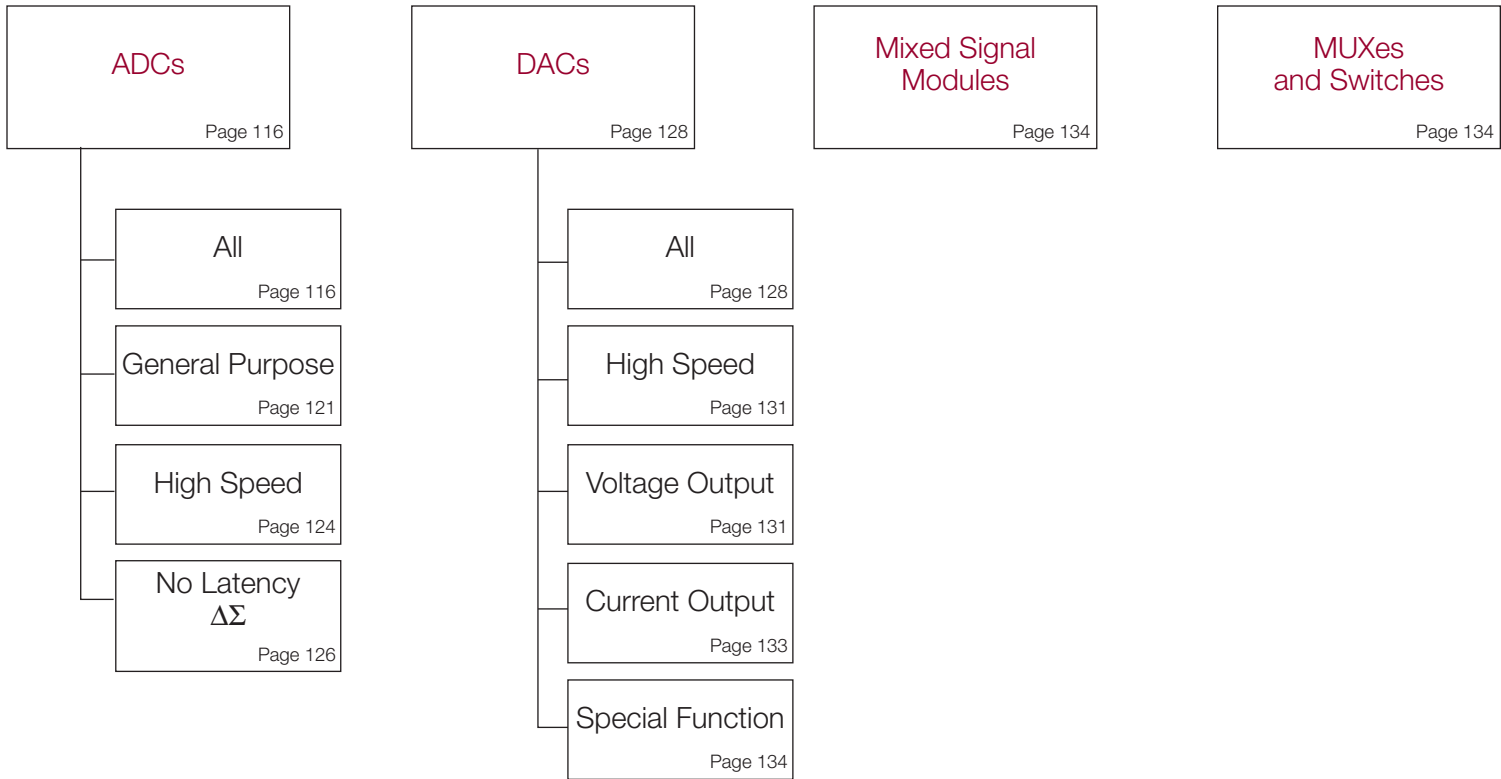
Notes:

1. Flexible Tracking = Coincident, Ratiometric or Offset
2. Limited sequencing possible

## POWER MONITORS

Part Number	Supply Voltage (V)	Current/Voltage Pairs Monitored	Tracking Via DC/DC Feedback	Sequencing	On-Chip ADC	On-Chip Margining	PWRGD	Interface	Ext. Temp.	Comments	Package	Price 1K Qty
LTC4151	7 to 80	1	-	-	12-Bit	-	-	I <sup>2</sup> C	I	High V <sub>IN</sub> , Single Voltage/Current Monitor with Auxiliary Input. 12-Bit ADC, Continuous or Snap Shot Scan Modes,	3x3 DFN-10, MSOP-10	\$2.60
LTC2970	5 or 12	2	Coincident, Up and Down	yes	14-Bit	yes (8-Bit DACs)	yes	I <sup>2</sup> C	I	Dual Digital Power Monitor and Margining Controller, ±0.5% Unadjusted Error, 14-Bit ADC, 8-Bit DACs, Internal Temp Sensor, Automatic Servo To Programmed Voltage, Under/Overvoltage and Under/Overcurrent Measurements	4x5 QFN-24	\$3.99
<b>LTC2978</b>	<b>5 or 12</b>	<b>8</b>	<b>Coincident, Up and Down</b>	<b>yes</b>	<b>15-Bit</b>	<b>yes (10-Bit DACs)</b>	<b>yes</b>	<b>PMBus</b>	<b>I</b>	<b>Octal Digital Power Monitor and Margining Controller, Config. EEPROM, ±0.25% Unadjusted Error, 15-Bit ADC, 10-Bit DACs, Internal Temp Sensor, Automatic Servo to Programmed Voltage, Under/Overvoltage and Under/Overcurrent Measurements</b>	<b>9x9 QFN-64</b>	<b>C.F.</b>
LTC2990	3 to 5.5	1	Coincident, Up and Down	yes	14-Bit	yes (8-Bit DACs)	-	I <sup>2</sup> C	I	Dual I <sup>2</sup> C Power Supply Monitor and Controller, ±0.5% Unadjusted Error, 14-Bit ADC, 8-Bit DACs, Internal Temp Sensor, Automatic Servo to Programmed Voltage, Under/Overvoltage and Under/Overcurrent Measurements	4x5 QFN-24	C.F.

# Data Conversion





# ADCs (ALL)

Part Number	† Bits	MUX	†† Speed (sps)	SINAD (dB)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	Bipolar Input	Serial I/O	Internal Reference	Input Span	Shutdown	Ext. Temp.	Comments	Package-Pins	Price 1K Qty
LTC2442	24	2/4	8k		1	10ppm	5µV	50ppm	50	4.5 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	no		Integrated Amplifier	SSOP-36	\$7.45
LTC2444	24	4/8	8k		1	15ppm	5µV	50ppm	40	4.5 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			5×7 QFN-38	\$6.45
LTC2445	24	4/8	8k		1	15ppm	5µV	50ppm	40	4.5 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			5×7 QFN-38	\$6.45
LTC2446	24	4/8	8k		1	15ppm	5µV	50ppm	40	4.5 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes		Multiple Reference Inputs	5×7 QFN-38	\$7.15
LTC2447	24	4/8	8k		1	15ppm	5µV	50ppm	40	4.5 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes		Multiple Reference Inputs	5×7 QFN-38	\$7.15
LTC2448	24	8/16	8k		1	15ppm	5µV	50ppm	40	4.5 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			5×7 QFN-38	\$7.15
LTC2449	24	8/16	8k		1	15ppm	5µV	50ppm	40	4.5 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			5×7 QFN-38	\$7.15
LTC2440	24		4k		1	15ppm	5µV	30ppm	40	4.5 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			SSOP-16	\$5.75
LTC2415	24		15		1	14ppm	2mV	12ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			SSOP-16	\$5.50
LTC2415-1	24		13.75		1	14ppm	2mV	12ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			SSOP-16	\$5.50
LTC2484	24		15		1	10ppm	2.5µV	25ppm	0.48	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes		Easy Drive™, Temp Sensor	3×3 DFN-10	\$2.45
LTC2485	24		15		1	10ppm	2.5µV	25ppm	0.48	2.7 to 5.5	yes	I <sup>2</sup> C		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes		Easy Drive, Temp Sensor	3×3 DFN-10	\$2.45
LTC2492	24	2/4	15		1	10ppm	2.5µV	25ppm	0.48	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes		Easy Drive, Temp Sensor	4×3 DFN-14	\$2.95
LTC2493	24	2/4	15		1	10ppm	2.5µV	25ppm	0.48	2.7 to 5.5	yes	I <sup>2</sup> C		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes		Easy Drive, Temp Sensor	4×3 DFN-14	\$2.95
LTC2498	24	8/16	15		1	10ppm	2.5µV	25ppm	0.48	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes		Easy Drive, Temp Sensor	5×7 QFN-38	\$3.45
LTC2499	24	8/16	15		1	10ppm	2.5µV	25ppm	0.48	2.7 to 5.5	yes	I <sup>2</sup> C		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes		Easy Drive, Temp Sensor	5×7 QFN-38	\$3.45
LTC2400	24		7.5		1	10ppm	2ppm	10ppm	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes			SO-8	\$5.50
LTC2401	24		7.5		1	10ppm	2ppm	10ppm	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes			MSOP-10	\$5.30
LTC2402	24	2	7.5		1	10ppm	2ppm	10ppm	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes			MSOP-10	\$5.60
LTC2404	24	4	7.5		1	10ppm	2ppm	10ppm	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes			SSOP-28	\$6.00
LTC2408	24	8	7.5		1	10ppm	2ppm	10ppm	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes			SSOP-28	\$6.25
LTC2410	24		7.5		1	14ppm	2.5mV	12ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			SSOP-16	\$5.50
LTC2411	24		7.5		1	14ppm	20mV	12ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			MSOP-10	\$5.50
LTC2411-1	24		7.5		1	14ppm	20mV	12ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			MSOP-10	\$5.50
LTC2413	24		7.5		1	14ppm	2.5mV	12ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			SSOP-16	\$5.50
LTC2412	24	2	7.5		1	14ppm	2.5µV	12ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			SSOP-16	\$4.75
LTC2414	24	4/8	7.5		1	14ppm	10mV	12ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			SSOP-28	\$6.25
LTC2418	24	8/16	7.5		1	14ppm	10mV	12ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			SSOP-28	\$6.95
LTC2435	20		15		1	20ppm	5mV	25ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			SSOP-16	\$3.55
LTC2435-1	20		13.75		1	20ppm	5mV	25ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			SSOP-16	\$3.55
LTC2420	20		7.5		1	10ppm	10ppm	10ppm	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes			SO-8	\$4.25
LTC2421	20		7.5		1	10ppm	10ppm	10ppm	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes			MSOP-10	\$4.35
LTC2422	20	2	7.5		1	10ppm	10ppm	10ppm	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes			MSOP-10	\$4.50
LTC2424	20	4	7.5		1	10ppm	10ppm	15ppm	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes			SSOP-28	\$4.75
LTC2428	20	8	7.5		1	10ppm	10ppm	15ppm	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes			SSOP-28	\$5.25
LTC2430	20		7.5		1	20ppm	20mV	20ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			SSOP-16	\$3.55
LTC2431	20		7.5		1	20ppm	20mV	20ppm	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes			MSOP-10	\$3.70
LTC2209#3CD	16		185M	76.5	1	-	19mV	2.5%	1900	3.6	yes		yes	±0.75V to ±1.125V	yes		LVDS or CMOS Outputs	9×9 QFN-64	C.F.
LTC2209#3BC	16		180M	76.5	1	-	15mV	2%	1700	3.6	yes		yes	±0.75V to ±1.125V	yes		LVDS or CMOS Outputs	9×9 QFN-64	C.F.
LTC2209	16		160M	77.1	1	5	10mV	2%	1450	3.3	yes		yes	±0.75V to ±1.125V	yes		LVDS or CMOS Outputs	9×9 QFN-64	\$72.50
LTC2208	16		130M	77.7	1	4.5	8.5mV	1.5%	1250	3.3	yes		yes	±0.75V to ±1.125V	yes		LVDS or CMOS Outputs	9×9 QFN-64	\$65.00
LTC2217	16		105M	81.2	1	4	6mV	1.0%	1190	3.3	yes		yes	±1.375V	yes		Low Noise	9×9 QFN-64	\$68.00
LTC2274	16		105M	77.5	1	4.5	8.5mV	1.5%	1300	3.3	yes	yes	yes	±0.75V to ±1.125V	yes		High Speed Serial Output	6×6 QFN-40	\$68.00
LTC2207	16		105M	77.9	1	4.5	8.5mV	1.5%	900	3.3	yes		yes	±0.75V to ±1.125V	yes		CMOS Outputs	7×7 QFN-48	\$56.67
LTC2216	16		80M	81.3	1	3.5	6mV	1.0%	970	3.3	yes		yes	±1.375V	yes		Low Noise	9×9 QFN-64	\$58.00
LTC2206	16		80M	77.9	1	4.5	8.5mV	1.5%	725	3.3	yes		yes	±0.75V to ±1.125V	yes		CMOS Outputs	7×7 QFN-48	\$48.33
LTC2273	16		80M	77.5	1	4.5	8.5mV	1.5%	1100	3.3	yes	yes	yes	±0.75V to ±1.125V	yes		High Speed Serial Output	6×6 QFN-40	\$58.00
LTC2215	16		65M	81.5	1	3.5	6mV	1.0%	700	3.3	yes		yes	±1.375V	yes		Low Noise	9×9 QFN-64	\$52.00
LTC2205	16		65M	79	1	4.5	8.5mV	1.9%	610	3.3	yes		yes	±0.75V to ±1.125V	yes		CMOS Outputs	7×7 QFN-48	\$43.33
LTC2272	16		65M	77.5	1	4.5	8.5mV	1.5%	980	3.3	yes	yes	yes	±0.75V to ±1.125V	yes		High Speed Serial Output	6×6 QFN-40	\$52.00
LTC2204	16		40M	79.1	1	4.5	8.5mV	1.5%	480	3.3	yes		yes	±0.75V to ±1.125V	yes		CMOS Outputs	7×7 QFN-48	\$35.00
LTC2203	16		25M	81.5	1	4.5	10mV	1.5%	220	3.3	yes		yes	±0.834V to ±1.25V	yes		Single Ended Clock	7×7 QFN-48	\$30.00
LTC2202	16		10M	81.5	1	4.5	10mV	1.5%	140	3.3	yes		yes	±0.834V to ±1.25V	yes		Single Ended Clock	7×7 QFN-48	\$25.00
LTC1608A	16		500k	90	1	2	0.13%	0.25%	270	±5	yes		yes	±2.5V	yes			SSOP-36	\$16.50
LTC1604A	16		333k	90	1	2	0.13%	0.25%	220	±5	yes		yes	±2.5V	yes			SSOP-36	\$20.50

† Primary Sort Column  
 †† Secondary Sort Column  
 \*Simultaneous Sampling

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Part Number	† Bits	MUX	‡ Speed (sp/s)	SINAD (dB)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	Bipolar Input	Serial I/O	Internal Reference	Input Span	Shutdown	Ext. Temp.	Comments	Package-Pins	Price 1K Qty
LTC1603	16		250k	90	1	3	0.13%	0.25%	220	±5	yes		yes	±2.5V	yes	I		SSOP-36	\$9.95
LTC1864A	16		250k	83	2	6	5mV	20mV	4.25	5		SPI		0V to 5V	yes	I		MSOP-8, SO-8	\$5.95
LTC1865A	16	2	250k	83	2	6	5mV	20mV	4.25	5		SPI		0V to 5V	yes	I		MSOP-8, SO-8	\$6.45
LTC1606A	16		250k	90	1	2	10mV	0.25%	75	5	yes		yes	±10V	no	I		SSOP-28, SO(W)-28	\$19.50
LTC1609A	16		200k	87.5	1	2	10mV	0.25%	65	5	yes	SPI	yes	0V to 5V, 0V to 10V, 0V to 4V, ±10V, ±5V, ±3.3V	yes	I		SSOP-28, SO(W)-20	\$14.95
LTC1867A	16	8	200k	88	1	2	32	64	6.5	5	yes	SPI	yes	0V to 4.096V, ±2.048V	yes	I		SSOP-16	\$7.75
LTC1867LA	16	8	175k	83	1	3	32	64	2	3	yes	SPI	yes	0V to 2.5V, ±1.25V	yes	I		SSOP-16	\$7.75
LTC1864LA	16		150k	82	2	6	5mV	20mV	1.22	3		SPI		0V to 3V	yes	I		MSOP-8, SO-8	\$5.95
LTC1865LA	16	2	150k	82	2	6	5mV	20mV	1.22	3		SPI		0V to 3V	yes	I		MSOP-8, SO-8	\$6.45
LTC1605A	16		100k	87	1	2	10mV	0.25%	55	5	yes		yes	±10V	no	I		DIP-28, SSOP-28, SO(W)-28	\$17.00
LTC1605-1	16		100k	87	2	3	10mV	0.50%	55	5			yes	0V to 4V	no	I		DIP-28, SSOP-28	\$17.00
LTC1605-2	16		100k	87	2	3	10mV	0.50%	55	5	yes		yes	±4V	no	I		DIP-28, SSOP-28	\$17.00
LTC1859	16	8	100k	87	-2 to 4	3	25	0.20%	40	5	yes	SPI	yes	0V to 5V, 0V to 10V, ±10V, ±5V	yes	I	SoftSpan™ with ±25V Fault Protection	SSOP-28	\$17.95
LTC1856	16	8	100k	87	-2 to 4	3	23	0.10%	40	5	yes	SPI	yes	±10V	yes	I	±30V Fault Protection	SSOP-28	\$12.95
LTC2450-1	16		60		1	10	2mV	0.02%	1.05	2.7 to 5.5		SPI		0V to V <sub>CC</sub>	yes	I	Ultra Tiny ΔΣ ADC	2×2 DFN-6	\$1.15
LTC2450	16		30		1	10	0.3mV	0.02%	1.05	2.7 to 5.5		SPI		0V to V <sub>CC</sub>	yes	I	Ultra Tiny ΔΣ ADC, 30Hz Output	2×2 DFN-6	\$1.15
LTC2460	16		60		1	10	10	0.25%	4.5	2.7 to 5.5		SPI	10ppm/°C Max	0V to 1.25V	yes	I	Ultra Tiny ΔΣ ADC, 10ppm/°C (Max) Reference, 60Hz Output	3×3 DFN-12, MSOP-12	C.F.
LTC2451	16		30 or 60		1	10	0.5mV or 2mV	0.02%	1.05	2.7 to 5.5		I <sup>2</sup> C		0V to V <sub>CC</sub>	yes	I	Ultra Tiny ΔΣ ADC, 60Hz Output	3×2 DFN-8, TSOT-8	\$1.15
LTC2461	16		60		1	10	10	0.25%	4.5	2.7 to 5.5		I <sup>2</sup> C	10ppm/°C Max	0V to 1.25V	yes	I	Ultra Tiny ΔΣ ADC, 10ppm/°C (Max) Reference, 60Hz Output	3×3 DFN-12, MSOP-12	C.F.
LTC2452	16		60		1	10	0.4mV	0.02%	1.05	2.7 to 5.5		SPI		±V <sub>CC</sub>	yes	I	Ultra Tiny ΔΣ ADC, Differential Input	3×2 DFN-8, TSOT-8	\$1.25
LTC2462	16		60		1	10	10	0.25%	4.5	2.7 to 5.5	yes	SPI	10ppm/°C Max	±1.25V	yes	I	Ultra Tiny ΔΣ ADC, 10ppm/°C (Max) Reference, Differential Input	3×3 DFN-12, MSOP-12	C.F.
LTC2453	16		60		1	10	0.4mV	0.02%	1.05	2.7 to 5.5	yes	I <sup>2</sup> C		±V <sub>CC</sub>	yes	I	Ultra Tiny ΔΣ ADC, Differential Input	3×2 DFN-8, TSOT-8	\$1.25
LTC2463	16		60		1	10	10	0.25%	4.5	2.7 to 5.5	yes	I <sup>2</sup> C	10ppm/°C Max	±1.25V	yes	I	Ultra Tiny ΔΣ ADC, 10ppm/°C (Max) Reference, Differential Input	3×3 DFN-12, MSOP-12	C.F.
LTC2450	16		30		1	10	2mV	0.02%	1.05	2.7 to 5.5		SPI		0V to V <sub>CC</sub>	yes	I	Ultra Tiny ΔΣ ADC, 30Hz Output	2×2 DFN-6	\$1.15
LTC2480	16		15		1	10ppm	2.5μV	25ppm	0.48	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I, H	Easy Drive, Temp Sensor, PGA	3×3 DFN-10	\$1.85
LTC2481	16		15		1	10ppm	2.5μV	25ppm	0.48	2.7 to 5.5	yes	I <sup>2</sup> C		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I, H	Easy Drive, Temp Sensor, PGA	3×3 DFN-10	\$1.85
LTC2486	16	2/4	15		1	20ppm	5μV	32ppm	0.48	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I	Easy Drive, Temp Sensor, PGA	4×3 DFN-14	\$2.35
LTC2487	16	2/4	15		1	20ppm	5μV	32ppm	0.48	2.7 to 5.5	yes	I <sup>2</sup> C		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I	Easy Drive, Temp Sensor, PGA	4×3 DFN-14	\$2.35
LTC2494	16	8/16	15		1	20ppm	5μV	32ppm	0.48	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I	Easy Drive, Temp Sensor, PGA	5×7 QFN-38	\$2.85
LTC2495	16	8/16	15		1	20ppm	5μV	32ppm	0.48	2.7 to 5.5	yes	I <sup>2</sup> C		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I	Easy Drive, Temp Sensor, PGA	5×7 QFN-38	\$2.85
LTC2482	16		7.5		1	20ppm	5μV	32ppm	0.48	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I	Easy Drive	3×3 DFN-10	\$1.65
LTC2483	16		7.5		1	10ppm	2.5μV	25ppm	0.48	2.7 to 5.5	yes	I <sup>2</sup> C		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I	Easy Drive	3×3 DFN-10	\$1.65
LTC2488	16	2/4	7.5		1	20ppm	5μV	32ppm	0.48	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I	Easy Drive	4×3 DFN-14	\$2.15
LTC2489	16	2/4	7.5		1	20ppm	5μV	32ppm	0.48	2.7 to 5.5	yes	I <sup>2</sup> C		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I	Easy Drive	4×3 DFN-14	\$2.15
LTC2496	16	8/16	7.5		1	20ppm	5μV	32ppm	0.48	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I	Easy Drive	5×7 QFN-38	\$2.65
LTC2497	16	8/16	7.5		1	20ppm	5μV	32ppm	0.48	2.7 to 5.5	yes	I <sup>2</sup> C		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I	Easy Drive	5×7 QFN-38	\$2.65
LTC2433-1	16		6.8		1	1.25	20μV	1.25	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I		MSOP-10	\$1.95
LTC2436-1	16	2	6.8		1	3	1	3	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I		SSOP-16	\$2.45
LTC2439-1	16	8/16	6.8		1	1.25	20μV	1.25	1	2.7 to 5.5	yes	SPI		-V <sub>REF/2</sub> to V <sub>REF/2</sub>	yes	I		SSOP-28	\$3.75
LTC2262-14	14		150M	72.5	1	3.75	9mV	1.5%	149	1.8	yes		yes	±0.5V to ±1V	yes	I	Ultralow Power, 1.8V ADC, DDR CMOS and DDR LVDS Outputs	6×6 QFN-40	C.F.
LTC2285#3CG	14		135M		0.6	1.5	12mV	2.5%	954	3.3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	C.F.
LTC2285	14		125M		0.6	1.5	12mV	2.5%	790	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$73.50
LTC2255	14		125M	72.2	1	5	12mV	2.5%	395	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$49.00
LTC2261-14	14		125M	73	0.9	3.75	9mV	1.5%	127	1.8	yes		yes	±0.5V to ±1V	yes	I	Ultralow Power, 1.8V ADC; CMOS, DDR CMOS and DDR LVDS Outputs	6×6 QFN-40	\$52.00
LTC2284	14		105M	72.2	0.6	1.5	12mV	2.5%	540	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$61.50
LTC2254	14		105M	72.4	1	5.5	12mV	2.5%	320	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$41.00

† Primary Sort Column  
‡ Secondary Sort Column  
\*Simultaneous Sampling

Amps, Refs, Filters, Comps  
Power Management  
Data Conversion  
Interface  
High Frequency  
Space, Military, Harsh Envir.  
Reference Material

# ADCs (ALL)

Part Number	† Bits	MUX	‡ Speed (sps)	SINAD (dB)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	Bipolar Input	Serial I/O	Internal Reference	Input Span	Shutdown	Ext. Temp.	Comments	Package-Pins	Price 1K Qty
LTC2260-14	14		105M	73	0.9	3.75	9mV	1.5%	106	1.8	yes		yes	±0.5V to ±1V	yes	I	Ultralow Power, 1.8V ADC; CMOS, DDR CMOS and DDR LVDS Outputs	6×6 QFN-40	\$44.00
LTC1748	14		80M	76	1.5	3	35mV	3.5%	1400	5	yes		yes	±1V to ±1.6V	no	I		TSSOP-48	\$32.30
LTC1750	14		80M	75.2	1.5	3	35mV	3.5%	1450	5	yes		yes	±0.7V to ±1.125V	no	I	Undersampling to 500MHz	TSSOP-48	\$32.30
LTC2249	14		80M	72.9	1	4	12mV	2.5%	222	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$25.00
LTC2259-14	14		80M	73	0.9	3.5	9mV	1.5%	89	1.8	yes		yes	±0.5V to ±1V	yes	I	Ultralow Power, 1.8V ADC; CMOS, DDR CMOS and DDR LVDS Outputs	6×6 QFN-40	\$28.00
LTC2299	14		80M	72.9	1	5	12mV	2.5%	444	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$37.50
LTC1742	14		65M	76.2	1	3	35mV	3.5%	1275	5	yes		yes	±1V to ±1.6V	no	I		TSSOP-48	\$24.65
LTC2248	14		65M	74.3	1	4	12mV	2.5%	205	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$23.35
<b>LTC2258-14</b>	<b>14</b>		<b>65M</b>	<b>73.8</b>	<b>0.9</b>	<b>3.75</b>	<b>9mV</b>	<b>1.5%</b>	<b>81</b>	<b>1.8</b>	<b>yes</b>		<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>Ultralow Power, 1.8V ADC, DDR CMOS and DDR LVDS Outputs</b>	<b>6×6 QFN-40</b>	<b>\$25.35</b>
LTC2298	14		65M	74.3	1	5	12mV	2.5%	400	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$35.03
LTC1744	14		50M	77	1.5	4	20	3%	1500	5	yes		yes	±1V to ±1.6V	no	I		TSSOP-48	\$25.00
LTC2247	14		40M	74.4	1	4	12mV	2.5%	120	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$15.85
<b>LTC2257-14</b>	<b>14</b>		<b>40M</b>	<b>73.2</b>	<b>0.9</b>	<b>3.75</b>	<b>9mV</b>	<b>1.5%</b>	<b>49</b>	<b>1.8</b>	<b>yes</b>		<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>Ultralow Power, 1.8V ADC, DDR CMOS and DDR LVDS Outputs</b>	<b>6×6 QFN-40</b>	<b>\$17.85</b>
LTC2297	14		40M	74.4	1	5	12mV	2.5%	235	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$23.78
LTC1746	14		25M	77.5	1	3	30	2.5%	465	5	yes		yes	±1V to ±1.6V	no	I		TSSOP-48	\$12.75
LTC2246	14		25M	74.5	1	4	12mV	2.5%	75	3	yes		yes	±0.5V to ±1V	yes	I, H		5×5 QFN-32, 7×7 LQFP	\$12.50
<b>LTC2256-14</b>	<b>14</b>		<b>25M</b>	<b>72.8</b>	<b>1</b>	<b>3.5</b>	<b>9mV</b>	<b>1.5%</b>	<b>35</b>	<b>1.8</b>	<b>yes</b>		<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>Ultralow Power, 1.8V ADC, DDR CMOS and DDR LVDS Outputs</b>	<b>6×6 QFN-40</b>	<b>\$14.50</b>
LTC2296	14		25M	74.5	1	5	12mV	2.5%	150	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$18.75
LTC2245	14		10M	74.4	1	4	12mV	2.5%	60	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$10.00
LTC2295	14		10M	74.4	1	5	12mV	2.5%	120	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$17.00
LTC1740	14		6M	79.1	1.25	2.5	15	30	300	±5 or 5	yes		yes	±1.25V, ±2.5V, ±V <sub>REF</sub> /1.8V	no	I		SSOP-36	\$17.20
LTC2355-14	14		3.5M	74.2	1	4	20	60	18	3.1 to 3.6		SPI	yes	0V to 2.5V	yes	I		MSOP-10	\$7.95
LTC2356-14	14		3.5M	74.2	1	4	20	60	18	3.1 to 3.6	yes	SPI	yes	±1.25V	yes	I		MSOP-10	\$7.95
LTC1407A	14	2*	3M	73.5	1	4	20	60	12	3		SPI	yes	0V to 2.5V	yes	I, H	Simultaneous Sampling	MSOP-10	\$7.00
LTC1407A-1	14	2*	3M	73.5	1	4	20	60	12	3	yes	SPI	yes	±1.25V	yes	I	Simultaneous Sampling	MSOP-10	\$7.00
LTC1403A	14		2.8M	73.5	1	4	20	60	12	3		SPI	yes	0V to 2.5V	yes	I, H		MSOP-10	\$7.00
LTC1403A-1	14		2.8M	73.5	1	4	20	60	12	3	yes	SPI	yes	±1.25V	yes	I		MSOP-10	\$7.00
LTC1411	14		2.5M	80	1	2	24	60	195	5	yes		yes	±0.64V to ±1.8V	yes	I		SSOP-36	\$18.00
LTC1414	14		2.2M	78	1.75	2	20	60	175	±5	yes		yes	±2.5V	no	I		SSOP-28	\$16.00
LTC2351-14	14	6*	1.5M	75	1	3	4.5mV	12mV	16.5	3	yes	SPI	yes	0V to 2.5V, ±1.25V	yes	I, H	Simultaneous Sampling	5×5 QFN-32	\$9.45
LTC1419A	14		800k	81.5	1	1.25	20	60	150	±5	yes		yes	±2.5V	yes	I		SSOP-28, SO(W)-28	\$15.15
LTC1408	14	6*	600k	76	1	3	4.5mV	12mV	15	3	yes	SPI	yes	0V to 2.5V, ±1.25V	yes	I	Simultaneous Sampling	5×5 QFN-32	\$8.95
LTC1416	14		400k	80	1.5	2	20	40	70	±5	yes		yes	±2.5V	yes	I		SSOP-28	\$6.90
LTC1417A	14		400k	81	1	1.25	10	15	20	5, ±5	yes	SPI	yes	0V to 4V, ±2V	yes	I		SSOP-16	\$7.60
LTC1418A	14		200k	81.5	1	1.25	10	15	15	5, ±5	yes	Ser/Par	yes	0V to 4V, ±2V	yes	I		DIP-28, SSOP-28	\$7.90
LTC1858	14	8	100k	83	-1 to 1.5	1.5	15	0.25%	40	5	yes	SPI	yes	0V to 5V, 0V to 10V, ±5V, ±10V	yes	I	SoftSpan with ±30V Fault Protection	SSOP-28	\$12.95
LTC1855	14	8	100k	83	-1 to 1.5	1.5	8	0.40%	40	5	yes	SPI	yes	±10V	yes	I	±30V Fault Protection	SSOP-28	\$7.95
LTC2242-12	12		250M	65.3	1	2.7	17mV	3.2%	740	2.5	yes		yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$59.00
LTC2241-12	12		210M	65.4	1	2.3	15mV	3.4%	585	2.5	yes		yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$42.00
LTC2220-1	12		185M	62.7	1.2	1.8	35mV	2.5%	910	3.3	yes		yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$49.00
LTC2240-12	12		170M	65.5	1	2.1	15mV	3.5%	445	2.5	yes		yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$35.00
LTC2220	12		170M	62.7	1	1.5	35mV	2.5%	890	3.3	yes		yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$39.55
<b>LTC2262-12</b>	<b>12</b>		<b>150M</b>	<b>70.4</b>	<b>1</b>	<b>1</b>	<b>9mV</b>	<b>1.5%</b>	<b>146</b>	<b>1.8</b>	<b>yes</b>		<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>Ultralow Power, 1.8V ADC, DDR CMOS and DDR LVDS Outputs</b>	<b>6×6 QFN-40</b>	<b>C.F.</b>
LTC2221	12		135M	62.8	1	1	35mV	2.5%	660	3.3	yes		yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$33.92
LTC2224	12		135M	67.4	1	1	35mV	2.5%	630	3.3	yes		yes	±0.5V to ±1V	yes	I		7×7 QFN-48	\$33.92
LTC2283	12		125M	69.8	1	1.5	12mV	2.5%	790	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$41.25
LTC2253	12		125M	69.8	0.7	1.5	12mV	2.5%	395	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$27.50
LTC2261-12	12		125M	71	0.4	1	9mV	1.5%	127	1.8	yes		yes	±0.5V to ±1V	yes	I	Ultralow Power, 1.8V ADC; CMOS, DDR CMOS and DDR LVDS Outputs	6×6 QFN-40	\$29.50

† Primary Sort Column  
 ‡ Secondary Sort Column  
 \*Simultaneous Sampling

MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO



Part Number	† Bits	MUX	‡ Speed (sp/s)	SINAD (dB)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	Bipolar Input	Serial I/O	Internal Reference	Input Span	Shutdown	Ext. Temp.	Comments	Package-Pins	Price 1K Qty
LTC2282	12		105M	70	0.9	1.5	12mV	2.5%	540	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$34.50
LTC2252	12		105M	70.1	0.7	1.5	12mV	2.5%	320	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$23.00
LTC2260-12	12		105M	71	0.4	1	9mV	1.5%	106	1.8	yes		yes	±0.5V to ±1V	yes	I	Ultralow Power, 1.8V ADC; CMOS, DDR CMOS and DDR LVDS Outputs	6×6 QFN-40	\$25.00
LTC2222	12		105M	68.4	1	1.3	30mV	2.5%	475	3.3	yes		yes	±0.5V to ±1V	yes	I		7×7 QFN-48	\$29.92
LTC1747	12		80M	72	0.8	1	35mV	3.5%	1400	5	yes		yes	±1V to ±1.6V	no	I		TSSOP-48	\$19.55
LTC1749	12		80M	71.7	0.8	1	35mV	3.5%	1400	5	yes		yes	±0.7V to ±1.125V	no	I	Undersampling to 500MHz	TSSOP-48	\$19.55
LTC2223	12		80M	68.5	0.8	1.1	30mV	2.5%	366	3.3	yes		yes	±0.5V to ±1V	yes	I		7×7 QFN-48	\$16.70
LTC2229	12		80M	70.6	0.8	1.1	12mV	2.5%	211	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$16.70
LTC2259-12	12		80M	70	0.4	1	9mV	1.5%	89	1.8	yes		yes	±0.5V to ±1V	yes	I	Ultralow Power, 1.8V ADC; CMOS, DDR CMOS and DDR LVDS Outputs	6×6 QFN-40	\$18.70
LTC2294	12		80M	70.6	0.8	1.4	12mV	2.5%	422	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$25.05
LTC1741	12		65M	72	0.8	1	35mV	3.5%	1275	5	yes		yes	±1V to ±1.6V	no	I		TSSOP-48	\$12.75
LTC2228	12		65M	71.3	0.8	1.1	12mV	2.5%	205	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$12.08
<b>LTC2258-12</b>	<b>12</b>		<b>65M</b>	<b>71</b>	<b>0.4</b>	<b>1</b>	<b>9mV</b>	<b>1.5%</b>	<b>79</b>	<b>1.8</b>	<b>yes</b>		<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>Ultralow Power, 1.8V ADC, DDR CMOS and DDR LVDS Outputs</b>	<b>6×6 QFN-40</b>	<b>\$14.08</b>
LTC2293	12		65M	71.3	0.8	1.4	12mV	2.5%	400	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$18.12
LTC1743	12		50M	72.2	0.8	1	5	1%	1000	5	yes		yes	±1V to ±1.6V	no	I		TSSOP-48	\$9.30
LTC2227	12		40M	71.4	0.7	1	12mV	2.5%	120	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$7.92
<b>LTC2257-12</b>	<b>12</b>		<b>40M</b>	<b>70.7</b>	<b>0.4</b>	<b>1</b>	<b>9mV</b>	<b>1.5%</b>	<b>47</b>	<b>1.8</b>	<b>yes</b>		<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>Ultralow Power, 1.8V ADC, DDR CMOS and DDR LVDS Outputs</b>	<b>6×6 QFN-40</b>	<b>\$9.92</b>
LTC2292	12		40M	71.4	0.8	1.4	12mV	2.5%	235	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$11.88
LTC1745	12		25M	72.5	0.75	1	5	1%	380	5	yes		yes	±1V to ±1.6V	no	I		TSSOP-48	\$9.30
LTC2226	12		25M	71.4	0.7	1	12mV	2.5%	75	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32, 7×7 LQFP	\$7.50
<b>LTC2256-12</b>	<b>12</b>		<b>25M</b>	<b>70.5</b>	<b>0.4</b>	<b>1</b>	<b>9mV</b>	<b>1.5%</b>	<b>34</b>	<b>1.8</b>	<b>yes</b>		<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>Ultralow Power, 1.8V ADC, DDR CMOS and DDR LVDS Outputs</b>	<b>6×6 QFN-40</b>	<b>\$9.50</b>
LTC2291	12		25M	71.4	0.8	1.4	12mV	2.5%	150	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$11.25
LTC1420	12		10M	72	1	1	12	20	200	5, ±5	yes		yes	±2V, ±1V, ±0.5V	no	I		SSOP-28	\$5.95
LTC2225	12		10M	71.3	0.4	1.1	12mV	2.5%	60	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$4.57
LTC2290	12		10M	71.3	0.7	1.3	12mV	2.5%	120	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$10.00
LTC1405	12		5M	71.3	1	1	12	30	115	5, ±5	yes		yes	±2V, ±1V, ±0.5V	no	I		SSOP-28	\$5.95
LTC2355-12	12		3.5M	71.1	1	2	10	30	18	3.1 to 3.6		SPI	yes	0V to 2.5V	yes	I		MSOP-10	\$4.95
LTC2356-12	12		3.5M	71.1	1	2	10	30	18	3.1 to 3.6	yes	SPI	yes	±1.25V	yes	I		MSOP-10	\$4.95
LTC2366	12		3M	72	1	1	3	4	7.8	2.35 to 3.6		SPI		0V to 3.6V	yes	I, H	Industry Standard Pinout	TSOT-6, TSOT-8	\$4.95
LTC1407	12	2*	3M	70.5	1	2	10	30	12	3		SPI	yes	0V to 2.5V	yes	I, H	Simultaneous Sampling	MSOP-10	\$4.00
LTC1407-1	12	2*	3M	70.5	1	2	10	30	12	3	yes	SPI	yes	±1.25V	yes	I	Simultaneous Sampling	MSOP-10	\$4.00
LTC1412	12		3M	72	1	1	6	15	150	±5	yes	SPI	yes	±2.5V	no	I		SSOP-28	\$9.95
LTC1403	12		2.8M	70.5	1	2	10	30	12	3		SPI	yes	0V to 2.5V	yes	I, H		MSOP-10	\$4.00
LTC1403-1	12		2.8M	70.5	1	2	10	30	12	3	yes	SPI	yes	±1.25V	yes	I		MSOP-10	\$4.00
LTC1402	12		2.2M	72	1	1	10	15	90	5, ±5	yes	SPI	yes	0V to 4V, ±2V	yes	I		SSOP-16	\$6.95
LTC2351-12	12	6*	1.5M	72	1	3	4.5mV	12mV	16.5	3	yes	SPI	yes	0V to 2.5V, ±1.25V	yes	I, H	Simultaneous Sampling	5×5 QFN-32	\$5.95
LTC1410	12		1.25M	71	1	1	6	15	160	±5	yes		yes	±2.5V	yes	I		SSOP-28, SO(W)-28	\$9.90
LTC1415	12		1.25M	69	1	1	6	20	55	5			yes	0V to 4V	yes	I		SSOP-28, SO(W)-28	\$9.90
LTC1851	12	8	1.25M	70	1	1	7	6	50	5	yes		yes	0V to V <sub>REF</sub> , 0V to V <sub>REF</sub> /2 ±V <sub>REF</sub> /2, ±V <sub>REF</sub> /4	yes	I		TSSOP-48	\$6.95
LTC2365	12		1M	72	1	1	3	4	6	2.35 to 3.6		SPI		0V to 3.6V	yes	I, H	Industry Standard Pinout	TSOT-6, TSOT-8	\$2.15
LTC1409	12		800k	72.5	1	1	6	15	80	±5	yes		yes	±2.5V	yes	I		SSOP-28, SO(W)-28	\$9.90
LTC1279	12		600k	70	1	1	4	15	60	5, ±5	yes		yes	0V to 5V, ±2.5V	yes	I		SSOP-24, SO(W)-24	\$13.00
LTC1404	12		600k	72	1	1	6	15	75	5, ±5	yes	SPI	yes	0V to 4V, ±2V	yes	I		SO-8	\$5.10
LTC1408-12	12	6*	600k	72	1	3	4.5mV	12mV	15	3	yes	SPI	yes	0V to 2.5V, ±1.25V	yes	I	Simultaneous Sampling	5×5 QFN-32	\$5.65
LTC2362	12		500k	72	1	1	3	4	3.3	2.35 to 3.6		SPI		0V to 3.6V	yes	I, H	Industry Standard Pinout	TSOT-6, TSOT-8	\$1.85
LTC1278-5	12		500k	70	1	1	4	15	75	5, ±5	yes		yes	0V to 5V, ±2.5V	yes	I		DIP-24, SO(W)-24	\$12.65
LTC2302	12		500k	73	1	1	6	9	15	5	yes	SPI		0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	Differential Input	3×3 DFN-10	\$2.10
LTC2306	12	2	500k	73	1	1	6	9	15	5	yes	SPI		0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	Two Single-Ended Inputs	3×3 DFN-10	\$2.10
LTC2308	12	8	500k	73	1	1	6	9	17.5	5	yes	SPI	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I		4×4 QFN-24	\$2.95
LTC1400	12		400k	72	1	1	6	15	75	5, ±5	yes	SPI	yes	0V to 4V, ±2V	yes	I		SO-8	\$4.90
LTC1853	12	8	400k	72.5	1	1	6	4	2.25	2.7 to 5.5	yes		yes	0V to V <sub>REF</sub> , 0V to V <sub>REF</sub> /2 ±V <sub>REF</sub> /2, ±V <sub>REF</sub> /4	yes	I		TSSOP-48	\$6.95
LTC1278-4	12		400k	70	1	1	4	15	75	5, ±5	yes		yes	0V to 5V, ±2.5V	yes	I		DIP-24, SO(W)-24	\$12.65

† Primary Sort Column  
 ‡ Secondary Sort Column  
 \*Simultaneous Sampling



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# ADCs (ALL)

Part Number	† Bits	MUX	†† Speed (SPS)	SINAD (dB)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	Bipolar Input	Serial I/O	Internal Reference	Input Span	Shutdown	Ext. Temp.	Comments	Package-Pins	Price 1K Qty
LTC1273A	12		300k	70	0.75	0.5	3	10	75	5			yes	0V to 5V	no			DIP-24, SO(W)-24	\$12.35
LTC1275A	12		300k	70	0.75	0.5	3	10	75	±5	yes		yes	±2.5V	no			DIP-24, SO(W)-24	\$11.60
LTC1276A	12		300k	70	0.75	0.5	3	10	75	±5	yes		yes	±5V	no			DIP-24, SO(W)-24	\$11.60
LTC2361	12		250k	72	1	1	3	4	2.2	2.35 to 3.6		SPI		0V to 3.6V	yes	I, H	Industry Standard Pinout	TSOT-6, TSOT-8	\$1.55
LTC1860	12		250k	71	1	1	5mV	20mV	4.25	5		SPI		0V to 5V	yes	I		MSOP-8	\$2.30
LTC1861	12	2	250k	71	1	1	5mV	20mV	4.25	5		SPI		0V to 5V	yes	I		MSOP-8	\$2.80
LTC1272-3	12		250k	72	1	0.5	3	10	75	5			yes	0V to 5V	no			DIP-24, SO(W)-24	\$10.85
LTC1401	12		200k	65	1	1	6	15	15	3		SPI	yes	0V to 2.048V	yes	I		SO-8	\$3.15
LTC1863	12	8	200k	73	1	1	3	6	6.5	5	yes	SPI	yes	0V to 4.096V, ±2.048V	yes	I		SSOP-16	\$3.85
LTC1863L	12	8	175k	73.1	1	1	3	6	2	3	yes	SPI	yes	0V to 2.5V, ±1.25V	yes	I		SSOP-16	\$3.85
LTC1860L	12		150k	72	1	1	5mV	20mV	1.22	3		SPI		0V to 3V	yes	I		MSOP-8, SO-8	\$2.75
LTC1861L	12	2	150k	72	1	1	5mV	20mV	1.22	3		SPI		0V to 3V	yes	I		MSOP-8, SO-8	\$2.75
LTC1282	12		140k	69	0.75	0.5	3	10	12	3, ±3	yes		yes	0V to 2.5V, ±1.25V	no			DIP-24, SO(W)-24	\$13.80
LTC1272-8	12		110k	72	1	0.5	3	10	75	5			yes	0V to 5V	no			DIP-24, SO(W)-24	\$7.90
LTC2360	12		100k	72	1	1	3	4	1.5	2.35 to 3.6		SPI		0V to 3.6V	yes	I, H	Industry Standard Pinout	TSOT-6, TSOT-8	\$1.25
LTC1857	12	8	100k	74	1	1	6	0.45%	40	5	yes	SPI	yes	0V to 5V, 0V to 10V, ±5V, ±10V	yes	I	SoftSpan with ±25V Fault Protection	SSOP-28	\$8.95
LTC1854	12	8	100k	74	1	1	5	0.45%	40	5	yes	SPI	yes	±10V	yes	I	±30V Fault Protection	SSOP-28	\$5.60
LTC1274	12		100k	72.5	1	1	6	20	10	5, ±5	yes		yes	0V to 4V, ±2V	yes	I		SO(W)-24	\$7.60
LTC1277	12		100k	72.5	1	1	6	20	10	5, ±5	yes		yes	0V to 4V, ±2V	yes	I		SO(W)-24	\$8.00
LTC1292	12		60k		1	0.5	3	0.5	30	5		SPI		0V to 5V	no	I		DIP-8	\$14.80
LTC1291	12	2	54k		1	0.5	3	1	30	5		SPI		0V to 5V	yes	I		DIP-8	\$9.40
LTC1290B	12	8	50k		1	0.5	1.5	0.5	30	5, ±5	yes	SPI		0V to 5V, ±5V	yes	I		DIP-20, SO(W)-20	\$6.60
LTC1297	12		50k		1	0.5	3	0.5	30	5		SPI		0V to 5V	yes	I		DIP-8	\$17.75
LTC1293	12	6	46k		1	0.5	3	0.5	30	5, ±5	yes	SPI		0V to 5V, ±5V	yes	I		DIP-16, SO(W)-16	\$9.40
LTC1294B	12	8	46k		1	0.5	3	0.5	30	5, ±5	yes	SPI		0V to 5V, ±5V	yes	I		DIP-20, SO(W)-20	\$9.40
LTC1296B	12	8	46k		1	0.5	3	0.5	30	5, ±5	yes	SPI		0V to 5V, ±5V	yes	I		DIP-20, SO(W)-20	\$8.35
LTC1287	12		30k		1	0.5	3	0.5	4.5	3		SPI		0V to 3V	no	I		DIP-8	\$17.05
LTC1289B	12	8	25k		1	0.5	1.5	0.5	4.5	3, ±3	yes	SPI		0 to 3V, ±3V	yes	I		DIP-20, SO(W)-20	\$18.15
LTC1594	12	4	16.8k	71	0.75	3	3	8	1.6	5		SPI		0V to 5V	yes	I		SO-16	\$5.65
LTC1598	12	8	16.8k	71	0.75	3	3	8	1.6	5		SPI		0V to 5V	yes	I		SSOP-24	\$5.80
LTC2301	12	1	14k	73	1	1	6	9	11.5	5	yes	I <sup>2</sup> C	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I, H	I <sup>2</sup> C I/O, One Differential Input	4×3 DFN-12, MSOP-12	\$1.95
LTC2305	12	2	14k	73	1	1	6	9	11.5	5	yes	I <sup>2</sup> C	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I, H	I <sup>2</sup> C I/O, Two Single-Ended Inputs	4×3 DFN-12, MSOP-12	\$2.10
LTC2309	12	8	14k	73	1	1	6	9	11.5	5	yes	I <sup>2</sup> C	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I, H	I <sup>2</sup> C I/O, Nine Addresses	4×4 QFN-24, TSSOP-20	\$2.95
LTC1286	12		12.5k	68	0.75	2	3	8	1.25	4.5 to 9		SPI		0V to 5V	yes	I		DIP-8, SO-8	\$5.20
LTC1298	12	2	11.1k	68	0.75	2	3	8	1.7	5		SPI		0V to 5V	yes	I		DIP-8, SO-8	\$5.20
LTC1594L	12	4	10.5k	68	0.75	3	3	8	0.48	3		SPI		0V to 3V	yes	I		SO-16	\$5.65
LTC1598L	12	8	10.5k	68	0.75	3	3	8	0.48	3		SPI		0V to 3V	yes	I		SSOP-24	\$5.80
LTC1285	12		7.5k	67	0.75	2	3	8	0.48	2.7 to 6		SPI		0V to 3V	yes	I		DIP-8, SO-8	\$6.35
LTC1288	12	2	6.6k	67	0.75	2	3	8	0.63	2.7 to 6		SPI		0V to 3V	yes	I		DIP-8, SO-8	\$6.35
LTC2242-10	10		250M	60.4	0.7	1	17mV	3.5%	740	2.5	yes		yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$39.00
LTC2241-10	10		210M	60.5	0.6	0.8	15mV	3.5%	585	2.5	yes		yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$32.00
LTC2240-10	10		170M	60.5	0.6	0.8	15mV	3.8%	445	2.5	yes		yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$25.00
LTC2230	10		170M	61.2	0.6	1	35mV	2.5%	890	3.3	yes		yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$29.20
LTC2231	10		135M	61.2	0.6	0.8	35mV	2.5%	660	3.3	yes		yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$20.00
LTC2234	10		135M	61.2	0.6	0.8	37mV	2.5%	630	3.3	yes		yes	±0.5V to ±1V	yes	I		7×7 QFN-48	\$20.00
LTC2281	10		125M	61.6	0.6	0.6	12mV	2.5%	790	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$18.00
LTC2251	10		125M	61.5	0.6	0.6	12mV	2.5%	395	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$12.00
LTC2280	10		105M	61.6	0.6	0.6	12mV	2.5%	540	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$11.25
LTC2250	10		105M	61.6	0.6	0.6	12mV	2.5%	320	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$7.50
LTC2232	10		105M	61.3	0.6	0.8	37mV	2.5%	475	3.3	yes		yes	±0.5V to ±1V	yes	I		7×7 QFN-48	\$8.35
LTC2233	10		80M	61.3	0.6	0.8	37mV	2.5%	366	3.3	yes		yes	±0.5V to ±1V	yes	I		7×7 QFN-48	\$6.70
LTC2239	10		80M	61.6	0.5	0.5	12mV	2.5%	211	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$6.70
LTC2289	10		80M	61.6	0.5	0.6	12mV	2.5%	422	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$10.05
LTC2238	10		65M	61.8	0.5	0.5	12mV	2.5%	205	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$5.00
LTC2288	10		65M	61.8	0.5	0.5	12mV	2.5%	400	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$7.50
LTC2237	10		40M	61.8	0.5	0.5	12mV	2.5%	120	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$4.80
LTC2287	10		40M	61.8	0.5	0.5	12mV	2.5%	235	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$7.20
LTC2236	10		25M	61.8	0.5	0.5	12mV	2.5%	75	3	yes		yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$3.50

† Primary Sort Column  
 †† Secondary Sort Column  
 \*Simultaneous Sampling



Part Number	† Bits	MUX	‡ Speed (sps)	SINAD (dB)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	Bipolar Input	Serial I/O	Internal Reference	Input Span	Shutdown	Ext. Temp.	Comments	Package-Pins	Price 1K Qty
LTC2286	10		25M	61.8	0.5	0.5	12mV	2.5%	150	3	yes		yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$5.25
LTC1850	10	8	1.25M		0.5	0.5	2	2	50	5	yes		yes	0V to V <sub>REF</sub> , 0V to V <sub>REF</sub> /2, ±V <sub>REF</sub> /2, ±V <sub>REF</sub> /4	yes	I		TSSOP-48	\$5.95
LTC1197	10		500k	60	1	1	2	4	22.5	4 to 9		SPI		0V to 6V	yes	I		MSOP-8, SO-8	\$2.45
LTC1199	10	2	450k	60	1	1	2	4	25	4 to 6		SPI		0V to 6V	yes	I		MSOP-8, SO-8	\$2.45
LTC1852	10	8	400k		1	1	2	2	2.25	2.7 to 5.5	yes		yes	0V to V <sub>REF</sub> , 0V to V <sub>REF</sub> /2, ±V <sub>REF</sub> /2, ±V <sub>REF</sub> /4	yes	I		TSSOP-48	\$5.95
LTC1197L	10		250k	58	1	1	2	4	2.2	2.7 to 4		SPI		0V to 3V	yes	I		MSOP-8, SO-8	\$2.45
LTC1199L	10	2	210k		1	1	2	4	2.2	2.7 to 4		SPI		0V to 3V	yes	I		MSOP-8, SO-8	\$2.45
LTC1092	10		38k		1	0.5	0.5	1	5	4.5 to 10		SPI		0V to 10V	no	C <sup>(1)</sup>		DIP-8	\$9.45
LTC1091	10	2	31k		1	0.5	0.5	1	7.5	4.5 to 10		SPI		0V to 10V	no	C <sup>(1)</sup>		DIP-8	\$9.45
LTC1090	10	8	30k		1	0.5	0.5	1	5	4.5 to 10, -5	yes	SPI		0V to 10V, ±5V	no	C <sup>(1)</sup>		DIP-20, SO(W)-20	\$9.45
LTC1093	10	6	26k		1	0.5	0.5	1	5	4.5 to 10, -5	yes	SPI		0V to 10V, ±5V	no	C <sup>(1)</sup>		DIP-16, SO(W)-16	\$9.45
LTC1094	10	8	26k		1	0.5	0.5	1	5	4.5 to 10, -5	yes	SPI		0V to 10V, ±5V	no	C <sup>(1)</sup>		DIP-20	\$9.45
LTC1392	10	2	25k		1	1	4	15	3.5	5		SPI		0V to 0.5V, 0V to 1V	yes	I	Temp. Sensor	DIP-8, SO-8	\$3.95
LTC1283	10	8	15k		1	0.5	0.5	1	1.15	3.3, ±3	yes	SPI		0V to 3.3V, ±3.3V	no			DIP-20, SO(W)-20	\$10.90
LTC1406	8		20M	47.5	1	1	8	5	150	5	yes		yes	0V to 2V, ±1V	yes	I		SSOP-24	\$3.20
LTC1196	8		1M	45	1	0.5	0.5	0.5	55	2.7 to 6		SPI		0V to 6V	yes			SO-8	\$2.40
LTC1198	8	2	750k	45	1	0.5	0.5	0.5	55	2.7 to 6		SPI		0V to 6V	yes			SO-8	\$2.90
LTC1099	8		400k		1	0.5	0.5	0.5	55	5				0V to 6V	no	I		DIP-20, SO(W)-20	\$8.05
LTC1096	8		33k		1	0.5	0.5	0.5	0.6	3 to 9		SPI		0V to 6V	yes	I		DIP-8, SO-8	\$2.85
LTC1098	8	2	33k		1	0.5	0.5	0.5	0.78	3 to 6		SPI		0V to 6V	yes	I		DIP-8, SO-8	\$2.85
LTC1096L	8		17k		1	1	1	1	0.36	2.65 to 4		SPI		0V to 3V	yes	I		DIP-8, SO-8	\$3.10
LTC1098L	8	2	16.5k		1	1	1	1	0.47	2.65 to 4		SPI		0V to 3V	yes	I		DIP-8, SO-8	\$3.10

† Primary Sort Column  
 ‡ Secondary Sort Column  
 \*Simultaneous Sampling

Note:  
 1. Specified for -40°C ≤ T<sub>A</sub> ≤ 85°C operation with C temperature code

GENERAL PURPOSE ADCs

Part Number	† Bits	MUX	‡ Speed (sps)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	SINAD (dB)	Bipolar Input	Serial I/O	Internal Reference	Input Span	Shutdown	Ext. Temp.	Package-Pins	Price 1K Qty
LTC1608A	16		500k	1	2	0.130%	0.25%	270	±5	90	yes		yes	±2.5V	yes		SSOP-36	\$16.50
LTC1604A	16		333k	1	2	0.130%	0.25%	220	±5	90	yes		yes	±2.5V	yes	I	SSOP-36	\$20.50
LTC1603	16		250k	1	3	0.13%	0.25%	220	±5	90	yes		yes	±2.5V	yes	I	SSOP-36	\$9.95
LTC1864A	16		250k	2	6	5	20	4.25	5	83		yes		0V to 5V	yes	I	MSOP-8, SO-8	\$5.95
LTC1865A	16	2	250k	2	6	5	20	4.25	5	83		yes		0V to 5V	yes	I	MSOP-8, SO-8	\$6.45
LTC1606A	16		250k	1	2	10mV	0.25%	75	5	90	yes		yes	±10V	no	I	SSOP-28, SO(W)-28	\$19.50
LTC1609A	16		200k	1	2	10mV	0.25%	65	5	87.5	yes	yes	yes	0V to 5V, 0V to 10V, 0V to 4V, ±10V, ±5V, ±3.3V	yes	I	SSOP-28, SO(W)-20	\$14.95
LTC1867A	16	8	200k	-1 to 1.75	2	32	64	6.5	5	88	yes	yes	yes	0V to 4.096V, ±2.048V	yes	I	SSOP-16	\$7.75
LTC1867LA	16	8	175k	-1 to 1.75	3	32	64	2	3	83	yes	yes	yes	0V to 2.5V, ±1.25V	yes	I	SSOP-16	\$7.75
LTC1864LA	16		150k	2	6	5mV	20mV	1.95	3	82		yes		0V to 3V	yes	I	MSOP-8, SO-8	\$5.95
LTC1865LA	16	2	150k	2	6	5mV	20mV	1.22	3	82		yes		0V to 3V	yes	I	MSOP-8, SO-8	\$6.45
LTC1605A	16		100k	1	2	10mV	0.25%	55	5	87	yes		yes	±10V	no	I	DIP-28, SSOP-28, SO(W)-28	\$17.00
LTC1605-1	16		100k	2	3	10mV	0.5%	55	5	87			yes	0V to 4V	no	I	DIP-28/SSOP-28, SO(W)-28	\$17.00
LTC1605-2	16		100k	2	3	10mV	0.5%	55	5	87	yes		yes	±4V	no	I	DIP-28, SSOP-28, SO(W)-28	\$17.00
LTC1859	16	8	100k	-2 to 4	3	25	0.2%	40	5	87	yes	yes	yes	0V to 5V, 0V to 10V, ±5V, ±10V	yes	I	SSOP-28	\$17.95
LTC1856	16	8	100k	-2 to 4	3	23	0.1%	40	5	87	yes	yes	yes	±10V	yes	I	SSOP-28	\$12.95
LTC2355-14	14		3.5M	1	4	20	60	18	3.1 to 3.6	74.2		yes	yes	0V to 2.5V	yes	I	MSOP-10	\$7.95
LTC2356-14	14		3.5M	1	4	20	60	18	3.1 to 3.6	74.2	yes	yes	yes	±1.25V	yes	I	MSOP-10	\$7.95
LTC1407A	14	2*	3M	1	4	20	60	12	3	73.5		yes	yes	0V to 2.5V	yes	I, H	MSOP-10	\$7.00
LTC1407A-1	14	2*	3M	1	4	20	60	12	3	73.5	yes	yes	yes	±1.25V	yes	I	MSOP-10	\$7.00
LTC1403A	14		2.8M	1	4	20	60	12	3	73.5		yes	yes	0V to 2.5V	yes	I, H	MSOP-10	\$7.00

† Primary Sort Column  
 ‡ Secondary Sort Column  
 \* Simultaneous Sampling



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# GENERAL PURPOSE ADCs

Part Number	† Bits	MUX	†† Speed (sps)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	SINAD (dB)	Bipolar Input	Serial I/O	Internal Reference	Input Span	Shutdown	Ext. Temp.	Package-Pins	Price 1K Qty
LTC1403A-1	14		2.8M	1	4	20	60	12	3	73.5	yes	yes	yes	±1.25V	yes	I	MSOP-10	\$7.00
LTC1411	14		2.5M	1	1	24	60	195	5	80	yes	yes	yes	±0.64V to ±1.8V	yes	I	SSOP-36	\$18.00
LTC1414	14		2.2M	1.75	2	20	60	175	±5	78	yes	yes	yes	±2.5V	no	I	SSOP-28	\$16.00
LTC2351-14	14	6*	1.5M	1	3	4.5mV	12mV	16.5	3	75	yes	yes	yes	0V to 2.5V or ±1.25V	yes	I, H	5×5 QFN-32	\$9.45
LTC1419A	14		800k	1	1.25	20	60	150	±5	81.5	yes	yes	yes	±2.5V	yes	I	SSOP-28, SO(W)-28	\$15.15
LTC1408	14	6*	600k	1	3	4.5mV	12mV	15	3	76	yes	yes	yes	0V to 2.5V or ±1.25V	yes	I	5×5 QFN-32	\$8.95
LTC1416	14		400k	1.5	2	20	40	70	±5	80	yes	yes	yes	±2.5V	yes	I	SSOP-28	\$6.90
LTC1417A	14		400k	1	1.25	10	15	20	5, ±5	82	yes	yes	yes	0V to 4V, ±2V	yes	I	SSOP-16	\$7.60
LTC1418A	14		200k	1	1.25	10	15	15	5, ±5	81.5	yes	Ser/Par	yes	0V to 4V, ±2V	yes	I	DIP-28, SSOP-28, SO(W)-28	\$7.90
LTC1858	14	8	100k	-1 to 1.5	1.5	15	0.25%	40	5	83	yes	yes	yes	0V to 5V, 0V to 10V, ±5V, ±10V	yes	I	SSOP-28	\$12.95
LTC1855	14	8	100k	-1 to 1.5	1.5	8	0.40%	40	5	83	yes	yes	yes	±10V	yes	I	SSOP-28	\$7.95
LTC2355-12	12		3.5M	1	2	10	30	18	3.1 to 3.6	71.1	yes	yes	yes	0V to 2.5V	yes	I	MSOP-10	\$4.95
LTC2356-12	12		3.5M	1	2	10	30	18	3.1 to 3.6	71.1	yes	yes	yes	±1.25V	yes	I	MSOP-10	\$4.95
LTC2366	12		3M	1	1	3	4	7.8	2.35 to 3.6	72	yes	yes	yes	0V to 3.6V	yes	I, H	TSOT-6, TSOT-8	\$4.95
LTC1407	12	2*	3M	1	2	10	30	12	3	70.5	yes	yes	yes	0V to 2.5V	yes	I, H	MSOP-10	\$4.00
LTC1407-1	12	2*	3M	1	2	10	30	12	3	70.5	yes	yes	yes	±1.25V	yes	I	MSOP-10	\$4.00
LTC1412	12		3M	1	1	6	15	150	±5	72	yes	yes	yes	±2.5V	no	I	SSOP-28	\$9.95
LTC1403	12		2.8M	1	2	10	30	12	3	70.5	yes	yes	yes	0V to 2.5V	yes	I, H	MSOP-10	\$4.00
LTC1403-1	12		2.8M	1	2	10	30	12	3	70.5	yes	yes	yes	±1.25V	yes	I	MSOP-10	\$4.00
LTC1402	12		2.2M	1	1	10	15	90	5, ±5	72	yes	yes	yes	0V to 4V, ±2V	yes	I	SSOP-16	\$6.95
LTC2351-12	12	6*	1.5M	1	3	4.5mV	12mV	16.5	3	72	yes	yes	yes	0V to 2.5V or ±1.25V	yes	I, H	5×5 QFN-32	\$5.95
LTC1410	12		1.25M	1	1	6	15	160	±5	71	yes	yes	yes	±2.5V	yes	I	SSOP-28, SO(W)-28	\$9.90
LTC1415	12		1.25M	1	1	6	20	55	5	69	yes	yes	yes	0V to 4V	yes	I	SSOP-28, SO(W)-28	\$9.90
LTC1851	12	8	1.25M	1	1	7	6	50	5	70	yes	yes	yes	0V to V <sub>REF</sub> , 0V to V <sub>REF</sub> /2, ±V <sub>REF</sub> /2, ±V <sub>REF</sub> /4	yes	I	TSSOP-48	\$6.95
LTC2365	12		1M	1	1	3	4	6	2.35 to 3.6	72	yes	yes	yes	0V to 3.6V	yes	I, H	TSOT-6, TSOT-8	\$2.15
LTC1409	12		800k	1	1	6	15	80	±5	72.5	yes	yes	yes	±2.5V	yes	I	SSOP-28, SO(W)-28	\$9.90
LTC1408-12	12	6*	600k	1	3	4.5mV	12mV	15	3	72	yes	yes	yes	0V to 2.5V or ±1.25V	yes	I	5×5 QFN-32	\$5.65
LTC1279	12		600k	1	1	4	15	60	5, ±5	70	yes	yes	yes	0V to 5V, ±2.5V	yes	I	SSOP-24, SO(W)-24	\$13.00
LTC1404	12		600k	1	1	6	15	75	5, ±5	72	yes	yes	yes	0V to 4V, ±2V	yes	I	SO-8	\$5.10
LTC2362	12		500k	1	1	3	4	3.3	2.35 to 3.6	72	yes	yes	yes	0V to 3.6V	yes	I, H	TSOT-6, TSOT-8	\$1.85
LTC2302	12		500k	1	1	6	9	15	5	73	yes	yes	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	3×3 DFN-10	\$2.10
LTC2306	12	2	500k	1	1	6	9	15	5	73	yes	yes	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	3×3 DFN-10	\$2.10
LTC2308	12	8	500k	1	1	6	9	17.5	5	73	yes	yes	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	4×4 QFN-24	\$2.95
LTC1278-5	12		500k	1	1	4	15	75	5, ±5	70	yes	yes	yes	0V to 5V, ±2.5V	yes	I	DIP-24, SO(W)-24	\$12.65
LTC1278-4	12		400k	1	1	4	15	75	5, ±5	70	yes	yes	yes	0V to 5V, ±2.5V	yes	I	DIP-24, SO(W)-24	\$12.65
LTC1400	12		400k	1	1	6	15	75	5, ±5	72	yes	yes	yes	0V to 4V, ±2V	yes	I	SO-8	\$4.90
LTC1853	12	8	400k	1	1	6	4	4	2.7 to 5.5	72.5	yes	yes	yes	0V to V <sub>REF</sub> , 0V to V <sub>REF</sub> /2, ±V <sub>REF</sub> /2, ±V <sub>REF</sub> /4	yes	I	TSSOP-48	\$6.95
LTC1273A	12		300k	0.75	0.5	3	15	75	5, ±5	70	yes	yes	yes	0V to 5V	no	I	DIP-24, SO(W)-24	\$12.35
LTC1275A	12		300k	0.75	0.5	3	15	75	±5	70	yes	yes	yes	±2.5V	no	I	DIP-24, SO(W)-24	\$11.60
LTC1276A	12		300k	0.75	0.5	3	15	75	±5	70	yes	yes	yes	±5V	no	I	DIP-24, SO(W)-24	\$11.60
LTC1860	12		250k	1	1	5mV	20mV	4.25	5	71	yes	yes	yes	0V to 5V	yes	I	MSOP-8, SO-8	\$2.30
LTC2361	12		250k	1	1	3	4	2.2	2.35 to 3.6	72	yes	yes	yes	0V to 3.6V	yes	I, H	TSOT-6, TSOT-8	\$1.55
LTC1861	12	2	250k	1	1	5mV	20mV	4.25	5	71	yes	yes	yes	0V to 5V	yes	I	MSOP-8, SO-8	\$2.80
LTC1272-3	12		250k	1	0.5	3	10	75	5	72	yes	yes	yes	0V to 5V	no	I	DIP-24, SO(W)-24	\$10.85
LTC1401	12		200k	1	1	6	15	15	3	65	yes	yes	yes	0V to 2.048V	yes	I	SO-8	\$3.15
LTC1863	12	8	200k	1	1	3	6	6.5	5	73	yes	yes	yes	0V to 4.096V, ±2.048V	yes	I	SSOP-16	\$3.85
LTC1863L	12	8	175k	1	1	3	6	2	3	73.1	yes	yes	yes	0V to 2.5V, ±1.25V	yes	I	SSOP-16	\$3.85
LTC1860L	12		150k	1	1	5mV	20mV	1.95	3	72	yes	yes	yes	0V to 3V	yes	I	MSOP-8, SO-8	\$2.75
LTC1861L	12	2	150k	1	1	5mV	20mV	1.22	3	72	yes	yes	yes	0V to 3V	yes	I	MSOP-8, SO-8	\$2.75
LTC1282	12		140k	0.75	0.5	3	10	12	3, ±3	69	yes	yes	yes	0V to 2.5V, ±1.25V	no	I	DIP-24, SO(W)-24	\$13.80
LTC1272-8	12		110k	1	0.5	3	10	75	5	72	yes	yes	yes	0V to 5V	no	I	DIP-24, SO(W)-24	\$7.90
LTC2360	12		100k	1	1	3	4	1.5	2.35 to 3.6	72	yes	yes	yes	0V to 3.6V	yes	I, H	TSOT-6, TSOT-8	\$1.25

† Primary Sort Column  
 †† Secondary Sort Column  
 \* Simultaneous Sampling

Part Number	† Bits	MUX	‡ Speed (sps)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	SINAD (dB)	Bipolar Input	Serial I/O	Internal Reference	Input Span	Shutdown	Ext. Temp.	Package-Pins	Price 1K Qty
LTC1274	12		100k	1	1	6	20	10	5, ±5	72.5	yes		yes	0V to 4V, ±2V	yes	I	SO(W)-24	\$7.60
LTC1277	12		100k	1	1	6	20	10	5, ±5	72.5	yes		yes	0V to 4V, ±2V	yes	I	SO(W)-24	\$8.00
LTC1857	12	8	100k	1	1	6	0.45%	40	5	74	yes	yes	yes	0V to 5V, 0V to 10V, ±5V, ±10V	yes	I	SSOP-28	\$8.95
LTC1854	12	8	100k	1	1	5	0.45%	40	5	74	yes	yes	yes	±10V	yes	I	SSOP-28	\$5.60
LTC1292	12		60k	1	0.5	3	0.5	30	5			yes		0V to 5V	no	I	DIP-8	\$14.80
LTC1291	12	2	54k	1	0.5	3	1	30	5			yes		0V to 5V	yes		DIP-8	\$9.40
LTC1290B	12	8	50k	1	0.5	1.5	0.5	30	5, ±5		yes	yes		0V to 5V, ±5V	yes	I	DIP-20, SO(W)-20	\$6.60
LTC1297	12		50k	1	0.5	3	0.5	30	5			yes		0V to 5V	yes		DIP-8	\$17.75
LTC1293	12	6	46k	1	0.5	3	0.5	30	5, ±5		yes	yes		0V to 5V, ±5V	yes		DIP-16, SO(W)-16	\$9.40
LTC1294B	12	8	46k	1	0.5	3	0.5	30	5, ±5		yes	yes		0V to 5V, ±5V	yes		DIP-20, SO(W)-20	\$9.40
LTC1296B	12	8	46k	1	0.5	3	0.5	30	5, ±5		yes	yes		0V to 5V, ±5V	yes	I	DIP-20, SO(W)-20	\$8.35
LTC1287	12		30k	1	0.5	3	0.5	4.5	3			yes		0V to 3V	no		DIP-8	\$17.05
LTC1289B	12	8	25k	1	0.5	1.5	0.5	4.5	3, ±3		yes	yes		0V to 3V, ±3V	yes		DIP-20, SO(W)-20	\$18.15
LTC2301	12	1	14k	1	1	6	9	11.5	5	73	yes	I <sup>2</sup> C	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	4×3 DFN-12, MSOP-12	\$1.95
LTC2305	12	2	14k	1	1	6	9	11.5	5	73	yes	I <sup>2</sup> C	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	4×3 DFN-12, MSOP-12	\$2.10
LTC2309	12	8	14k	1	1	6	9	11.5	5	73	yes	I <sup>2</sup> C	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	4×4 QFN-24, TSSOP-20	\$2.95
LTC1594	12	4	16.8k	0.75	3	3	8	1.6	5	71		yes		0V to 5V	yes	I	SO-16	\$5.65
LTC1598	12	8	16.8k	0.75	3	3	8	1.6	5	71		yes		0V to 5V	yes	I	SSOP-24	\$5.80
LTC1286	12		12.5k	0.75	2	3	8	1.25	4.5 to 9	68		yes		0V to 5V	yes	I	DIP-8, SO-8	\$5.20
LTC1298	12	2	11.1k	0.75	2	3	8	1.7	5	68		yes		0V to 5V	yes	I	DIP-8, SO-8	\$5.20
LTC1594L	12	4	10.5k	0.75	3	3	8	0.48	3	68		yes		0V to 3V	yes	I	SO-16	\$5.65
LTC1598L	12	8	10.5k	0.75	3	3	8	0.48	3	68		yes		0V to 3V	yes	I	SSOP-24	\$5.80
LTC1285	12		7.5k	0.75	2	3	8	0.48	2.7 to 6	67		yes		0V to 3V	yes	I	DIP-8, SO-8	\$6.35
LTC1288	12	2	6.6k	0.75	2	3	8	0.63	2.7 to 6	67		yes		0V to 3V	yes	I	DIP-8, SO-8	\$6.35
LTC1850	10	8	1.25M	0.5	0.5	2	2	50	5		yes		yes	0V to V <sub>REF</sub> , 0V to V <sub>REF</sub> /2, ±V <sub>REF</sub> /2, ±V <sub>REF</sub> /4	yes	I	TSSOP-48	\$5.95
LTC1197	10		500k	1	1	2	4	22.5	4 to 9	60		yes		0V to 6V	yes	I	MSOP-8, SO-8	\$2.45
LTC1199	10	2	450k	1	1	2	4	25	4 to 6	60		yes		0V to 6V	yes	I	MSOP-8, SO-8	\$2.45
LTC1852	10	8	400k	1	1	2	2	2.25	2.7 to 5.5	72.5	yes		yes	0V to V <sub>REF</sub> , 0V to V <sub>REF</sub> /2, ±V <sub>REF</sub> /2, ±V <sub>REF</sub> /4	yes	I	TSSOP-48	\$5.95
LTC1197L	10		250k	1	1	2	4	2.2	2.7 to 4	58		yes		0V to 3V	yes	I	MSOP-8, SO-8	\$2.45
LTC1199L	10	2	210k	1	1	2	4	2.2	2.7 to 4	58		yes		0V to 3V	yes	I	MSOP-8, SO-8	\$2.45
LTC1092	10		38k	1	0.5	0.5	1	5	4.5 to 10			yes		0V to 10V	no	C <sup>(1)</sup>	DIP-8	\$9.45
LTC1091	10	2	31k	1	0.5	0.5	1	7.5	4.5 to 10			yes		0V to 10V	no	C <sup>(1)</sup>	DIP-8	\$9.45
LTC1090	10	8	30k	1	0.5	0.5	1	5	4.5 to 10, ±5		yes	yes		0V to 10V, ±5V	no	C <sup>(1)</sup>	DIP-20, SO(W)-20	\$9.45
LTC1093	10	6	26k	1	0.5	0.5	1	5	4.5 to 10, ±5		yes	yes		0V to 10V, ±5V	no	C <sup>(1)</sup>	DIP-16, SO(W)-16	\$9.45
LTC1094	10	8	26k	1	0.5	0.5	1	5	4.5 to 10, ±5		yes	yes		0V to 10V, ±5V	no	C <sup>(1)</sup>	DIP-20, SO(W)-20	\$9.45
LTC1392	10	2	25k	1	1	4	15	3.5	5			yes		0V to 0.5V or 0V to 1V	yes	I	DIP-8, SO-8	\$3.95
LTC1283	10	8	15k	1	0.5	0.5	1	1.15	3.3, ±3.3		yes	yes		0V to 3.3V, ±3.3V			DIP-20, SO(W)-20	\$10.90
LTC1196	8		1M	1	0.5	0.5	0.5	55	2.7 to 6	45		yes		0V to 6V	yes		SO-8	\$2.40
LTC1198	8	2	750k	1	0.5	0.5	0.5	55	2.7 to 6	45		yes		0V to 6V	yes		SO-8	\$2.90
LTC1099	8		400k	1	0.5	0.5	0.5	55	5					0V to 5V	no	I	DIP-20, SO(W)-20	\$8.05
LTC1096	8		33k	1	0.5	0.5	0.5	0.6	3 to 9			yes		0V to 6V	yes	I	DIP-8, SO-8	\$2.85
LTC1098	8	2	33k	1	0.5	0.5	0.5	0.78	3 to 6			yes		0V to 6V	yes	I	DIP-8, SO-8	\$2.85
LTC1096L	8		17k	1	1	1	1	0.36	3			yes		0V to 3V	yes	I	DIP-8, SO-8	\$3.10
LTC1098L	8	2	16.5k	1	1	1	1	0.47	3			yes		0V to 3V	yes	I	DIP-8, SO-8	\$3.10

† Primary Sort Column  
 ‡ Secondary Sort Column  
 \* Simultaneous Sampling

Note:  
 1. Specified for -40°C ≤ TA ≤ 85°C operation with C temperature code

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# HIGH SPEED ADCs

Part Number	† Bits	ADC MUX		†† Speed (MSPs)	SINAD (dB)	SFDR (dB)	THD (dB)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	Bipolar Input	Serial I/O	Latency (Clocks)	Internal Reference	Input Span	Shutdown	Ext. Temp.	Comments	Package-Pins	Price 1K Qty	
		ADC	MUX																					
LTC2209#3CD	16			185	76.5	96		1		19mV	2.5%	1900	3.6	yes				±0.75V to ±1.125V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	C.F.	
LTC2209#3BC	16			180	76.5	96		1		15mV	2.0%	1700	3.6	yes				±0.75V to ±1.125V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	C.F.	
LTC2209	16			160	77.1	100		1	5	10mV	2%	1450	3.3	yes				±0.75V to ±1.125V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$72.50	
LTC2208	16			130	77.7	100		1	4.5	8.5mV	1.5%	1250	3.3	yes				±0.75V to ±1.125V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$65.00	
LTC2217	16			105	81.2	100		1	4	6mV	1.0%	1190	3.3	yes				±1.375V	yes	I	Low Noise	9×9 QFN-64	\$68.00	
LTC2274	16			105	77.5	100		1	4.5	8.5mV	1.5%	1300	3.3	yes	yes	9	yes	±0.75V to ±1.125V	yes	I	High Speed Serial Outputs	6×6 QFN-40	\$68.00	
LTC2207	16			105	77.9	100		1	4.5	8.5mV	1.5%	900	3.3	yes				±0.75V to ±1.125V	yes	I	CMOS Outputs	7×7 QFN-48	\$56.67	
LTC2216	16			80	81.3	100		1	3.5	6mV	1.0%	970	3.3	yes				±1.375V	yes	I	Low Noise	9×9 QFN-64	\$58.00	
LTC2206	16			80	77.9	100		1	4.5	8.5mV	1.5%	725	3.3	yes				±0.75V to ±1.125V	yes	I	CMOS Outputs	7×7 QFN-48	\$48.33	
LTC2273	16			80	77.5	100		1	4.5	8.5mV	1.5%	1100	3.3	yes	yes	9	yes	±0.75V to ±1.125V	yes	I	High Speed Serial Output	6×6 QFN-40	\$58.00	
LTC2215	16			65	81.5	100		1	3.5	6mV	1.0%	700	3.3	yes				±1.375V	yes	I	Low Noise	9×9 QFN-64	\$52.00	
LTC2205	16			65	79	100		1	4.5	8.5mV	1.9%	610	3.3	yes				±0.75V to ±1.125V	yes	I	CMOS Outputs	7×7 QFN-48	\$43.33	
LTC2272	16			65	77.5	100		1	4.5	8.5mV	1.5%	980	3.3	yes	yes	9	yes	±0.75V to ±1.125V	yes	I	High Speed Serial Output	6×6 QFN-40	\$52.00	
LTC2204	16			40	79.1	100		1	4.5	8.5mV	1.9%	480	3.3	yes				±0.75V to ±1.125V	yes	I	CMOS Outputs	7×7 QFN-48	\$35.00	
LTC2203	16			25	81.6	100		1	4.5	10mV	1.5%	220	3.3	yes				±0.834V to ±1.25V	yes	I	Single Ended Clock	7×7 QFN-48	\$30.00	
LTC2202	16			10	81.6	100		1	4.5	10mV	1.5%	140	3.3	yes				±0.834V to ±1.25V	yes	I	Single Ended Clock	7×7 QFN-48	\$25.00	
<b>LTC2262-14</b>	<b>14</b>			<b>150</b>	<b>72.5</b>	<b>88</b>		<b>1</b>	<b>3.75</b>	<b>9mV</b>	<b>1.5%</b>	<b>149</b>	<b>1.8</b>	<b>yes</b>			<b>5.5</b>	<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>Ultralow Power, 1.8V ADC, DDR CMOS and DDR LVDS Outputs</b>	<b>6×6 QFN-40</b>	<b>C.F.</b>
<b>LTC2285#3CG</b>	<b>14</b>			<b>135</b>	<b>72.2</b>	<b>88</b>		<b>0.6</b>	<b>1.5</b>	<b>12mV</b>	<b>2.5%</b>	<b>954</b>	<b>3.3</b>	<b>yes</b>			<b>5</b>	<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>Dual ADC</b>	<b>9×9 QFN-64</b>	<b>C.F.</b>
LTC2208-14	14			130	77.0	98		0.5	1.5	11mV	2.3%	1320	3.3	yes				±0.75V to ±1.125V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$55.00	
LTC2285	14	2		125	72.2	88		0.6	1.5	12mV	2.5%	790	3	yes				±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$73.50	
LTC2255	14			125	72.2	88		1	5	12mV	2.5%	395	3	yes				±0.5V to ±1V	yes	I	CMOS Outputs	5×5 QFN-32	\$49.00	
LTC2261-14	14			125	73	88		0.9	3.75	9mV	1.5%	127	1.8	yes			5.5	yes	±0.5V to ±1V	yes	I	DDR (LVDS and CMOS) Outputs	6×6 QFN-40	\$52.00
LTC2207-14	14			105	77	100		1	1.5	10.3mV	2.3%	947	3.3	yes				±0.75V to ±1.125V	yes	I	CMOS Outputs	7×7 QFN-48	\$45.00	
LTC2254	14			105	72.4	88		1	5.5	12mV	2.5%	320	3	yes				±0.5V to ±1V	yes	I	CMOS Outputs	5×5 QFN-32	\$41.00	
LTC2260-14	14			105	73	88		0.9	3.75	9mV	1.5%	104	1.8	yes			5.5	yes	±0.5V to ±1V	yes	I	DDR (LVDS and CMOS) Outputs	6×6 QFN-40	\$44.00
LTC2284	14	2		105	72.2	88		0.6	1.5	12mV	2.5%	540	3	yes				±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$61.50	
LTC2206-14	14			80	77	100		1	1.5	10.3mV	2.3%	762	3.3	yes				±0.75V to ±1.125V	yes	I	CMOS Outputs	7×7 QFN-48	\$33.00	
LTC2249	14			80	72.9	90		1	4	12mV	2.5%	222	3	yes				±0.5V to ±1V	yes	I	CMOS Outputs	5×5 QFN-32	\$25.00	
LTC2259-14	14			80	73	88		0.9	3.5	9mV	1.5%	87	1.8	yes			5.5	yes	±0.5V to ±1V	yes	I	DDR (LVDS and CMOS) Outputs	6×6 QFN-40	\$28.00
LTC1748	14			80	76.3	90	90	1.5	3			1.4W	5	yes				±1V to ±1.6V		I		TSSOP-48	\$32.30	
LTC1750	14			80	75.5	90	90	1.5	3			1.4W	5	yes				±0.7V to ±1.125V		I	Undersampling to 500MHz	TSSOP-48	\$32.30	
LTC2299	14	2		80	72.9	90		1	5	12mV	2.5%	444	3	yes				±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$37.50	
LTC2205-14	14			65	78.2	98		1	1.5	8.5mV	1.9%	597	3.3	yes				±0.75V to ±1.125V	yes	I	CMOS Outputs	9×9 QFN-64	\$28.00	
LTC2248	14			65	74.3	90		1	4	12mV	2.5%	205	3	yes				±0.5V to ±1V	yes	I	CMOS Outputs	5×5 QFN-32	\$23.35	
<b>LTC2258-14</b>	<b>14</b>			<b>65</b>	<b>73.8</b>	<b>88</b>		<b>0.9</b>	<b>3.75</b>	<b>9mV</b>	<b>1.5%</b>	<b>81</b>	<b>1.8</b>	<b>yes</b>			<b>5.5</b>	<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>DDR (LVDS &amp; CMOS) Outputs</b>	<b>6×6 QFN-40</b>	<b>\$25.35</b>
LTC1742	14			65	76.5	90	90	1	3			1.275W	5	yes				±1V to ±1.6V		I		TSSOP-48	\$24.65	
LTC2298	14	2		65	74.3	90		1	5	12mV	2.5%	400	3	yes				±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$35.03	
LTC1744	14			50	77	87	90	1.5	4	20	3	1.5W	5	yes				±1V to ±1.6V		I		TSSOP-48	\$25.00	
LTC2247	14			40	74.4	90		1	4	12mV	2.5%	120	3	yes				±0.5V to ±1V	yes	I	CMOS Outputs	5×5 QFN-32	\$15.85	
<b>LTC2257-14</b>	<b>14</b>			<b>40</b>	<b>73.2</b>	<b>88</b>		<b>0.9</b>	<b>3.75</b>	<b>9mV</b>	<b>1.5%</b>	<b>49</b>	<b>1.8</b>	<b>yes</b>			<b>5.5</b>	<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>DDR (LVDS &amp; CMOS) Outputs</b>	<b>6×6 QFN-40</b>	<b>\$17.85</b>
LTC2297	14	2		40	74.4	90		1	5	12mV	2.5%	235	3	yes				±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$23.78	
LTC2246	14			25	74.5	90		1	4	12mV	2.5%	75	3	yes				±0.5V to ±1V	yes	I, H	CMOS Outputs	5×5 QFN-32, 7×7 LQFP-48	\$12.50	
<b>LTC2256-14</b>	<b>14</b>			<b>25</b>	<b>72.8</b>	<b>88</b>		<b>0.9</b>	<b>3.5</b>	<b>9mV</b>	<b>1.5%</b>	<b>35</b>	<b>1.8</b>	<b>yes</b>			<b>5.5</b>	<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>DDR (LVDS &amp; CMOS) Outputs</b>	<b>6×6 QFN-40</b>	<b>\$14.50</b>
LTC1746	14			25	77.5	96	92	1	3			465	5	yes				±1V to ±1.6V		I		TSSOP-48	\$12.75	
LTC2296	14	2		25	74.5	90		1	5	12mV	2.5%	150	3	yes				±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$18.75	
LTC2245	14			10	74.4	90		1	4	12mV	2.5%	60	3	yes				±0.5V to ±1V	yes	I	CMOS Outputs	5×5 QFN-32	\$10.83	

† Primary Sort Column  
 †† Secondary Sort Column

Part Number	† Bits	ADC	MUX	‡‡ Speed (MSPs)	SINAD (dB)	SFDR (dB)	THD (dB)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	Bipolar Input	Serial I/O	Latency (Clocks)	Internal Reference	Input Span	Shutdown	Ext. Temp.	Comments	Package-Pins	Price 1K Qty
LTC2295	14	2		10	74.4	90		1	5	12mV	2.5%	120	3	yes			yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$17.00
LTC1740	14			6	79.1	92	90	1.25	2.5			300	±5 or 5	yes			yes	±2.5V, ±1.25V, ±V <sub>REF</sub> /1.8		I		TSSOP-36	\$17.20
LTC1407A	14		2	3	73.5	90	90	1	4			12	3		yes		yes	0V to 2.5V	yes	I	Simultaneous Sampling	MSOP-10	\$7.00
LTC1407A-1	14		2	3	73.5	90	90	1	4			12	3	yes	yes		yes	±1.25V	yes	I	Simultaneous Sampling	MSOP-10	\$7.00
LTC1403A	14			2.8	73.5	90	90	1	4			12	3		yes		yes	0V to 2.5V	yes	I, H	H-Grade Temp Available	MSOP-10	\$7.00
LTC1403A-1	14			2.8	73.5	90	90	1	4			12	3	yes	yes		yes	±1.25V	yes	I		MSOP-10	\$7.00
LTC1411	14			2.5	80		88	1	1		24	60	195	5	yes		yes	±0.64V to ±1.8V	yes	I		SSOP-36	\$18.00
LTC1414	14			2.2	78	84	83	1.75	2	20	60	150	±5	yes			yes	±2.5V		I		SSOP-28	\$16.00
LTC2242-12	12			250	65.3	78		1	2.7	17mV	3.2%	740	2.5	yes			yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$59.00
LTC2241-12	12			210	65.4	78		1	2.3	15mV	3.4%	585	2.5	yes			yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$42.00
LTC2220-1	12			185	67.5	80		1.2	1.8	35mV	2.5%	910	3.3	yes			yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$49.00
LTC2240-12	12			170	65.5	80		1	2.1	15mV	3.5%	445	2.5	yes			yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$35.00
LTC2220	12			170	67.5	84		1	1.5	35mV	2.5%	890	3.3	yes			yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$39.55
<b>LTC2262-12</b>	<b>12</b>			<b>150</b>	<b>70.4</b>			<b>1</b>	<b>1</b>	<b>9mV</b>	<b>1.5%</b>	<b>146</b>	<b>1.8</b>	<b>yes</b>			<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>Ultralow Power, 1.8V ADC, DDR CMOS and DDR LVDS Outputs</b>	<b>6×6 QFN-40</b>	<b>C.F.</b>
LTC2221	12			135	67.6	84		1	1	35mV	2.5%	660	3.3	yes			yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$33.92
LTC2224	12			135	67.4	84		1	1	35mV	2.5%	630	3.3	yes			yes	±0.5V to ±1V	yes	I	CMOS Outputs	7×7 QFN-48	\$33.92
LTC2283	12	2		125	69.8	88		1	1.5	12mV	2.5%	790	3	yes			yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$41.25
LTC2253	12			125	69.8	88		0.7	1.5	12mV	2.5%	395	3	yes			yes	±0.5V to ±1V	yes	I	CMOS Outputs	5×5 QFN-32	\$27.50
LTC2261-12	12			125	71	88		0.4	1	9mV	1.5%	127	1.8	yes			yes	±0.5V to ±1V	yes	I	DDR (LVDS and CMOS) Outputs	6×6 QFN-40	\$29.50
LTC2252	12			105	70.1	88		0.7	1.5	12mV	2.5%	320	3	yes			yes	±0.5V to ±1V	yes	I	CMOS Outputs	5×5 QFN-32	\$23.00
LTC2260-12	12			105	71	88		0.4	1	9mV	1.5%	104	1.8	yes			yes	±0.5V to ±1V	yes	I	DDR (LVDS and CMOS) Outputs	6×6 QFN-40	\$25.00
LTC2222	12			105	68.4	84		1	1.3	30mV	2.5%	475	3.3	yes			yes	±0.5V to ±1V	yes	I	CMOS Outputs	7×7 QFN-48	\$29.92
LTC2282	12	2		105	70	88		0.9	1.5	12mV	2.5%	540	3	yes			yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$34.50
LTC2223	12			80	68.5	84		0.8	1	30mV	2.5%	366	3.3	yes			yes	±0.5V to ±1V	yes	I	14-Bit Upgrade Path	7×7 QFN-48	\$16.70
LTC2229	12			80	70.6	90		0.8	1.1	12mV	2.5%	211	3	yes			yes	±0.5V to ±1V	yes	I	CMOS Outputs	5×5 QFN-32	\$16.70
LTC2259-12	12			80	70	88		0.4	1	9mV	1.5%	87	1.8	yes			yes	±0.5V to ±1V	yes	I	DDR (LVDS and CMOS) Outputs	6×6 QFN-40	\$18.70
LTC1747	12			80	72	87	85	0.8	1			1.4W	5	yes			yes	±1V to ±1.6V		I		TSSOP-48	\$19.55
LTC1749	12			80	71.8	87	87	0.8	1			1.4W	5	yes			yes	±0.7V to ±1.125V		I	Undersampling to 500MHz	TSSOP-48	\$19.55
LTC2294	12	2		80	70.6	90		0.8	1.4	12mV	2.5%	422	3	yes			yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$25.05
LTC2228	12			65	71.3	90		0.8	1.1	12mV	2.5%	205	3	yes			yes	±0.5V to ±1V	yes	I	14-Bit Upgrade Path	5×5 QFN-32	\$12.08
<b>LTC2258-12</b>	<b>12</b>			<b>65</b>	<b>71</b>	<b>88</b>		<b>0.4</b>	<b>1</b>	<b>9mV</b>	<b>1.5%</b>	<b>79</b>	<b>1.8</b>	<b>yes</b>			<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>DDR (LVDS &amp; CMOS) Outputs</b>	<b>6×6 QFN-40</b>	<b>\$14.08</b>
LTC1741	12			65	72	87	85	0.8	1			1.275W	5	yes			yes	±1V to ±1.6V		I		TSSOP	\$12.75
LTC2293	12	2		65	71.3	90		0.8	1.4	12mV	2.5%	400	3	yes			yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$18.12
LTC1743	12			50	72.5	90	88	0.8	1			1.2W	5	yes			yes	±1V to ±1.6V		I		TSSOP	\$9.30
LTC2227	12			40	71.4	90		0.7	1	12mV	2.5%	120	3	yes			yes	±0.5V to ±1V	yes	I	14-Bit Upgrade Path	5×5 QFN-32	\$7.92
<b>LTC2257-12</b>	<b>12</b>			<b>40</b>	<b>70.7</b>	<b>88</b>		<b>0.4</b>	<b>1</b>	<b>9mV</b>	<b>1.5%</b>	<b>47</b>	<b>1.8</b>	<b>yes</b>			<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>DDR (LVDS &amp; CMOS) Outputs</b>	<b>6×6 QFN-40</b>	<b>\$9.92</b>
LTC2292	12	2		40	71.4	90		0.8	1.4	12mV	2.5%	235	3	yes			yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$11.88
LTC2226	12			25	71.4	90		0.7	1	12mV	2.5%	75	3	yes			yes	±0.5V to ±1V	yes	I, H	14-Bit Upgrade Path	5×5 QFN-32, 7×7 LQFP-48	\$7.50
<b>LTC2256-12</b>	<b>12</b>			<b>25</b>	<b>70.5</b>	<b>88</b>		<b>0.4</b>	<b>1</b>	<b>9mV</b>	<b>1.5%</b>	<b>34</b>	<b>1.8</b>	<b>yes</b>			<b>yes</b>	<b>±0.5V to ±1V</b>	<b>yes</b>	<b>I</b>	<b>DDR (LVDS &amp; CMOS) Outputs</b>	<b>6×6 QFN-40</b>	<b>\$9.50</b>
LTC1745	12			25	72.5	96	92	0.75	1			455	5	yes			yes	±1V to ±1.6V		I		TSSOP-48	\$9.30
LTC2291	12	2		25	71.4	90		0.8	1.4	12mV	2.5%	150	3	yes			yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$11.25
LTC2225	12			10	71.3	90		0.7	1.1	12mV	2.5%	60	3	yes			yes	±0.5V to ±1V	yes	I	14-Bit Upgrade Path	5×5 QFN-32	\$4.57
LTC1420	12			10	71	83	81	1	1	12	20	200	5, ±5	yes			yes	±2V, ±1V, ±0.5V		I		SSOP-28	\$5.95
LTC2290	12	2		10	71.3	90		0.7	1.3	12mV	2.5%	120	3	yes			yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$10.00
LTC1405	12			5	71.3	85	83	1	1	12	30	115	5, ±5	yes			yes	±2V, ±1V, ±0.5V		I		SSOP-28	\$5.95
LTC1407	12		2	3	70.5	87	87	1	2			12	3		yes		yes	0V to 2.5V	yes	I	Simultaneous Sampling	MSOP-10	\$4.00

† Primary Sort Column  
‡‡ Secondary Sort Column



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



# HIGH SPEED ADCs

Part Number	† Bits	ADC	MUX	†† Speed (MSPs)	SINAD (dB)	SFDR (dB)	THD (dB)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	Bipolar Input	Serial I/O	Latency (Clocks)	Internal Reference	Input Span	Shutdown	Ext. Temp.	Comments	Package-Pins	Price 1K Qty
LTC1407-1	12		2	3	70.5	87	87	1	2			12	3		yes	2	yes	±1.25V	yes	I	Simultaneous Sampling	MSOP-10	\$4.00
LTC1412	12			3	72	82	80	1	1	6	15	150	±5	yes		1	yes	±2.5V		I		SSOP-28	\$9.95
LTC1403	12			2.8	70.5	87	87	1	2			12	3		yes	2	yes	0V to 2.5V	yes	I, H		MSOP-10	\$4.00
LTC1403-1	12			2.8	70.5	87	87	1	2			12	3		yes	2	yes	±1.25V	yes	I		MSOP-10	\$4.00
LTC1402	12			2.2	72	93	89	1	1	10	15	90	5, ±5	yes	yes	1	yes	0V to 4V, ±2V	yes	I		SSOP-16	\$6.95
LTC1415	12			1.25	69	75	72	1	1	6	20	55	5	yes		1	yes	0V to 4V	yes	I		SSOP-28, SO(W)-28	\$9.90
LTC1410	12			1.25	71		82	1	1	6	15	160	±5	yes		1	yes	±2.5V	yes	I		SSOP-28, SO(W)-28	\$9.90
LTC1851	12		8	1.25				1	1	7	6	50	5	yes		1	yes	0V to V <sub>REF</sub> , 0V to V <sub>REF</sub> /2 ±V <sub>REF</sub> /4	yes	I		SSOP-48	\$6.95
LTC2242-10	10			250	60.4	78		0.7	1	17mV	3.5%	740	2.5	yes		5	yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$39.00
LTC2241-10	10			210	60.5	78		0.6	0.8	15mV	3.5%	585	2.5	yes		5	yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$32.00
LTC2240-10	10			170	60.5	80		0.6	0.8	15mV	3.8%	445	2.5	yes		5	yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$25.00
LTC2230	10			170	61.2	80		0.6	0.8	35mV	2.5%	890	3.3	yes		5	yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$29.20
LTC2231	10			135	61.2	80		0.6	0.8	35mV	2.5%	660	3.3	yes		5	yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$20.00
LTC2234	10			135	61.2	80		0.6	0.8	37mV	2.5%	630	3.3	yes		5	yes	±0.5V to ±1V	yes	I	CMOS Outputs	7×7 QFN-48	\$20.00
LTC2281	10	2		125	61.6	85		0.6	0.6	12mV	2.5%	790	3	yes		5	yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$18.00
LTC2251	10			125	61.5	85		0.6	0.6	12mV	2.5%	395	3	yes		5	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$12.00
LTC2250	10			105	61.6	85		0.6	0.6	12mV	2.5%	320	3	yes		5	yes	±0.5V to ±1V	yes	I	CMOS Outputs	5×5 QFN-32	\$7.50
LTC2232	10			105	61.3	80		0.6	0.8	37mV	2.5%	475	3.3	yes		5	yes	±0.5V to ±1V	yes	I	CMOS Outputs	7×7 QFN-48	\$8.35
LTC2280	10	2		105	61.6	85		0.6	0.6	12mV	2.5%	540	3	yes		5	yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$11.25
LTC2233	10			80	61.3	80		0.6	0.8	37mV	2.5%	366	3.3	yes		5	yes	±0.5V to ±1V	yes	I		7×7 QFN-48	\$6.70
LTC2289	10	2		80	61.6	85		0.5	0.6	12mV	2.5%	422	3	yes		5	yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$10.05
LTC2238	10			65	61.8	85		0.5	0.5	12mV	2.5%	205	3	yes		5	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$5.00
LTC2288	10	2		65	61.8	85		0.5	0.6	12mV	2.5%	400	3	yes		5	yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$7.50
LTC2237	10			40	61.8	85		0.5	0.5	12mV	2.5%	120	3	yes		5	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$4.80
LTC2287	10	2		40	61.8	85		0.5	0.6	12mV	2.5%	235	3	yes		5	yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$7.20
LTC2236	10			25	61.8	85		0.5	0.5	12mV	2.5%	75	3	yes		5	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$3.50
LTC2286	10	2		25	61.8	85		0.5	0.6	12mV	2.5%	150	3	yes		5	yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$5.25
LTC1850	10		8	1.25				0.5	0.5	2	2	50	5	yes		1	yes	0V to V <sub>REF</sub> , 0V to V <sub>REF</sub> /2 ±V <sub>REF</sub> /2, ±V <sub>REF</sub> /4	yes	I		SSOP-48	\$5.95
LTC1406	8			20	47.5	60	59	1	1	8	5	150	5	yes		5	yes	0V to 2V, ±1V	yes	I		SSOP-24	\$3.20
LTC1196	8			1	47	93	49	1	0.5	0.5	0.5	4.5	5	yes	yes	1	yes	0V to 5V	yes			SO-8	\$2.40

† Primary Sort Column  
 †† Secondary Sort Column

# No Latency $\Delta\Sigma^{\text{TM}}$ ADCs

Part Number	† Bits	MUX	Output Rate with Internal Clock (Hz)	Output Rate Max (Hz)	†† Noise ( $\mu\text{VRMS}$ )	DNL (LSB)	INL (ppm)	Offset ( $\mu\text{V}$ )	Full-Scale (ppm)	Rejection at $f_0$ (dB)	Simultaneous 50Hz/60Hz Rejection	Power (mW)	Supply (V)	Differential Input	Input Span	I/O	Int. Temp. Sensor	Gain	Ext. Temp.	Package-Pins	Price 1K Qty
LTC2440	24		3.5k	4k	0.2	1	15	5	30	120	yes	40	4.5 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	SPI			I	SSOP-16	\$5.75
LTC2445	24	4/8	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.2	1	15	5	50	120	yes	40	4.5 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	SPI			I	5×7 QFN-38	\$6.45
LTC2447	24	4/8	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.2	1	15	5	50	120	yes	40	4.5 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	SPI			I	5×7 QFN-38	\$7.15
LTC2449	24	8/16	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.2	1	15	5	50	120	yes	40	4.5 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	SPI			I	5×7 QFN-38	\$7.15
LTC2442	24	2/4	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.22	1	10	5	50	120	yes	50	4.5 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	SPI			I	SSOP-36	\$7.45
LTC2444	24	4/8	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.28	1	15	5	50	120	yes	40	4.5 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	SPI			I	5×7 QFN-38	\$6.45
LTC2446	24	4/8	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.28	1	15	5	50	120	yes	40	4.5 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	SPI			I	5×7 QFN-38	\$7.15
LTC2448	24	8/16	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.28	1	15	5	50	120	yes	40	4.5 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	SPI			I	5×7 QFN-38	\$7.15
LTC2484	24		6.8	15	0.6	1	10	2.5	25	110	yes	0.48	2.7 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	SPI	yes		I	3×3 DFN-10	\$2.45
LTC2485	24		6.8	15	0.6	1	10	2.5	25	110	yes	0.48	2.7 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	I <sup>2</sup> C	yes		I	3×3 DFN-10	\$2.45
LTC2492	24	2/4	15	100	0.6	1	10	2.5	25	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	SPI	yes		I	4×3 DFN-14	\$2.95
LTC2493	24	2/4	15	195	0.6	1	10	2.5	25	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	I <sup>2</sup> C	yes		I	4×3 DFN-14	\$2.95
LTC2498	24	8/16	15	100	0.6	1	10	2.5	25	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	SPI	yes		I	5×7 QFN-38	\$3.45

† Primary Sort Column  
 †† Secondary Sort Column

Part Number	†	Bits	MUX	Output Rate with Internal Clock (Hz)	Output Rate Max (Hz)	††	Noise ( $\mu\text{V}_{\text{RMS}}$ )	DNL (LSB)	INL (ppm)	Offset ( $\mu\text{V}$ )	Full-Scale (ppm)	Rejection at $f_0$ (dB)	Simultaneous 50Hz/60Hz Rejection	Power (mW)	Supply (V)	Differential Input	Input Span	I/O	Int. Temp. Sensor	Gain	Ext. Temp.	Package-Pins	Price 1K Qty
LTC2499		24	8/16	15	100	0.6	1	10	2.5	25	25	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	I <sup>2</sup> C	yes		I	5x7 QFN-38	\$3.45
LTC2410		24		7.5	100	0.8	1	14	2.5	12	12	140		1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	SSOP-16	\$5.50
LTC2413		24		6.8	100	0.8	1	14	2.5	12	87	yes		1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	SSOP-16	\$5.50
LTC2412		24	2	7.5	100	0.8	1	14	2.5	12	140			1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	SSOP-16	\$4.75
LTC2414		24	4/8	7.5	100	1	1	14	10	12	140			1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	SSOP-28	\$6.25
LTC2418		24	8/16	7.5	100	1	1	14	10	12	140			1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	SSOP-28	\$6.95
LTC2415		24		15	195	1.1	1	14	2mV	12	140			1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	SSOP-16	\$5.50
LTC2415-1		24		13.75	195	1.1	1	14	2mV	12	87	yes		1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	SSOP-16	\$5.50
LTC2411		24		7.5	100	1.45	1	14	20	12	140			1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	MSOP-10	\$5.50
LTC2411-1		24		6.8	100	1.45	1	14	20	12	87	yes		1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	MSOP-10	\$5.50
LTC2400		24		7.5	15	1.5	1	10	2ppm	10	130			1	2.7 to 5.5		0 to V <sub>REF</sub> ±12%	SPI			I	SO-8	\$5.50
LTC2404		24	4	7.5	15	1.5	1	10	2ppm	10	130			1	2.7 to 5.5		0 to V <sub>REF</sub> ±12%	SPI			I	SSOP-28	\$6.00
LTC2408		24	8	7.5	15	1.5	1	10	2ppm	10	130			1	2.7 to 5.5		0 to V <sub>REF</sub> ±12%	SPI			I	SSOP-28	\$6.25
LTC2401		24		7.5	15	3	1	10	2ppm	10	130			1	2.7 to 5.5		0 to V <sub>REF</sub> ±12%	SPI			I	MSOP-10	\$5.30
LTC2402		24	2	7.5	15	3	1	10	2ppm	10	130			1	2.7 to 5.5		0 to V <sub>REF</sub> ±12%	SPI			I	MSOP-10	\$5.60
LTC2430		20		7.5	100	2.8	1	20	1ppm	20	140			1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	SSOP-16	\$3.55
LTC2431		20		7.5	100	2.8	1	20	1ppm	20	140			1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	MSOP-10	\$3.70
LTC2435		20		15	195	4	1	20	5mV	10	110			1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	SSOP-16	\$3.55
LTC2435-1		20		13.75	195	4	1	20	5mV	10	87	yes		1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	SSOP-16	\$3.55
LTC2420		20		7.5	100	6	1	10	10ppm	10	130			1	2.7 to 5.5		0 to V <sub>REF</sub> ±12%	SPI			I	SO-8	\$4.25
LTC2424		20	4	7.5	100	6	1	10	10ppm	10	130			1	2.7 to 5.5		0 to V <sub>REF</sub> ±12%	SPI			I	SSOP-28	\$4.75
LTC2428		20	8	7.5	100	6	1	10	10ppm	10	130			1	2.7 to 5.5		0 to V <sub>REF</sub> ±12%	SPI			I	SSOP-28	\$5.25
LTC2421		20		7.5	15	6	1	10	10ppm	10	130			1	2.7 to 5.5		0 to V <sub>REF</sub> ±12%	SPI			I	MSOP-10	\$4.35
LTC2422		20	2	7.5	15	6	1	10	10ppm	10	130			1	2.7 to 5.5		0 to V <sub>REF</sub> ±12%	SPI			I	MSOP-10	\$4.50
LTC2480		16		15	195	0.6	1	10	2.5	25	110	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI	yes	yes	I, H	3x3 DFN-10	\$1.85	
LTC2481		16		15	195	0.6	1	10	2.5	25	110	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	I <sup>2</sup> C	yes	yes	I, H	3x3 DFN-10	\$1.85	
LTC2486		16	2/4	15	195	0.6	1	20	5	32	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI	yes	yes	I	4x3 DFN-14	\$2.35	
LTC2487		16	2/4	15	195	0.6	1	20	5	32	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	I <sup>2</sup> C	yes	yes	I	4x3 DFN-14	\$2.35	
LTC2494		16	8/16	15	195	0.6	1	20	5	32	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI	yes	yes	I	5x7 QFN-38	\$2.85	
LTC2495		16	8/16	15	195	0.6	1	20	5	32	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	I <sup>2</sup> C	yes	yes	I	5x7 QFN-38	\$2.85	
LTC2482		16		7.5	100	0.6	1	20	5	32	110	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	3x3 DFN-10	\$1.65	
LTC2483		16		7.5	100	0.6	1	10	2.5	25	110	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	I <sup>2</sup> C			I	3x3 DFN-10	\$1.65	
LTC2488		16	2/4	7.5	100	0.6	1	20	5	32	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	4x3 DFN-14	\$2.15	
LTC2489		16	2/4	7.5	100	0.6	1	20	5	32	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	I <sup>2</sup> C			I	4x3 DFN-14	\$2.15	
LTC2496		16	8/16	7.5	100	0.6	1	20	5	32	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	5x7 QFN-38	\$2.65	
LTC2497		16	8/16	7.5	100	0.6	1	20	5	32	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	I <sup>2</sup> C			I	5x7 QFN-38	\$2.65	
LTC2436-1		16	2	6.8	100	0.8	1	3LSB	1LSB	3LSB	140	yes	1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	SSOP-16	\$2.45	
LTC2439-1		16	8/16	6.8	100	1	1	1.25LSB	20	1.25LSB	120	yes	1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	SSOP-28	\$3.75	
LTC2450		16		30	30	1.4	1	10LSB	0.3mV	0.02%			1.05	2.7 to 5.5		0 to V <sub>CC</sub>	SPI			I	2x2 DFN-6	\$1.15	
LTC2450-1		16		60	60	1.4	1	10LSB	2mV	0.02%			1.05	2.7 to 5.5		0 to V <sub>CC</sub>	SPI			I	2x2 DFN-6	\$1.15	
LTC2451		16		30 or 60	60	1.4	1	10LSB	0.5mV or 2mV	0.02%			1.05	2.7 to 5.5		0 to V <sub>CC</sub>	I <sup>2</sup> C			I	3x2 DFN-8, TSOT-8	\$1.15	
LTC2452		16		60	60	1.4	1	10LSB	0.4mV	0.02%			1.05	2.7 to 5.5	yes	±V <sub>CC</sub>	SPI			I	3x2 DFN-8, TSOT-8	\$1.25	
LTC2453		16		60	60	1.4	1	10LSB	0.4mV	0.02%			1.05	2.7 to 5.5	yes	±V <sub>CC</sub>	I <sup>2</sup> C			I	3x2 DFN-8, TSOT-8	\$1.25	
LTC2433-1		16		6.8	100	1.45	1	1.25LSB	20	1.25LSB	140	yes	1	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	MSOP-10	\$1.95	
LTC2460		16		60	60	2.2	1	10LSB	10LSB	0.25%			4.5	2.7 to 5.5		0V to 1.25V	SPI			I	3x3 DFN-12, MSOP-12	C.F.	
LTC2461		16		60	60	2.2	1	10LSB	10LSB	0.25%			4.5	2.7 to 5.5		0V to 1.25V	I <sup>2</sup> C			I	3x3 DFN-12, MSOP-12	C.F.	
LTC2462		16		60	60	2.2	1	10LSB	10LSB	0.25%			4.5	2.7 to 5.5	yes	±1.25V	SPI			I	3x3 DFN-12, MSOP-12	C.F.	
LTC2463		16		60	60	2.2	1	10LSB	10LSB	0.25%			4.5	2.7 to 5.5	yes	±1.25V	I <sup>2</sup> C			I	3x3 DFN-12, MSOP-12	C.F.	

† Primary Sort Column  
 †† Secondary Sort Column

Note:

1. One cycle latency



MS-8, MS-10 = MSOP; SSOPN = Narrow SSOP; SSOPW = Wide SSOP; SOW = Wide SO

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# DACs (ALL)

Part Number	† Bits	†† # DACs	DNL (LSB)	INL (LSB)	Settling Time (μs)	I/O	Int Ref	Output	Output Range	Supply (V)	Power (mW)	Comments	Ext. Temp.	Package-Pins	Price 1K Qty
LTC1821	16	1	±1	±1	2	Parallel	Ext	Voltage	0V to 10V, 0V to -10V, ±10V	5 and up to ±15	40	Fast Settling to 16-Bit Precision	I	SSOP-36	\$29.95
LTC1668	16	1	±4	±8	20ns	Parallel	2.5V	Current	10mA	±5	180	50Msps, Pin Compatible 12-Bit and 14-Bit Devices	I	SSOP-28	\$13.75
LTC1657L	16	1	±1	±12	20	Parallel	1.25V	Voltage	0V to 2.5V	2.7 to 5.5		Single 3V, Rail-to-Rail V <sub>OUT</sub>	I	SSOP-28, DIP-28	\$9.50
LTC1657	16	1	±1	±12	20	Parallel	2.048V	Voltage	0V to 4.096V	4.5 to 5.5	3	Single 5V, Rail-to-Rail V <sub>OUT</sub>	I	SSOP-28, DIP-28	\$8.60
LTC1655L	16	1	±1	±20	20	Serial SPI	1.25V	Voltage	0V to 2.5V	2.7 to 5.5	1.6	SO-8 Package, 3V Single Supply	I	DIP-8, SO-8	\$8.80
LTC1655	16	1	±1	±20	20	Serial SPI	2.048V	Voltage	0V to 4.096V	4.5 to 5.5	2.6	SO-8 Package, Single Supply	I	DIP-8, SO-8	\$7.95
LTC1650	16	1	±0.5	±8	4	Serial SPI	Ext	Voltage	±5V	±5	50	Ultralow Noise, Deglitched	I	DIP-16, SO(W)-16	\$11.20
LTC1599	16	1	±1	±1	1	Parallel	Ext	Current	0V to 10V, 0V to -10V, ±10V	5	55μW	Byte Wide Input, On-Chip Resistors for 4-Quadrant Multiplication	I	SSOP-24, DIP-24	\$15.90
LTC1597	16	1	±1	±1	1	Parallel	Ext	Current	0V to 10V, 0V to -10V, ±10V	5	55μW	On-Chip Resistors, LTC1597-1 Resets to Mid-Scale	I	SSOP-28, DIP-28	\$15.90
LTC1596	16	1	±1	±1	1	Serial SPI	Ext	Current	0V to V <sub>REF</sub>	5	55μW	LTC1596-1 Resets to Mid-Scale, 8143 Pinout	I	DIP-16, SO(W)-16	\$12.75
LTC1595	16	1	±1	±1	1	Serial SPI	Ext	Current	0V to V <sub>REF</sub>	5	55μW	SO-8, Multiplying, 8043 Pinout	I	DIP-8, SO-8	\$12.25
LTC1592	16	1	±1	±1	2	Serial SPI	Ext	Current	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	5	55μW	Software-Selectable Output Ranges without External Resistors or Switches	I	SSOP-16	\$13.95
LTC2601	16	1	±1	±64	10	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	0.9	Pin Compatible Family 12-Bit and 14-Bit	I	3×3 DFN-10	\$2.70
LTC2601-1	16	1	±1	±64	10	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	0.9	Reset to Mid-Scale	I	3×3 DFN-10	\$2.70
LTC2606	16	1	±1	±64	10	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	0.8	Pin Compatible Family 12-Bit and 14-Bit	I	3×3 DFN-10	\$2.84
LTC2606-1	16	1	±1	±64	10	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	0.8	Reset to Mid-Scale	I	3×3 DFN-10	\$2.84
LTC2641-16	16	1	±1	±1	1	Serial SPI	Ext	Voltage	0V to V <sub>REF</sub>	2.7 to 5.5	0.36	Unbuffered Unipolar V <sub>OUT</sub> , 1μs Settling, Low Glitch Energy	I	3×3 DFN-8, MSOP-8, SO-8	\$6.25
LTC2642-16	16	1	±1	±1	1	Serial SPI	Ext	Voltage	±V <sub>REF</sub>	2.7 to 5.5	0.36	Unbuffered, Matched Resistors for Bipolar V <sub>OUT</sub> , 1μs Settling	I	3×3 DFN-10, MSOP-10	\$6.25
LTC2751-16	16	1	±1	±1	2	Parallel	Ext	Current	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	2.7 to 5.5	2.5μW	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	5×7 QFN-38	\$8.50
LTC2753-16	16	2	±1	±1	2	Parallel	Ext	Current	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	2.7 to 5.5	2.5μW	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	7×7 QFN-48	\$11.90
LTC2602	16	2	±1	±64	10	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	1.8	Pin Compatible Family 10,12,14-Bit and Ultralow Crosstalk	I	MSOP-8	\$4.75
LTC2607	16	2	±1	±64	10	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	1.8	Pin Compatible Family 10,12,14-Bit and Ultralow Crosstalk	I	3×4 DFN-12	\$5.23
LTC2607-1	16	2	±1	±64	10	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	1.8	Reset to Mid-Scale	I	3×4 DFN-12	\$5.23
LTC2755-16	16	4	±1	±1	2	Parallel	Ext	Current	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	2.7 to 5.5	2.5μW	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	9×9 QFN-64	\$17.85
LTC2604	16	4	±1	±64	10	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	3	Pin Compatible Family 12,14-Bit and Ultralow Crosstalk	I	SSOP-16	\$9.50
LTC2609	16	4	±1	±64	10	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	3	Pin Compatible Family 12,14-Bit and Ultralow Crosstalk	I	SSOP-16	\$9.50
LTC2609-1	16	4	±1	±64	10	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	3	Reset to Mid-Scale	I	SSOP-16	\$9.50
LTC2704-16	16	4	±1	±2	10	Serial SPI	Ext	Voltage	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	±4.5 to ±16.5	263	SoftSpan, Force/Sense Outputs, Readback	I	SSOP-44	\$29.95
<b>LTC2656-16</b>	<b>16</b>	<b>8</b>	<b>±1</b>	<b>±2</b>	<b>8.5</b>	<b>Serial SPI</b>	<b>2.048V</b>	<b>Voltage</b>	<b>0V to 5V, 0V to 4.096V</b>	<b>4.5 to 5.5</b>	<b>17.5 (Max)</b>	<b>Octal, 10ppm/°C (Max) Internal Reference Tempco, Zero-Scale/Mid-Scale Power-On Reset, SDO for Data Readback</b>	<b>I, H</b>	<b>4×5 QFN-20, TSSOP-20E</b>	<b>C.F.</b>
<b>LTC2656L-16</b>	<b>16</b>	<b>8</b>	<b>±1</b>	<b>±2</b>	<b>8.5</b>	<b>Serial SPI</b>	<b>1.25V</b>	<b>Voltage</b>	<b>0V to 5V, 0V to 2.048V</b>	<b>2.7 to 5.5</b>	<b>9.6 (Max)</b>	<b>Octal, 10ppm/°C (Max) Internal Reference Tempco, Zero-Scale/Mid-Scale Power-On Reset, SDO for Data Readback</b>	<b>I, H</b>	<b>4×5 QFN-20, TSSOP-20E</b>	<b>C.F.</b>
LTC2600	16	8	±1	±64	10	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	6	Pin Compatible Family 8,10,12,14-Bit and Ultralow Crosstalk	I	SSOP-16, 4×5 QFN-20	\$14.00
LTC2605	16	8	±1	±64	10	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	6	Pin Compatible Family 8,10,12,14-Bit and Ultralow Crosstalk	I	SSOP-16	\$14.70
LTC2605-1	16	8	±1	±64	10	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	6	Reset to Mid-Scale	I	SSOP-16	\$14.70
LTC1667	14	1	±1	±2	20ns	Parallel	2.5V	Current	10mA	±5	180	50Msps, Pin Compatible 12-Bit and 16-Bit Devices	I	SSOP-28	\$10.80
LTC1658	14	1	±1	±8	12	Serial SPI	Ext	Voltage	0V to V <sub>REF</sub>	2.7 to 5.5	3	Single Supply, MSOP	I	MSOP-8, SO-8, DIP-8	\$4.80
LTC1591	14	1	±1	±1	1	Parallel	Ext	Current	0V to 10V, 0V to -10V, ±10V	5	55μW	On-Chip Resistors, LTC1591-1 Resets to Mid-Scale, LTC1597 Pinout	I	SSOP-28, DIP-28	\$8.95
LTC1589	14	1	±1	±1	2	Serial SPI	Ext	Current	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	5	55μW	Software-Selectable Output Ranges without External Resistors or Switches	I	SSOP-16	\$9.95
LTC2611	14	1	±1	±16	9	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	0.9	Pin Compatible Family 12-Bit and 16-Bit	I	3×3 DFN-10	\$2.25
LTC2611-1	14	1	±1	±16	9	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	0.9	Reset to Mid-Scale	I	3×3 DFN-10	\$2.25
LTC2616	14	1	±1	±16	9	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	0.8	Pin Compatible Family 12-Bit and 16-Bit	I	3×3 DFN-10	\$2.36
LTC2616-1	14	1	±1	±16	9	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	0.8	Reset to Mid-Scale	I	3×3 DFN-10	\$2.36
LTC2641-14	14	1	±1	±1	1	Serial SPI	Ext	Voltage	0V to V <sub>REF</sub>	2.7 to 5.5	0.36	Unbuffered Unipolar V <sub>OUT</sub> , 1μs Settling, Low Glitch Energy	I	3×3 DFN-8, MSOP-8	\$5.42
LTC2642-14	14	1	±1	±1	1	Serial SPI	Ext	Voltage	±V <sub>REF</sub>	2.7 to 5.5	0.36	Unbuffered, Matched Resistors for Bipolar V <sub>OUT</sub> , 1μs Settling	I	3×3 DFN-10, MSOP-10	\$5.42
LTC2751-14	14	1	±1	±1	2	Parallel	Ext	Current	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	2.7 to 5.5	2.5μW	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	5×7 QFN-38	\$6.50

† Primary Sort Column  
 †† Secondary Sort Column

# DACs (ALL)

Part Number	† Bits	†† # DACs	DNL (LSB)	INL (LSB)	Settling Time (μs)	I/O	Int Ref	Output	Output Range	Supply (V)	Power (mW)	Comments	Ext. Temp.	Package-Pins	Price 1K Qty
LTC2753-14	14	2	±1	±1	2	Parallel	Ext	Current	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	2.7 to 5.5	2.5μW	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	7×7 QFN-48	\$9.10
LTC1654	14	2	±1	±4	8.5 or 3	Serial SPI	Ext	Voltage	0V to V <sub>REF</sub>	2.7 to 5.5	0.75 or 1.35	2 DACs in SO-8 Footprint	I	SSOP-16	\$8.95
LTC2612	14	2	±1	±16	9	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	1.8	Pin Compatible Family 10,12,16-Bit and Ultralow Crosstalk	I	MSOP-8	\$3.45
LTC2617	14	2	±1	±16	9	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	1.8	Pin Compatible Family 12,16-Bit and Ultralow Crosstalk	I	3×4 DFN-12	\$3.80
LTC2617-1	14	2	±1	±16	9	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	1.8	Reset to Mid-Scale	I	3×4 DFN-12	\$3.80
LTC2755-14	14	4	±1	±1	2	Parallel	Ext	Current	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	2.7 to 5.5	2.5μW	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	9×9 QFN-64	\$12.65
LTC2614	14	4	±1	±16	9	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	3	Pin Compatible Family 12,16-Bit and Ultralow Crosstalk	I	SSOP-16	\$7.00
LTC2619	14	4	±1	±16	9	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	3	Pin Compatible Family 12,16-Bit and Ultralow Crosstalk	I	SSOP-16	\$7.35
LTC2619-1	14	4	±1	±16	9	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	3	Reset to Mid-Scale	I	SSOP-16	\$7.35
LTC2704-14	14	4	±1	±1	9	Serial SPI	Ext	Voltage	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	±4.5 to ±16.5	263	SoftSpan, Force/Sense Outputs, Readback	I	SSOP-44	\$24.95
LTC2610	14	8	±1	±16	9	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	6	Pin Compatible Family 8,10,12,16-Bit and Ultralow Crosstalk	I	SSOP-16, 4×5 QFN-20	\$11.05
LTC2615	14	8	±1	±16	9	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	6	Pin Compatible Family 8,10,12,16-Bit and Ultralow Crosstalk	I	SSOP-16	\$11.60
LTC2615-1	14	8	±1	±16	9	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	6	Reset to Mid-Scale	I	SSOP-16	\$11.60
LTC2621	12	1	±0.5	±4	7	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	0.9	Pin Compatible Family 14-Bit and 16-Bit	I	3×3 DFN-10	\$1.95
LTC2621-1	12	1	±0.5	±4	7	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	0.9	Reset to Mid-Scale	I	3×3 DFN-10	\$1.95
LTC2626	12	1	±0.5	±4	7	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	0.8	Pin Compatible Family 14-Bit and 16-Bit	I	3×3 DFN-10	\$2.05
LTC2626-1	12	1	±0.5	±4	7	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	0.8	Reset to Mid-Scale	I	3×3 DFN-10	\$2.05
LTC2630A-12	12	1	±1	±1	4.5	Serial SPI	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>CC</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	SC70-6	\$1.43
LTC2640A-12	12	1	±1	±1	4.1	Serial SPI	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	TSOT-8	\$1.48
LTC2631A-12	12	1	±1	±1	4.1	I <sup>2</sup> C	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	TSOT-8	\$1.58
LTC8143	12	1	±0.5	±0.5	0.25	Serial SPI	Ext	Current	0V to V <sub>REF</sub>	5	0.55	Upgrade to 16-Bit with LTC1596, Multiplying	I	DIP-16, SO(W)-16	\$6.90
LTC8043	12	1	±0.5	±0.5	0.25	Serial SPI	Ext	Current	0V to V <sub>REF</sub>	5	2.5	Upgrade to 16-Bit with LTC1595, Multiplying	I	DIP-8, SO-8	\$4.80
LTC7545A	12	1	±0.5	±0.5	1	Parallel	Ext	Current	0V to V <sub>REF</sub>	5, 15	0.55	Microprocessor Compatible I/O, Multiplying	I	DIP-20, SO(W)-20	\$3.80
LTC7543	12	1	±0.5	±0.5	0.25	Serial SPI	Ext	Current	0V to V <sub>REF</sub>	5	0.55	Multiplying	I	DIP-16, SO(W)-16	\$6.90
LTC7541A	12	1	±0.5	±0.5	0.6	Parallel	Ext	Current	0V to V <sub>REF</sub>	5 to 16	0.55	Multiplying	I	DIP-18, SO(W)-18	\$3.65
LTC1666	12	1	±1	±1	20ns	Parallel	2.5V	Current	10mA	±5	180	50Msps, Pin Compatible 14-Bit and 16-Bit Devices	I	SSOP-28	\$8.05
LTC1659	12	1	±0.5	±5.5	14	Serial SPI	Ext	Voltage	0V to V <sub>REF</sub>	2.7 to 5.5	0.72	Single Supply, MSOP	I	MSOP-8, SO-8	\$4.45
LTC1588	12	1	±1	±1	2	Serial SPI	Ext	Current	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	5	55μW	Software-Selectable Output Ranges without External Resistors or Switches	I	SSOP-16	\$5.95
LTC1456	12	1	±0.5	±4	14	Serial SPI	2.048V	Voltage	0V to 4.096V	4.5 to 5.5	2.2	Clear Input	I	DIP-8, SO-8	\$4.50
LTC1453	12	1	±0.5	±4	14	Serial SPI	1.22V	Voltage	0V to 2.5V	2.7 to 5.5	0.75	3V to 5V Operation, 250μA I <sub>CC</sub>	I	DIP-8, SO-8	\$4.60
LTC1452	12	1	±0.5	±4	14	Serial SPI	Ext	Voltage	0V to 2(V <sub>REF</sub> )	2.7 to 5.5	0.68	3V to 5V Operation, 225μA I <sub>CC</sub>	I	DIP-8, SO-8	\$4.20
LTC1451	12	1	±0.5	±4	14	Serial SPI	2.048V	Voltage	0V to 4.096V	4.5 to 5.5	2	SO-8 Package, Single Supply	I	DIP-8, SO-8	\$4.50
LTC1450L	12	1	±0.5	±4	14	Parallel	1.22V	Voltage	0V to 2.5V/Ext V <sub>REF</sub>	2.7 to 5.5	0.75	Single 3V, Rail-to-Rail V <sub>OUT</sub>	I	SSOP-24, DIP-24	\$5.70
LTC1450	12	1	±0.5	±4	14	Parallel	2.048V	Voltage	0V to 4.096V/Ext V <sub>REF</sub>	4.5 to 5.5	2	Single 5V, Rail-to-Rail V <sub>OUT</sub>	I	SSOP-24, DIP-24	\$5.35
LTC1257	12	1	±0.5	±3.5	6	Serial SPI	2.048V	Voltage	0V to 2.048V or up to 12V	4.75 to 15.75	1.75	0V to 12V Out with Ext. Reference	I	DIP-8, SO-8	\$4.40
LTC2641-12	12	1	±0.5	±0.5	1	Serial SPI	Ext	Voltage	0V to V <sub>REF</sub>	2.7 to 5.5	0.36	Unbuffered Unipolar V <sub>OUT</sub> , 1μs Settling, Low Glitch Energy	I	3×3 DFN-8, MSOP-8	\$2.95
LTC2642-12	12	1	±0.5	±0.5	1	Serial SPI	Ext	Voltage	±V <sub>REF</sub>	2.7 to 5.5	0.36	Unbuffered, Matched Resistors for Bipolar V <sub>OUT</sub> , 1μs Settling	I	3×3 DFN-10, MSOP-10	\$2.95
LTC2751-12	12	1	±1	±1	2	Parallel	Ext	Current	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	2.7 to 5.5	2.5μW	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	5×7 QFN-38	\$4.95
LTC2753-12	12	2	±1	±1	2	Parallel	Ext	Current	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	2.7 to 5.5	2.5μW	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	7×7 QFN-48	\$5.95
LTC1590	12	2	±0.5	±0.5	0.3	Serial SPI	Ext	Current	0V to V <sub>REF</sub>	5	55μW	Dual, Multiplying, 0.5LSB Over Temp.	I	DIP-16, SO-16	\$6.25
LTC1454L	12	2	±0.5	±4.5	14	Serial SPI	1.22V	Voltage	0V to 2.5V/Ext V <sub>REF</sub>	2.7 to 5.5	1.35	Dual DAC, Separate Reference Inputs	I	DIP-16, SO-16	\$7.25
LTC1454	12	2	±0.5	±4.5	14	Serial SPI	2.048V	Voltage	0V to 4.096V/Ext V <sub>REF</sub>	4.5 to 5.5	3.5	Dual DAC, Separate Reference Inputs	I	DIP-16, SO-16	\$6.60
LTC1448	12	2	±0.5	±5.5	14	Serial SPI	Ext	Voltage	0V to V <sub>REF</sub>	2.7 to 5.5	1.35	Dual in SO-8, Single 3V or 5V Supply	I	DIP-8, SO-8	\$6.40
LTC1446L	12	2	±0.5	±5	14	Serial SPI	1.22V	Voltage	0V to 2.5V	2.7 to 5.5	1.95	Dual in SO-8, Single 3V Supply	I	DIP-8, SO-8	\$7.05

† Primary Sort Column  
 †† Secondary Sort Column

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Space, Military,  
Harsh Envir.

Reference  
Material





# DACs (ALL)

Part Number	†	††	DNL (LSB)	INL (LSB)	Settling Time (µs)	I/O	Int Ref	Output	Output Range	Supply (V)	Power (mW)	Comments	Ext. Temp.	Package-Pins	Price 1K Qty
LTC1446	12	2	±0.5	±5	14	Serial SPI	2.048V	Voltage	0V to 4.096V	4.5 to 5.5	5	Dual in SO-8, Single Supply	I	DIP-8, SO-8	\$6.40
LTC2622	12	2	±0.5	±4	7	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	1.8	Pin Compatible Family 10,14,16-Bit and Ultralow Crosstalk	I	MSOP-8	\$2.80
LTC2627	12	2	±0.5	±4	7	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	1.8	Pin Compatible Family 14,16-Bit and Ultralow Crosstalk	I	DFN-12	\$3.08
LTC2627-1	12	2	±0.5	±4	7	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	1.8	Reset to Mid-Scale	I	DFN-12	\$3.08
LTC2755-12	12	4	±1	±1	2	Parallel	Ext	Current	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	2.7 to 5.5	2.5µW	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	9×9 QFN-64	\$7.15
LTC1458L	12	4	±0.5	±4.5	14	Serial SPI	1.22V	Voltage	0V to 2.5V/Ext V <sub>REF</sub>	2.7 to 5.5	2.4	Quad DAC, Separate Reference Inputs	I	SSOP-28, SO(W)-28	\$12.95
LTC1458	12	4	±0.5	±4.5	14	Serial SPI	2.048V	Voltage	0V to 4.096V/Ext V <sub>REF</sub>	4.5 to 5.5	5.5	Quad DAC, Separate Reference Inputs	I	SSOP-28, SO(W)-28	\$11.75
<b>LTC2634-12</b>	<b>12</b>	<b>4</b>	<b>±1</b>	<b>±2.5</b>	<b>4.2</b>	<b>Serial SPI</b>	<b>1.25V</b>	<b>Voltage</b>	<b>0V to 2.5V, 0V to 4.096V, 0V to V<sub>REF</sub></b>	<b>2.7 to 5.5</b>	<b>2.4</b>	<b>Quad Rail-to-Rail Outputs, 10ppm/°C V<sub>REF</sub> Tempco, Zero-Scale or Mid-Scale Reset</b>	<b>I, H</b>	<b>3×3 QFN-10, MSOP-10</b>	<b>\$4.30</b>
LTC2624	12	4	±0.5	±4	7	Serial SPI	Ext	Voltage	0V to V <sub>CC</sub>	2.5 to 5.5	3	Pin Compatible Family 14,16-Bit and Ultralow Crosstalk	I	SSOP-16	\$5.25
LTC2629	12	4	±0.5	±4	7	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	3	Pin Compatible Family 14,16-Bit and Ultralow Crosstalk	I	SSOP-16	\$5.25
LTC2629-1	12	4	±0.5	±4	7	I <sup>2</sup> C	Ext	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	3	Reset to Mid-Scale	I	SSOP-16	\$5.25
LTC2704-12	12	4	±1	±1	8	Serial SPI	Ext	Voltage	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	±4.5 to ±16.5	263	SoftSpan, Force/Sense Outputs, Readback	I	SSOP-44	\$19.95
<b>LTC2656-12</b>	<b>12</b>	<b>8</b>	<b>±0.5</b>	<b>±1</b>	<b>5.5</b>	<b>Serial SPI</b>	<b>2.048V</b>	<b>Voltage</b>	<b>0V to 5V, 0V to 4.096V</b>	<b>4.5 to 5.5</b>	<b>17.5 (Max)</b>	<b>Octal, 10ppm/°C (Max) Internal Reference Tempco, Zero-Scale/ Mid-Scale Power-On Reset, SDO for Data Readback</b>	<b>I, H</b>	<b>4×5 QFN-20, TSSOP-20E</b>	<b>C.F.</b>
<b>LTC2656L-12</b>	<b>12</b>	<b>8</b>	<b>±0.5</b>	<b>±1</b>	<b>5.5</b>	<b>Serial SPI</b>	<b>1.25V</b>	<b>Voltage</b>	<b>0V to 5V, 0V to 2.048V</b>	<b>2.7 to 5.5</b>	<b>9.6 (Max)</b>	<b>Octal, 10ppm/°C (Max) Internal Reference Tempco, Zero-Scale/ Mid-Scale Power-On Reset, SDO for Data Readback</b>	<b>I</b>	<b>4×5 QFN-20, TSSOP-20E</b>	<b>C.F.</b>
LTC2620	12	8	±0.5	±4	7	Serial SPI	Ext	Voltage	0 to V <sub>CC</sub>	2.5 to 5.5	6	Pin Compatible Family 8,10,14,16-Bit and Ultralow Crosstalk	I	SSOP-16, 4×5 QFN-20	\$7.75
LTC2625	12	8	±0.5	±4	7	I <sup>2</sup> C	Ext	Voltage	0 to V <sub>CC</sub>	2.7 to 5.5	6	Pin Compatible Family 8,10,14,16-Bit and Ultralow Crosstalk	I	SSOP-16	\$8.14
LTC2625-1	12	8	±0.5	±4	7	I <sup>2</sup> C	Ext	Voltage	0 to V <sub>CC</sub>	2.7 to 5.5	6	Reset to Mid-Scale	I	SSOP-16	\$8.14
LTC2636-12	12	8	±1	±2	4.4	Serial SPI	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	3	Internal 2.5V or 4.096V Reference, Reset to Zero-Scale or Mid-Scale Options, <3.5nV-s Crosstalk	I, H	4×3 DFN-14, MSOP-16	\$7.75
LTC2630-10	10	1	±0.5	±1	4	Serial SPI	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>CC</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	SC70-6	\$1.24
LTC2640-10	10	1	±0.5	±1	3.8	Serial SPI	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	TSOT-8	\$1.29
LTC2631-10	10	1	±0.5	±1	3.8	I <sup>2</sup> C	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	TSOT-8	\$1.39
LTC1669	10	1	±0.75	±2.5	30	I <sup>2</sup> C	2.5V	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	0.375	2-Wire Interface, SOT-23	I	TSOT-5, MSOP-8	\$1.75
LTC1663	10	1	±0.75	±2.5	30	SMBus	2.5V	Voltage	0V to V <sub>CC</sub>	2.7 to 5.5	0.375	2-Wire Interface, SOT-23	I	TSOT-5, MSOP-8	\$1.75
LTC1427-50	10	1	±0.9			SMBus/I <sup>2</sup> C	Ext	Current	50µA sourcing	2.7 to 5.5	0.55	Ideal for Digital Voltage Adjustment on DC/DC Converters	I	SO-8	\$3.00
LTC1662	10	2	±0.75	±4	750	Serial SPI	Ext	Voltage	0V to V <sub>REF</sub>	2.7 to 5.5	7.5µW	1.5µA per DAC, Dual	I	MSOP-8, DIP-8	\$2.65
LTC1661	10	2	±0.75	±2	30	Serial SPI	Ext	Voltage	0V to V <sub>REF</sub>	2.7 to 5.5	0.29	Dual in MSOP	I	MSOP-8, DIP-8	\$1.65
<b>LTC2634-10</b>	<b>10</b>	<b>4</b>	<b>±0.5</b>	<b>±1</b>	<b>3.8</b>	<b>Serial SPI</b>	<b>1.25V</b>	<b>Voltage</b>	<b>0V to 2.5V, 0V to 4.096V, 0V to V<sub>REF</sub></b>	<b>2.7 to 5.5</b>	<b>2.4</b>	<b>Quad Rail-to-Rail Outputs, 10ppm/°C V<sub>REF</sub> Tempco, Zero-Scale or Mid-Scale Reset</b>	<b>I, H</b>	<b>3×3 QFN-10, MSOP-10</b>	<b>\$3.07</b>
LTC1664	10	4	±0.75	±2.5	19	Serial SPI	Ext	Voltage	0V to V <sub>REF</sub>	2.7 to 5.5	1	Quad V <sub>OUT</sub> , 60µA per DAC	I	SSOP-16, DIP-16	\$2.95
LTC1660	10	8	±0.75	±2.5	30	Serial SPI	Ext	Voltage	0V to V <sub>REF</sub>	2.7 to 5.5	1	Pin Compatible Family 8,12,14,16-Bit and 60µA per DAC	I	SSOP-16, DIP-16	\$5.35
LTC2636-10	10	8	±0.5	±1	4	Serial SPI	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	3	Internal 2.5V or 4.096V Reference, Reset to Zero-Scale or Mid-Scale Options, <3.5nV-s Crosstalk	I, H	4×3 DFN-14, MSOP-16	\$4.50
LTC2630-8	8	1	±0.5	±0.5	3.5	Serial SPI	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>CC</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	SC70-6	\$0.98
LTC2640-8	8	1	±0.5	±0.5	3.2	Serial SPI	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	TSOT-8	\$1.03
LTC2631-8	8	1	±0.5	±0.5	3.2	I <sup>2</sup> C	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	TSOT-8	\$1.13
LTC1428-50	8	1	±0.9			Pulse Mode	Ext	Current	50µA sinking	3 to 6.5	0.39	Ideal for Digital Voltage Adjustment on DC/DC Converters	I	SO-8	\$2.55
LTC1329-50	8	1	±0.9			Pulse Mode	Ext	Current	50µA sourcing	2.7 to 6.5	0.84	Ideal for Digital Voltage Adjustment on DC/DC Converters	I	SO-8	\$2.55
LTC1329-10	8	1	±0.9			Pulse Mode	Ext	Current	10µA sourcing	2.7 to 6.5	0.14	Ideal for Digital Voltage Adjustment on DC/DC Converters	I	SO-8	\$2.55
LTC1840	8	2	±0.9	±4		I <sup>2</sup> C	Ext	Current	100µA sourcing	2.7 to 5.75	2.5	Ideal for Digital Voltage Adjustment on DC/DC Converters	I	SSOP-16	\$2.75
<b>LTC2634-8</b>	<b>8</b>	<b>4</b>	<b>±0.5</b>	<b>±0.5</b>	<b>3.3</b>	<b>Serial SPI</b>	<b>1.25V</b>	<b>Voltage</b>	<b>0V to 2.5V, 0V to 4.096V, 0V to V<sub>REF</sub></b>	<b>2.7 to 5.5</b>	<b>2.4</b>	<b>Quad Rail-to-Rail Outputs, 10ppm/°C V<sub>REF</sub> Tempco, Zero-Scale or Mid-Scale Reset</b>	<b>I, H</b>	<b>3×3 QFN-10, MSOP-10</b>	<b>\$2.03</b>
LTC1665	8	8	±0.5	±1	30	Serial SPI	Ext	Voltage	0V to V <sub>REF</sub>	2.7 to 5.5	1	Pin Compatible Family 10,12,14,16-Bit and 60µA Per DAC	I	SSOP-16, DIP-16	\$3.00
LTC2636-8	8	8	±0.5	±0.5	3.4	Serial SPI	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	3	Internal 2.5V or 4.096V Reference, Reset to Zero-Scale or Mid-Scale Options, <3.5nV-s Crosstalk	I, H	4×3 DFN-14, MSOP-16	\$2.85

† Primary Sort Column  
 †† Secondary Sort Column



Part Number	† Bits	Speed Msps	DNL (LSB)	INL (LSB)	Setting Time (μs)	SFDR (dB)	THD (dB)	Glitch Impulse (pVs)	I <sub>out</sub> Full-scale (mA)	Supply (V)	Power (mW)	Comments	Ext. Temp.	Package-Pins	Price 1K Qty
LTC1668	16	50	±4	±8	20	78	-84	5	10	±5	180	Differential Current Output	I	SSOP-28	\$13.75
LTC1667	14	50	±1	±2	20	78	-84	5	10	±5	180	Differential Current Output	I	SSOP-28	\$10.80
LTC1666	12	50	±1	±1	20	76	-84	5	10	±5	180	Differential Current Output	I	SSOP-28	\$8.05

† Primary Sort Column

V<sub>OUT</sub> DACs

Part Number	† Bits	# DACs	DNL (LSB)	INL (LSB)	Setting Time (μs)	I/O	Int Ref	Output Range	Supply (V)	Power (mW)	Comments	Ext. Temp.	Package-Pins	Price 1K Qty
LTC2601	16	1	±1	±64	10	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	0.9	Pin Compatible Family 12-Bit and 14-Bit	I	3×3 DFN-10	\$2.70
LTC2601-1	16	1	±1	±64	10	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	0.9	Reset to Mid-Scale	I	3×3 DFN-10	\$2.70
LTC2606	16	1	±1	±64	10	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	0.8	Pin Compatible Family 12-Bit and 14-Bit	I	3×3 DFN-10	\$2.84
LTC2606-1	16	1	±1	±64	10	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	0.8	Reset to Mid-Scale	I	3×3 DFN-10	\$2.84
LTC1821	16	1	±1	±1	2	Parallel	Ext	0V to 10V, 0V to -10V, ±10V	5 and up to ±15	40	Fast Settling to 16-Bit Precision	I	SSOP-36	\$29.95
LTC1657L	16	1	±1	±12	20	Parallel	1.25V	0V to 2.048V	2.7 to 5.5		Single 3V, Rail-to-Rail V <sub>OUT</sub>	I	SSOP-28, DIP-28	\$9.50
LTC1657	16	1	±1	±12	20	Parallel	2.048V	0V to 4.096V	4.5 to 5.5	3	Single 5V, Rail-to-Rail V <sub>OUT</sub>	I	SSOP-28, DIP-28	\$8.60
LTC1655L	16	1	±1	±20	20	Serial SPI	1.25V	0V to 2.5V	2.7 to 5.5	1.6	SO-8 Package, 3V Single Supply	I	DIP-8, SO-8	\$8.80
LTC1655	16	1	±1	±20	20	Serial SPI	2.048V	0V to 4.096V	4.5 to 5.5	2.6	SO-8 Package, Single Supply	I	DIP-8, SO-8	\$7.95
LTC1650	16	1	±0.5	±8	4	Serial SPI	Ext	±5V	±5	50	Ultralow Noise, Deglitched	I	DIP-16, SO(W)-16	\$11.20
LTC2641-16	16	1	±1	±1	1	Serial SPI	Ext	0V to V <sub>REF</sub>	2.7 to 5.5	0.36	Unbuffered Unipolar Output, Fast 1μs Settling, Low Glitch	I	3×3 DFN-8, MSOP-8	\$6.25
LTC2642-16	16	1	±1	±1	1	Serial SPI	Ext	±V <sub>REF</sub>	2.7 to 5.5	0.36	Unbuffered Bipolar Output, Fast 1μs Settling, Low Glitch	I	3×3 DFN-10, MSOP-10	\$6.25
LTC2602	16	2	±1	±64	10	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	1.8	Pin Compatible Family 10,12,14-Bit and Ultralow Crosstalk	I	MSOP-8, SO-8	\$4.75
LTC2607	16	2	±1	±64	10	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	1.8	Pin Compatible Family 12,14-Bit and Ultralow Crosstalk	I	3×4 DFN-12	\$5.23
LTC2607-1	16	2	±1	±64	10	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	1.8	Reset to Mid-Scale	I	3×4 DFN-12	\$5.23
LTC2604	16	4	±1	±64	10	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	3	Pin Compatible Family 12,14-Bit and Ultralow Crosstalk	I	SSOP-16	\$9.50
LTC2609	16	4	±1	±64	10	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	3	Pin Compatible Family 12,14-Bit and Ultralow Crosstalk	I	SSOP-16	\$9.50
LTC2609-1	16	4	±1	±64	10	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	3	Reset to Mid-Scale	I	SSOP-16	\$9.50
LTC2704-16	16	4	±1	±2	10	Serial SPI	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	±4.5 to ±16.5	263	SoftSpan, Force/Sense Outputs, Readback	I	SSOP-44	\$29.95
<b>LTC2656-16</b>	<b>16</b>	<b>8</b>	<b>±1</b>	<b>±2</b>	<b>8.5</b>	<b>Serial SPI</b>	<b>2.048V</b>	<b>0V to 5V, 0V to 4.096V</b>	<b>4.5 to 5.5</b>	<b>17.5 (Max)</b>	<b>Octal, 10ppm/°C (Max) Internal Reference Tempco, Zero-Scale/Mid-Scale Power-On Reset, SDO for Data Readback</b>	<b>I, H</b>	<b>4×5 QFN-20, TSSOP-20E</b>	<b>C.F.</b>
<b>LTC2656L-16</b>	<b>16</b>	<b>8</b>	<b>±1</b>	<b>±2</b>	<b>8.5</b>	<b>Serial SPI</b>	<b>1.25V</b>	<b>0V to 5V, 0V to 2.048V</b>	<b>2.7 to 5.5</b>	<b>9.6 (Max)</b>	<b>Octal, 10ppm/°C (Max) Internal Reference Tempco, Zero-Scale/Mid-Scale Power-On Reset, SDO for Data Readback</b>	<b>I, H</b>	<b>4×5 QFN-20, TSSOP-20E</b>	<b>C.F.</b>
LTC2600	16	8	±1	±64	10	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	6	Pin Compatible Family 8,10,12,14-Bit and Ultralow Crosstalk	I	SSOP-16, 4×5 QFN-20	\$14.00
LTC2605	16	8	±1	±64	10	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	6	Pin Compatible Family 12,14-Bit and Ultralow Crosstalk	I	SSOP-16	\$14.70
LTC2605-1	16	8	±1	±64	10	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	6	Reset to Mid-Scale	I	SSOP-16	\$14.70
LTC2611	14	1	±1	±16	9	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	0.9	Pin Compatible Family 12-Bit and 16-Bit	I	3×3 DFN-10	\$2.25
LTC2611-1	14	1	±1	±16	9	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	0.9	Reset to Mid-Scale	I	3×3 DFN-10	\$2.25
LTC2616	14	1	±1	±16	9	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	0.8	Pin Compatible Family 12-Bit and 16-Bit	I	3×3 DFN-10	\$2.36
LTC2616-1	14	1	±1	±16	9	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	0.8	Reset to Mid-Scale	I	3×3 DFN-10	\$2.36
LTC1658	14	1	±1	±8	12	Serial SPI	Ext	0V to V <sub>REF</sub>	2.7 to 5.5	3	Single Supply, MSOP	I	MSOP-8, SO-8	\$4.80
LTC2641-14	14	1	±1	±1	1	Serial SPI	Ext	0V to V <sub>REF</sub>	2.7 to 5.5	0.36	Unbuffered Unipolar Output, Fast 1μs Settling, Low Glitch	I	3×3 DFN-8, MSOP-8	\$5.42
LTC2642-14	14	1	±1	±1	1	Serial SPI	Ext	±V <sub>REF</sub>	2.7 to 5.5	0.36	Unbuffered Bipolar Output, Fast 1μs Settling, Low Glitch	I	3×3 DFN-10, MSOP-10	\$5.42
LTC1654	14	2	±1	±4	3	Serial SPI	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	6.5	Low Power per DAC	I	SSOP-16	\$8.95
LTC2612	14	2	±1	±16	9	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	1.8	Pin Compatible Family 10,12,16-Bit and Ultralow Crosstalk	I	MSOP-8	\$3.45
LTC2617	14	2	±1	±16	9	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	1.8	Pin Compatible Family 12,16-Bit and Ultralow Crosstalk	I	3×4 DFN-12	\$3.80
LTC2617-1	14	2	±1	±16	9	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	1.8	Reset to Mid-Scale	I	3×4 DFN-12	\$3.80
LTC2614	14	4	±1	±16	9	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	3	Pin Compatible Family 12,16-Bit and Ultralow Crosstalk	I	SSOP-16	\$7.00
LTC2619	14	4	±1	±16	9	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	3	Pin Compatible Family 12,16-Bit and Ultralow Crosstalk	I	SSOP-16	\$7.35
LTC2619-1	14	4	±1	±16	9	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	3	Reset to Mid-Scale	I	SSOP-16	\$7.35

† Primary Sort Column

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# V<sub>OUT</sub> DACs

Part Number	† Bits	# DACs	DNL (LSB)	INL (LSB)	Settling Time (μs)	I/O	Int Ref	Output Range	Supply (V)	Power (mW)	Comments	Ext. Temp.	Package-Pins	Price 1K Qty
LTC2704-14	14	4	±1	±1	9	Serial SPI	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	±4.5 to ±16.5	263	SoftSpan, Force/Sense Outputs, Readback	I	SSOP-44	\$24.95
LTC2610	14	8	±1	±16	9	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	6	Pin Compatible Family 8,10,12,16-Bit and Ultralow Crosstalk	I	SSOP-16, 4x5 QFN-20	\$11.05
LTC2615	14	8	±1	±16	9	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	6	Pin Compatible Family 12,16-Bit and Ultralow Crosstalk	I	SSOP-16	\$11.60
LTC2615-1	14	8	±1	±16	9	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	6	Reset to Mid-Scale	I	SSOP-16	\$11.60
LTC2621	12	1	±0.5	±4	7	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	0.9	Pin Compatible Family 14-Bit and 16-Bit	I	3x3 DFN-10	\$1.95
LTC2621-1	12	1	±0.5	±4	7	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	0.9	Reset to Mid-Scale	I	3x3 DFN-10	\$1.95
LTC2626	12	1	±0.5	±4	7	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	0.8	Pin Compatible Family 14-Bit and 16-Bit	I	3x3 DFN-10	\$2.05
LTC2626-1	12	1	±0.5	±4	7	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	0.8	Reset to Mid-Scale	I	3x3 DFN-10	\$2.05
LTC2630A-12	12	1	±1	±1	4.5	Serial SPI	Int	0V to 2.5V, 0V to 4.096V, 0V to V <sub>CC</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V Reference Options, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	SC70-6	\$1.43
LTC2640A-12	12	1	±1	±1	4.1	Serial SPI	Int	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	TSOT-8	\$1.48
LTC2631A-12	12	1	±1	±1	4.1	I <sup>2</sup> C	Int	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	TSOT-8	\$1.58
LTC1456	12	1	±0.5	±4	14	Serial SPI	2.048V	0V to 4.096V	4.5 to 5.5	2.2	Clear Input	I	DIP-8, SO-8	\$4.50
LTC1453	12	1	±0.5	±4	14	Serial SPI	1.22V	0V to 2.5V	2.7 to 5.5	0.75	SO-8 Package, Single 3V Supply	I	DIP-8, SO-8	\$4.60
LTC1452	12	1	±0.5	±4	14	Serial SPI	Ext	0V to 2(V <sub>REF</sub> )	2.7 to 5.5	0.68	3V to 5V Operation, 225μA I <sub>CC</sub>	I	DIP-8, SO-8	\$4.20
LTC1451	12	1	±0.5	±4	14	Serial SPI	2.048V	0V to 4.096V	4.5 to 5.5	2	SO-8 Package, Single Supply	I	DIP-8, SO-8	\$4.50
LTC1450L	12	1	±0.5	±4	14	Parallel	1.22V	0V to 2.5V/Ext V <sub>REF</sub>	2.7 to 5.5	0.75	Single 3V, Rail-to-Rail V <sub>OUT</sub>	I	SSOP-24, DIP-24	\$5.70
LTC1450	12	1	±0.5	±4	14	Parallel	2.048V	0V to 4.096V/Ext V <sub>REF</sub>	4.5 to 5.5	2	Single 5V, Rail-to-Rail V <sub>OUT</sub>	I	SSOP-24, DIP-24	\$5.35
LTC1257	12	1	±0.5	±3.5	6	Serial SPI	2.048V	0V to 2.048V or up to 12V	4.5 to 15	1.75	0V to 12V Out with Ext. Reference	I	DIP-8, SO-8	\$4.40
LTC2641-12	12	1	±0.5	±0.5	1	Serial SPI	Ext	0V to V <sub>REF</sub>	2.7 to 5.5	0.36	Unbuffered Unipolar Output, Fast 1μs Settling, Low Glitch	I	3x3 DFN-8, MSOP-8	\$2.95
LTC2642-12	12	1	±0.5	±0.5	1	Serial SPI	Ext	±V <sub>REF</sub>	2.7 to 5.5	0.36	Unbuffered Bipolar Output, Fast 1μs Settling, Low Glitch	I	3x3 DFN-10, MSOP-10	\$2.95
LTC1454L	12	2	±0.5	±4.5	14	Serial SPI	1.22V	0V to 2.5V/Ext V <sub>REF</sub>	2.7 to 5.5	1.35	Dual DAC, Separate Reference Inputs	I	DIP-16, SO-16	\$7.25
LTC1454	12	2	±0.5	±4.5	14	Serial SPI	2.048V	0V to 4.096V/Ext V <sub>REF</sub>	4.5 to 5.5	3.5	Dual DAC, Separate Reference Inputs	I	DIP-16, SO-16	\$6.60
LTC1659	12	1	±0.5	±5.5	14	Serial SPI	Ext	0V to V <sub>REF</sub>	2.7 to 5.5	0.72	Single Supply, MSOP	I	MSOP-8, SO-8	\$4.45
LTC1446L	12	2	±0.5	±5	14	Serial SPI	1.22V	0V to 2.5V	2.7 to 5.5	1.95	Dual in SO-8, Single 3V Supply	I	DIP-8, SO-8	\$7.05
LTC1446	12	2	±0.5	±5	14	Serial SPI	2.048V	0V to 4.096V	4.5 to 5.5	5	Dual in SO-8, Single Supply	I	DIP-8, SO-8	\$6.40
LTC2622	12	2	±0.5	±4	7	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	1.8	Pin Compatible Family 10,14,16-Bit and Ultralow Crosstalk	I	MSOP-8, DIP-8	\$2.80
LTC2627	12	2	±0.5	±4	7	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	1.8	Pin Compatible Family 12,16-Bit and Ultralow Crosstalk	I	3x4 DFN-12	\$3.08
LTC2627-1	12	2	±0.5	±4	7	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	1.8	Reset to Mid-Scale	I	3x4 DFN-12	\$3.08
LTC2624	12	4	±0.5	±4	7	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	3	Pin Compatible Family 14,16-Bit and Ultralow Crosstalk	I	SSOP-16	\$5.25
LTC2629	12	4	±0.5	±4	7	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	3	Pin Compatible Family 14,16-Bit and Ultralow Crosstalk	I	SSOP-16	\$5.25
LTC2629-1	12	4	±0.5	±4	7	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	3	Reset to Mid-Scale	I	SSOP-16	\$5.25
LTC2704-12	12	4	±1	±1	8	Serial SPI	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V	±4.5 to ±16.5	263	SoftSpan, Force/Sense Outputs, Readback	I	SSOP-44	\$19.95
LTC2634-12	12	4	±1	±2.5	4.2	Serial SPI	Ext	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	2.4	Quad, Rail-to-Rail Outputs with 10ppm/°C V <sub>REF</sub> Tempco, Zero-Scale or Mid-Scale Reset	I, H	3x3 QFN-10, MSOP-10	\$4.30
LTC1458L	12	4	±0.5	±4.5	14	Serial SPI	1.22V	0V to 2.5V/Ext V <sub>REF</sub>	2.7 to 5.5	2.4	Quad DAC, Separate Reference Inputs	I	SSOP-28, SO(W)-28	\$12.95
LTC1458	12	4	±0.5	±4.5	14	Serial SPI	2.048V	0V to 4.096V/Ext V <sub>REF</sub>	4.5 to 5.5	5.5	Quad DAC, Separate Reference Inputs	I	SSOP-28, SO(W)-28	\$11.75
LTC2656-12	12	8	±0.5	±1	5.5	Serial SPI	2.048V or Ext	0V to 5V, 0V to 4.096V	4.5 to 5.5	17.5 (Max)	Octal, 10ppm/°C (Max) Internal Reference Tempco, Zero-Scale/Mid-Scale Power-On Reset, SDO for Data Readback	I, H	4x5 QFN-20, TSSOP-20E	C.F.
LTC2656L-12	12	8	±0.5	±1	5.5	Serial SPI	1.25V or Ext	0V to 5V, 0V to 2.048V	2.7 to 5.5	9.6 (Max)	Octal, 10ppm/°C (Max) Internal Reference Tempco, Zero-Scale/Mid-Scale Power-On Reset, SDO for Data Readback	I, H	4x5 QFN-20, TSSOP-20E	C.F.
LTC2620	12	8	±0.5	±4	7	Serial SPI	Ext	0V to V <sub>CC</sub>	2.5 to 5.5	6	Pin Compatible Family 8,10,14,16-Bit and Ultralow Crosstalk	I	SSOP-16, 4x5 QFN-20	\$7.75
LTC2625	12	8	±0.5	±4	7	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	6	Pin Compatible Family 14,16-Bit and Ultralow Crosstalk	I	SSOP-16	\$8.14
LTC2625-1	12	8	±0.5	±4	7	I <sup>2</sup> C	Ext	0V to V <sub>CC</sub>	2.7 to 5.5	6	Reset to Mid-Scale	I	SSOP-16	\$8.14
LTC2636-12	12	8	±1	±2	4.4	Serial SPI	Int	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	3	Internal 2.5V or 4.096V Reference, Reset to Zero-Scale or Mid-Scale Options, <3.5nV-s Crosstalk	I, H	4x3 DFN-14, MSOP-16	\$7.75
LTC2630-10	10	1	±0.5	±1	4	Serial SPI	Int	0V to 2.5V, 0V to 4.096V, 0V to V <sub>CC</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V Reference Options, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	SC70-6	\$1.24
LTC2640-10	10	1	±0.5	±1	4	Serial SPI	Int	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	TSOT-8	\$1.29
LTC2631-10	10	1	±0.5	±1	4	I <sup>2</sup> C	Int	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	TSOT-8	\$1.39

† Primary Sort Column

Part Number	† Bits	# DACs	DNL (LSB)	INL (LSB)	Settling Time (μs)	I/O	Int Ref	Output Range	Supply (V)	Power (mW)	Comments	Ext. Temp.	Package-Pins	Price 1K Qty
LTC1669	10	1	±0.75	±2.5	30	Serial I <sup>2</sup> C	2.5V	0V to V <sub>CC</sub>	2.7 to 5.5	0.375	2-Wire Interface, SOT-23	I	TSOT-8, MSOP-8	\$1.75
LTC1663	10	1	±0.75	±2.5	30	Serial SMBus	2.5V	0V to V <sub>CC</sub>	2.7 to 5.5	0.375	2-Wire Interface, SOT-23	I	TSOT-8, MSOP-8	\$1.75
LTC1662	10	2	±0.75	±4	750	Serial SPI	Ext	0V to V <sub>REF</sub>	2.7 to 5.5	7.5μW	1.5μA per DAC, Dual	I	MSOP-8, DIP-8	\$2.65
LTC1661	10	2	±0.75	±2	30	Serial SPI	Ext	0V to V <sub>REF</sub>	2.7 to 5.5	0.29	Dual in MSOP	I	MSOP-8, DIP-8	\$1.65
<b>LTC2634-10</b>	<b>10</b>	<b>4</b>	<b>±0.5</b>	<b>±1</b>	<b>3.8</b>	<b>Serial SPI</b>		<b>0V to 2.5V, 0V to 4.096V, 0V to V<sub>REF</sub></b>	<b>2.7 to 5.5</b>	<b>2.4</b>	<b>Quad, Rail-to-Rail Outputs with 10ppm/°C V<sub>REF</sub> Tempco, Zero-Scale or Mid-Scale Reset</b>	<b>I, H</b>	<b>3×3 QFN-10, MSOP-10</b>	<b>\$3.07</b>
LTC1664	10	4	±0.75	±2.5	19	Serial SPI	Ext	0V to V <sub>REF</sub>	2.7 to 5.5	1	Quad V <sub>OUT</sub> , 60μA per DAC	I	SSOP-16, DIP-16	\$2.95
LTC1660	10	8	±0.75	±2.5	30	Serial SPI	Ext	0V to V <sub>REF</sub>	2.7 to 5.5	1	Pin Compatible Family 8,12,14,16-Bit and 60μA per DAC	I	SSOP-16, DIP-16	\$5.35
LTC2636-10	10	8	±0.5	±1	4	Serial SPI	Int	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	3	Internal 2.5V or 4.096V Reference, Reset to Zero-Scale or Mid-Scale Options, <3.5nV-s Crosstalk	I, H	4×3 DFN-14, MSOP-16	\$4.50
LTC2630-8	8	1	±0.5	±0.5	3.5	Serial SPI	Int	0V to 2.5V, 0V to 4.096V, 0V to V <sub>CC</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V Reference Options, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	SC70-6	\$0.98
LTC2640-8	8	1	±0.5	±0.5	3.2	Serial SPI	Int	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	TSOT-8	\$1.03
LTC2631-8	8	1	±0.5	±0.5	3.2	I <sup>2</sup> C	Int	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V Reference Bonded Out, Reset to Zero-Scale or Mid-Scale Options, H-Grade	I, H	TSOT-8	\$1.13
<b>LTC2634-8</b>	<b>8</b>	<b>4</b>	<b>±0.5</b>	<b>±0.5</b>	<b>3.3</b>	<b>Serial SPI</b>		<b>0V to 2.5V, 0V to 4.096V, 0V to V<sub>REF</sub></b>	<b>2.7 to 5.5</b>	<b>2.4</b>	<b>Quad, Rail-to-Rail Outputs with 10ppm/°C V<sub>REF</sub> Tempco, Zero-Scale or Mid-Scale Reset</b>	<b>I, H</b>	<b>3×3 QFN-10, MSOP-10</b>	<b>\$2.03</b>
LTC1665	8	8	±0.5	±1	30	Serial SPI	Ext	0V to V <sub>REF</sub>	2.7 to 5.5	1	Pin Compatible Family 10,12,14,16-Bit and 60μA per DAC	I	SSOP-16, DIP-16	\$3.00
LTC2636-8	8	8	±0.5	±0.5	3.4	Serial SPI	Int	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	3	Internal 2.5V or 4.096V Reference, Reset to Zero-Scale or Mid-Scale Options, <3.5nV-s Crosstalk	I, H	4×3 DFN-14, MSOP-16	\$2.85

† Primary Sort Column

CURRENT OUTPUT DACs

Part Number	† Bits	# DACs	DNL (LSB)	INL (LSB)	Settling Time (μs)	I/O	Int Ref	Output Range	Supply (V)	Power (μW)	Comments	Ext. Temp.	Package-Pins	Price 1K Qty
LTC1599	16	1	±1	±1	1	Parallel	Ext	0V to 10V, 0V to -10V, ±10V	5	55	Byte Wide Input, On-Chip Resistors for 4-Quadrant Multiplication	I	SSOP-24	\$15.90
LTC1597	16	1	±1	±1	1	Parallel	Ext	0V to 10V, 0V to -10V, ±10V	5	55	On-Chip Resistors, LTC1597-1 Resets to Mid-Scale	I	SSOP-28, DIP-28	\$15.90
LTC1596	16	1	±1	±1	1	Serial SPI	Ext	0V to V <sub>REF</sub>	5	55	LTC1596-1 Resets to Mid-Scale, 8143 Pinout	I	DIP-16, SQ(W)-16	\$12.75
LTC1595	16	1	±1	±1	1	Serial SPI	Ext	0V to V <sub>REF</sub>	5	55	SO-8, Multiplying, 8043 Pinout	I	DIP-8, SO-8	\$12.25
LTC1592	16	1	±1	±1	2	Serial SPI	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V	5	55	Software-Selectable Output Ranges without External Resistors or Switches	I	SSOP-16	\$13.95
LTC2751-16	16	1	±1	±1	2	Parallel	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V	2.7 to 5.5	2.5	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	5×7 QFN-38	\$8.50
LTC2753-16	16	2	±1	±1	2	Parallel	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V	2.7 to 5.5	2.5	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	7×7 QFN-48	\$11.90
LTC2755-16	16	4	±1	±1	2	Parallel	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V	2.7 to 5.5	2.5	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	9×9 QFN-64	\$17.85
LTC1591	14	1	±1	±1	1	Parallel	Ext	0V to 10V, 0V to -10V, ±10V	5	55	On-Chip Resistors, LTC1591-1 Resets to Mid-Scale, LTC1597 Pinout	I	SSOP-28, DIP-28	\$8.95
LTC1589	14	1	±1	±1	2	Serial SPI	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V	5	55	Software-Selectable Output Ranges without External Resistors or Switches	I	SSOP-16	\$9.95
LTC2751-14	14	1	±1	±1	2	Parallel	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V	2.7 to 5.5	2.5	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	5×7 QFN-38	\$6.50
LTC2753-14	14	2	±1	±1	2	Parallel	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V	2.7 to 5.5	2.5	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	7×7 QFN-48	\$9.10
LTC2755-14	14	4	±1	±1	2	Parallel	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V	2.7 to 5.5	2.5	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	9×9 QFN-64	\$12.65
LTC2751-12	12	1	±1	±1	2	Parallel	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V	2.7 to 5.5	2.5	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	5×7 QFN-38	\$4.95
LTC1588	12	1	±1	±1	2	Serial SPI	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V	5	55	Software-Selectable Output Ranges without External Resistors or Switches	I	SSOP-16	\$5.95

† Primary Sort Column



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

## CURRENT OUTPUT DACs

Part Number	† Bits	# DACs	DNL (LSB)	INL (LSB)	Settling Time (μs)	I/O	Int Ref	Output Range	Supply (V)	Power (μW)	Comments	Ext. Temp.	Package-Pins	Price 1K Qty
LTC8143	12	1	±0.5	±0.5	0.25	Serial	Ext	0V to V <sub>REF</sub>	5	0.55mW	Upgrade to 16-Bit with LTC1596, Multiplying	I	DIP, SO(W)-16	\$6.90
LTC8043	12	1	±0.5	±0.5	0.25	Serial	Ext	0V to V <sub>REF</sub>	5	2.5mW	Upgrade to 16-Bit with LTC1595, Multiplying	I	DIP-8, SO-8	\$4.80
LTC7545A	12	1	±0.5	±0.5	1	Parallel	Ext	0V to V <sub>REF</sub>	5	0.55mW	Microprocessor Compatible I/O, Multiplying	I	DIP-20, SO(W)-20	\$3.80
LTC7543	12	1	±0.5	±0.5	0.25	Serial	Ext	0V to V <sub>REF</sub>	5	0.55mW	Multiplying	I	DIP-16, SO(W)-16	\$6.70
LTC7541A	12	1	±0.5	±0.5	0.6	Parallel	Ext	0V to V <sub>REF</sub>	5	0.55mW	Multiplying	I	DIP-18, SO(W)-18	\$3.65
LTC2753-12	12	2	±1	±1	2	Parallel	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V	2.7 to 5.5	2.5	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	7×7 QFN-48	\$5.95
LTC1590	12	2	±0.5	±0.5	1.5	Serial SPI	Ext	0V to V <sub>REF</sub>	5	55	Dual, Multiplying, 0.5LSB Over Temp.	I	DIP-16, SO-16	\$6.25
LTC2755-12	12	4	±1	±1	2	Parallel	Ext	0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V	2.7 to 5.5	2.5	Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse	I	9×9 QFN-64	\$7.15

† Primary Sort Column

## SPECIAL FUNCTION DACs

Part Number	† Bits	# DACs	DNL (LSB)	I/O	Int Ref	Output Range	Supply (V)	Power (mW)	Comments	Ext. Temp.	Package-Pins	Price 1K Qty
LTC1427-50	10	1	±0.9	SMBus/I <sup>2</sup> C	Ext	50μA sourcing	2.7 to 5.5	0.55	Ideal For Digital Voltage Adjustment on DC/DC Converters		SO-8	\$3.00
LTC1428-50	8	1	±0.9	Pulse Mode	Ext	50μA sourcing	3 to 6.5	0.12	Ideal For Digital Voltage Adjustment on DC/DC Converters		SO-8	\$2.55
LTC1329-50	8	1	±0.9	Pulse Mode	Ext	50μA sourcing	2.7 to 6.5	0.84	Ideal For Digital Voltage Adjustment on DC/DC Converters	I	SO-8	\$2.55
LTC1329-10	8	1	±0.9	Pulse Mode	Ext	10μA sourcing	2.7 to 6.5	0.14	Ideal For Digital Voltage Adjustment on DC/DC Converters		SO-8	\$2.55
LTC1840	8	2	±0.9	SMBus/I <sup>2</sup> C	Int	100μA sourcing	2.7 to 5.5	1.2	Fan Speed Controller with Two Tach Inputs and Four General Purpose I/O	I	SSOP-16	\$2.75

† Primary Sort Column

## MIXED SIGNAL MODULES

Part Number	Description	Integrated Components				IF Range	Gain Options (dB)	Output	Supply Voltage (V)	Power (Typ) (W)	Package	Price 1K Qty
		ADC	ADC Driver	Passive Filter								
LTM9001	16-/14-Bit IF Baseband Receiver Subsystem	16-Bit or 14-Bit, to 130Msps	√	√	To 300MHz	8, 14, 20 or 26	LVDS or CMOS	3.3	1.65	11.25×11.25×2.32 LGA	\$82.00	

## MUXes AND SWITCHES

Part Number	† # Channels	R <sub>ON</sub> (ohms)	Turn-On-Time (ms)	Supply Voltage (V)	Digital I/O	Features	Ext. Temp.	Package-Pins	Price 1K Qty
LTC1380	8	35	850	3 to ±5	SMBus/I <sup>2</sup> C	Precision Low Power, Break-Before-Make, SMBus/I <sup>2</sup> C 2-Wire Interface	I	SO-16, SSOP-16	\$2.95
LTC1390	8	45	260	3 to ±5	Serial, Bidirectional	Precision Low Power, Break-Before-Make, Bidirectional Serial Interface		DIP-16, SO-16	\$2.30
LTC1391	8	45	260	3 to ±5	Serial, SPI	Precision Low Power, Break-Before-Make, 3-Wire Serial SPI Interface	I	DIP-16, SSOP-16, SO-16	\$2.30
LTC1393	4 (differential)	70	850	3 to ±5	SMBus/I <sup>2</sup> C	Precision Low Power, Break-Before-Make, SMBus/I <sup>2</sup> C 2-Wire Interface	I	SSOP-16, SO-16	\$2.95
LTC201A	4	125	400	5 to ±15	Parallel	Low Power, Low Charge Injection, 5nA Leakage, DG201-Pin Compatible		DIP-16, SO-16	\$2.30
LTC202	4	125	400	5 to ±15	Parallel	Low Power, Low Charge Injection, 5nA Leakage, DG202-Pin Compatible		DIP-16, SO-16	\$2.00
LTC203	4	125	400	5 to ±15	Parallel	Low Power, Low Charge Injection, 5nA Leakage		DIP-16, SO-16	\$2.40
LTC221	4	90	400	5 to ±15	Parallel, Latched	Low Power, Low Charge Injection, 5nA Leakage, DG221-Pin Compatible		DIP-16, SO-16	\$2.45

† Primary Sort Column

# Interface

RS232/RS562  
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RS422/RS485  
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SIM Interface  
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CAN-bus

Multiprotocol  
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Multiprotocol Kits  
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I<sup>2</sup>C/SMBus  
Bus Buffers  
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RS232, EIA-530, EIA-530A,  
RS449, V.35, V.36 or x.21  
RS485, RS422

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Space, Military,  
Harsh Envir.

Reference  
Material



Part Number	† # Dr	# Rec	Supply (V)	Max Data Rate <sup>(1)</sup> (kbps)	Additional Supply	Typical Power (mW)	SHDN	# Rec Alive SHDN	Driver Disable	ESD (kV)	Charge Pump Caps	L (µH)	RS232 or RS562	Ext. Temp.	Package	Pins	Price 1K Qty
LTC2801	1	1	1.8 to 5	250		4.1	yes		yes	10	1 × 220nF, 2 × 1µF	10	RS232	I	4×3 DFN	12	\$1.60
LTC2802	1	1	1.8 to 5	1000		4.1	yes		yes	10	1 × 220nF, 2 × 1µF	10	RS232	I	4×3 DFN	12	\$1.65
LTC1385	2	2	3	250		0.66	yes		yes	10	4 × 0.1µF		RS562	I	SSOP/SO(W), DIP	20/18	\$3.40
LTC1386	2	2	3	250		0.66				10	4 × 0.1µF		RS562	I	SO	16	\$2.95
LTC1382	2	2	5	250		1.1	yes			10	4 × 0.1µF		RS232	I	SO(W), DIP	18	\$3.40
LTC1383	2	2	5	250		1.1				10	4 × 0.1µF		RS232	I	SO, DIP	16	\$2.95
LTC1384	2	2	5	250		1.1	yes	2		10	4 × 0.1µF		RS232	I	SSOP, SO(W), DIP	20/18	\$3.40
LT1280A	2	2	5	250		40	yes			10	4 × 0.1µF		RS232	I	SO(W), DIP	18	\$2.65
LT1281A	2	2	5	250		40				10	4 × 0.1µF		RS232	I	SO(W), DIP	16	\$2.65
LT1381	2	2	5	250		40				10	4 × 0.1µF		RS232	I	SO	16	\$1.90
LT1780	2	2	5	250		40	yes			15	4 × 0.1µF		RS232	I	SO(W), DIP	18	\$2.75
LT1781	2	2	5	250		40				15	4 × 0.1µF		RS232	I	SO, SO(W), DIP	16	\$2.75
LT1180A	2	2	5	250		45	yes			10	4 × 0.1µF		RS232	I	SO(W), DIP	18	\$2.40
LT1181A	2	2	5	250		45				10	4 × 0.1µF		RS232	I	SO(W), DIP	16	\$2.40
LTC2803	2	2	1.8 to 5	250		4.1	yes		yes	10	1 × 220nF, 2 × 1µF	10	RS232	I	5×3 DFN	16	\$1.90
LTC2803-1	2	2	1.8 to 5	250		4.1	yes			10	1 × 220nF, 2 × 1µF	10	RS232	I	SSOP	16	\$1.90
LTC2804	2	2	1.8 to 5	1000		4.1	yes		yes	10	1 × 220nF, 2 × 1µF	10	RS232	I	5×3 DFN	16	\$1.95
LTC2804-1	2	2	1.8 to 5	1000		4.1	yes			10	1 × 220nF, 2 × 1µF	10	RS232	I	SSOP	16	\$1.95
LT1039A	3	3	5	250	±12V	40	yes			15	none		RS232		SO(W), DIP	18, 16	\$2.70
LTC1327	3	5	3	250		1.5	yes			10	4 × 0.1µF		RS562		SSOP, SO(W), DIP	28	\$4.60
LTC1348	3	5	3	250		1.5	yes	5		10	5 × 0.1µF		RS232	I	SSOP, SO(W)	28	\$4.40
LTC1350	3	5	3	250		1.5	yes	2		10	4 × 0.1µF		RS562	I	SSOP, SO(W), DIP	28	\$4.60
LTC1337	3	5	5	250		1.5	yes	1		10	4 × 0.1µF		RS232		SSOP, SO(W), DIP	28	\$4.60
LTC1347	3	5	5	250		1.5	yes	5		10	4 × 0.1µF		RS232		SSOP, SO(W), DIP	28	\$4.60
LTC1349	3	5	5	250		1.5	yes	2		10	4 × 0.1µF		RS232	I	SSOP, SO(W), DIP	28	\$4.60
LT1237	3	5	5	250		30	yes	1	yes	15	1 × 1.0µF, 5 × 0.1µF		RS232		SSOP, SO(W), DIP	28	\$3.90
LT1330	3	5	5	250	3V	30	yes	1	yes	10	1 × 1.0µF, 5 × 0.1µF		RS232	I	SSOP, SO(W), DIP	28	\$3.90
LT1137A	3	5	5	250		60	yes		yes	15	6 × 0.1µF		RS232	I	SSOP, SO(W), DIP	28	\$3.70
LT1341	3	5	5	250		60	yes	1	yes	10	6 × 0.1µF		RS232		SSOP/SO(W)/DIP	28	\$3.90
LT1342	3	5	5	250	3V	60	yes			10	6 × 0.1µF		RS232		SSOP, SO(W), DIP	28	\$3.75
LT1537	3	5	5	250		60	yes		yes	2	6 × 0.1µF		RS232		SSOP, SO(W)	28	\$2.80
LT1133A	3	5	5	250		125				15	6 × 0.1µF		RS232	I	SO(W), DIP	24	\$3.90
LT1141A	3	5	5	250	±12V	195			yes	10	none		RS232		SO(W), DIP	24	\$3.20
LT1331	3	5	3	250	3V	42	yes	1	yes	10	6 × 0.1µF		RS562/ RS232		SSOP, SO(W), DIP	28	\$3.90
LT1032	4	0	±6	250		12	yes			2	none		RS232	I	SO, DIP	14	\$2.45
LT1134A	4	4	5	250		125	yes			10	6 × 0.1µF		RS232	I	SO(W), DIP	24	\$3.90
LT1139A	4	4	5	250	12V	195	yes			10	3 × 0.1µF		RS232		SO(W), DIP	24	\$3.90
LT1136A	4	5	5	250		125	yes		yes	10	6 × 0.1µF		RS232		SO(W), DIP	28	\$3.20
LTC1338	5	3	5	250		7.5	yes		yes	10	4 × 0.1µF		RS232	I	SSOP/SO(W), DIP	28	\$5.05
LT1132A	5	3	5	250		125				10	6 × 0.1µF		RS232	I	SO(W), DIP	24	\$3.90
LT1138A	5	3	5	250		125	yes		yes	10	6 × 0.1µF		RS232	I	SSOP, SO(W), DIP	28	\$3.80
LT1135A	5	3	5	250	±12V	195				10	none		RS232		SO(W), DIP	20	\$3.70
LT1140A	5	3	5	250	±12V	195	yes		yes	10	none		RS232		SO(W), DIP	24	\$3.20
LT1131A	5	4	5	250		125	yes		yes	10	6 × 0.1µF		RS232		SO(W), DIP	28	\$3.90
LT1130A	5	5	5	250		125				10	6 × 0.1µF		RS232	I	SO(W), DIP	28	\$3.90

† Primary Sort Column

Note:

1. Data rate depends on load conditions

Part Number	† # Dr	# Rec	Supply (V)	†† Max Data Rate	Max I <sub>CC</sub> (mA)	SHDN	Industry Standard	ESD (kV)	Comments	Ext. Temp.	Package	Price 1K Qty
<b>Half-Duplex</b>												
LTC1685	1	1	5	52M	12		75176	4	High Speed, Failsafe	I	SO-8	\$2.95
LTC2850	1	1	3.3	20M	900μA	yes	75176	15	High Speed, Failsafe	I, H	SO-8, MSOP-8, 3×3 DFN-8	\$1.45
LTC2854	1	1	3.3	20M	900μA	yes		25	Integrated Switchable Termination	I, H	3×3 DFN-10	\$1.55
LTC2859	1	1	5	20M	900μA	yes		15	Integrated Switchable Termination, Driver Slew Rate Control	I	3×3 DFN-10	\$1.55
LTC2856-1*	1	1	5	20M	900μA	yes	75176	15	Failsafe, Hot Swappable	I, H	MSOP-8, 3×3 DFN-8	\$1.45
LTC1485	1	1	5	10M	3.5		75176	10		I	SO-8, DIP-8	\$1.60
LTC1484	1	1	5	4M	900μA	yes	75176	15	Failsafe, Shutdown	I	MSOP-8, SO-8, DIP-8	\$1.65
LTC1482	1	1	5	4M	700μA	yes		15	Carrier Detect, Failsafe, Shutdown	I	MSOP-8, SO-8, DIP-8	\$1.95
LTC1480	1	1	3.3	2.5M	500μA	yes	75176	10	3.3V Operation	I	SO-8, DIP-8	\$2.55
LTC485	1	1	5	2.5M	500μA		75176	4		I	SO-8, DIP-8	\$1.30
LTC1481	1	1	5	2.5M	500μA	yes	75176	10	Low Power Shutdown Mode	I	SO-8, DIP-8	\$1.45
LTC1487	1	1	5	250k	200μA	yes	75176	10	Low EMI, 256 Nodes, Shutdown	I	SO-8, DIP-8	\$1.45
LTC2856-2*	1	1	5	250k	900μA	yes	75176	15	Slew Rate Limited, Failsafe, Hot Swappable	I, H	MSOP-8, 3×3 DFN-8	\$1.45
LT1785	1	1	5	250k	9	yes	75176	15	±60V Fault-Protected, Failsafe, Low EMI	I, H	SO-8, DIP-8	\$1.95
LTC1483	1	1	5	150k	500μA	yes	75176	10	Low EMI, Shutdown	I	SO-8, DIP-8	\$1.45
<b>Full-Duplex</b>												
LTC1687	1	1	5	52M	12		75ALS180	4	High Speed, Failsafe	I	SO-14	\$4.20
LTC1686	1	1	5	52M	12		75179	4	High Speed, Failsafe	I	SO-8	\$4.20
LTC2851	1	1	3.3	20M	900μA		75179	15	High Speed, Failsafe, No RCVR/DRV R Enable Pins	I, H	SO-8, MSOP-8, 3×3 DFN-8	\$1.55
LTC2852	1	1	3.3	20M	900μA	yes	75ALS180	15	High Speed, Failsafe	I, H	SO-14, MSOP-10, 3×3 DFN-10	\$1.55
LTC2855	1	1	3.3	20M	900μA	yes		15	Integrated Switchable Termination	I, H	4×3 DFN-12, SSOP-16	\$1.70
LTC2861	1	1	5	20M	900μA	yes		15	Integrated Switchable Termination, Drvr Slew Rate Control	I	4×3 DFN-12, SSOP-16	\$1.70
LTC2857-1*	1	1	5	20M	900μA		75719	15	Failsafe, Hot Swappable	I, H	MSOP-8, 3×3 DFN-8	\$1.55
LTC2858-1	1	1	5	20M	900μA	yes		15	Failsafe, Hot Swappable	I, H	MSOP-10, 3×3 DFN-10	\$1.55
LTC1690	1	1	5	5M	600μA	yes	75179	15	Failsafe	I	MSOP-8, SO-8	\$1.65
LTC491	1	1	5	2.5M	500μA		75ALS180	10		I	SO-14, DIP-14	\$2.65
LTC490	1	1	5	2.5M	500μA		75179	10		I	SO-8, DIP-8	\$2.40
LTC1535	1	1	5	350k	13			8	2500V Isolation	I	SO(W)-28	\$5.35
LTC2857-2*	1	1	5	250k	900μA		75179	15	Slew Rate Limited, Failsafe, Hot Swappable	I, H	MSOP-8, 3×3 DFN-8	\$1.55
LTC2858-2	1	1	5	250k	900μA	yes		15	Slew Rate Limited, Failsafe, Hot Swappable	I, H	MSOP-10, 3×3 DFN-10	\$1.55
LT1791	1	1	5	250k	9	yes	75ALS180	15	±60V Fault-Protected, Failsafe	I	SO-14, DIP-14	\$2.15
<b>Quad Drivers and Receivers</b>												
LTC1689	4	0	5	100M	18		75174	4	High Speed, Hot Swap Capable	I	SO-16	\$4.95
LTC1688	4	0	5	100M	18		75172	4	High Speed, Hot Swap Capable	I	SO-16	\$4.95
LTC487	4	0	5	10M	150μA		75174	4		I	SO(W)-16, DIP-16	\$3.55
LTC486	4	0	5	10M	150μA		75172	4		I	SO(W)-16, DIP-16	\$3.55
LTC1519	0	4	5	52M	20		75175	4	High Speed	I	SO-16	\$5.35
LTC1518	0	4	5	52M	20		75173	4	High Speed	I	SO-16	\$5.35
LTC1520	0	4	5	50M	20			4	High Speed, LVDS-Compatible	I	SO-16	\$5.35
LTC489	0	4	5	10M	10		75175	10		I	SO(W)-16, DIP-16	\$3.55
LTC488	0	4	5	10M	10		75173	10		I	SO(W)-16, DIP-16	\$3.55
<b>Controller Area Network (CAN-bus)</b>												
LT1796	1	1	5	125k	7	yes	82C250	15	±60V Fault Protected, Half-Duplex	I	SO-8	\$1.50

† Primary Sort Column  
†† Secondary Sort Column







\* Proprietary Packages with Industry Standard Pinout

# SMART CARD/SIM INTERFACE

Part Number	V <sub>IN</sub> (V)	V <sub>OUT</sub> (V)	Max I <sub>OUT</sub> (mA)	Ext. Temp.	Quiescent Current (µA)	Package	Comment	Price 1K Qty
<b>Singles</b>								
LTC1555	2.7 to 10	5	20	I	60	SSOP-16	650kHz, SIM Power Supply & Level Translator	\$2.00
LTC1555L	2.6 to 6.6	3/5	20	E	40	SSOP-16	SIM Power Supply & Level Translator	\$2.00
LTC1555L-1.8	2.6 to 6.6	1.8/3/5	20	E	32	SSOP-16	SIM Power Supply & Level Translator	\$2.00
LTC1556	2.7 to 10	5	20	I	60	SSOP-20	650kHz, SIM Power Supply & Level Translator, Aux 4.3V LDO	\$3.35
LTC1755	2.7 to 6	3/5	60	E	60	SSOP-24	Single Smart Card Interface, DV <sub>CC</sub> and AUX Pins, Additional Cards Can be Paralleled	\$2.55
LTC1756	2.7 to 5.5	3/5	60	E	60	SSOP-16	Single Smart Card Interface	\$2.30
LTC4555	3.0 to 6.0	1.8/3.0	50	E	20	3×3 QFN-16	SIM Power Supply & Level Translator	\$1.20
LTC4556	2.7 to 5.5	1.8/3.0/5.0	60	E	250	4×4 QFN-24	Smart Card Interface with Serial Control	\$1.85
<b>Duals</b>								
LTC1955	2.7 to 5.5	1.8/3.0/5.0	50	E, I	250	5×5 QFN-32	Dual Smart Card Interface with Serial Control	\$2.45
LTC4557	2.7 to 5.5	1.8/3.0	50	E	100	3×3 QFN-16	Dual Smart Card Interface with Serial Control	\$1.50
LTC4558	2.7 to 5.5	1.8/3.0	50	E	65	3×3 QFN-20	Dual Smart Card Interface, Independent Channel Select & Separate ENABLE Pins	\$1.55

# MULTIPROTOCOL

Part Number	# Dr	# Rec	Protocols Supported	Supply	Additional Supplies	Signals	Additional Signals	DCE or DTE	Termination	ESD	Ext. Temp.	Package	Price 1K Qty
LTC1321	2	2	RS232/RS562, RS422/RS485	5V	±6.5V or ±5V					10kV	I	SO(W)-24, DIP-24	\$4.60
LTC1322	4 or 2	4 or 2	RS232/RS562, RS422/RS485	5V	±6.5V or ±5V					4kV	I	SO(W)-24, DIP-24	\$5.25
LTC1323	2	3	LocalTalk, RS232 and RS422	5V		Data, Control		DTE		4kV	I	SSOP-28, SO(W)-24, SO-16	\$4.60
LTC1324	1	1	LocalTalk, RS422	5V		Data		DTE or DCE		4kV	I	SO-16, DIP-16	\$3.60
LTC1334	4 or 2	4 or 2	RS232, RS422/RS485	5V						10kV	I	SSOP-28, SO(W)-28, DIP-28	\$6.50
LTC1335	4 or 2	4 or 2	RS562, RS422/RS485	5V	±5V					4kV	I	SO(W)-24, DIP-24	\$5.25
LTC1387	2 or 1	2 or 1	RS232, RS422/RS485	5V						4kV	I	SSOP-20, SO(W)-20	\$4.50
LTC1343	4	4	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	5V		Data, Clock or Control	LL, RL, TM	DTE or DCE		4kV	I	SSOP-44	\$12.60
LTC1344	n/a	n/a	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	5V					yes	4kV	I	SSOP-24	\$6.40
LTC1344A	n/a	n/a	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	5V					yes	4kV	I	SSOP-24	\$6.40
LTC1345	3	3	V.35	5V		Data, Clock		DTE or DCE		4kV	I	SO(W)-28, DIP-28	\$7.30
LTC1346A	3	3	V.35	±5V		Data, Clock		DTE or DCE		4kV	I	SO(W)-24	\$6.75
LTC1543	3	3	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	5V		Data, Clock		DTE or DCE		4kV	I	SSOP-28	\$7.00
LTC1544	4	4	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	5V		Control	LL	DTE or DCE		4kV	I	SSOP-28	\$5.75
LTC1545	5	5	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	5V		Control	LL, RL, TM	DTE or DCE		4kV	I	SSOP-36	\$6.75
LTC1546	3	3	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	5V		Data, Clock		DTE or DCE	Included	4kV	I	SSOP-28	\$11.65
LTC2844	4	4	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	3.3V		Control	LL	DTE or DCE		4kV	I	SSOP-28	\$5.75
LTC2845	5	5	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	3.3V		Control	LL, RL, TM	DTE or DCE		4kV	I	SSOP-36	\$6.75
LTC2846	3	3	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	3.3V		Data, Clock		DTE or DCE	Included	4kV	I	SSOP-36	\$11.65
LTC2847	3	3	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	5V	3V	Data, Clock		DTE or DCE	Included	4kV	I	5×7 QFN-38	\$10.90

Kit Number	Part Numbers	Complete Solution For	Cable Termination	Signals	Additional Signals	Supply	Ext. Temp.	ESD	Packages	Price 1K Qty
LTCK002	2xLTC1343, 1xLTC1344	RS232, RS449, EIA530, EIA530-A, V.35, V.36 or X.21	yes	Data, Clock, or Control	LL, RL, TM	5V	I	4kV		\$32.50
LTCK003	LTC1543, LTC1544, LTC1344A	RS232, RS449, EIA530, EIA530-A, V.35, V.36 or X.21	yes	Data, Clock, Control	LL	5V	I	4kV		\$19.95
LTCK004	LTC1343, LTC1544, LTC1344A	RS232, RS449, EIA530, EIA530-A, V.35, V.36 or X.21	yes	Data, Clock, Control	LL, RL, TM	5V	I	4kV		\$24.75
LTCK006	LTC1543, LTC1545, LTC1344A	RS232, RS449, EIA530, EIA530-A, V.35, V.36 or X.21	yes	Data, Clock, Control	LL, RL, TM	5V	I	4kV		\$20.70
LTCK011	LTC1546, LTC1544	RS232, RS449, EIA530, EIA530-A, V.35, V.36 or X.21	yes	Data, Clock, Control	LL	5V	I	4kV		\$16.65
LTCK012	LTC1546, LTC1545	RS232, RS449, EIA530, EIA530-A, V.35, V.36 or X.21	yes	Data, Clock, Control	LL, RL, TM	5V	I	4kV		\$17.40

I<sup>2</sup>C and SMBus BUFFERS and ACCELERATORS

Part Number	Rise Time Accel	Hot Swappable Bus Buffers	Bidirectional Level Translation (V)	Level Translation Method	Stuck Bus Disconnect/Recovery	Enable	Ready	Addressable	GPIO or Fault Flags	Data Rate	Ext. Temp	Comments	Package	Price 1K Qty
LTC4311	yes					yes				400kHz	I	1.6V to 5.5V Supply Voltage, Low Power	SC70, 2x2 DFN-6	\$1.55
LTC1694	yes									100kHz	I	Adds DC Pull-Up Current	ThinSOT	\$1.30
LTC1694-1	yes									100kHz	I		ThinSOT	\$1.30
LTC4300A-1	yes	yes	2.7 to 5.5	Auto, V <sub>PULL-UP</sub> ≥ V <sub>CC</sub>		yes	yes			400kHz	I		MSOP-8	\$1.75
LTC4300A-2	yes <sup>(1)</sup>	yes	2.7 to 5	V <sub>CC</sub> Pins						400kHz	I		MSOP-8	\$1.75
LTC4300A-3	yes	yes	2.7 to 5	V <sub>CC</sub> Pins		yes				400kHz	I		MSOP-8, 3x3 DFN-8	\$1.75
LTC4301	yes	yes	2.7 to 5	Auto		yes	yes			400kHz	I		MSOP-8, 3x3 DFN-8	\$1.95
LTC4301L	yes	yes	1 to 2.7/5.5 <sup>(2)</sup>	Auto		yes	yes			400kHz	I	Level Translates from 1V	MSOP-8, 3x3 DFN-8	\$2.05
LTC4302-1	yes	yes	2.7 to 5.5	Auto, V <sub>PULL-UP</sub> ≥ V <sub>CC</sub>		yes		yes	yes	400kHz	I	2GPIOs	MSOP-10	\$2.50
LTC4302-2	yes <sup>(1)</sup>	yes	2.7 to 5	V <sub>CC</sub> Pins		yes		yes	yes	400kHz	I	1GPIO, 2nd V <sub>CC2</sub> Supply for Level Shifting	MSOP-10	\$2.50
LTC4303	yes	yes	2.7 to 5.5	Auto, V <sub>PULL-UP</sub> ≥ V <sub>CC</sub>	Both	yes	yes			400kHz	I		MSOP-8, 3x3 DFN-8	\$2.10
LTC4304	yes <sup>(1)</sup>	yes	2.7 to 5.5	Auto	Both	yes	yes		yes	400kHz	I		MSOP-10, 3x3 DFN-10	\$2.20
LTC4305	yes <sup>(1)</sup>	yes	2.2 to 5.5	Auto	Disconnect	yes		yes	yes	400kHz	I	2:1 Multiplexer, 27 Distinct Addresses	SSOP-16, 4x5 DFN-16	\$2.80
LTC4306	yes <sup>(1)</sup>	yes	2.2 to 5.5	Auto	Disconnect	yes		yes	yes	400kHz	I	4:1 Multiplexer, 27 Distinct Addresses	SSOP-24, 4x5 DFN-24	\$3.50
LTC4307	yes	yes	2.3 to 5.5	Auto, V <sub>PULL-UP</sub> ≥ V <sub>CC</sub>	Both	yes	yes			400kHz	I	Low 60mV Offset Voltage	MSOP-8, 3x3 DFN-8	\$2.15
LTC4307-1	yes	yes	2.3 to 5.5	Auto, V <sub>PULL-UP</sub> ≥ V <sub>CC</sub>		yes	yes			400kHz	I	For HDMI DDC Bus, HDMI Compliant, 60mV Offset Voltage	MSOP-8, 3x3 DFN-8	\$2.15
LTC4308	yes	yes	1 to 2.3/5.5 <sup>(3)</sup>	Auto	Both	yes	yes			400kHz	I	-200mV V <sub>OS</sub> Input-to-Output, 300mV V <sub>OS</sub> Output-to-Input	MSOP-8, 3x3 DFN-8	\$2.15
LTC4309	yes <sup>(1)</sup>	yes	2.3 to 5.5	Auto	Both	yes	yes		yes	400kHz	I	Low 60mV Offset Voltage	SSOP-16, 4x3 DFN-12	\$2.25
LTC4310	yes	yes	3 to 5.5	Auto	Both	yes	yes			400kHz	I	Hot Swappable I <sup>2</sup> C Isolator	MSOP-10, 3x3 DFN-10	C.F.

Notes:  
 1. Rise time accelerator circuitry can be disabled  
 2. SCL<sub>IN</sub> and SDA<sub>IN</sub> down to 1V, SDA<sub>OUT</sub> and SCL<sub>OUT</sub> from 2.7V to 5.5V  
 3. SCL<sub>IN</sub> and SDA<sub>IN</sub> down to 1V, SDA<sub>OUT</sub> and SCL<sub>OUT</sub> from 2.3V to 5.5V



Amps, Refs, Filters, Comps  
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 Data Conversion  
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# High Frequency

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Part Number	Features	Min Frequency (MHz)	Max Frequency (MHz)	Min Detect (dBm)	Max Detect (dBm)	† Dynamic Range (dB)	Accuracy (dB)	Demod BW (MHz)	Supply Voltage		Supply Current (mA)	Package	Price 1K Qty
									Min (V)	Max (V)			
<b>RMS Detectors</b>													
LT5570	Fast 50dB Dynamic Range RMS Detector	40	2700	-52	13	62	±0.3	0.05	4.75	5.25	26.5	3×3 DFN-10	\$5.75
LT5581	6GHz 40dB Dynamic Range RMS Detector	10	6000	-40	10	40	±1.0	0.05	2.7	5.25	1.4	3×2 DFN-8	\$2.29
<b>High Dynamic Range Log Detectors</b>													
LT5537	Log Linear Detector	10	1000	-76	14	83	1		2.7	5.25	13.5	3×2 DFN-8	\$2.95
LT5504	Log Linear Detector / Receiver	800	2700	-80	2	80	2	2	2.7	5.25	14.7	MSOP-8	\$6.50
LT5538	75dB Dynamic Range Log Detector	40	3800	-75	10	70	±0.8	2	3	5.25	29	3×3 DFN-8	\$4.50
LT5534	High Accuracy Log Detector	50	3000	-63	2	60	0.5	30	2.7	5.25	7	2×2 SC70	\$4.50
<b>Schottky Peak Detectors</b>													
LTC5507	Low Frequency Detect	0.1	1000	-32	14	46	-	2	2.7	6	0.55	ThinSOT	\$1.45
LTC5505-1	Low Cost, High Signal Level	300	3000	-28	18	46	-	4	2.7	6	0.5	ThinSOT	\$1.15
LTC5508	7GHz, with Shutdown	300	7000	-32	12	44	-	2	2.7	6	0.55	2×2 SC70	\$1.45
LTC5505-2	Low Cost	300	3500	-32	12	44	-	4	2.7	6	0.5	ThinSOT	\$1.15
LTC5532ES6	Precision with Gain + V <sub>OS</sub> Adj	300	7000	-32	10	42	-	2	2.7	6	0.5	ThinSOT	\$1.50
LTC5532EDC	12 GHz, with Gain + V <sub>OS</sub> Adj	300	12000	-32	10	42	-	2	2.7	6	0.5	2×2 DFN-6	\$1.70
LTC5531	Precision with Shutdown, V <sub>OS</sub> Adj	300	7000	-32	10	42	-	2	2.7	6	0.5	ThinSOT	\$1.25
LTC5533	Dual, Shutdown, V <sub>OS</sub> Adj	300	11000	-32	12	44	-	2	2.7	6	0.9	4×3 DFN-12	\$3.20
LTC5530	Precision with Shutdown, Gain Adj	300	7000	-32	10	42	-	2	2.7	6	0.5	ThinSOT	\$1.30
LTC5535	Wide Demodulation BW, Gain + V <sub>OS</sub> Adj	600	7000	-32	10	42	-	12	2.7	5.5	2	ThinSOT	\$1.55
LTC5536	Detector + Comparator	600	7000	-26	12	38	-	-	2.7	5.5	2.1	ThinSOT	\$2.25
LTC5509	No Compression	300	3000	-30	6	36	-	1.5	2.7	6	0.58	2×2 SC70	\$1.35

† Primary Sort Column

UPCONVERTING MIXERS

Part Number	Features	Min Frequency (MHz)	Max Frequency (MHz)	† IIP3 (dBm)	NF (dB)	Conversion Gain (dB)	LO Drive (dBm)	LO-RF Isolation (dBc)	Supply Voltage		Supply Current (mA)	Package	Price 1K Qty
									Min (V)	Max (V)			
LT5579	Ultra-Linear, Integrated Balun, Low Noise	1500	3800	29	9.2	1.8	-1	35	3.15	3.6	226	5×5 QFN-24	\$5.50
<b>LT5578</b>	<b>Ultra-Linear, Integrated Balun, Low Noise</b>	<b>400</b>	<b>2700</b>	<b>26</b>	<b>9.5</b>	<b>0.5</b>	<b>-1</b>	<b>40</b>	<b>3.15</b>	<b>3.5</b>	<b>147</b>	<b>5×5 QFN-24</b>	<b>C.F.</b>
LT5521	High Linearity, Broadband	10	3700	24.2	12.5	-0.5	-5	37	3.15	5.25	82	4×4 QFN-16	\$4.95
LT5519	Integrated Balun	700	1400	17.1	13.6	-0.6	-5	39	4.5	5.25	60	4×4 QFN-16	\$4.15
LT5511	Broadband	10	3000	17	15	0	-10	36	4	5.25	56	TSSOP-16	\$3.70
LT5520	Integrated Balun	1300	2300	15.9	15	-1	-5	36	4.5	5.25	60	4×4 QFN-16	\$4.15
LT5560	Very Low Power, Broadband	0.01	4000	9.0	9.3	2.4	-2	39	2.7	5.3	10	3×3 DFN-8	\$1.56

† Primary Sort Column

DOWNCONVERTING MIXERS

Part Number	Features	Min Frequency (MHz)	Max Frequency (MHz)	† IIP3 (dBm)	NF (dB)	Conversion Gain (dB)	LO Drive (dB)	LO-RF Isolation (dBc)	Supply Voltage		Supply Current (mA)	Package	Price 1K Qty
									Min (V)	Max (V)			
LT5557	3.3V, Integrated Transformers	400	3800	24.7	11.7	2.9	-3	42	2.9	3.9	81.6	4×4 QFN-16	\$5.95
LT5521	Upconverting & Downconverting Mixer	DC	350	24	-	-	-	-	3.15	5.5	80	4×4 QFN-16	\$4.95
LT5527	5V, Integrated Transformers	400	3700	23.5	12.5	2.3	-3	41	4.5	5.25	78	4×4 QFN-16	\$5.80
LT5522	Integrated Transformer	450	2700	21.5	13.9	-0.1	-5	45	4.5	5.25	56	4×4 QFN-16	\$5.20
LT5525	Integrated Transformer, Low Power	450	2500	18	15	-1.7	-5	38	3.0	5.3	28	4×4 QFN-16	\$3.80

† Primary Sort Column



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

## DOWNCONVERTING MIXERS

Part Number	Features	Min Frequency (MHz)	Max Frequency (MHz)	† IIP3 (dBm)	NF (dB)	Conversion Gain (dB)	LO Drive (dB)	LO-RF Isolation (dBc)	Supply Voltage		Supply Current (mA)	Package	Price 1K Qty
									Min (V)	Max (V)			
LT5512	Broadband	DC	3000	17	14	1	-10	43	4.5	5.25	57	4×4 QFN-16	\$3.70
LT5526	Low Power	0.1	2000	14.1	13.7	0.4	-5	50	3.0	5.3	28	4×4 QFN-16	\$3.40
LT5560	Very Low Power	0.01	4000	9.7	10.1	2.6	-2	55	2.7	5.3	10	3×3 DFN-8	\$1.56
LT5500	LNA + Mixer	1800	2700	-2.5	4	5	-10	37	1.8	5.25	23	SSOP-24	\$3.20

† Primary Sort Column

## QUADRATURE MODULATORS

Part Number	Features	Min Frequency (MHz)	Max Frequency (MHz)	† OIP3 (dBm)	Noise Floor (dBm/Hz)	Image Supp (dBc)	LO Supp (dBc)	Supply Voltage		Supply Current (mA)	Package	Price 1K Qty
								Min (V)	Max (V)			
<b>LTC5598</b>	<b>Super High Linearity</b>	<b>30</b>	<b>1600</b>	<b>28</b>	<b>-160.5</b>	<b>-45</b>	<b>-52</b>	<b>4.5</b>	<b>5.25</b>	<b>160</b>	<b>4×4 QFN-16</b>	<b>C.F.</b>
LT5518	R <sub>IN</sub> =3kΩ, V <sub>CM</sub> =2.1V	1500	2400	22.8	-158.2	-40	-49	4.5	5.25	128	4×4 QFN-16	\$4.95
LT5568	R <sub>IN</sub> =50Ω, V <sub>CM</sub> =0.54V	750	1100	22.7	-159.6	-46	-45	4.5	5.25	117	4×4 QFN-16	\$5.35
LT5568-2	GSM Optimized Image Rej.	700	1000	22.9	-159.4	-52	-43	4.5	5.25	110	4×4 QFN-16	\$5.35
LT5558	R <sub>IN</sub> =3kΩ, V <sub>CM</sub> =2.1V	600	1100	22.4	-158	-49	-43.7	4.5	5.25	108	4×4 QFN-16	\$5.35
LT5528	R <sub>IN</sub> =50Ω, V <sub>CM</sub> =0.53V	1500	2400	21.8	-159	-45	-42	4.5	5.25	125	4×4 QFN-16	\$4.95
LT5571	R <sub>IN</sub> =90k, V <sub>CM</sub> =0.5V	620	1100	21.7	-159	-53	-42	4.5	5.25	97	4×4 QFN-16	\$4.95
LT5572	R <sub>IN</sub> =90k, V <sub>CM</sub> =0.5V	1500	2500	21.6	-158.6	-41.2	-39.4	4.5	5.25	120	4×4 QFN-16	\$4.95
LT5503	Operates Down to 1.8V	1200	2700	2	-142	-34	-32	1.8	5.25	11.9	TSSOP-20	\$3.85

† Primary Sort Column

## QUADRATURE DEMODULATORS

Part Number	Features	Min Frequency (MHz)	Max Frequency (MHz)	† IIP3 (dBm)	P1 (dB)	NF (dB)	Conversion Gain (dB)	I/Q Gain Mismatch (dB)	I/Q Phase Mismatch (degrees)	LO-RF Isolation (dBc)	Supply Voltage		Supply Current (mA)	Package	Price 1K Qty
											Min (V)	Max (V)			
LT5575	Integrated Transformers	800	2700	28	13.2	12.8	3	0.03	0.5	-60.8	4.5	5.25	132	4×4 QFN-16	\$7.75
LT5516	Direct Conversion Demod	800	1500	21.5	9	12.8	4.3	0.2	1	-55	4	5.25	117	4×4 QFN-16	\$7.40
LT5517	2 x LO Input	40	900	21	10	12.4	3.3	0.03	0.7	-59	4.5	5.25	90	4×4 QFN-16	\$7.40
LT5515	Direct Conversion Demod	1500	2500	20	9	16.8	-0.7	0.3	1	-41	4	5.25	125	4×4 QFN-16	\$6.75
LT5506	VGA + 8.8MHz LPF	40	500	-0.5	-11.5	6.8	0.9 to 59	0.2	0.6	-	1.8	5.25	26.5	4×4 QFN-16	\$3.35
LT5546	VGA + 17MHz LPF	40	500	-1	-10	7.8	1.6 to 56	0.14	0.6	-	1.8	5.25	24	4×4 QFN-16	\$3.35
LT5502	IF Limiter + RSSI	70	400	-	-	4	-	0.1	0.6	-	1.8	5.25	25	SSOP-24	\$5.25

† Primary Sort Column

## POWER AMPLIFIER CONTROLLERS

Part Number	Application	Compatible PA	Min Frequency (MHz)	Max Frequency (MHz)	# Ch.	Min P <sub>IN</sub> (dBm)	Max P <sub>IN</sub> (dBm)	Loop BW (kHz)	Supply Voltage		Supply Current (mA)	Package	Price 1K Qty
									Min (V)	Max (V)			
LTC1757A-1	GSM		850	2000	1	-22	16	400	2.7	6	1	MSOP-8	\$1.75
LTC1757A-2	GSM		850	2000	2	-22	16	400	2.7	6	1	MSOP-10	\$1.90
LTC1758-1	GSM/GPRS	Philips BGY280, Conexant RM009, Conexant CX77302, Anadigics AWT6102, Anadigics AWT6107	850	2000	1	-24	16	250	2.7	6	1.1	MSOP-8	\$1.65
LTC1758-2	GSM/GPRS	Philips BGY280, Conexant RM009, Conexant CX77302, Anadigics AWT6102, Anadigics AWT6107, Hitachi PF08107, Hitachi PF08123B	850	2000	1	-24	16	250	2.7	6	1.1	MSOP-8	\$1.65

Part Number	Application	Compatible PA	Min Frequency (MHz)	Max Frequency (MHz)	# Ch.	Min P <sub>IN</sub> (dBm)	Max P <sub>IN</sub> (dBm)	Loop BW (kHz)	Supply Voltage		Supply Current (mA)	Package	Price 1K Qty
									Min (V)	Max (V)			
LTC1957-1	GSM/GPRS		850	2000	2	-26	16	370	2.7	6	1	MSOP-8	\$1.70
LTC1957-2	GSM/GPRS		850	2000	2	-26	16	370	2.7	6	1	MSOP-10	\$1.70
LTC4400-1	GSM/GPRS	Hitachi PF08109B, Hitachi PF08122B, Hitachi PF08123B, Hitachi PF08107B, RFMD RF3108	800	2700	1	-26	18	450	2.7	6	1.2	SOT-23	\$1.20
LTC4400-2	GSM/GPRS	Hitachi PF08109B, Hitachi PF08122B, Hitachi PF08123B, Hitachi PF08107B, RFMD RF3108	800	2000	2	-26	18	450	2.7	6	1.2	MSOP-8	\$1.20
LTC4401-1	GSM/GPRS	Conexant CX77301, Conexant CX77302, Conexant CX77304, Conexant CX77314, Anadigics AWT6107, RFMD RF3160	800	2700	1	-26	18	250	2.7	6	1.2	SOT-23	\$1.20
LTC4401-2	GSM/GPRS	Conexant CX77301, Conexant CX77302, Conexant CX77304, Conexant CX77314, Anadigics AWT6107, RFMD RF3160	800	2000	2	-26	18	450	2.7	6	1.2	MSOP-8	\$1.60
LTC4402-1	GSM/EDGE/TDMA		300	2400	1	-25	18	450	2.7	6	1.5	MSOP-8	\$1.60
LTC4402-2	EDGE/TDMA		300	2400	2	-25	18	450	2.7	6	1.5	MSOP-10	\$1.90
LTC4403-1	GSM/GPRS/EDGE		300	2400	1	-25	18	250	2.7	6	1.5	MSOP-8	\$1.60
LTC4403-2	GSM/GPRS/EDGE		300	2400	2	-25	18	250	2.7	6	1.5	MSOP-10	\$1.90

HIGH SPEED ADC DRIVERS

Part Number	Features	Min Frequency (MHz)	† -3dB Bandwidth/ f <sub>CUTOFF</sub> (MHz)	OIP3 (dBm)	HD2 (dBc)	HD3 (dBc)	Noise Figure (dB)	Min Gain (dB)	Max Gain (dB)	Supply Voltage		Maximum Supply Current (mA)	Package	Price 1K Qty
										Min (V)	Max (V)			
<b>Singles</b>														
LTC6401-8	Fixed 8dB Gain, 140MHz IF Differential ADC Driver, Low Power	DC	2220	50 @ 70MHz	-100 @ 70MHz	-87 @ 70MHz	12.2	8	8	2.85	3.5	60	3×3 QFN-16	\$2.95
LTC6400-8	2.2GHz Low Noise, Low Distortion Differential ADC Driver for DC-300MHz	DC	2200	46 @ 140MHz	-91@140MHz	-81@140MHz	7.6	8	8	2.85	3.5	95	3×3 QFN-16	\$3.20
LTC6416	16-Bit, 2GHz Differential ADC Buffer	DC	2000	40 @ 300MHz	-73@300MHz	67.5@300MHz	6.4	0		2.7	4	51	3×2 DFN-10	\$3.50
LTC6401-14	Fixed 14dB Gain, Low Noise/Distortion, 140MHz IF ADC Driver, Low Power	DC	1950	49.3 @ 70MHz	-101 @ 70MHz	-89 @ 70MHz	7.3	14	14	2.85	3.5	60	3×3 QFN-16	\$2.95
LTC6400-26	Fixed 26dB Gain, Low Noise/Distortion, 300MHz IF Differential ADC Driver	DC	1900	48 @ 140MHz	-81 @ 140MHz	-83 @ 140MHz	6.6	26	26	2.85	3.5	102	3×3 QFN-16	\$3.20
LTC6400-14	1.9GHz Low Noise, Low Distortion Differential ADC Driver for 300MHz IF	DC	1860	47 @ 140MHz	-81@140MHz	-79 @ 140MHz	7.7	14	14	2.85	3.5	96	3×3 QFN-16	\$3.20
LTC6400-20	Fixed 20dB Gain, Low Noise/Distortion Differential 300MHz IF ADC Driver	DC	1840	48 @ 140MHz	-73 @ 140MHz	-83 @ 140MHz	6.2	20	20	2.85	3.5	105	3×3 QFN-16	\$3.20
LTC6401-26	Fixed 26dB Gain, Low Noise/Distortion, 140MHz IF Diff ADC Driver, Low Power	DC	1600	47 @ 70MHz	-86 @ 70MHz	-81 @ 70MHz	6.7	26	26	2.85	3.5	60	3×3 QFN-16	\$2.95
LTC6410-6	Fixed 6dB Gain, Low Noise/Distortion Differential ADC Driver, Configurable Input Impedance	DC	1400	33 @ 140MHz	-80 @ 140MHz	-62 @ 140MHz	11	6	6	2.8	5.25	130	3×3 QFN-16	\$2.89
LTC6401-20	Fixed 20dB Gain, Low Noise/Distortion, Differential 140MHz IF, Low Power	DC	1250	51 @ 70MHz	-95 @ 70MHz	-88 @ 70MHz	6.1	20	20	2.85	3.5	62	3×3 QFN-16	\$2.95
LT5554	Digitally Prog. Gain Amp, 0.125dB Steps	LF	1000	48 @ 200MHz	-80 @ 140MHz	-80 @ 50 MHz	10	1.7	17.6	4.75	5.25	200	5×5 QFN-32	\$4.40
LT1993-4	Fixed 12dB Gain	DC	900	43 @ 50MHz	-82 @ 50MHz	-80 @ 50MHz	14.5	12	12	4	5.5	112	3×3 QFN-16	\$2.95
LT5514	Digitally Prog. Gain, 1.5dB Steps	10	850	47 @ 50MHz	-82 @ 50MHz	-72 @ 50MHz	7.4	10.5	33	4.75	5.25	174	TSSOP-20	\$5.20
<b>LTC6412</b>	<b>Fully Differential, 31dB Range Control, Analog VGA</b>	<b>10</b>	<b>800</b>	<b>36 @ 70MHz</b>	<b>-85 @ 70MHz</b>	<b>-70 @ 70MHz</b>	<b>9</b>	<b>-14</b>	<b>17</b>	<b>3</b>	<b>3.6</b>	<b>120</b>	<b>4×4 QFN-24</b>	<b>C.F.</b>
LTC6405	2.7GHz, 5V, Low Noise, Rail-to-Rail Input Differential Amplifier/Driver	DC	800	36 @ 50MHz	-91@30MHz	-85@30MHz	14.4	0		4.5	5.5	23	3×3 QFN-16	\$3.44
LTC6406	3GHz GBW, Low Noise/Distortion, Differential	DC	800	37 @ 50MHz	-85 @ 50MHz	-72 @ 50MHz	14.1	0		2.7	3.5	22	3×3 QFN-16	\$3.44
LT1993-2	Fixed 6dB Gain	DC	800	45 @ 50MHz	-80 @ 50MHz	-77 @ 50MHz	11.8	6	6	4	5.5	112	3×3 QFN-16	\$2.95
LT1993-10	Fixed 20dB Gain	DC	700	44 @ 50MHz	-80 @ 50MHz	-77 @ 50MHz	12.3	20	20	4	5.5	112	3×3 QFN-16	\$2.95
LT6411	Two Amplifiers, Configured as Differential, Gain of 1, 2, -1	DC	650	47 @ 30MHz	-82 @ 30MHz	-77 @ 30MHz	24.6	0	6	4.5	12	11×2	3×3 QFN-16	\$2.39
LTC6404-1	Low Noise Differential Amplifier/ADC Driver	DC	600	50 @ 10MHz	-102 @ 10MHz	-91 @ 10MHz	13.4	0		2.7	5.25	35.5	3×3 QFN-16	\$3.44
LTC6404-2	A <sub>v</sub> ≥6dB 700V/μs Slew Rate, 1.5nV/√Hz Noise Density	DC	600	53 @ 10MHz	-98 @ 10MHz	-99 @ 10MHz	10	6		2.7	5.25	39	3×3 QFN-16	\$3.44
LT5524	Low Power, Digitally Prog. Gain, 1.5dB Steps	10	540	40 @ 50MHz	-76 @ 50MHz	-72 @ 50MHz	8.6	4.5	27	4.75	5.25	91	TSSOP-20	\$4.40
LTC6404-4	A <sub>v</sub> ≥12dB, 1200V/μs Slew Rate, 1.5nV/√Hz Noise Density	DC	530	54@10MHz	-100@10MHz	-101@10MHz	8	12		2.7	5.25	39	3×3 QFN-16	\$3.44
LT6402-20	Low Distortion, Fixed 20dB Gain	DC	300	46 @25MHz	-83 @ 25MHz	-79 @ 25MHz	12.5	20	20	4	5.5	37	3×3 QFN-16	\$2.39
LTC6403-1	Low Noise/Distortion, Low Power Fully Differential Op Amp/Driver	DC	200	48 @ 3MHz	-106 @ 3MHz	-94 @ 3MHz	10.8	0		2.7	5.25	11.8	3×3 QFN-16	\$1.79
LTC6601-1	Low Distortion Pin-Configurable Differential Driver with 2nd Order LP Filter	DC	27	-	-72 @ 10MHz	-103 @ 10MHz	-	-17	17	2.7	5.25	43	4×4 QFN-20	\$3.95

† Primary Sort Column

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# HIGH SPEED ADC DRIVERS

Part Number	Features	Min Frequency (MHz)	† -3dB Bandwidth/ f <sub>CUTOFF</sub> (MHz)	OIP3 (dBm)	HD2 (dBc)	HD3 (dBc)	Noise Figure (dB)	Min Gain (dB)	Max Gain (dB)	Supply Voltage		Maximum Supply Current (mA)	Package	Price 1K Qty
										Min (V)	Max (V)			
<b>LTC6601-2</b>	<b>Low Power Pin-Configurable Differential Driver with 2nd Order LPF</b>	<b>DC</b>	<b>27</b>	-	<b>-65 @ 10MHz</b>	<b>-78 @ 10MHz</b>	-	<b>-17</b>	<b>17</b>	<b>2.7</b>	<b>5.25</b>	<b>23.5</b>	<b>4×4 QFN-20</b>	<b>\$3.95</b>
LT6600-20	Integrated 20MHz LP Filter	DC	20	-	-83 @ 2.5MHz	-88 @ 2.5MHz	-	0		3	11	46	S0-8	\$2.95
LT6600-15	Integrated 15MHz LP Filter	DC	15	-	-86 @ 1MHz	-90 @ 1MHz	-	0		3	11	39	S0-8	\$2.95
LT6600-10	Integrated 10MHz LP Filter	DC	10	-	-88 @ 1MHz	-97 @ 1MHz	-	0		3	11	39	S0-8	\$2.95
LT6600-5	Integrated 5MHz LP Filter	DC	5	-	-93 @ 1MHz	-96 @ 1MHz	-	0		3	11	31	S0-8	\$2.95
LT6600-2.5	Integrated 2.5MHz LP Filter	DC	2.5	-	-95 @ 1MHz	-88 @ 1MHz	-	0		3	11	30	S0-8	\$2.95
<b>Duals</b>														
LTC6420-20	Fixed 20dB Gain, 1.8GHz Matched Differential ADC Drivers, Low Distortion		1800	46 @ 100MHz	-80 @ 100MHz	-88 @ 100MHz	6.2	20	20	2.85	3.5	95	3×4 QFN-20	\$5.17
LTC6421-20	Fixed 20dB Gain, 1.3GHz Matched Differential ADC Drivers, Low Power		1300	42 @ 100MHz	-74 @ 100MHz	-78 @ 100MHz	6.2	20	20	2.85	3.5	50	3×4 QFN-20	\$4.77
LT6604-15	Dual Matched 15MHz 4th Order LP Filters + ADC Drivers	DC	15	-	-63 @ 10MHz	-69 @ 10MHz	-	0	12	3	11	78	4×7 QFN-34	\$6.50
LTC6605-14	Dual Matched 14MHz 2nd Order LP Filters + ADC Drivers	DC	14	-	-81 @ 7MHz	-93 @ 7MHz	-	0	9.5	2.7	5.25	45	6×3 DFN-22	\$6.95
LTC6604-10	Dual Matched 10MHz 4th Order LP Filters + ADC Drivers	DC	10	-	-88 @ 1MHz	-97 @ 1MHz	-	0	12	3	11	78	4×7 QFN-34	\$6.50
LTC6605-10	Dual Matched 10MHz 2nd Order LP Filters + ADC Drivers	DC	10	-	-90 @ 5MHz	-106 @ 5MHz	-	0	14	2.7	5.25	45	6×3 DFN-22	\$6.95
LTC6605-7	Dual Matched 7MHz 2nd Order LP Filters + ADC Drivers	DC	7	-	-96 @ 3MHz	-114 @ 3MHz	-	0	14	2.7	5.25	45	6×3 DFN-22	\$6.95
LT6604-5	Dual Matched 5MHz 4th Order LP filters + ADC Drivers	DC	5	-	-93 @ 1MHz	-96 @ 1MHz	-	0	11	3	11	62	4×7 QFN-34	\$6.50
LT6604-2.5	Dual Matched 2.5MHz 4th Order LP Filters + ADC Drivers	DC	2.5	-	-92 @ 1MHz	-88 @ 1MHz	-	0	12	3	11	30	4×7 QFN-34	\$6.50
LTC6603	Dual Matched Prog 2.5MHz 9th Order Linear Phase LP Filter + ADC Driver	DC	2.5	-	<-75 @ 200MHz	<-75 @ 200MHz	29	0	24	2.7	5.5	175	4×7 QFN-24	\$7.50
LTC6602	Dual Matched Prog 900kHz BP or 5th Order LP Filter + ADC Driver	DC	0.9	-	<-75 @ 100MHz	<-75 @ 100MHz	28	0	30	2.7	5.5	130	4×7 QFN-24	\$6.95

† Primary Sort Column

C.F. = Contact Factory

# VCSEL LASER DIODE DRIVER

Part Number	Features	Min Data Rate (Mbps)	Max Data Rate (Mbps)	Min Vs (V)	Max Vs (V)	I <sub>s</sub> (mA)	Package	Price 1K Qty
LTC5100	Auto Power Control	155	3200	3.135	3.465	54	4×4 QFN-16	\$5.15

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

## Space, Military and Harsh Environment

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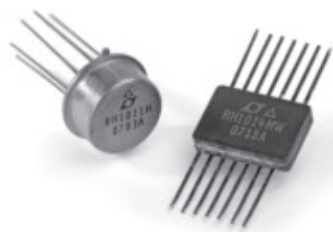
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Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
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 Space, Military, Harsh Envir.  
 Reference Material



## High Performance Radiation Hardened (RH) Solutions From Linear Technology

Linear Technology's RH product line provides industry-leading performance combined with space-level quality, reliability and ruggedness in environments where exposure to radiation can compromise system integrity. Each product is developed and characterized with guaranteed specifications for use in space systems and critical systems to maintain performance in the harshest conditions. Our standard is the highest quality products and superior performance and we back this up with knowledgeable support, long product life cycles and superior on-time delivery.

For two decades, Linear Technology's RH devices have been used in critical applications. During the development process, Linear Technology applies key circuit design techniques and manufacturing steps that enhance resistance to damage or malfunction caused by high-energy subatomic particles, electromagnetic radiation and high temperatures. These RH devices are total dose rated up to 200Krad and are deployed in most U.S., European and Japanese satellites.

Individual RH device data sheets, DICE data sheets and reliability information are available at [www.linear.com](http://www.linear.com)

**For additional information, contact Linear Technology's Space Group at [Itcspace@linear.com](mailto:Itcspace@linear.com)**

Part Number	Description	Total Dose Level Rad(Si)	Enhanced Low Dose Rate Sensitivity (ELDRS) Testing Status <sup>(1)</sup>	Temp Range	CERDIP Package	FLATPAK Package	Metal Can Package	RH Dice	Comments
<b>Amplifiers</b>									
RH07	Precision 0.4MHz Op Amp	200K		M	DIP-8	FP-10	T0-5	yes	Low Offset Voltage 200µV Max
RH101A	±15V 1MHz 75nA I <sub>BIAS</sub> FET Input Op Amp	200K		M	DIP-8	FP-10	T0-5	yes	
RH108A	±15V 1MHz 3nA I <sub>BIAS</sub> General Purpose Op Amp	80K	ELDRS Free to 50Krad	M	DIP-8	FP-10	T0-5	yes	
RH27AE	Precision 5MHz Op Amp, 35µV Offset	200K	ELDRS Free to 50Krad	M		FP-10			
RH27C	Precision 5MHz Op Amp, 100µV Offset	200K	ELDRS Free to 50Krad	M	DIP-8	FP-10	T0-5	yes	
RH27E	Precision 5MHz Op Amp, 55µV Offset	200K	ELDRS Free to 50Krad	M		FP-10	T0-5	yes	
RH1056	Precision 6.5MHz JFET Input Op Amp	200K		C				yes	
RH1056A	Precision 6.5MHz JFET Input Op Amp	200K		M		FP-10	T0-5		
RH118	15MHz 50V/µs Precision High Speed Op Amp	200K		M	DIP-8	FP-10	T0-5		
RH1128M	Ultralow Noise 20MHz Precision High Speed Op Amp, Av ≥ 1	200K	Contact Factory for Schedule	M		FP-10		yes	1.0nV/√Hz 10kHz Noise
RH37C	Precision 45MHz Op Amp	200K		M	DIP-8	FP-10	T0-5	yes	
RH1028M	Ultralow Noise 75MHz Precision High Speed Op Amp, Av ≥ 2 or Av ≤ -1	200K	Contact Factory for Schedule	M		FP-10		yes	1.0nV/√Hz 10kHz Noise
RH1078M	Dual Micropower 200kHz Precision Op Amp	100K	Test in Progress	M	DIP-8	FP-10	T0-5	yes	Optimized for Single Supply Operation, I <sub>S</sub> = 95µA
RH1013M	Dual 0.5MHz Precision Op Amp	200K	Test in Progress	M	DIP-8	FP-10	T0-5	yes	Low Offset Voltage 300µV Max, Low Drift (2.5µV/°C)
RH1498M	Dual 10MHz 6V/µs Rail-to-Rail I/O Precision C-Load Op Amp	200K	Test in Progress	M		FP-10		yes	
RH1814	Dual 3mA 100MHz 750V/µs Op Amp	200K	Test in Progress	C				yes	Dice Version Is a Dual Op Amp
RH1014M	Quad 0.5MHz Precision Op Amp	200K	Test in Progress	M	DIP-14	FP-14			Low Offset Voltage 300µV Max, Low Drift (2.5µV/°C)
RH1499M	Quad 10MHz 6V/µs Rail-to-Rail I/O Precision C-Load Op Amp	200K	Test in Progress	M		FP-14			
RH1814M	Quad 3mA 100MHz 750V/µs Op Amp	200K	Test in Progress	M		FP-14			
<b>Comparators</b>									
RH1016M	Ultrafast Precision 10ns Comparator	200K	Contact Factory for Schedule	M		FP-10		yes	
RH111	200ns Voltage Comparator	200K		M	DIP-8	FP-10	T0-5	yes	See RH1011 for New Designs
RH1011	Precision 250ns Voltage Comparator	200K	ELDRS Free to 50Krad	M	DIP-8	FP-10	T0-5	yes	
RH119	Dual High Performance 200ns Comparator	200K	ELDRS Free to 50Krad	M	DIP-8	FP-10	T0-5	yes	

Part Number	Description	Total Dose Level Rad(Si)	Enhanced Low Dose Rate Sensitivity (ELDRS) Testing Status <sup>(1)</sup>	Temp Range	CERDIP Package	FLATPAK Package	Metal Can Package	RH Dice	Comments
<b>LDO Regulators</b>									
RH1086M	0.5A Positive Adjustable LDO, 1.5V Dropout @ I <sub>max</sub> , (H die)	200K	Contact Factory for Schedule	M			T0-39	yes	
RH117	0.5A Positive Adjustable Regulator, (H die)	100K	ELDRS Free to 50Krad	M			T0-39	yes	
RH1086M	1.5A Positive Adjustable LDO, 1.5V Dropout @ I <sub>max</sub> , (K die)	200K	Contact Factory for Schedule	M			T0-3	yes	Surface Mount Package Available from MS Kennedy & Aeroflex
RH117	1.5A Positive Adjustable Regulator, (K die)	100K	ELDRS Free to 50Krad	M			T0-3	yes	Surface Mount Package Available from MS Kennedy & Aeroflex
RH1085M	3A Positive Adjustable LDO	200K	Contact Factory for Schedule	M			T0-3	yes	Surface Mount Package Available from MS Kennedy & Aeroflex
RH1084M	5A Low Dropout Positive Adjustable Regulator	200K		M			T0-3	yes	Surface Mount Package Available from MS Kennedy & Aeroflex
RH1573K	LDO Regulator Driver, Supports Up To 5A with External PNP	200K	Test in Progress	C				yes	Packaged Solution Available from MS Kennedy
RH137	0.5A Negative Adjustable Regulator, (H die)	200K	ELDRS Free to 50Krad	M			T0-3	yes	
RH137	1.5A Negative Adjustable Regulator, (K die)	200K	ELDRS Free to 50Krad	M			T0-39	yes	Surface Mount Package Available from MS Kennedy & Aeroflex
RH1185M	3A Negative LDO with Adjustable Current Limit	200K	Test in Progress	M			T0-3	yes	Surface Mount Package Available from MS Kennedy & Aeroflex

<b>References</b>									
RH1034M-1.2	Micropower Dual Reference, 1.2V and 7V	200K	Contact Factory for Schedule	M		FP-10	T0-46	yes	
RH1009M	Precision 2.5V Reference, 0.2% Initial Accuracy, 33ppm/°C Drift	200K	ELDRS Free to 50Krad	M		FP-10	T0-46	yes	
RH1021BM-5	Precision 5V Reference, 1% Initial Accuracy, 5ppm/°C Drift	200K	ELDRS Free to 50Krad	M			T0-5		
RH1021C-5	Precision 5V Reference, 0.05% Initial Accuracy, No Drift Spec	200K	ELDRS Free to 50Krad	C				yes	C-Grade in Dice Form Only
RH1021CM-5	Precision 5V Reference, 0.05% Initial Accuracy, 20ppm/°C Drift	200K	ELDRS Free to 50Krad	M		FP-10	T0-5		
RH129A	Precision 6.9V Reference, 4.3% Initial Accuracy, 10ppm/°C Drift	200K		M			T0-46	yes	
RH1021BM-7	Precision 7V Reference, 1% Initial Accuracy, 5ppm/°C Drift	200K		M			T0-5		
RH1021C-7	Precision 7V Reference, 0.05% Initial Accuracy, No Drift Spec	200K		C				yes	C-Grade in Dice Form Only
RH1021DM-7	Precision 7V Reference, 1% Initial Accuracy, 20ppm/°C Drift	200K		M			T0-5	yes	
RH1021BM-10	Precision 10V Reference, 1% Initial Accuracy, 5ppm/°C Drift	200K		M			T0-5		
RH1021C-10	Precision 10V Reference, 0.05% Initial Accuracy, No Drift Spec	200K		C				yes	C-Grade in Dice Form Only
RH1021CM-10	Precision 10V Reference, 0.05% Initial Accuracy, 20ppm/°C Drift	200K		M		FP-10	T0-5		

Note:  
1. ELDRS testing performed per MIL-STD-883 method 1019.7

MS KENNEDY RADIATION HARDENED ICs

MS Kennedy Radiation Hardened LDOs Built Using Linear Technology RH DIE

Part Number	† Positive LDO Output Current (A)	Positive LDO Output Voltage (V)	Positive LDO Dropout Voltage (V@I <sub>OUT</sub> )	† Negative LDO Output Current (A)	Negative LDO Output Voltage (V)	Negative LDO Dropout Voltage (V@I <sub>OUT</sub> )	Temp Range	SMD Number	LTC RH Die Part Type	Package	Comments
<b>Positive Voltage Regulators</b>											
MSK5970RH	1.5	Adjustable	1.1 @ 1.5A	n/a	n/a	n/a	M	5962F0921101	RH1086BKK	T0-257	On-Chip Trimming Adjusts Output Voltage to 1%
MSK5972RH	1.5	Adj (1.2 to 37)	2.2 @ 1.5A	n/a	n/a	n/a	M	5962F0921301	RH117K	T0-257	Current Limit and Thermal Overload Protection
MSK5823-1.8	3	1.8	1.0 @ 3A	n/a	n/a	n/a	M	5962F0824601	RH1573	Metal Flatpack-8	Optimized for 3.3V Input
MSK5823-2.5	3	2.5	0.3 @ 3A	n/a	n/a	n/a	M	5962F0824602	RH1573	Metal Flatpack-8	Optimized for 3.3V Input
MSK5824	3	Adj (1.3 to 6.1)	0.3 @ 3A	n/a	n/a	n/a	M	5962F0920801	RH1573	Metal Flatpack-8	1.265V to (V <sub>IN</sub> - 0.4V) Output Voltage Range
MSK5825-2.5	3	2.5	0.3 @ 3A	n/a	n/a	n/a	M	5962F0920901	RH1573	Metal Flatpack-8	Optimized for 5V Input
MSK5825-3.3	3	3.3	0.3 @ 3A	n/a	n/a	n/a	M	5962F0920902	RH1573	Metal Flatpack-8	Optimized for 5V Input
MSK5826	3	Adj (1.3 to 6.1)	0.3 @ 3A	n/a	n/a	n/a	M	5962F0921001	RH1573	Metal Flatpack-8	Optimized for 5V Input
MSK5971RH	3	Adjustable	1.1 @ 3A	n/a	n/a	n/a	M	5962F0921201	RH1085MK	T0-257	On-Chip Trimming Adjusts Output Voltage to 1%

† Primary Sort Column



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# MS KENNEDY RADIATION HARDENED ICs

## MS Kennedy Radiation Hardened LDOs Built Using Linear Technology RH DIE

Part Number	† Positive LDO Output Current (A)	Positive LDO Output Voltage (V)	Positive LDO Dropout Voltage (V@I <sub>OUT</sub> )	† Negative LDO Output Current (A)	Negative LDO Output Voltage (V)	Negative LDO Dropout Voltage (V@I <sub>OUT</sub> )	Temp Range	SMD Number	LTC RH Die Part Type	Package	Comments
MSK5800	4	Adj (1.5 to 6.8)	0.3 @ 1.5A	n/a	n/a	n/a	M	5962F0921601	RH1573	Metal Flatpack-12	External Shutdown/Reset, Latching Overload Protection
MSK5810	5	Adj (1.5 to 7.0)	0.11 @ 1A	n/a	n/a	n/a	M	5962F0921602	RH1573	Metal Flatpack-20	External Shutdown/Reset, Latching Overload Protection
MSK5820-1.5	5	1.5	1.3 @ 3A	n/a	n/a	n/a	M	5962F0921604	RH1573	Metal SIP-5	External Shutdown/Reset, Latching Overload Protection
MSK5820-1.8	5	1.8	1.0 @ 3A	n/a	n/a	n/a	M		RH1573	Metal SIP-5	External Shutdown/Reset, Latching Overload Protection
MSK5820-1.9	5	1.9	0.9 @ 3A	n/a	n/a	n/a	M	5962F0921605	RH1573	Metal SIP-5	External Shutdown/Reset, Latching Overload Protection
MSK5820-2.5	5	2.5	0.3 @ 3A	n/a	n/a	n/a	M	5962F0921606	RH1573	Metal SIP-5	External Shutdown/Reset, Latching Overload Protection
MSK5820-2.8	5	2.8	0.3 @ 3A	n/a	n/a	n/a	M	5962F0921607	RH1573	Metal SIP-5	External Shutdown/Reset, Latching Overload Protection
MSK5820-3.3	5	3.3	0.3 @ 3A	n/a	n/a	n/a	M	5962F0921608	RH1573	Metal SIP-5	External Shutdown/Reset, Latching Overload Protection
MSK5820-5.0	5	5.0	0.3 @ 3A	n/a	n/a	n/a	M	5962F0921609	RH1573	Metal SIP-5	External Shutdown/Reset, Latching Overload Protection
MSK5821	5	Adj (1.5 to 6.0)	0.3 @ 3A	n/a	n/a	n/a	M	5962F0921603	RH1573	Metal SIP-5	External Shutdown/Reset, Latching Overload Protection
MSK5822-1.5	5	1.5	0.22 @ 2A	n/a	n/a	n/a	M	Contact Factory	RH1573	Metal SIP-5	Separate Bias/V <sub>IN</sub> Pins for Improved Efficiency
MSK5822-1.9	5	1.9	0.22 @ 2A	n/a	n/a	n/a	M	Contact Factory	RH1573	Metal SIP-5	Separate Bias/V <sub>IN</sub> Pins for Improved Efficiency
MSK5822-2.5	5	2.5	0.22 @ 2A	n/a	n/a	n/a	M	Contact Factory	RH1573	Metal SIP-5	Separate Bias/V <sub>IN</sub> Pins for Improved Efficiency
MSK5822-2.8	5	2.8	0.22 @ 2A	n/a	n/a	n/a	M	Contact Factory	RH1573	Metal SIP-5	Separate Bias/V <sub>IN</sub> Pins for Improved Efficiency
MSK5822-3.3	5	3.3	0.22 @ 2A	n/a	n/a	n/a	M	Contact Factory	RH1573	Metal SIP-5	Separate Bias/V <sub>IN</sub> Pins for Improved Efficiency
MSK5822-5.0	5	5.0	0.22 @ 2A	n/a	n/a	n/a	M	Contact Factory	RH1573	Metal SIP-5	Separate Bias/V <sub>IN</sub> Pins for Improved Efficiency
MSK5950RH	5	Adj (0 to 2.0)	0.11 @ 1A	n/a	n/a	n/a	M	5962F0921501	RH1009+RH1573	Metal Flatpack-20	Output Voltage Adjustable Down to Near Zero
MSK5951RH	10	Adj (1.5 to 7.0)	0.11 @ 2A	n/a	n/a	n/a	M	Contact Factory	RH1573	Metal Powerpack-12	External Shutdown/Reset, Latching Overload Protection
<b>Negative Voltage Regulators</b>											
MSK5973RH	n/a	n/a	n/a	1.5	Adj (-1.2 to -22)	2.2 @ 1.5A	M	5962F0921401	RH137BKK	TO-257	Current Limit and Thermal Overload Protection
MSK5940-10RH	n/a	n/a	n/a	3	-10	0.6 @ 2A	M	Contact Factory	RH1185MK	Metal SIP-3	Tab or No Tab Package Option
MSK5940-12RH	n/a	n/a	n/a	3	-12	0.6 @ 2A	M	Contact Factory	RH1185MK	Metal SIP-3	Tab or No Tab Package Option
MSK5940-15RH	n/a	n/a	n/a	3	-15	0.6 @ 2A	M	Contact Factory	RH1185MK	Metal SIP-3	Tab or No Tab Package Option
MSK5940-5.0RH	n/a	n/a	n/a	3	-5	0.6 @ 2A	M	Contact Factory	RH1185MK	Metal SIP-3	Tab or No Tab Package Option
MSK5940-5.2RH	n/a	n/a	n/a	3	-5.2	0.6 @ 2A	M	Contact Factory	RH1185MK	Metal SIP-3	Tab or No Tab Package Option
<b>Combined Positive and Negative Regulators</b>											
MSK5930RH	3	3.3	1.1 @ 2A	3	-5.2	0.6 @ 2A	M	Contact Factory	RH1085MK+RH1185MK	Metal SIP-5	
MSK5931RH	3	5	1.1 @ 2A	3	-5	0.6 @ 2A	M	Contact Factory	RH1085MK+RH1185MK	Metal SIP-5	
MSK5932RH	3	5	1.1 @ 2A	3	-5.2	0.6 @ 2A	M	Contact Factory	RH1085MK+RH1185MK	Metal SIP-5	
MSK5933RH	3	12	1.1 @ 2A	3	-5	0.6 @ 2A	M	Contact Factory	RH1085MK+RH1185MK	Metal SIP-5	
MSK5934RH	3	12	1.1 @ 2A	3	-12	0.6 @ 2A	M	Contact Factory	RH1085MK+RH1185MK	Metal SIP-5	
MSK5935RH	3	15	1.1 @ 2A	3	-15	0.6 @ 2A	M	Contact Factory	RH1085MK+RH1185MK	Metal SIP-5	
MSK5936RH	3	15	1.1 @ 2A	3	-5	0.6 @ 2A	M	Contact Factory	RH1085MK+RH1185MK	Metal SIP-5	
MSK5937RH	3	5	1.1 @ 2A	3	-12	0.6 @ 2A	M	Contact Factory	RH1085MK+RH1185MK	Metal SIP-5	
MSK5938RH	3	5	1.1 @ 2A	3	-15	0.6 @ 2A	M	Contact Factory	RH1085MK+RH1185MK	Metal SIP-5	
MSK5939RH	3	10	1.1 @ 2A	3	-10	0.6 @ 2A	M	Contact Factory	RH1085MK+RH1185MK	Metal SIP-5	

† Primary Sort Column

## MS Kennedy Radiation Hardened Operational Amplifiers Built Using Linear Technology RH DIE

Part Number	V <sub>OS</sub> Max 25°C (mV)	I <sub>BIAS</sub> Max 25°C (nA)	Slew Rate (V/μs)	CMRR (dB)	I <sub>OUT</sub> (mA)	Supply Voltage Range (V)	Temp Range	SMD Number	LTC RH Die Part Type	Package	Comments
MSK0041RH	±3	±300	1.2	70	300	±5 to ±18	M	Contact Factory	RH101A	TO-8/12 Pin	Class C Power Op Amp with Internal Current Limit
MSK106RH	±3	±500	1.2	70	1600	±5 to ±22	M	Contact Factory	RH101A	Metal Flatpack-20	Class C Power Op Amp with Internal Current Limit

For more information, please visit the MS Kennedy website: [www.mskennedy.com](http://www.mskennedy.com) and follow the link to RAD HARD PRODUCTS

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# AEROFLEX RADIATION HARDENED LINEAR REGULATORS (LDOs) BUILT USING LINEAR TECHNOLOGY RH DIE

Part Number	† Positive LDO Output Current (A)	Positive LDO Output Voltage (V)	Positive LDO Dropout Voltage (V@I <sub>OUT</sub> )	† Negative LDO Output Current (A)	Negative LDO Output Voltage (V)	Negative LDO Dropout Voltage (V@I <sub>OUT</sub> )	Temp Range	SMD Number	LTC RH Die Part Type	Package	Comments
<b>Positive Voltage Regulators</b>											
VRG8662	1.0	Adj (1.3 to 23)	1.3 @ 1A	n/a	n/a	n/a	M	5962-0920701KXX	RH1086MK	SMD-0.5	3 Terminal Ceramic SMD
VRG8660	1.5	Adj (1.2 to 37)	2.2 @ 1.5A	n/a	n/a	n/a	M	5962-0920601KXX	RH117K	SMD-0.5	3 Terminal Ceramic SMD
<b>Dual Positive Voltage Regulators</b>											
VRG8657	1.0 × 2	Adj (1.3 to 23)	1.3 @ 1A	n/a	n/a	n/a	M	5962-0920102KXX	Dual RH1086MK	TO-257	1A for Each Regulator, 6 Lead Through Hole Mounting
VRG8658	1.0 × 2	Adj (1.3 to 23)	1.3 @ 1A	n/a	n/a	n/a	M	5962-0920102KYX	Dual RH1086MK	TO-257	1A for Each Regulator, 6 Lead Surface Mount
VRG8607	1.5 × 2	Adj (1.2 to 37)	2.2 @ 1.5A	n/a	n/a	n/a	M	5962-0521903KXX	Dual RH117K	TO-257	1.5A for Each Regulator, 6 Lead Through Hole Mounting
VRG8608	1.5 × 2	Adj (1.2 to 37)	2.2 @ 1.5A	n/a	n/a	n/a	M	5962-0521903KYX	Dual RH117K	TO-257	1.5A for Each Regulator, 6 Lead Surface Mount
<b>Negative Voltage Regulators</b>											
VRG8661	n/a	n/a	n/a	1.5	Adj (-1.2 to -27)	2.2 @ 1.5A	M	5962-0920602KXX	RH137K	SMD-0.5	3 Terminal Ceramic SMD
VRG8663	n/a	n/a	n/a	3.0	Adj (-2.5 to -25)	1.3 @ 3A	M	5962-0920702KYX	RH1185MK	SMD	5 Terminal Ceramic SMD
<b>Dual Negative Voltage Regulators</b>											
VRG8609	n/a	n/a	n/a	1.5 × 2	Adj (-1.2 to -27)	2.2 @ 1.5A	M	5962-0521904KXX	Dual RH137K	TO-257	1.5A for Each Regulator, 6 Lead Through Hole Mounting
VRG8610	n/a	n/a	n/a	1.5 × 2	Adj (-1.2 to -27)	2.2 @ 1.5A	M	5962-0521904KYX	Dual RH137K	TO-257	1.5A for Each Regulator, 6 Lead Surface Mount
<b>Combined Positive and Negative Regulators</b>											
VRG8651	1.0	Adj (1.3 to 23)	1.3 @ 1A	3.0	Adj (-2.5 to -25)	1.3 @ 3A	M	5962-0920101KXX	RH1086MK+RH1185MK	TO-257	8 Lead Through Hole Mounting
VRG8652	1.0	Adj (1.3 to 23)	1.3 @ 1A	3.0	Adj (-2.5 to -25)	1.3 @ 3A	M	5962-0920101KYX	RH1086MK+RH1185MK	TO-257	8 Lead Surface Mount
VRG8601	1.5	Adj (1.2 to 37)	2.2 @ 1.5A	1.5	Adj (-2.5 to -25)	2.2 @ 1.5A	M	5962-0521901KXX	RH117K+RH137K	TO-257	6 Lead Through Hole Mounting
VRG8602	1.5	Adj (1.2 to 37)	2.2 @ 1.5A	1.5	Adj (-2.5 to -25)	2.2 @ 1.5A	M	5962-0521901KYX	RH117K+RH137K	TO-257	6 Lead Surface Mount

† Primary Sort Column

For more information, please visit the Aeroflex website at: [http://www.ams.aeroflex.com/ProductPages/RH\\_regs.cfm](http://www.ams.aeroflex.com/ProductPages/RH_regs.cfm)

Amps, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

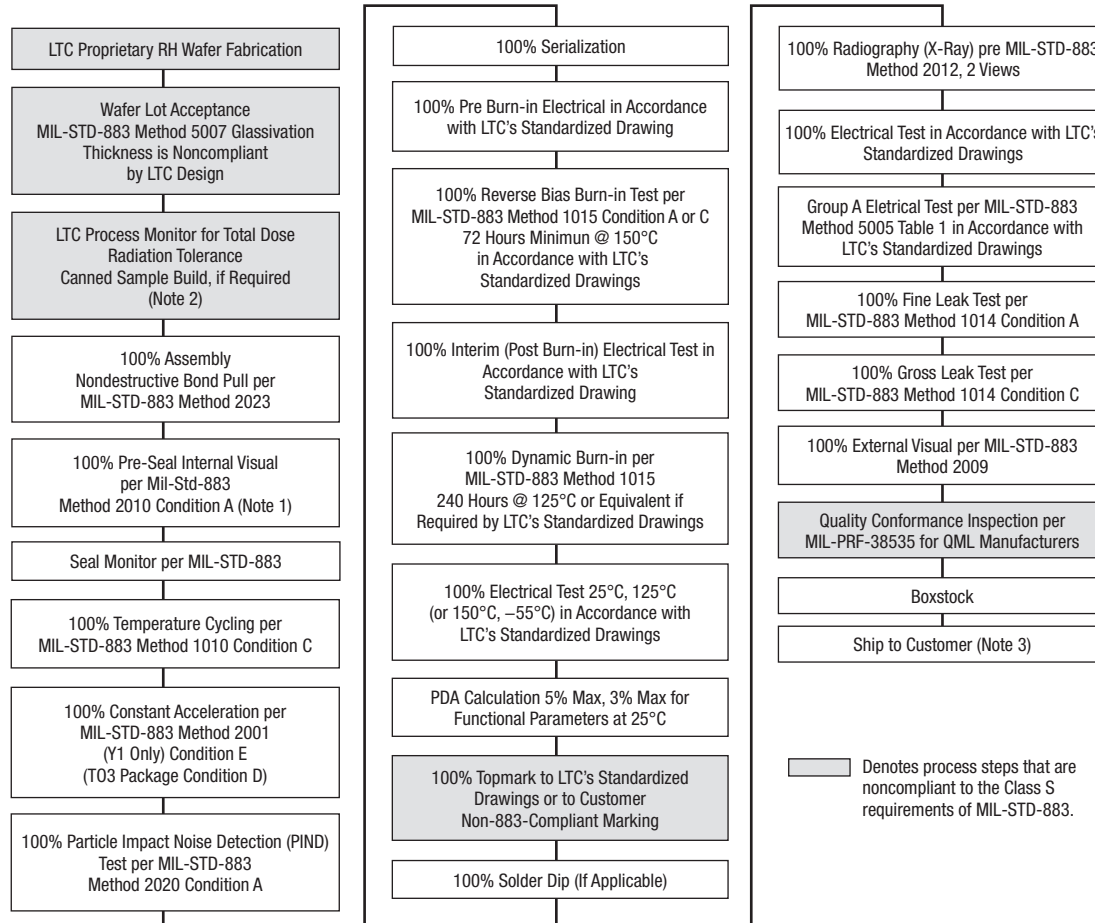
Space, Military, Harsh Envir.

Reference Material

## Standardized RH Packaged Product Process

Linear Technology has implemented proprietary processes that enhance the performance of its devices when exposed to radiation. Linear Technology does not use Si3N4 [silicon nitride] top-side passivation on its radiation hardened offerings. Instead Linear Technology uses a low temperature deposit of silicon dioxide as a top-side barrier. The following flowchart highlights the steps where changes were made compared to the standard JAN-S manufacturing flow.

## Standardized RH Packaged Product Flowchart



- NOTES:
1. Source Inspection at Pre-Seal Internal Visual and Wafer Lot Acceptance is standard.
  2. For guaranteed radiation levels, outside lab charges will apply for samples to MIL-STD-883, Test Method 1019, Total Dose Irradiation.
  3. Customer Source Inspection can be added at Final Shipment per P.O.

## RH DICE Sales

RH devices are available in DICE form.

This table highlights the RH Element Evaluation for qualifying DICE sales.

RH CANNED SAMPLE TABLE FOR QUALIFYING DICE SALES

Sub-Group	Class		Operation	MIL-STD-883		Quantity (Accept Number)
	K/S	H/B		Method	Condition	
1	X		SEM	2018	N/A	Reference Method 2018 for Sample Size
2	X	X	Element Electrical (Wafer Sort @ 25°C)			100%
3	X	X	Element Visual (2nd OP)	2010	A	100%
4	x	X	Internal Visual (3rd OP)	2010	A	Assembled Parts Only
	X		Die Shear Monitor	2019		
	X		Bond Pull Monitor	2011		
5	X		Stabilization Bake	1008	C	Assembled Parts Only
	X		Temperature Cycle	1010	C	
	X		Constant Acceleration	2001	E	
	X		Fine Leak	1014	A	
	X		Gross Leak	1014	C	
6	X		First Room Electrical – Read & Record (Replace Any Assembly-Related Rejects)			43 (3)
	X		Electrical Read & Record @ 125°C or 150°C, -55°C			
	X		Burn-In: 125°C/240 hrs. or 150°C/120 hrs.	1015	125°C Min. 240 hours	
	X		Post Burn-In Electrical @ 25°C Read & Record			
	X		Pre OP-Life Electrical @ 25°C Read & Record			
	X		Operating Life: 125°C/1000 hrs. or 150°C/500 hrs.	1005	125°C Min. 1000 hours	
	X		Post OP-Life Electrical (Read & Record 25°C, 125°C or 150°C, -55°C)			
7	X	X	Wire Bond Evaluation	2011		15 (0) or 25 (1) (No. of wires)

NOTES:

1. LTC is not qualified to process to MIL-PRF-38534. This is an LTC imposed element evaluation that follows MIL-STD-883 test methods and conditions. Please note the quantity and accept number from a Sample Size Series of 15%, accept on 3, and note that the actual sample and accept number does not begin until Subgroup 6.
2. Tests within Subgroup 5 may be performed in any sequence.
3. LTC's radiation-tolerant (RH) die has a topside glassivation thickness of 4KÅ minimum.
4. Sample sizes on the travelers may be larger than that indicated in the above table; however, the larger sample size is to accommodate extra units for replacement devices in the event of equipment or operator error and for assembly-related rejects in Subgroup 6, and for Wire Bond Evaluation, Subgroup 7. The larger sample size is at all times kept segregated and, if used for qualification, has all the required processing imposed.



† DSCC Part Number	LTC Part Number	Description	Temp Range	Gold Terminal Finish	SnPb Terminal Finish	Matte Tin Terminal Finish	Package	Comments
<b>Amplifiers</b>								
JM38510/10103SGA	LM101AH	1MHz ±15V 2mV V <sub>OS</sub> Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	
JM38510/10103SHA	LM101AW	1MHz ±15V 2mV V <sub>OS</sub> Op Amp	M	n/a	yes	n/a	FLATPAK-10	
JM38510/10103SPA	LM101AJ8	1MHz ±15V 2mV V <sub>OS</sub> Op Amp	M	n/a	yes	n/a	CERDIP-8	
JM38510/10104SCA	LM108AJ	1MHz ±15V 0.5mV V <sub>OS</sub> Op Amp	M	n/a	yes	n/a	CERDIP-14	
JM38510/10104SGA	LM108AH	1MHz ±15V 0.5mV V <sub>OS</sub> Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	
JM38510/10104SHA	LM108AW	1MHz ±15V 0.5mV V <sub>OS</sub> Op Amp	M	n/a	yes	n/a	FLATPAK-10	
JM38510/10104SPA	LM108AJ8	1MHz ±15V 0.5mV V <sub>OS</sub> Op Amp	M	n/a	yes	n/a	CERDIP-8	
JM38510/10107SGA	LM118H	15MHz ±15V Precision Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	
JM38510/10107SPA	LM118J8	15MHz ±15V Precision Op Amp	M	n/a	yes	n/a	CERDIP-8	
JM38510/11401SGA	LF155H	2.5MHz 100pA I <sub>BIAS</sub> JFET Input Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	±30μV/°C Input Offset Voltage Drift
JM38510/11401SPA	LF155J8	2.5MHz 100pA I <sub>BIAS</sub> JFET Input Op Amp	M	n/a	yes	n/a	CERDIP-8	±30μV/°C Input Offset Voltage Drift
JM38510/11402SGA	LF156J8	5MHz 100pA I <sub>BIAS</sub> JFET Input Op Amp	M	n/a	yes	n/a	CERDIP-8	±30μV/°C Input Offset Voltage Drift
JM38510/11402SPA	LF156H	5MHz 100pA I <sub>BIAS</sub> JFET Input Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	±30μV/°C Input Offset Voltage Drift
JM38510/11404SPA	LF155AJ8	2.5MHz 50pA I <sub>BIAS</sub> JFET Input Op Amp	M	n/a	yes	n/a	CERDIP-8	±10μV/°C Input Offset Voltage Drift
JM38510/11405SGA	LF156AH	5MHz 50pA I <sub>BIAS</sub> JFET Input Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	±10μV/°C Input Offset Voltage Drift
JM38510/11405SPA	LF156AJ8	5MHz 50pA I <sub>BIAS</sub> JFET Input Op Amp	M	n/a	yes	n/a	CERDIP-8	±10μV/°C Input Offset Voltage Drift
JM38510/12501SGA	LF198H	Sample and Hold Amplifier	M	n/a	yes	n/a	TO-5, 8 Lead	
JM38510/13501SGA	OP07AH	0.4MHz 75μV Offset Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	±25μV Input Offset Voltage @ 25°C
JM38510/13501SPA	OP07AJ	0.4MHz 75μV Offset Op Amp	M	n/a	yes	n/a	CERDIP-8	±25μV Input Offset Voltage @ 25°C
JM38510/13502SGA	OP07H	0.4MHz 75μV Offset Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	±75μV Input Offset Voltage @ 25°C
JM38510/13502SPA	OP07J	0.4MHz 75μV Offset Op Amp	M	n/a	yes	n/a	CERDIP-8	±75μV Input Offset Voltage @ 25°C
<b>Comparators</b>								
JM38510/10304SGA	LM111H8	200ns Voltage Comparator	M	n/a	yes	n/a	TO-5, 8 Lead	Not Recommended for New Designs
JM38510/10306SCA	LM119J	300ns Dual Precision High Speed Comparator	M	n/a	yes	n/a	CERDIP-14	±75nA Input Offset Current
JM38510/10306SHA	LM119W	300ns Dual Precision High Speed Comparator	M	n/a	yes	n/a	FLATPAK-10	±75nA Input Offset Current
JM38510/10306SIA	LM119H	300ns Dual Precision High Speed Comparator	M	n/a	yes	n/a	TO-5, 10 Lead	±75nA Input Offset Current
JM38510/10307SCA	LT119AJ	125ns Dual High Precision High Speed Comparator	M	n/a	yes	n/a	CERDIP-14	±40nA Input Offset Current
JM38510/10307SHA	LT119AW	125ns Dual High Precision High Speed Comparator	M	n/a	yes	n/a	FLATPAK-10	±40nA Input Offset Current
JM38510/10307SIA	LT119AH	125ns Dual High Precision High Speed Comparator	M	n/a	yes	n/a	TO-5, 10 Lead	±40nA Input Offset Current
<b>LDO Regulators</b>								
JM38510/11703SXA	LM117H	0.5A Positive Adjustable Regulator	M	n/a	yes	n/a	TO-39	
JM38510/11704SYA	LM117K	1.5A Positive Adjustable Regulator	M	n/a	yes	n/a	TO-3	
JM38510/11706SYA	LM138K	5A Positive Voltage Regulator	M	n/a	yes	n/a	TO-3	
JM38510/11803SXA	LM137H	0.5A Negative Adjustable Regulator	M	n/a	yes	n/a	TO-39	
<b>References</b>								
JM38510/12407SGA	LT1021BMH-5	5V Ultralow Drift Precision Reference	M	n/a	yes	n/a	TO-5, 8 Lead	5ppm/°C Voltage Drift
JM38510/12408SGA	LT1021BMH-7	7V Ultralow Drift Precision Reference	M	n/a	yes	n/a	TO-5, 8 Lead	5ppm/°C Voltage Drift
JM38510/12409SGA	LT1021BMH-10	10V Ultralow Drift Precision Reference	M	n/a	yes	n/a	TO-5, 8 Lead	5ppm/°C Voltage Drift
JM38510/14802SXA	LT1009MH	Precision 2.5V Reference	M	n/a	yes	n/a	TO-46	

† Primary Sort Column

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Space, Military,  
Harsh Envir.

Reference  
Material

# MILITARY PLASTIC ICs

Part Number	Description	Temp Range	Gold Terminal Finish	SnPb Terminal Finish	Matte Tin Terminal Finish	Package	Comments
<b>Amplifiers</b>							
LT1637MPS8	1.1MHz, 0.4V/us Over-The-Top uPower, RRIO Op Amp	M	n/a	yes	yes	SO-8	
LT1994MPDD	70MHz Low Noise, Low Distortion Differential In/Out Amplifier/Driver	M	n/a	yes	yes	3x3 DFN-8	
LT1112MPS8	Dual 0.75MHz Low Power Precision, Picoamp Input Op Amp	M	n/a	yes	yes	SO-8	
LT1498MPS8	Dual 10MHz, 6V/us, RRIO Precision C-Load Op Amp	M	n/a	yes	yes	SO-8	
LT1124AMPS8	Dual 12.5MHz Low Noise, High Speed Precision Op Amp	M	n/a	yes	yes	SO-8	
LT1125MPSW	Quad 12.5MHz Low Noise, High Speed Precision Op Amp	M	n/a	yes	yes	SOW-16	
LT1114MPS	Quad 0.75MHz Low Power Precision, Picoamp Input Op Amp	M	n/a	yes	yes	SO-16	
LT6107MPS5	High Side Current Sense Amplifier	M	n/a	yes	yes	TSOT-23	
<b>DC/DC <math>\mu</math>Module Regulators</b>							
LTM8020MPV#PBF	$V_{IN}$ DC/DC $\mu$ Module	M	yes	n/a	n/a	LGA 6.25x6.25x2.3	
LTM8022MPV#PBF	1A, 36V $V_{IN}$ , DC/DC $\mu$ Module	M	yes	n/a	n/a	LGA 9x11.25x2.8	
LTM8023MPV#PBF	2A, 36V $V_{IN}$ , DC/DC $\mu$ Module	M	yes	n/a	n/a	LGA 9x11.25x2.8	
LTM4606MP#PBF	6A Ultralow Noise 18V $V_{IN}$ 5V <sub>OUT</sub> , DC/DC $\mu$ Module	M	yes	n/a	n/a	LGA 15x15x2.8	
LTM4612MP#PBF	6A Ultralow Noise 36V $V_{IN}$ , 12V <sub>OUT</sub> , DC/DC $\mu$ Module	M	yes	n/a	n/a	LGA 15x15x2.8	
LTM4608AMPV#PBF	8A, 2.4V to 5.5V $V_{IN}$ DC/DC $\mu$ Module with Tracking, Margining, Multiphase	M	yes	n/a	n/a	LGA 9x15x2.8	
LTM4600HVMP#PBF	10A, 28V $V_{IN}$ , DC/DC $\mu$ Module	M	yes	n/a	n/a	LGA 15x15x2.8	
LTM4601AHVMPV#PBF	12A, 28V $V_{IN}$ , DC/DC $\mu$ Module, with PLL, Tracking & Margining	M	yes	n/a	n/a	LGA 15x15x2.8	
<b>DC/DC Regulators and Controllers</b>							
LTC3404MPMS8	1A, 1.4MHz High Efficiency Monolithic Sync. Step-Down Regulator	M	n/a	yes	yes	SO-8	
LTC3412AMPFE	2.5A, 4MHz, Monolithic Synchronous Step-Down Regulator	M	n/a	yes	yes	TSSOP-16	
LTC3414MPFE	4A, 4MHz, Monolithic Synchronous Step-Down Regulator	M	n/a	yes	yes	TSSOP-20	
LT3724MPFE	High Voltage, Current Mode Switching Regulator Controller	M	n/a	yes	yes	TSSOP-16	
LTC3824MPMSE	High Voltage Step-Down Controller with 40 $\mu$ A Quiescent Current	M	n/a	yes	yes	MSOP-10	
LTC3780MPG	High Efficiency, Synchronous, 4-Switch Buck-Boost Controller	M	n/a	yes	yes	SSOP-24	
LTC3780MPUH	High Efficiency, Synchronous, 4-Switch Buck-Boost Controller	M	n/a	yes	yes	5x5 QFN-32	
<b>LDO Regulators</b>							
LT1761MPS5-1.8	100mA, Low Noise, LDO Micropower Regulator	M	n/a	yes	yes	SOT-23	
LT3013MPFE	250mA, 4V to 80V Low Dropout Micropower Linear Regulator with PWRGD	M	n/a	yes	yes	TSSOP-16	
LT1763MPS8	500mA, Low Noise, LDO Micropower Regulator	M	n/a	yes	yes	SO-8	
LT3085MPDCB	500mA Adjustable Low Dropout Regulator (6-Lead DFN)	M	n/a	yes	yes	2x3 DFN-6	
LT3085MPMS8E	500mA Adjustable Low Dropout Regulator (8-Lead MSOP)	M	n/a	yes	yes	MSOP-8	
LT1129MPST-3.3	700mA Low Dropout Regulator with Shutdown	M	n/a	yes	yes	SOT-223	
LT1963AMPQ	1.5A, Low Noise, Fast Transient Response LDO Regulator	M	n/a	yes	yes	DD-5	
LT1963AMPS8	1.5A, Low Noise, Fast Transient Response LDO Regulator	M	n/a	yes	yes	SO-8	
LT1764AMPQ	3A, Fast Transient Response, Low Noise, LDO Regulator	M	n/a	yes	yes	T0-220	
<b>Oscillators</b>							
LTC6904MPMS8	1kHz to 68MHz Serial Port Programmable Oscillator	M	n/a	yes	yes	SO-8	
LTC6905MPS5	17MHz to 170MHz Resistor Set SOT-23 Oscillator	M	n/a	yes	yes	SOT-23	
<b>Power Management</b>							
LT4356MPS-1	Overvoltage Protection Regulator and Inrush Limiter	M	n/a	yes	yes	SO-16	
LT4356MPS-2	Overvoltage Protection Regulator and Inrush Limiter with Auxiliary Amplifier	M	n/a	yes	yes	SO-16	
LT4356MPMS-1	Overvoltage Protection Regulator and Inrush Limiter	M	n/a	yes	yes	MSOP-10	
LTC4444MPMS8E-5	High Voltage Synchronous N-Channel MOSFET Driver	M	n/a	yes	yes	MSOP-8	
<b>References</b>							
LT6700MPDCB-1	6.5 $\mu$ A, 18 $\mu$ s Low Voltage, Dual Comparator with 400mV Ref., 1 Inv Input, 1 Non-Inv Input	M	n/a	yes	yes	2x3 DFN-6	
LT6700MPDCB-2	Micropower, Low Voltage, Dual Comparator with 400mV Ref., 2 Inv Inputs	M	n/a	yes	yes	2x3 DFN-6	
LT6700MPDCB-3	Micropower, Low Voltage, Dual Comparator with 400mV Ref., 2 Non-Inv Inputs	M	n/a	yes	yes	2x3 DFN-6	

Part Number	DSCC SMD#	Description	Temp Range	Gold Terminal Finish	SnPb Terminal Finish	Matte Tin Terminal Finish	Package	Comments <sup>(2)</sup>
<b>Amplifiers<sup>(1)</sup></b>								
LTC1100AMJ8		0.02MHz Precision, Zero-Drift Instrumentation Amplifier	M	n/a	yes	n/a	CERDIP-8	
LT1101AMJ8		0.25MHz Precision Micropower Single Supply Instrumentation Amplifier	M	n/a	yes	n/a	CERDIP-8	
LM107H		0.25MHz $\pm 15V$ FET Input Op Amp, Internal Compensation Capacitor	M	n/a	yes	n/a	TO-5, 8 Lead	
LM307H		0.25MHz $\pm 15V$ FET Input Op Amp	C	n/a	yes	n/a	TO-5, 8 Lead	
OP07H		Precision 0.4MHz Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	
LM108AH		1MHz $\pm 15V$ 0.5mV $V_{OS}$ Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	
LM108AJ8		1MHz $\pm 15V$ 0.5mV $V_{OS}$ Op Amp	M	n/a	yes	n/a	CERDIP-8	
LF155H		2.5MHz 100pA $I_{BIAS}$ J-FET Input Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	
LF355AH		2.5MHz 50pA $I_{BIAS}$ J-FET Input Op Amp	C	n/a	yes	n/a	TO-5, 8 Lead	
LTC1150MJ8		2.5MHz Zero-Drift Op Amp with Internal Capacitors	M	n/a	yes	n/a	CERDIP-8	
LT1010MJ8		20MHz $\pm 150mA$ Power Buffer	M	n/a	yes	n/a	TO-39, 4 Lead	
LT1010MJ8/883		20MHz $\pm 150mA$ Power Buffer	M	n/a	yes	n/a	TO-39, 4 Lead	
LT1227MJ8		140MHz Video Current Feedback Amplifier	M	n/a	yes	n/a	CERDIP-8	
LT1227MJ8/883		140MHz Video Current Feedback Amplifier	M	n/a	yes	n/a	CERDIP-8	
LT1078AMJ8/883	5962-9163204MPA	Dual 0.2MHz Micro-Power, Single Supply, Precision Op Amp	M	n/a	yes	n/a	CERDIP-8	DSCC or LT Versions Available
LT1078MJ8		Dual 0.2MHz Micro-Power, Single Supply, Precision Op Amp	M	n/a	yes	n/a	CERDIP-8	
LT1013AMH		Dual 0.5MHz Precision Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	
LT1013AMJ8/883	5962-8876001PX	Dual 0.5MHz Precision Op Amp	M	n/a	yes	n/a	CERDIP-8	DSCC or LT Versions Available
LT1013MH		Dual 0.5MHz Precision Op Amp	M	n/a	yes	n/a	TO-5, 8 Lead	
LT1013MJ8		Dual 0.5MHz Precision Op Amp	M	n/a	yes	n/a	CERDIP-8	
LT1013MJ8/883		Dual 0.5MHz Precision Op Amp	M	n/a	yes	n/a	CERDIP-8	
LT1112MJ8		Dual 0.75MHz Low Power Precision, Picoamp Input Op Amp	M	n/a	yes	n/a	CERDIP-8	
LT1211MJ8		Dual 14MHz, 7V/ $\mu s$ , Single Supply Precision Op Amp	M	n/a	yes	n/a	CERDIP-8	
LT1213AMJ8		Dual 28MHz, 12V/ $\mu s$ , Single Supply Precision Op Amp	M	n/a	yes	n/a	CERDIP-8	
LT1079MJ		Quad 0.2MHz Micro-Power, Single Supply, Precision Op Amp	M	n/a	yes	n/a	CERDIP-14	
LT1014AMJ/883		Quad 0.5MHz Precision Op Amp	M	n/a	yes	n/a	CERDIP-14	
LT1014MJ		Quad 0.5MHz Precision Op Amp	M	n/a	yes	n/a	CERDIP-14	
LT1114MJ		Quad 0.75MHz Low Power Precision, Picoamp Input Op Amp	M	n/a	yes	n/a	CERDIP-14	
LT1125AMJ		Quad 12.5MHz Low Noise, High Speed Precision Op Amp	M	n/a	yes	n/a	CERDIP-14	
<b>Comparators</b>								
LT1016MJ8/883	5962-8684501PX	Ultrafast Precision 10ns Comparator	M	n/a	yes	n/a	CERDIP-8	DSCC or LT Versions Available
LT1011AMJ8		250ns Voltage Comparator	M	n/a	yes	n/a	CERDIP-8	
LT1011MJ8		250ns Voltage Comparator	M	n/a	yes	n/a	CERDIP-8	
LTC1041MJ8		80 $\mu s$ BANG-BANG Controller	M	n/a	yes	n/a	CERDIP-8	
LTC1042MJ8		80 $\mu s$ Window Comparator	M	n/a	yes	n/a	CERDIP-8	
<b>Data Conversion</b>								
LTC1094MJ/883B		10-Bit Serial, 8-Channel 26ksps I/O Data Acquisition System	M	n/a	yes	n/a	CERDIP-20	
LTC1290CMJ		12-Bit, 8-Channel, 50ksps Serial I/O Data Acquisition System	M	n/a	yes	n/a	CERDIP-20	
LTC1292BMJ8		12-Bit, Single Channel, 60ksps Serial I/O Data Acquisition System	M	n/a	yes	n/a	CERDIP-8	
LTC1292BMJ8/883		12-Bit, Single Channel, 60ksps Serial I/O Data Acquisition System	M	n/a	yes	n/a	CERDIP-8	
<b>DC/DC Regulators and Controllers</b>								
LTC1044MJ8		Switched Capacitor Voltage Converter	M	n/a	yes	n/a	CERDIP-8	
LT1054MJ8		100mA Regulated Switched-Capacitor Voltage Converter	M	n/a	yes	n/a	CERDIP-8	
LT1111MJ8/883	5962-9321201MPA	300 $\mu A$ $I_O$ DC/DC Converter with 1A Power Switch, Adj. or Fixed 5V/12V Output	M	n/a	yes	n/a	CERDIP-8	DSCC or LT Versions Available
LT1072MJ8/883		40kHz 1.25A High Efficiency Switching Regulator	M	n/a	yes	n/a	CERDIP-8	
LT1172MJ8		100kHz, 1.25A Power Switch, High Efficiency Switching Regulator	M	n/a	yes	n/a	CERDIP-8	
LT1172MJ8/883		100kHz, 1.25A High Efficiency Switching Regulator	M	n/a	yes	n/a	CERDIP-8	
LT1244MJ8/883	5962-9319004MPA	High Speed Current Mode Pulse Width Modulator, 16V Start-Up/10V Min Operating Voltage	M	n/a	Yes	n/a	CERDIP-8	DSCC or LT Versions Available
LT1245MJ8		High Speed Current Mode Pulse Width Modulator, 8.4V Start-Up/7.6V Min Operating Voltage	M	n/a	Yes	n/a	CERDIP-8	

Amps, Refs,  
Filters, CompsPower  
ManagementData  
Conversion

Interface

High  
FrequencySpace, Military,  
Harsh Envir.Reference  
Material

# MILITARY HERMETIC ICs

Part Number	DSCC SMD#	Description	Temp Range	Gold Terminal Finish	SnPb Terminal Finish	Matte Tin Terminal Finish	Package	Comments <sup>(2)</sup>
<b>Filters</b>								
LTC1064-4MJ		Low Noise, 8th Order, Lowpass Filter	M	n/a	Yes	n/a	CERDIP-14	
<b>Interface</b>								
LTC485MJ8		Low Power RS485 Interface Transceiver	M	n/a	Yes	n/a	CERDIP-8	
<b>LDO Regulators</b>								
LT1086MH		0.5A Positive Adjustable Regulators, Low Dropout	M	n/a	Yes	n/a	TO-39, 3 Lead	
<b>Power Management</b>								
LM134H/883		Constant Current Source and Temperature Sensor	M	n/a	Yes	n/a	TO-46, 3 Lead	
<b>References<sup>(3)</sup></b>								
LT1431MJ8		Prog Reference, 2.5 to 36V Output, 0.4% Initial Accuracy, 50 ppm/°C (Typ) Drift	M	n/a	Yes	n/a	CERDIP-8	
LT580UH		2.5V Precision Voltage Reference, 0.05% Initial Accuracy, 10ppm/°C Drift	M	n/a	Yes	n/a	TO-52, 3 Lead	
LT1009MH/883	5962-8961001XA	Precision 2.5 Volt Reference, 0.2% Initial Accuracy, 35ppm/°C Drift	M	n/a	Yes	n/a	TO-46, 3 Lead	DSCC or LT Versions Available
LM136AH-2.5/883B		2.5Volt Reference, 1% Initial Accuracy, 40ppm/°C	M	n/a	Yes	n/a	TO-46, 3 Lead	
LT1021CMH-5/883	5962-8876202GA	Precision 5 Volt Reference, 0.05% Initial Accuracy, 20ppm/°C Drift	M	n/a	Yes	n/a	TO-5, 8 Lead	DSCC or LT Versions Available
LT1029AMH		5V Bandgap Reference, 0.2% Initial Accuracy, 20ppm/°C	M	n/a	Yes	n/a	TO-46, 3 Lead	
REF02AH		5V Precision Voltage Reference, 0.3% Initial Accuracy, 8.5ppm/°C Drift	M	n/a	Yes	n/a	TO-5, 8 Lead	
REF02AJ8		5V Precision Voltage Reference, 0.3% Initial Accuracy, 8.5ppm/°C Drift	M	n/a	Yes	n/a	CERDIP-8	
LT1021BMH-5/883	5962-8876201GA	Precision 5 Volt Reference, 1% Initial Accuracy, 5ppm/°C Drift	M	n/a	Yes	n/a	TO-5, 8 Lead	DSCC or LT Versions Available
LT1021DMH-5/883	5962-8876203GA	Precision 5 Volt Reference, 1% Initial Accuracy, 20ppm/°C Drift	M	n/a	Yes	n/a	TO-5, 8 Lead	DSCC or LT Versions Available
LM399AH		6.95V Shunt Reference, 2.2% Initial Accuracy, 10ppm/°C	C	n/a	Yes	n/a	TO-46, 4 Lead	
LM399H		6.95V Shunt Reference, 2.2% Initial Accuracy, 15ppm/°C	C	n/a	Yes	n/a	TO-46, 4 Lead	
LM129BH		Precision 6.9Volt Reference, 4.3% Initial Accuracy, 20ppm/°C Drift	M	n/a	Yes	n/a	TO-46, 2 Lead	
LH0070-2H/883	5962-8688203XA	Precision 10 Volt Reference, 0.05% Initial Accuracy, 4ppm/°C Drift	M	n/a	Yes	n/a	TO-39, 3 Lead	DSCC or LT Versions Available
LT1031BMH/883	5962-8980201XA	Precision 10 Volt Reference, 0.05% Initial Accuracy, 5ppm/°C Drift	M	n/a	Yes	n/a	TO-39, 3 Lead	DSCC or LT Versions Available
LT1021CMH-10/883	5962-8860002GA	Precision 10 Volt Reference, 0.05% Initial Accuracy, 20ppm/°C Drift	M	n/a	Yes	n/a	TO-5, 8 Lead	DSCC or LT Versions Available
LH0070-1H/883	5962-8688202XA	Precision 10 Volt Reference, 0.1% Initial Accuracy, 9ppm/°C Drift	M	n/a	Yes	n/a	TO-39, 3 Lead	DSCC or LT Versions Available
LT1031CMH /883	5962-8980202XA	Precision 10 Volt Reference, 0.1% Initial Accuracy, 15ppm/°C Drift	M	n/a	Yes	n/a	TO-39, 3 Lead	DSCC or LT Versions Available
LH0070-0H/883	5962-8688201XA	Precision 10 Volt Reference, 0.1% Initial Accuracy, 18ppm/°C Drift	M	n/a	Yes	n/a	TO-39, 3 Lead	DSCC or LT Versions Available
LT1031DMH/883	5962-8980203XA	Precision 10 Volt Reference, 0.2% Initial Accuracy, 25ppm/°C Drift	M	n/a	Yes	n/a	TO-39, 3 Lead	DSCC or LT Versions Available
LT1021BMH-10/883	5962-8860001GA	Precision 10 Volt Reference, 1% Initial Accuracy, 5ppm/°C Drift	M	n/a	Yes	n/a	TO-5, 8 Lead	DSCC or LT Versions Available
LT1021DMH-10/883	5962-8860003GA	Precision 10 Volt Reference, 1% Initial Accuracy, 20ppm/°C Drift	M	n/a	Yes	n/a	TO-5, 8 Lead	DSCC or LT Versions Available

**Notes:**

- Sorted by numbers of amplifiers and GBW.
- Several data sheets are in the process of being updated. For all products, contact marketing for price and availability.
- Sorted by reference voltage and initial accuracy.

# LINEAR TECHNOLOGY HIGH TEMPERATURE (200°C) X-GRADE HERMETIC PRODUCTS

Part Number	DSCC SMD#	Description	Temp Range	Gold Terminal Finish	SnPb Terminal Finish	Matte Tin Terminal Finish	Package	Comments
<b>Amplifiers</b>								
LT1007XH		Low Noise, High Speed, Precision Op Amp	X	n/a	n/a	Yes	TO-5, 8 Lead	
<b>References</b>								
LT580XH		2.5V Precision Voltage Reference	X	n/a	n/a	Yes	TO-52, 3 Lead	
LT581XH		10V Precision Voltage Reference	X	n/a	n/a	Yes	TO-39, 3 Lead	
LT582XH		5V Precision Voltage Reference	X	n/a	n/a	Yes	TO-39, 3 Lead	

† Primary Sort Column

X temperature grade products are tested at -55°C, 25°C and 200°C

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Power  
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Interface

High  
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Space, Military,  
Harsh Envir.

Reference  
Material



**I. ORDERING INFORMATION**

Contact the sales office or distributor in your area for ordering information. Visit [www.linear.com/contact](http://www.linear.com/contact) for a complete list.

Apply for credit and purchase through Linear Express at [www.linear.com/purchase](http://www.linear.com/purchase) or buy directly on-line with a credit card.

**II. RoHS COMPLIANCE and LEAD (Pb) FREE PRODUCTS**

Visit [www.linear.com/leadfree](http://www.linear.com/leadfree) for more information

a. In compliance with international Reduction of Hazardous Substances (RoHS) mandates, Linear Technology supplies Lead-Free Matte Tin terminal plated products, on all plastic packages (Excluding Hermetic Packages). Devices with Lead Free terminal plating will have the same basic part numbers with the suffix #PBF (lead-free) or #TRPBF (tape-and-reel lead-free) on the container labels. Matte Tin is LTC's standard terminal finish, although solder plated products will continue to be available for the foreseeable future.

b. Lead (Pb) Free ordering examples.

**Example 1:**

Ordering a part in shipping tubes with a Lead (Pb) Free lead finish:

Lead (Pb) Free Part	Standard Solder Plated Part
LT3481EMSE#PBF	LTC3481EMSE

**Example 2:**

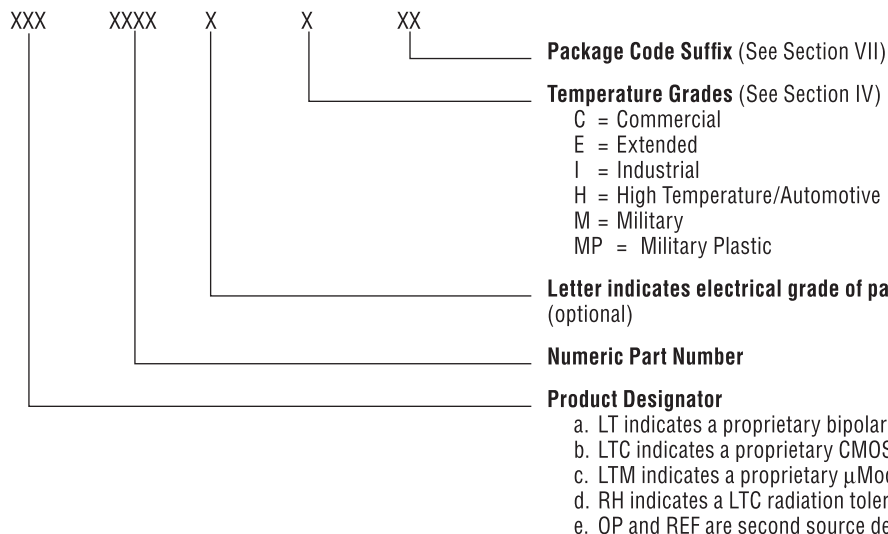
Ordering a part in tape and reel with a Lead (Pb) Free lead finish:

Lead (Pb) Free Part	Standard Solder Plated Part
LT3481EMSE#TRPBF	LTC3481EMSE#TR

c. Lead (Pb) Free part marking.

JEDEC Standard JESD97 defines various Lead (Pb) Free categories with symbols e1 through e7. The symbol e3 applies to products with a Matte Tin (Sn) terminal finish. Since LTC's Lead (Pb) Free products have a Matte Tin (Sn) terminal finish, the symbol e3 is added to the product top marking of larger packages, where space permits. On packages that are too small to accommodate the e3, a “-” symbol is added to the device at the pin 1 location. Lead (Pb) free 2mm × 2mm and 3mm × 2mm packages are identified by rearranging the trace code marking of the device. These Lead (Pb) Free marking indicators were implemented starting with datecode 0514. However, we will continue to ship Pb-Free product, from our existing stock, which was marked prior to 0514 without the indicator.

**III. PART NUMBER EXPLANATION**



**IV. TEMPERATURE GRADES**

Temperature Grade	Temperature Range TMIN to TMAX	Room Temp Test (25°C)	Cold Temp Test at TMIN	Hot Temp Test at TMAX
C – Commercial	0°C to 70°C	100%	Sample	Sample
E – Extended	–40°C to 85°C	100%	Sample	Sample
I – Industrial	–40°C to 85°C	100%	Larger Sample	Larger Sample
H – High Temperature/Automotive	–40°C up to 140°C	100%	Larger Sample or 100%	100%
M – Military	–55°C to 125°C	100%	100%	100%
MP – Military Plastic	–55°C to 125°C	100%	100%	100%

\* Please refer to the data sheet for exact temperature ranges and additional 100% testing guarantees.

**V. RELIABILITY PROGRAMS**

Linear Technology Corporation currently offers the following reliability programs:

- QML/JAN S Devices processed to 38510 slash sheets
- “R-Flow” burn-in programs for commercial temperature devices (contact factory)
- Radiation tolerant products using LTC's proprietary radiation hardening process

**VI. TAPE and REEL**

For More Information Visit [www.linear.com/tapeandreel](http://www.linear.com/tapeandreel)

Tape and reel packing is ordered with a ‘#TRPBF’ suffix for lead free finish parts, or a ‘#TR’ suffix for lead based finish parts. See the Package Rail and Reel Counts section for reel quantities by package type. Some packages are available in 500 unit reels through designated sales channels. 500 unit reels are ordered with a ‘#TRMPBF’ or ‘#TRM’ suffix.

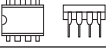

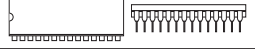


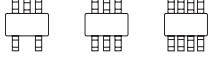



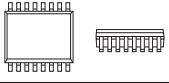


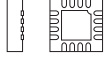
## VII. PACKAGE CODE SUFFIXES

Suffix Designator	Package Name	Number of Leads	Package Dimensions, Body
DC	DFN	3, 4, 6 or 8	2mm × 2mm
DCB	DFN	6, 8	2mm × 3mm
DD	DFN	8, 10 or 12	3mm × 3mm
DDB	DFN	8, 10 or 12	3mm × 2mm
DE	DFN	12, 14 or 16	4mm × 3mm
UE	DFN	12	4mm × 3mm
DF	DFN	12	4mm × 4mm
DH	DFN	16	5mm × 5mm
DHC	DFN	16	5mm × 3mm
DHD	DFN	16	5mm × 4mm
DJC	DFN	22	6mm × 3mm
DJD	DFN	24	6mm × 4mm
DKD	DFN	32	7mm × 4mm
F	TSSOP	14	5mm × 4.4mm
F	TSSOP	20	6.5mm × 4.4mm
FW	TSSOP	48	12.5mm × 6.1mm
FW	TSSOP	56	14mm × 6.1mm
FE	eTSSOP, Exposed Pad	16	5mm × 4.4mm
FE	eTSSOP, Exposed Pad	20	6.5mm × 4.4mm
FE	eTSSOP, Exposed Pad	24	7.8mm × 4.4mm
FE	eTSSOP, Exposed Pad	28, 38	9.7mm × 4.4mm
G	SSOP	16, 20	6.2mm × 5.3mm
G	SSOP	24	8.2mm × 5.3mm
G	SSOP	28	10.2mm × 5.3mm
G	SSOP	36, 44	12.8mm × 5.3mm
GN	SSOP	16	4.8mm × 3.8mm (150mils)
GN	SSOP	20, 24	8.6mm × 3.8mm (150mils)
GN	SSOP	28	9.8mm × 3.8mm (150mils)
GW	SSOP	36	15.4mm × 7.6mm (300mils)
GW	SSOP	44	17.8mm × 7.6mm (300mils)
H	TO-52, TO-39 or TO-46 Metal Can	2, 3 or 4	
H	TO-5 Metal Can	8, 10	
K	TO-3 Metal Can	2	
KC	UTDFN	8	2mm × 2mm
KD	UTDFN	10	3mm × 3mm
KE	UTDFN	14	4mm × 3mm
L	LLC (Leadless Chip Carrier)	20	7.1mm × 10.7mm
LS	LLC (Leadless Chip Carrier)	20	8.9mm × 8.9mm
LX	LQFP	48	7mm × 7mm
LXE	eLQFP, Exposed Pad	48	7mm × 7mm
M	DD Pak	3	
MS	MSOP	8, 10	3mm × 3mm
MS	MSOP	12, 16	3mm × 4mm
MSE	MSOP/E, Exposed Pad	8, 10	3mm × 3mm
MSE	MSOP/E, Exposed Pad	12, 16	3mm × 4mm
N	PDIP	20	26.9mm × 7.6mm
N8	PDIP	8	10.2mm × 7.6mm (300mils)
N	PDIP	14, 16	19.6mm × 7.6mm
N	PDIP	18	23.4mm × 7.6mm

Suffix Designator	Package Name	Number of Leads	Package Dimensions, Body
N	PDIP	24, 28	32.5mm × 7.6mm
NW	PDIP	28, 36	37mm × 15.2mm (600mils)
P	TO-3P	3	Similar to TO-247
PD	UTQFN	16, 20	3mm × 3mm
PDC	UTQFN	20	3mm × 4mm
PF	UTQFN	24, 28	4mm × 4mm
Q	DD Pak	5	
R	DD Pak	7	
S	SOIC	8	4.8mm × 3.8mm (150 mils)
S	SOIC	14	8.6mm × 3.8mm
S	SOIC	16	9.8mm × 3.8mm
SC	SC-70	6, 8	2.0mm × 2.1mm*
ST	SOT-223	3	6.3mm × 6.7mm*
SW	Wide SOIC	16	10.1mm × 7.6mm (300mils)
SW	Wide SOIC	18	11.4mm × 7.6mm
SW	Wide SOIC	20	12.6mm × 7.6mm
SW	Wide SOIC	24	15.2mm × 7.6mm
SW	Wide SOIC	28	17.7mm × 7.6mm
S3	SOT-23	3	2.3mm × 2.9mm*
S5	ThinSOT	5	2.8mm × 2.9mm*
S6	ThinSOT	6	2.8mm × 2.9mm*
TS	ThinSOT	8	2.8mm × 2.9mm*
T	TO-220	3, 5 or 7	
UD	QFN	16, 20	3mm × 3mm
UDD	QFN	20, 24	3mm × 4mm
UDD	QFN	24	3mm × 5mm
UE	DFN	12	4mm × 3mm
UF	QFN	16, 20, 24 or 28	4mm × 4mm
UFD	QFN	20, 24 or 28	4mm × 5mm
UFE	QFN	26, 38	4mm × 6mm
UFF	QFN	34, 44	4mm × 7mm
UFH	QFN	44	4mm × 9mm
UH	QFN	20, 24, 32 or 40	5mm × 5mm
UHE	QFN	28, 36	5mm × 6mm
UHF	QFN	38	5mm × 7mm
UHG	QFN	52	5mm × 8mm
UHH	QFN	56	5mm × 9mm
UJ	QFN	40	6mm × 6mm
UK	QFN	44, 48	7mm × 7mm
UKG	QFN	52	7mm × 8mm
UKH	QFN	64	7mm × 9mm
UL	QFN	56	8mm × 8mm
UP	QFN	64	9mm × 9mm
V	LGA	Various <sup>(1)</sup>	Various <sup>(1)</sup>
WKG	QFN (MultiPAD)	52	7mm × 8mm
WP	QFN (MultiPAD)	64	9mm × 9mm
Z	TO-92	3	

Note 1: See individual data sheet or LTC website  
\*Includes Leads

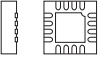
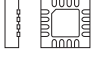




# PACKAGE CROSS REFERENCE

	PACKAGE OUTLINE*	DESCRIPTION	LTC	NSC	ADI	TI/BURR-BROWN	MAXIM
PDIP Plastic Dual-In-Line		8-Lead PDIP, Plastic Dual-In-Line	N8	N, N8	N	P	P
		14-, 16-, 18-, 20-, 24- and 28-Lead PDIP, Plastic Dual-In-Line (Narrow 0.300)	N	N, N14	N	N, NE	ND, NE, NN, NP, NG
		28-Lead PDIP, Plastic Dual-In-Line (Wide 0.600)	NW	—	N	N	PI
SOT and SC70 Small Outline		3-Lead SOT-223 Small Outline Transistor	ST	MP	KC	—	UR
		3-Lead SOT-23	S3	M3	RT	DBZ	UR, US
		5-, 6- and 8-Lead TSOT	S5, S6, TS8	M5, M6	UJ	DBV	UT, UK
		6- and 8-Lead SC70	SC6, SC8	MG	KS	DCK	XT
SO Small Outline		8-Lead SO (Narrow 0.150)	S8	M	R	D	SA
		14- and 16-Lead Plastic SO (Narrow 0.150)	S	M	R	D	SD, SE
		16-, 18-, 20-, 24- and 28-Lead SO (Wide 0.300)	SW	M	R	D	WE, WN, WP, WF, WG, WI
MSOP, eMSOP		8-, 10-, 12- and 16-Lead, Micro Small Outline Package (MSOP)	MS8, MS	MM	RM	DGK	UA, UB
		8-, 10-, 12- and 16-Lead Micro Small Outline Package (MSOP), Exposed Die Pad Option (MSOP/E)	MS8E, MSE	—	RH	—	UA, UB
QFN (U) Quad Flat No Lead		16- and 20-Lead QFN (3mm x 3mm)	UD	—	CP**	RGT	TE, TP
		20- and 24-Lead QFN (3mm x 4mm)	UDC	—	—	—	—
		24-Lead QFN (3mm x 5mm)	UDD	—	—	—	—
		16-, 20-, 24- and 28-Lead QFN (4mm x 4mm)	UF	LQA	CP**	RGT, RGF	TE, TP, TG, TI
		20-, 24- and 28-Lead QFN (4mm x 5mm)	UFD	LQA, SQA	CP**	—	—
		26- and 38-Lead QFN (4mm x 6mm)	UFE	—	—	—	—
		34- and 44-Lead QFN (4mm x 7mm)	UFF	—	—	—	—
		44-Lead QFN (4mm x 9mm)	UFH	—	—	—	—
		24-, 32- and 40-Lead QFN (5mm x 5mm)	UH	LQA	CP**	RGW, RHB, RTM**	TG, TJ, TL
		28- and 36-Lead QFN (5mm x 6mm)	UHE	—	—	—	—
		38-Lead QFN (5mm x 7mm)	UHF	—	—	—	RGF
		52-Lead QFN (5mm x 8mm)	UHG	—	—	—	—
		56-Lead QFN (5mm x 9mm)	UHH	—	—	—	—
		40-Lead QFN (6mm x 6mm)	UJ	LQA, SQA	CP**	RTA, RTB	TL
		44- and 48-Lead QFN (7mm x 7mm)	UK	SQA	CP**	RTC, RGN, RGZ**	TH, TM
		52-Lead QFN (7mm x 8mm)	UKG	—	—	—	—
		64-Lead QFN (7mm x 9mm)	UKH	—	—	—	—
		56-Lead QFN (8mm x 8mm)	UL	—	CP**	—	—
		64-Lead QFN (9mm x 9mm)	UP	—	CP**	—	—
		52-Lead MultiPAD QFN (7mm x 8mm)	WKG	—	—	—	—
64-Lead MultiPAD QFN (9mm x 9mm)	WP	—	CP**	—	—		

\*Package Outlines Not to Scale

\*\*Closest Package, Comparable Footprint

See [www.linear.com](http://www.linear.com) for additional and recently added packages

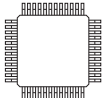

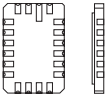
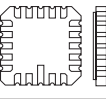
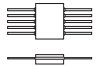



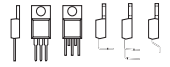
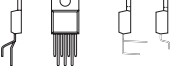

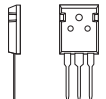
	PACKAGE OUTLINE*	DESCRIPTION	LTC	NSC	ADI	TI/BURR-BROWN	MAXIM
Proprietary Device Prefixes			LT, LTC, LTM	LF, LP, LH, MF, LM, LMH, LMV, ADC, DAC	AD, OP, REF, ADA, ADCMP, ADG, ADM, ADR, ADL, ADP, ADT, ADV	TL, TLC, TLV, THS, INA, OPA, ADS, DAC	MAX, DS
QFN (W) Quad Flat No Lead		52-Lead (7mm × 8mm)	WKG	—	—	—	—
		64-Lead (9mm × 9mm)	WP	—	—	—	—
UTQFN Ultra-Thin Quad Flat No Lead		16- and 20-Lead (3mm × 3mm)	PD	—	—	—	V
		20-Lead (3mm × 4mm)	PDC	—	—	—	—
		24- and 28-Lead (4mm × 4mm)	PF	—	—	—	—
DFN Dual Flat No Lead		3-, 4-, 6- and 8-Lead DFN (2mm × 2mm)	DC	—	CP**	—	LA
		6- and 8-Lead DFN (2mm × 3mm)	DCB	—	CP**	—	—
		8-, 10- and 12-Lead DFN (3mm × 3mm)	DD	—	CP**	DRB, DRC	TA
		8-, 10- and 12-Lead DFN (3mm × 2mm)	DDB	—	CP**	—	LA
		12-, 14 and 16-Lead DFN (4mm × 3mm)	DE	—	—	—	—
		12-Lead DFN (4mm × 3mm)	UE	—	—	—	—
		12-Lead DFN (4mm × 4mm)	DF	—	—	—	—
		16-Lead DFN (5mm × 5mm)	DH	—	—	—	—
		16-Lead DFN (5mm × 3mm)	DHC	—	—	—	—
		16-Lead DFN (5mm × 4mm)	DHD	—	—	—	—
		22-Lead DFN (6mm × 3mm)	DJC	—	—	—	—
		24-Lead DFN (6mm × 4mm)	DJD	—	—	—	—
		32-Lead DFN (7mm × 4mm)	DKD	—	—	—	—
UTDFN Ultra-Thin Dual Flat No Lead		8-Lead (2mm × 2mm)	KC	—	—	—	—
		10-Lead (3mm × 3mm)	KD	—	—	—	—
		12- and 14-Lead (4mm × 3mm)	KE	—	—	—	—
SSOP Shrink Small Outline		16-, 20-, 24- and 28-Lead SSOP (Narrow 0.150)	GN	MQ	RS	DBQ	A
		16-, 20-, 24-, 28-, 36- and 44-Lead Plastic SSOP (5.3mm)	G	MS	RS	DB	AP, APG, AT
		36- and 44-Lead SSOP (Wide 0.300)	GW	MS	—	DB	AX
TSSOP, eTSSOP Thin Shrink Small Outline		14-, 20-, 24- and 28-Lead TSSOP (4.4mm)	F	MT	RU	DL, PW	UP, UG, UI
		48- and 56-Lead TSSOP (6.1mm)	FW	MT	RV	DGG	UM
		16-, 20-, 24-, 28- and 38-Lead TSSOP (4.4mm) Exposed Die Pad eTSSOP	FE	MH, MT	RE	PWP	UP

\*Package Outlines Not to Scale

\*\*Closest Package, Comparable Footprint, Higher Height

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

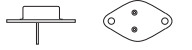
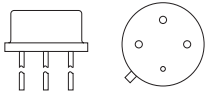
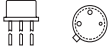
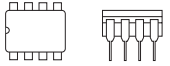
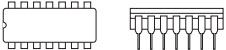
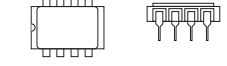
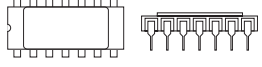
# PACKAGE CROSS REFERENCE

	PACKAGE OUTLINE*	DESCRIPTION	LTC	NSC	ADI	TI/BURR-BROWN	MAXIM
	Proprietary Device Prefixes		LT, LTC, LTM	LF, LP, LH, MF, LM, LMH, LMV, ADC, DAC	AD, OP, REF, ADA, ADCMP, ADG, ADM, ADR, ADL, ADP, ADT, ADV	TL, TLC, TLV, THS, INA, OPA, ADS, DAC	MAX, DS
LQFP, eLQFP Leaded Quad Flat Pak		48-Lead (7mm x 7mm) LQFP	LX	—	ST	—	C
		48-Lead (7mm x 7mm Exposed Pad) eLQFP	LXE	—	—	—	—
LCC		20-Pin Leadless Chip Carrier (Rectangular, Hermetic)	L	E	E	FN, FK	L
		20-Pin Leadless Chip Carrier (Square 0.350, Hermetic)	LS	E	E	FN, FK	L
FLATPAK (CERPAK)		10- and 14-Lead Flatpak (Cerpak) Glass Sealed (Hermetic)	W	W	L	U010	FB
DD PAK		3-Lead DD Pak	M	S	—	—	—
		5-Lead DD Pak	Q	S	—	—	—
		7-Lead DD Pak	R	S	—	—	—
TO-220		3- and 5-Lead TO-220	T	T	—	KC, KV	C
		7-Lead TO-220 (Formerly Y Package)	T7	—	—	KC	C
TO-92		3-Lead, TO-92 Package	Z	Z	T	LP	C
TO-3P (TO-247)		3-Lead TO-3P (Similar to TO-247)	P	—	—	—	K

\*Package Outlines Not to Scale

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material



	PACKAGE OUTLINE*	DESCRIPTION	LTC	NSC	ADI	TI/BURR-BROWN	MAXIM
	Proprietary Device Prefixes		LT, LTC, LTM	LF, LP, LH, MF, LM, LMH, LMV, ADC, DAC	AD, OP, REF, ADA, ADCMP, ADG, ADM, ADR, ADL, ADP, ADT, ADV	TL, TLC, TLV, THS, INA, OPA, ADS, DAC	MAX, DS
<b>METAL CANS</b>		2-Lead TO-3 Metal Can	K				
		8- and 10-Lead TO-5 Metal Can	H	H	H	—	TV, TW, VS
		3- and 4-Lead TO-39 Metal Can	H	H	H	—	TV, TW, VS
		2-, 3- and 4-Lead Standard TO-46 Metal Can or in Thermal Caps	H	H	H	—	—
		3-Lead TO-52 Metal Can	H	—	—	—	SR
<b>CERDIP Ceramic Dual-In-Line</b>		8-Lead Ceramic DIP (Hermetic)	J8	J, J8	Q	JG	JA
		14- and 16-Lead Ceramic DIP (Narrow 0.300, Hermetic)	J	J, J14, J16	D, Q	J	RD, RN, RE, RP
<b>SIDE BRAZED</b>		8-Lead Side Brazed (Hermetic)	D8	D	D	—	DA
		14-, 16-, 18-, and 20-Lead Side Brazed (Hermetic)	D	D	D	—	DD, DE, DN, DP
	Proprietary Device Prefixes		LT, LTC, LTM	LF, LP, LH, MF, LM, LMH, LMV, ADC, DAC	AD, OP, REF, ADA, ADCMP, ADG, ADM, ADR, ADL, ADP, ADT, ADV	TL, TLC, TLV, THS, INA, OPA, ADS, DAC	MAX, DS

\*Package Outlines Not to Scale

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

# PACKAGE RAIL AND REEL COUNTS

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

PACKAGE TYPE	PACKAGE BODY		PACKAGE CODE	PACKAGE STYLE = Package Code + Lead Count (QFN/DFN/UTQFN/UTDFN - 0.50 mm lead pitch unless otherwise stated)	RAIL/BULK QUANTITY	REEL QUANTITY
	WIDTH mm (Inch)	THICKNESS mm (Inch)				
PDIP	7.62 (0.300)	3.30 (0.130)	N8	N8	50	Not Applicable
			N	N14	25	
				N16	25	
				N18	20	
				N20	18	
				N24	15	
	N28	47				
15.24 (0.600)	3.81 (0.150)	NW	NW28	14		
SOT-23	1.3 (0.051)	0.95 (0.037)	S3	S3	1000 (Bulk)	2500*
TSOT (SOT-23)	1.6 (0.063)	0.86 (0.034)	S5	S5	1000 (Bulk)	2500*
			S6	S6	1000 (Bulk)	2500*
			TS8	TS8	1000 (Bulk)	2500*
SOT 223	3.5 (0.138)	1.57 (0.062)	ST	ST3	78	2000
SC 70	1.25 (0.049)	0.90 (0.035)	SC6	SC6	1000 (Bulk)	2500*
			SC8	SC8	1000 (Bulk)	2500*
SOIC	3.81 (0.150)	1.47 (0.058)	S8	S8	100	2500
			S	S14	55	2500
				S16	50	2500
	7.62 (0.300)	2.29 (0.090)	SW	SW16	47	1000
				SW18	40	1000
				SW20	38	1000
				SW24	32	1000
			SW28	27	1000	
MSOP (pkg. code suffix E = exposed Pad)	3.00 (0.118)	0.85 (0.034)	MS8	MS8	50	2500
			MS	MS10	50	2500
				MS12 / MS16	37	2500
			MS8E	MS8E	50	2500
			MSE	MSE10	50	2500
MSE12 / MSE16	37	2500				
SSOP	5.3 (0.209)	1.47 (0.058)	G	G16	77	2000
				G20	66	1800
				G24	59	1800
				G28	47	2000
				G36, G44	37	2000
	3.81 (0.150)	1.47 (0.058)	GN	GN16	100	2500
				GN20	55	2500
				GN24	55	2500
				GN28	49	2500
	7.62 (0.300)	2.8 (0.110)	GW	GW36	32	1000
				GW44	27	1000
				FW48	39	1800
TSSOP	6.10 (0.240)	1.0 (0.040)	FW	FW56	35	1800

PACKAGE RAIL AND REEL COUNTS

PACKAGE TYPE	PACKAGE BODY		PACKAGE CODE	PACKAGE STYLE = Package Code + Lead Count (QFN/DFN/UTQFN/UTDFN - 0.50 mm lead pitch unless otherwise stated)	RAIL/BULK QUANTITY	REEL QUANTITY
	WIDTH mm (Inch)	THICKNESS mm (Inch)				
TSSOP/eTSSOP (eTSSOP = exposed Pad, pkg. code suffix = E)	4.4 (0.173)	1.0 (0.040)	F/FE	F14 / FE16	95	2500
				F20 / FE20	74	2500
				F24 / FE24	62	2500
			FE	FE28 / FE38	50	2000
QFN pkg. code prefix = U	3x3	0.80 (0.0315)	UD	UD16 / UD20 (0.45)	121	2500
	3x4		UDC	UDC20 / UDC20MA / UDC24 (0.40)	91	2500
	3x5		UDD	UDD24	73	2500
	4x4	0.80 (0.0315)	UF	UF16 (0.65) / UF20 / UF24 / UF28 (0.40)	91	2500
	4x5		UFD	UFD20 / UFD24 / UFD28	73	2500
	4x6		UFE	UFE26 / UFE38 (0.40)	61	2500
	4x7		UFF	UFF34 / UFF44 (0.40)	52	2500
	4x9	UFH	UFH44	40	2500	
	5x5	0.80 (0.0315)	UH	UH20 (0.65) / UH24 (0.65) / UH32 / UH40 (0.40)	73	2500
	5x6		UHE	UHE28 / UHE36	61	2500
	5x7		UHF	UHF38	52	2500
	5x8		UHG	UHG52 (0.40)	45	2500
	5x9		UHH	UHH56 (0.40)	40	2500
	6x6	0.80 (0.0315)	UJ	UJ40	61	2000
	7x7		UK	UK44 / UK48	52	2000
	7x8		UKG	UKG52	45	2000
	7x9		UKH	UKH64 (0.40)	40	2000
	8x8		UL	UL56	45	2000
	9x9		UP	UP64	40	2000
	QFN pkg. code prefix = W	7x8	1.00 (0.0394)	WKG	WKG52	45
9x9		WP		WP64	40	2000
UTQFN pkg. code prefix = P	3x3	0.60 (0.0236)	PD	PD16 / PD20 (0.40)	121	2500
	3x4		PDC	PDC20	91	2500
	4x4		PF	PF24 / PF28 (0.40)	91	2500
DFN pkg. code prefix = D except UE12	2x2	0.80 (0.0315)	DC	DC3 / DC4 (0.45) / DC6 / DC8 (0.45)	1000 (Bulk)	2500*
	2x3		DCB	DCB6 / DCB8 (0.45)	1000 (Bulk)	2500*
	3x2		DDB	DDB8 / DDB10 / DDB12 (0.45)	1000 (Bulk)	2500*
	3x3		DD	DD8 / DD10 / DD12 (0.45) / DD12MA (0.45)	121	2500
	4x3		DE	DE12 / DE14 / DE14MA / DE16 (0.45) / DE16MA (0.45)	91	2500
			UE	UE12	91	2500
	4x4	0.80 (0.0315)	DF	DF12	91	2500
	5x3		DHC	DHC16	73	2500
	5x4		DHD	DHD16	73	2500
	5x5		DH	DH16	73	2500
	6x3		DJC	DJC22	61	2500
	6x4		DJD	DJD24	61	2500
	7x4		DKD	DKD32 (0.40)	52	2500

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# PACKAGE RAIL AND REEL COUNTS

PACKAGE TYPE	PACKAGE BODY		PACKAGE CODE	PACKAGE STYLE = Package Code + Lead Count (QFN/DFN/UTQFN/UTDFN - 0.50 mm lead pitch unless otherwise stated)	RAIL/BULK QUANTITY	REEL QUANTITY
	WIDTH mm (Inch)	THICKNESS mm (Inch)				
UTDFN pkg. code prefix = K	2 × 2	0.60 (0.0236)	KC	KC8 (0.45)	1000 (Bulk)	2500*
	3 × 3		KD	KD10	121	2500
	4 × 3		KE	KE14	91	2500
DD Pak	10.16 (0.400)	4.44 (0.175)	M	M3	50	750
			Q	Q5	50	750
			R	R7	50	750
LGA	Various	Various	V	Various. See Individual Data Sheet For Specific Drawing Number	Various/Tray	Not Applicable
LQFP / eLQFP (eLQFP = exposed pad, pkg. code suffix E)	7 × 7	1.60 (0.0629)	LX	LX48	250/Tray	Not Applicable
			LXE	LXE48	250/Tray	
LCC	6.35 (0.250)	1.96 (0.077)	L	L20	40	Not Applicable
	7.62 (0.300)		LS	LS20	40	
Side Brazed	7.62 (0.300)	3.30 (0.130)	D	D8	35	Not Applicable
				D14	25	
				D16	25	
				D18	20	
				D20	20	
TO-3	12.70 (0.500)	8.51 (0.335)	K	K2	20/Rail	Not Applicable
TO-3P (Similar to TO-247)	16.00 (0.630)	5.00 (0.197)	P	P3	30	
TO-5	8.97 (0.353)	4.44 (0.175)	H	H8	20/Tray; 500/Bag	
				H10		
TO-39	9.14 (0.360)	4.44 (0.175)	H	H3		
				H4		
TO-46	5.44 (0.214)	2.41 (0.095)	H	H2		
				H3		
TO-46 with Thermal Cap	10.59 (0.417)	5.93 (0.233)	H	H4		
				H2		
				H3		
TO-52		3.43 (0.135)	E	E3		
TO-220	10.16 (0.400)	4.44 (0.175)	T	T3		50
				T5		50
				T7	50	

\*Packages marked with an asterisk (\*) are available in 500 unit reels through designated sales channels. 500 unit reels are ordered with a '#TRMPBF' or '#TRM' suffix.

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# THERMAL RESISTANCE TABLE

Package Type	Package Code	Style Lead Count	Theta JC °C/W	Theta JA °C/W	Pin Common to Substrate — Board Type
Metal Can	K	TO-3 2L	3	35	Case
		TO-3 4L	3	35	Case
Metal Can	H	TO-5	40	150	—
		TO-39	15	150	Pin 3*
		TO-46	80	440	Pin 3*
		TO-52	N/A	360	Pin 3*
CERDIP	J8	J8	30	110	—
CERDIP	J	J14	25	95	—
		J16	25	85	—
		J18	20	75	—
		J20	15	70	—
		J24	10	65	—
		J28	7	55	—
Side Brazed	D8	D8	30	100	—
Side Brazed	D	D14	25	85	—
		D16	25	80	—
		D18	20	75	—
		D20	15	70	—
LCC	L	LCC 20L	40	100	—
Flat Pack Glass Sealed	W	W10	40	170	—
		W14	40	160	—
Flat Pack Bottom Brazed	WB	WB10	40	160	—
		WB14	40	150	—
Plastic TO	P	TO-3P 3L (TO-247)	1.5	45	Pin 2
Plastic TO	Z	TO-226 3L (TO-92)	—	160	Pin 1 or 2 (By Device)
Plastic TO	T	TO-220 3L	3	50	Pin 2
		TO-220 5L	3	50	Pin 3
		TO-220 7L	3	50	Pin 4
Plastic DD	M	DD Pak 3L	3	30	Pin 2
		DD Pak 5L	3	30	Pin 3
		DD Pak 7L	3	30	Pin 4
Plastic PDIP 300mil	N8	N8, Cu	45	100	—
		N8, A42	50	150	—
Plastic PDIP 300mil	N	N14	50	130	—
		N16	50	130	—
		N18	40	120	—
		N20	35	100	—
		N24	30	65	—
Plastic PDIP 300mil	N	N14, Cu	33	70	4 Layer
		N16, Cu	34	70	4 Layer
		N18, Cu	29	65	4 Layer
		N20, Cu	28	62	4 Layer
		N24, Cu	27	60	4 Layer
		N28, Cu	30	59	4 Layer

**Consult individual data sheets for product-specific values or requirements.**

These values are offered for general reference use.

DFN and QFN package type dimensions are mm x mm.

The values for Plastic Packages are for copper material and non-fused type unless otherwise shown in STYLE LEAD COUNT column.

Construction variations, such as leads fused internally to Die Attach Pad, and PCB copper layout, significantly influence thermal performance.

Cu = Copper; A42 = Alloy 42. \* 3-Lead Versions, Metal Can.

Package Type	Package Code	Style Lead Count	Theta JC °C/W	Theta JA °C/W	Pin Common to Substrate — Board Type	
Plastic SC70	SC6	SC70, 6L, Cu 2 Pins Fused	—	270	Multilayer	
	SC8	SC70, 8L, Cu 3 Pins Fused	—	270	Multilayer	
Plastic SOT TSOT	S3	SOT-23, 3L, A42 1 Pin Fused	100	180	Pin 2 Single Layer	
	S5	TSOT-23, 5L, Cu 1 Pin Fused	50	215	Pin 2 Single Layer	
	S6	TSOT-23, 6L, Cu 1 Pin Fused	51	192	Pin 2 Single Layer	
	TS8	TSOT-23, 8L, Cu 1 Pin Fused	47	195	Pin 2 Single Layer	
Plastic SOT	ST	SOT-223	15	60 (est.)	Pin 2	
	MS8	MS 8L, Cu	40	200	Single Layer	
Plastic MSOP 3mm	MS8	MS 8L, A42	45	300	Single Layer	
	MS	MS 10L, Cu	45	120	4 Layer	
	MS8E	MSE 8L, Cu Exposed Die Pad	5-10	35-40	Multilayer	
	MSE	MSE 10L, Cu Exposed Die Pad	5-10	35-40	Multilayer	
	MS12	MS 12L, Cu	21	135	4 Layer	
	MS16	MS 16L, Cu	21	120	4 Layer	
	MSE12, MSE16	MSE 12L, Cu Exposed Die Pad	5-10	50	4 Layer	
	MSE16	MSE 16L, Cu Exposed Die Pad	5-10	50	4 Layer	
	Plastic SO 150mil	S8	S8, Cu S8, A42	39	150 190	Single Layer Single Layer
	Plastic SO 150mil	S8	S8, Cu, 2 Pins Fused	37	110	Single Layer
S8, Cu, 3 Pins Fused			35	90	Single Layer	
Plastic SO 150mil	S	S14, Cu	37	88	4 Layer	
		S14, A42	—	160	Single Layer	
		S16, Cu S16, A42	30 —	100 150	Single Layer Single Layer	
Plastic SO 150mil	S	S14, Cu	37	90	4 Layer	
		S16, Cu	24	75	4 Layer	
		S16, Cu, 4 Pins Fused	22	65	4 Layer	
		SW16	30	90	Single Layer	
Plastic SO 300mil	SW	SW18	27	85	Single Layer	
		SW20	25	80	Single Layer	
		SW24	23	75	Single Layer	
		SW28	20	70	Single Layer	
		GN16, 4 Pins Fused	37	90	4 Layer	
Plastic SSOP 150mil	GN	GN16	40	110	4 Layer	
		GN20	30	90	4 Layer	
		GN24	30	85	4 Layer	
		GN28	25	80	4 Layer	
Plastic SSOP 5.3	G	G20	30	110	Single Layer	
		G24, G36	25	90	Single Layer	
		G28, G44	25	90	Single Layer	
Plastic SSOP 300mil	GW	GW36	20	80	Single Layer	
		GW44	17	70	Single Layer	
Plastic LQFP/eLQFP	LX	LX48	—	55	4 Layer	
	LXE	LXE48	—	36	4 Layer	

Package Type	Package Code	Style Lead Count	Theta JC °C/W	Theta JA °C/W	Pin Common to Substrate — Board Type
Plastic TSSOP 4.4	F	F14	17	100	4 Layer
	F	F20	20	90	4 Layer
	F	F20, 4 Pins Fused	18	80	4 Layer
	FE	FE16, FE20, FE24, FE28, FE38 Exposed Die Pad	See specific device data sheet for thermal information.		
Plastic TSSOP 6.1	FW	FW48	—	110 (est.)	4 Layer
		FW56	21 (est.)	95 (est.)	4 Layer
Plastic DFN (Exposed Pad)					
2 x 2	DC, KC	DC3, DC4, KC8	17.2	88.5	4 Layer
		DC6, DC8	17.2	88.5	4 Layer
2 x 3	DCB	DCB6, DCB8	10.6	64	4 Layer
3 x 2	DDB	DDB8, DDB10, DDB12	13.5	76	4 Layer
		DD8	7.5	43	4 Layer
		DD10, KD10	7.5	43	4 Layer
3 x 3	DD, KD	DD12	7.5	43	4 Layer
		DE, UE	DE12, UE12	5.0	43
4 x 3	DE, KE	DE14, DE16, KE14	5.0	43	4 Layer
4 x 4	DF	DF12	4.0	37	4 Layer
5 x 3	DHC	DHC16	5.0	43	4 Layer
5 x 4	DHD	DHD16	4.3	43	4 Layer
5 x 5	DH	DH16	3.0	34	4 Layer
6 x 3	DJC	DJC22	4.3	47	4 Layer
6 x 4	DJD	DJD24	4.3	37	4 Layer
7 x 4	DKD	DKD32	3.0	34	4 Layer
Plastic QFN (Exposed Pad)					
3 x 3	UD, PD	UD16, UD20, PD16, PD20	7.5	68	4 Layer
		UDC20, PDC20	5.0	43	4 Layer
3 x 4	UDC, PDC	UDC24	5.0	43	4 Layer
		UDD24	5.0	43	4 Layer
3 x 5	UDD	UF16	4.3	37	4 Layer
		UF20	4.3	37	4 Layer
		UF24, PF24	4.3	37	4 Layer
4 x 4	UF, PF	UF28, PF28	4.3	37	4 Layer
		UFD20	3.2	34	4 Layer
		UFD24	3.2	34	4 Layer
4 x 5	UFD	UFD28	3.2	34	4 Layer
		UFE26, UFE38	3.0	34	4 Layer
		UFF34, UFF44	3.0	34	4 Layer
4 x 6	UFE	UFE26, UFE38	3.0	34	4 Layer
4 x 7	UFF	UFF34, UFF44	3.0	34	4 Layer
4 x 9	UFH	UFH44	3.0	34	4 Layer
5 x 5	UH	UH20, UH24, UH32, UH40	3.0	34	4 Layer
5 x 6	UHE	UHE36	2.0	34	4 Layer
5 x 7	UHF	UHF38	2.0	34	4 Layer
5 x 8	UHG	UHG52	2.0	31	4 Layer
5 x 9	UHH	UHH56	2.0	31	4 Layer
6 x 6	UJ	UJ40	2.0	33	4 Layer
7 x 7	UK	UK44, UK48	1.0	29	4 Layer
7 x 8	UKG	UKG52	1.0	29	4 Layer
7 x 9	UKH	UKH64	1.0	29	4 Layer
8 x 8	UL	UL56	1.0	28	4 Layer
9 x 9	UP	UP64	1.0	29	4 Layer

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TOP MARKINGS (TOP MARK TO PART NUMBER)

1432	LT1432CS8	1470B	LTC1470BCS8	151051	LT1510-SIGN	156916	LTC1569IS8-6	1634B1	LT1634BCS8-1.25	16731	LT1673IS8	1735	LTC1735CGN
14323	LT1432CS8-3.3	1470BE	LTC1470BES8	15101	LT1510IGN	156917	LTC1569IS8-7	1634B2	LT1634BCS8-2.5	1675	LT1675CGN	17351	LTC1735CGN-1
1433	LTC1433CGN	1470E	LTC1470ES8	15101	LT1510IS8	15715	LT1571EGN-5	1634B4	LT1634BCS8-4.096	16751	LT1675CS8-1	1735E	LTC1735EGN
14331	LTC1433IGN	1473	LTC1473CGN	1512	LT1512CGN	1573	LTC1573CS8	1634B5	LT1634BCS8-5	167511	LT1675IS8-1	17351	LTC1735IGN
1440	LTC1440CS8	14731	LTC1473IGN	1512	LT1512CS8	157325	LT1573CS8-2.5	1635	LT1635CS8	1676	LT1676CS8	173511	LTC1735IGN-1
14401	LTC1440IS8	1473L	LTC1473LCGN	15121	LT15121IGN	157328	LT1573CS8-2.8	16351	LT1635IS8	16761	LT1676IS8	1737	LT1737CGN
1441	LTC1441CS8	1473LI	LTC1473LIGN	15121	LT15121S8	157333	LT1573CS8-3.3	1636	LT1636CS8	1677	LT1677CS8	17371	LT1737IGN
14411	LTC1441IS8	1474	LTC1474CS8	15143	LTC1514CS8-3	15731	LT1573IS8	1636H	LT1636HS8	16771	LT1677IS8	1739	LT1739CUE
1442	LTC1442CS8	147433	LTC1474CS8-3.3	151433	LTC1514CS8-3.3	1575	LT1575CS8	1636I	LT1636IS8	1678	LT1678CS8	17391	LT1739JUE
14421	LTC1442IS8	14745	LTC1474CS8-5	15145	LTC1514CS8-5	157515	LT1575CS8-1.5	1637	LT1637CS8	16781	LT1678IS8	1756	LTC1756EGN
1443	LTC1443CDHD	14741	LTC1474IS8	151413	LTC1514IS8-3	157528	LT1575CS8-2.8	1637H	LT1637HS8	1682	LTC1682CS8	17561	LTC1756IGN
1443	LTC1443IDHD	147415	LTC1474IS8-5	151415	LTC1514IS8-5	157533	LT1575CS8-3.3	1637I	LT1637IS8	168233	LTC1682CS8-3.3	1763	LT1763CDE
1444	LTC1444CDHD	1475	LTC1475CS8	1515	LTC1515CS8	157535	LT1575CS8-5	1637MP	LT1637MPS8	16825	LTC1682CS8-5	1763	LT1763CS8
1444	LTC1444IDHD	147533	LTC1475CS8-3.3	151535	LTC1515CS8-3/5	157555	LT1575CS8-5	1638	LT1638CS8	16821	LT1682IS8	1763	LT1763IS8
1445	LTC1445CDHD	14755	LTC1475CS8-5	15151	LTC1515IS8	1576	LT1576CS8	1638H	LT1638HS8	168215	LTC1682IS8-5	176315	LT1763CS8-1.5
1445	LTC1445IDHD	14751	LTC1475IS8	1516	LTC1516CS8	15765	LT1576CS8-5	1638I	LT1638IS8	1685	LTC1685CS8	176315	LT1763IS8-1.5
1446	LTC1446CS8	1477	LTC1477CS8	15161	LTC1516IS8	15761	LT1576IS8	16401	LT1640-1CS8	16851	LTC1685IS8	176318	LT1763CS8-1.8
14461	LTC1446IS8	1480	LTC1480CS8	1521	LT1521CS8	157615	LT1576IS8-5	16402	LT1640-2CS8	1686	LTC1686CS8	176318	LT1763IS8-1.8
1446L	LTC1446LCS8	14801	LTC1480IS8	15213	LT1521CS8-3	15765N	LTC1576CS8-SYNC	1640AH	LT1640AHC8	16861	LTC1686IS8	176325	LT1763CS8-2.5
1446LI	LTC1446LIS8	1481	LTC1481CS8	15213	LT1521CST-3	1578	LT1578CS8	1640AL	LT1640ALCS8	1690	LTC1690CS8	176325	LT1763IS8-2.5
1448	LTC1448CS8	14811	LTC1481IS8	152133	LT1521CS8-3.3	157825	LT1578CS8-2.5	1640H	LT1640HCS8	16901	LTC1690IS8	17633	LT1763CDE-3
14481	LTC1448IS8	1482	LTC1482CS8	152133	LT1521CST-3.3	15781	LT1578IS8	1640HI	LT1640HIS8	16931	LTC1693-1CS8	17633	LT1763CS8-3
1451	LTC1451CS8	14821	LTC1482IS8	15215	LT1521CS8-5	1579	LT1579CGN	1640HV	LT1640HVC8	169311	LTC1693-1IS8	17633	LT1763IS8-3
14511	LTC1451IS8	1483	LTC1483CS8	15215	LT1521CST-5	1579	LT1579CS8	1640L	LT1640LCS8	16932	LTC1693-2CS8	176333	LT1763CS8-3.3
1452	LTC1452CS8	14831	LTC1483IS8	15211	LT1521IS8	15793	LT1579CGN-3	1640LI	LT1640LIS8	169321	LTC1693-2IS8	176333	LT1763IS8-3.3
14521	LTC1452IS8	1484	LTC1484CS8	152113	LT1521IS8-3	15793	LT1579CS8-3	1640LV	LT1640LVC8	1698	LTC1698EGN	17635	LT1763CDE-5
1453	LTC1453CS8	14841	LTC1484IS8	152113	LT1521IST-3	157933	LT1579CGN-3.3	1641	LT1641CS8	16981	LTC1698IGN	17635	LT1763CS8-5
14531	LTC1453IS8	1485	LTC1485CS8	1521133	LT1521IS8-3.3	157933	LT1579CS8-3.3	16411	LT1641-1CS8	169980	LTC1699EGN-80	17635	LT1763IS8-5
1456	LTC1456CS8	14851	LTC1485IS8	1521133	LT1521IST-3.3	15795	LT1579CGN-5	164111	LT1641-1IS8	169981	LTC1699EGN-81	1763MP	LT1763MPS8
14561	LTC1456IS8	1487	LTC1487CS8	152115	LT1521IS8-5	15795	LT1579CS8-5	16412	LT1641-2CS8	169982	LTC1699EGN-82	1764AEFE	LT1764AEFE
1457	LT1457S8	14871	LTC1487IS8	152115	LT1521IST-5	15791	LT1579IGN	164121	LT1641-2IS8	1701	LTC1701CS8	1764AEFE15	LT1764AEFE-1.5
1460A1	LT1460ACS8-10	1490	LT1490CS8	1522	LTC1522CS8	157913	LT1579IGN-3	16411	LT1641IS8	1704	LTC1704EGN	1764AEFE18	LT1764AEFE-1.8
1460A2	LT1460ACS8-2.5	1490A	LT1490ACS8	15221	LTC1522IS8	157915	LT1579IGN-5	1642	LTC1642CGN	1704B	LTC1704BEGN	1764AEFE25	LT1764AEFE-2.5
1460A5	LT1460ACS8-5	1490AH	LT1490AHS8	1530	LTC1530CS8	1595A	LTC1595ACS8	1642A	LTC1642ACGN	170619	LTC1706CS8-19	1764AEFE33	LT1764AEFE-3.3
1460D1	LT1460DCS8-10	1490AI	LT1490AIS8	153019	LTC1530CS8-1.9	1595AI	LTC1595AIS8	1642AI	LTC1642AIGN	1707	LTC1707CS8	1764EFE	LT1764EFE
1460D2	LT1460DCS8-2.5	14901	LT1490IS8	153025	LTC1530CS8-2.5	1595B	LTC1595BCS8	1642I	LTC1642IGN	17071	LTC1707IS8	1764EFE15	LT1764EFE-1.5
1460D5	LT1460DCS8-5	1491A	LT1491ACDHC	153028	LTC1530CS8-2.8	1595BI	LTC1595BIS8	1643AH	LTC1643AHC8	1710	LTC1710CS8	1764EFE18	LT1764EFE-1.8
1461A3	LT1461ACS8-3	1491A	LT1491AIDHC	153033	LTC1530CS8-3.3	1595C	LTC1595CCS8	1643AL	LTC1643ALCGN	17101	LTC1710IS8	1764EFE25	LT1764EFE-2.5
1461A4	LT1461ACS8-4	1492	LTC1492CS8	15301	LT1492CS8	1595CI	LTC1595CIS8	1643H	LTC1643HCGN	1712	LT1712CGN	1764EFE33	LT1764EFE-3.3
1461A5	LT1461ACS8-5	1494	LT1494CS8	1536	LTC1536CS8	15335	LTC1515IS8-3.3/5	1643HI	LTC1643HIGN	17121	LT1712IGN	1765	LT1765ES8
1461B3	LT1461BCS8-3	1494H	LT1494HS8	15361	LT1494HS8	1610	LT1610CS8	1643L	LTC1643LCGN	1714	LT1714CGN	1765EFE	LT1765EFE
1461B4	LT1461BCS8-4	14941	LT1494IS8	1540	LTC1540CS8	16101	LT1610IS8	1643L1	LTC1643L-1CGN	17141	LT1714IGN	1765EFE18	LT1765EFE-1.8
1461B5	LT1461BCS8-5	1495	LT1495CS8	15401	LTC1540IS8	1612	LT1612ES8	1643LI	LTC1643LIGN	1719	LT1719CS8	1765EFE25	LT1765EFE-2.5
1461C3	LT1461CCS8-3	1495H	LT1495HS8	1541	LTC1541CS8	1614	LT1614CS8	1645	LTC1645CS8	17191	LT1719IS8	1765EFE33	LT1765EFE-3.3
1461C4	LT1461CCS8-4	14951	LT1495IS8	15411	LTC1541IS8	16141	LT1614IS8	16451	LTC1645IS8	1720	LT1720CS8	1765EFE-5	LT1765EFE-5
1461C5	LT1461CCS8-5	1497	LT1497CS8	1542	LTC1542CS8	1618	LT1618ES8	1646	LTC1646CGN	17201	LT1720IS8	1766	LT1766CS8
1462	LT1462CS8	1498	LT1498CS8	15421	LTC1542IS8	1619	LT1619ES8	16461	LTC1646IGN	1721	LT1721CGN	1766	LT1766EGN
1462A	LT1462ACS8	14981	LT1498IS8	1550	LTC1550CGN	16191	LT1619IS8	16471	LTC1647-1CS8	17211	LT1721IGN	17665	LT1766EGN-5
1464	LT1464CS8	1501	LT1501CS8	155041	LTC1550CS8-4.1	1620	LTC1620CGN	164711	LTC1647-1IS8	1722	LT1722CS8	1766EFE	LT1766EFE
1464A	LT1464ACS8	150133	LT1501CS8-3.3	15501	LTC1550IGN	1620	LTC1620CS8	16472	LTC1647-2CS8	17221	LT1722IS8	1766EFE-5	LT1766EFE-5
1466L	LT1466LCS8	15015	LT1501CS8-5	1550L	LTC1550LCGN	16201	LT1620IGN	164721	LTC1647-2IS8	1723	LT1723CS8	1766HFE	LT1766HFE
1468	LT1468CS8	15011	LT1501IS8	1550L	LTC1550LCS8	16201	LT1620IS8	16473	LTC1647-3CGN	17231	LT1723IS8	1766HFE-5	LT1766HFE-5
14682	LT1468CS8-2	150113	LT1501IS8-3.3	1550L2	LTC1550LCS8-2	1621	LT1621CGN	164731	LTC1647-3IGN	1725	LT1725CGN	17661	LT1766IGN
14682	LT1468IS8-2	150115	LT1501IS8-5	1550L1	LTC1550LIGN	16211	LT1621IGN	1654	LTC1654CGN	17251	LT1725IGN	17661	LT1766IS8
14684	LT1468CS8-4	150233	LTC1502CS8-3.3	155141	LTC1551CS8-4.1	1622	LTC1622CS8	16541	LTC1654IGN	172625	LTC1726ES8-2.5	176615	LT1766IGN-5
14684	LT1468IS8-4	150318	LTC1503CS8-1.8	1551L	LTC1551LCS8	16221	LTC1622IS8	1655	LTC1655CS8	17265	LTC1726ES8-5	17661FE	LT1766IFE
14681	LT1468IS8	15032	LTC1503CS8-2	1551L2	LTC1551LCS8-2	1623	LTC1623CS8	16551	LTC1655IS8	172615	LTC1726IS8-5	17661FE-5	LT1766IFE-5
1469	LT1469ACDF	150312	LTC1503IS8-2	1555	LTC1555CGN	16231	LTC1623IS8	1655L	LTC1655LCS8	172725	LTC1727ES8-2.5	1766SN	LT1766CS8-SYNC
1469	LT1469AIDF	1504	LTC1504CS8	15551	LTC1555IGN	1624	LTC1624CS8	1655LI	LTC1655LIS8	17275	LTC1727ES8-5	1767	LT1767ES8
1469	LT1469CDF	150433	LTC1504CS8-3.3	1555L	LTC1555LEGN	16241	LTC1624IS8	1658	LTC1658CS8	172715	LTC1727IS8-5	1768	LT1768CGN
1469	LT1469CS8	1504A	LTC1504ACS8	15601	LTC1560-1CS8	1625	LTC1625CGN	16581	LTC1658IS8	172941	LTC1729CS8-4.1	17681	LT1768IGN
1469	LT1469IDF	1504AI	LTC1504AIS8	156011	LTC1560-1IS8	16251	LTC1625IGN	1659	LTC1659CS8	172942	LTC1729CS8-4.2	1770	LTC1770CS8
14692	LT1469ACDF-2	15041	LTC1504IS8	15632	LTC1563-2CGN	1627	LTC1627CS8	16591	LTC1659IS8	172982	LTC1729CS8-8.2	17701	LTC1770IS8
14692	LT1469AIDF-2	150413	LTC1504IS8-3.3	156321	LTC1563-2IGN	16271	LTC1627IS8	1660	LTC1660CGN	172984	LTC1729CS8-8.4	1771	LTC1771ES8
14692	LT1469CDF-2	1506	LT1506CS8	15633	LTC1563-3CGN	1628	LTC1628CUH	16601	LTC1660IGN	17304	LTC1730EGN-4	17711	LTC1771IS8
14692	LT1469CS8-2	150633	LTC1506CS8-3.3	156331	LTC1563-3IGN	16281	LTC1628IUIH	1664	LTC1664CGN	173041	LTC1730ES8-4.1	1772	LTC1772CS8
14692	LT1469IDF-2	15061	LT1506IS8	156531	LTC1565-31CS8	1630	LT1630CS8	16641	LTC1664IGN	173042	LTC1730ES8-4.2	1775	LTC1775CGN
14692	LT1469IS8-2	1507	LT1507CS8	156573	LTC1565-73CS8	16301	LT1630IS8	1665	LTC1665CGN	173082	LTC1730ES8-8.2	17751	LTC1775IGN
14694	LT1469CDF-4	15073	LT1507CS8-3.3	15661	LTC1566-1CS8	1632	LT1632CS8	16651	LTC1665IGN	173084	LTC1730ES8-8.4	1776	LT1776CS8
14694	LT1469CS8-4	15071	LT1507IS8	156611	LTC1566-1IS8	16321	LT1632IS8	1671	LT1671CS8	173141	LTC1731ES8-4.1	17761	LT1776IS8
14694	LT1469IDF-4	150713	LT1507IS8-3.3	1568	LT1568CGN	1634A1	LT1634ACS8-1.25	16711	LT1671IS8	173142	LTC1731ES8-4.2	1777	LT1777CGN
14694	LT1469IS8-4	1510	LT1510CGN	15681	LT1568IGN	1634A2	LT1634ACS8-2.5	1672	LT1672CS8	173184	LTC1731ES8-8.4	1778	LTC1778EGN
14691	LT1469IS8	1510	LT1510CS8	15696	LTC1569CS8-6	1634A4	LT1634ACS8-4.096	16721	LT1672IS8	1733	LTC1733CS8	17781	LTC1778EGN-1
1470	LTC1470CS8	15105	LT1510-5CGN	15697	LTC1569CS8-7	1634A5	LTC1634ACS8-5	1673	LT1673CS8				

TOP MARKINGS (TOP MARK TO PART NUMBER)

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

1778A	LTC1778AIGN	1819I	LT1819IS8	1946A	LT1946AEUF	2051H	LTC2051HS8	2306	LTC2306CUF	2486	LTC2486CDE	2624I	LTC2624CGN-1
1778H	LTC1778HGN	1840	LTC1840CGN	1949	LT1949ES8	2051HV	LTC2051HVCS8	2306	LTC2306IUF	2486	LTC2486IDE	2624I	LTC2624IGN
1778I	LTC1778IGN	1840I	LTC1840IGN	1949I	LT1949IS8	2051I	LTC2051IS8	2308	LTC2308CUF	2487	LTC2487CDE	2624I1	LTC2624IGN-1
1779	LTC1779ES8	1841	LTC1841CS8	1950	LT1950EGN	2052	LTC2052CGN	2308	LTC2308IUF	2487	LTC2487IDE	2625	LTC2625CGN
1785	LT1785CS8	1841I	LTC1841IS8	1950I	LT1950IGN	2052H	LTC2052HGN	2309	LTC2309CUF	2488	LTC2488CDE	2625I	LTC2625CGN-1
1785A	LT1785ACS8	1842	LTC1842CS8	1952	LT1952EGN	2052HV	LTC2052HVCGN	2309	LTC2309IUF	2488	LTC2488IDE	2625I	LTC2625IGN
1785AH	LT1785AHS8	1842I	LTC1842IS8	1952I	LT1952EGN-1	2052I	LTC2052IGN	2351I2	LTC2351CUH-12	2489	LTC2489CDE	2625I1	LTC2625IGN-1
1785AI	LT1785AIS8	1843	LTC1843CS8	1952I	LT1952IGN	2078	LT2078CS8	2351I2	LTC2351HUH-12	2489	LTC2489IDE	2627	LTC2627CDE
1785H	LT1785HS8	1843I	LTC1843IS8	1952I1	LT1952IGN-1	2078A	LT2078ACS8	2351I2	LTC2351IUH-12	2490	LTC2490CS8	2627	LTC2627IDE
1785I	LT1785IS8	1860	LTC1860CS8	1955	LTC1955EUH	2078AI	LT2078AIS8	2351I4	LTC2351CUH-14	2490I	LTC2490IS8	2627I	LTC2627CDE-1
1787	LT1787CS8	1860I	LTC1860IS8	1955	LTC1955IUH	2078I	LT2078IS8	2351I4	LTC2351IHU-14	2492	LTC2492CDE	2627I	LTC2627IDE-1
1787H	LT1787HS8	1860L	LTC1860LCS8	1956	LT1956EGN	2105	LT1021DCS8-5	2351I4	LTC2351IUH-14	2492	LTC2492IDE	2629	LTC2629CGN
1787HV	LT1787HVCS8	1860LI	LTC1860LIS8	19565	LT1956EGN-5	2107	LT1021DCS8-7	236AC1	LT1236ACS8-10	2493	LTC2493CDE	2629I	LTC2629CGN-1
1787I	LT1787IS8	1861	LTC1861CS8	1956EFE	LT1956EFE	2110	LT1021DCS8-10	236AC5	LT1236ACS8-5	2493	LTC2493IDE	2629I	LTC2629IGN
1789I	LT1789CGN-1	1861I	LTC1861IS8	1956IFE-5	LT1956IFE-5	2178	LT2178CS8	236AI1	LT1236AIS8-10	2494	LTC2494CUHF	2629I1	LTC2629IGN-1
1789I1	LT1789CS8-1	1861L	LTC1861LCS8	1956I	LT1956IGN	2178A	LT2178ACS8	236AI5	LT1236AIS8-5	2494	LTC2494IUF	2641I16	LTC2641CS8-16
1789I10	LT1789CS8-10	1861LI	LTC1861LIS8	1956I5	LT1956IGN-5	2178AI	LT2178AIS8	236BC1	LT1236BCS8-10	2495	LTC2495CUHF	2641I16	LTC2641IS8-16
1789H1	LT1789HS8-1	1863	LTC1863CGN	1956IFE	LT1956IFE	2178I	LT2178IS8	236BC5	LT1236BCS8-5	2495	LTC2495IUF	2751I2	LTC2751CUHF-12
1789I1	LT1789IGN-1	1863	LTC1863IGN	1956IFE-5	LT1956IFE-5	21AHVI	LT1121AHVIS8	236BI1	LT1236BIS8-10	2496	LTC2496CUHF	2751I2	LTC2751IUHF-12
1789I1	LT1789IS8-1	1863L	LTC1863LCGN	1959	LT1959CS8	2201T	LTC3220EPF-1	236BI5	LT1236BIS8-5	2496	LTC2496IUF	2751I14	LTC2751CUHF-14
1792	LT1792CS8	1863L	LTC1863LIGN	1959I	LT1959IS8	2201T	LTC3220PF-1	236CC1	LT1236CCS8-10	2497	LTC2497CUHF	2751I14	LTC2751IUHF-14
1792A	LT1792ACS8	1864	LTC1864CS8	1960	LTC1960CUHF	2225	LTC2225CUH	236CC5	LT1236CCS8-5	2497	LTC2497IUF	2751I16	LTC2751ACUHF-16
1792AI	LT1792AIS8	1864A	LTC1864ACS8	1961	LT1961ES8	2225	LTC2225IUH	236CI1	LT1236CIS8-10	2498	LTC2498CUHF	2751I16	LTC2751AIUHF-16
1792I	LT1792IS8	1864AI	LTC1864AIS8	1963	LT1963ES8	2226	LTC2226CUH	236CI5	LT1236CIS8-5	2498	LTC2498IDE	2751I16	LTC2751BCUHF-16
1793	LT1793CS8	1864I	LTC1864IS8	1963	LT1963EST	2226	LTC2226IUH	2400	LTC2400CS8	2499	LTC2499CUHF	2751I16	LTC2751BIUHF-16
1793A	LT1793ACS8	1864L	LTC1864LCS8	1963I5	LT1963ES8-1.5	2226H	LTC2226HLU	2400I	LTC2400IS8	2499	LTC2499IUF	2751I16	LTC2751CUHF-16
1793AI	LT1793AIS8	1864LA	LTC1864LACS8	1963I5	LT1963EST-1.5	2227	LTC2227CUH	240HVH	LTC6240HVHS8	253AJ	LTC4253ACUF-ADJ	2751I16	LTC2751IUHF-16
1793I	LT1793IS8	1864LI	LTC1864LIS8	1963I8	LT1963ES8-1.8	2227	LTC2227IUH	240HVI	LTC6240HVIS8	253AJ	LTC4253AIUF-ADJ	2751I18	LTC2751ACUHF-18
1794	LT1794CS8	1865	LTC1865CS8	1963I8	LT1963EST-1.8	2228	LTC2228CUH	2410	LTC2410CGN	2600	LTC2600CGN	2751I18	LTC2751AIUHF-18
1794A	LT1794ACS8	1865A	LTC1865ACS8	196325	LT1963ES8-2.5	2228	LTC2228IUH	2410I	LTC2410IGN	2600	LTC2600CUFD	2751I18	LTC2751BCUHF-18
1796	LT1796CS8	1865AI	LTC1865AIS8	196325	LT1963EST-2.5	2229	LTC2229CUH	2412	LTC2412CGN	2600	LTC2600IUF	2751I18	LTC2751BIUHF-18
1796I	LT1796IS8	1865I	LTC1865IS8	196333	LT1963ES8-3.3	2229	LTC2229IUH	2412I	LTC2412IGN	2600I	LTC2600IGN	2801	LTC2801CDE
1798	LTC1798CS8	1865L	LTC1865LCS8	196333	LT1963EST-3.3	2229I1	LTC2229CUH-11	2413	LTC2413CGN	2604	LTC2604CGN	2801	LTC2801IDE
179825	LTC1798CS8-2.5	1865LA	LTC1865LACS8	1963A	LT1963AES8	2236	LTC2236CUH	2413I	LTC2413IGN	2604I	LTC2604CGN-1	2802	LTC2802CDE
17983	LTC1798CS8-3	1865LI	LTC1865LIS8	1963A	LT1963AIS8	2236	LTC2236IUF	2415	LTC2415CGN	2604I	LTC2604IGN	2802	LTC2802IDE
17984I	LTC1798CS8-4.1	1867	LTC1867ACGN	1963AEFE	LT1963AEFE	2237	LTC2237CUH	2415I	LTC2415-1CGN	2604I1	LTC2604IGN-1	2803	LTC2803CDHC
17985	LTC1798CS8-5	1867	LTC1867AIGN	1963AEFE15	LT1963AEFE-1.5	2237	LTC2237IUH	2415I1	LTC2415-1IGN	2605	LTC2605CGN	2803	LTC2803IDHC
1798I	LTC1798IS8	1867	LTC1867CGN	1963AEFE18	LT1963AEFE-1.8	2238	LTC2238CUH	2415I	LTC2415IGN	2605I	LTC2605CGN-1	2803I	LTC2803CGN-1
1798I3	LTC1798IS8-3	1867	LTC1867IGN	1963AEFE25	LT1963AEFE-2.5	2238	LTC2238IUH	241HVH	LTC6241HVHS8	2605I	LTC2605IGN	2803I1	LTC2803IGN-1
1798I5	LTC1798IS8-5	1867L	LTC1867LACGN	1963AEFE33	LT1963AEFE-3.3	2239	LTC2239CUH	241HVI	LTC6241HVIS8	2605I1	LTC2605IGN-1	2804	LTC2804CDHC
1800	LT1800CS8	1867L	LTC1867LAIIGN	1963AIFE	LT1963AIFE	2239	LTC2239IUH	2420	LTC2420CS8	2607	LTC2607CDE	2804	LTC2804IDHC
1800I	LT1800IS8	1867L	LTC1867LCGN	1963EFE	LT1963EFE	2245	LTC2245CUH	2420I	LTC2420IS8	2607	LTC2607IDE	2804I	LTC2804CGN-1
1801	LT1801CS8	1867L	LTC1867LIGN	1963EFE15	LT1963EFE-1.5	2245	LTC2245IUH	242HVH	LTC6242HVHGN	2607I	LTC2607CDE-1	2804I1	LTC2804IGN-1
1801I	LT1801IS8	1874	LTC1874EGN	1963EFE18	LT1963EFE-1.8	2246	LTC2246CUH	242HVI	LTC6242HVIGN	2607I	LTC2607IDE-1	2845	LTC2845CUHF
1803	LT1803CS8	1875	LTC1875EGN	1963EFE25	LT1963EFE-2.5	2246	LTC2246IUH	2430	LTC2430CGN	2609	LTC2609CGN	2845I	LTC2845IUHF
1803I	LT1803IS8	1879	LTC1879EGN	1963EFE33	LT1963EFE-3.3	2246H	LTC2246HLU	2430I	LTC2430IGN	2609I	LTC2609CGN-1	2847	LTC2847CUHF
1804	LT1804CS8	1881	LT1881CS8	1963I	LT1963IS8	2247	LTC2247CUH	2435	LTC2435CGN	2609I	LTC2609IGN	2847I	LTC2847IUHF
1804I	LT1804IS8	1881A	LT1881ACS8	1976BEFE	LT1976BEFE	2247	LTC2247IUH	2435I	LTC2435-1CGN	2609I1	LTC2609IGN-1	2850	LTC2850CS8
1806	LT1806CS8	1881AI	LT1881AIS8	1976BIFE	LT1976BIFE	2248	LTC2248CUH	2435I1	LTC2435-1IGN	2610	LTC2610CGN	2850H	LTC2850HS8
1806I	LT1806IS8	1881I	LT1881IS8	1976EFE	LT1976EFE	2248	LTC2248IUH	2435I	LTC2435IGN	2610	LTC2610CUFD	2850I	LTC2850IS8
1807	LT1807CS8	1884	LT1884CS8	1976HFE	LT1976HFE	2249	LTC2249CUH	2436I	LTC2436-1CGN	2610	LTC2610IUF	2851	LTC2851CS8
1807H	LT1807HS8	1884A	LT1884ACS8	1976IFE	LT1976IFE	2249	LTC2249IUH	2436I1	LTC2436-1IGN	2610I	LTC2610IGN	2851H	LTC2851HS8
1807I	LT1807IS8	1884AI	LT1884AIS8	1977BEFE	LT1977BEFE	2250	LTC2250CUH	2440	LTC2440CGN	2614	LTC2614CGN	2851I	LTC2851IS8
1809	LT1809CS8	1884I	LT1884IS8	1977BIFE	LT1977BIFE	2250	LTC2250IUH	2440I	LTC2440IGN	2614I	LTC2614CGN-1	2852	LM285S8-2.5
1809I	LT1809IS8	1886	LT1886CS8	1977EFE	LT1977EFE	2251	LTC2251CUH	2444	LTC2444CUHF	2614I	LTC2614IGN	2855	LTC2855CDE
1810	LT1810CS8	1886I	LT1886IS8	1977IFE	LT1977IFE	2251	LTC2251IUH	2444	LTC2444IUF	2614I1	LTC2614IGN-1	2855	LTC2855CGN
1810I	LT1810IS8	1905	LT1019CS8-5	1990	LT1990CS8	2252	LTC2252CUH	2445	LTC2445CUHF	2615	LTC2615CGN	2855	LTC2855HDE
1812	LT1812CS8	1910	LT1019CS8-10	1990I0	LT1990CS8-10	2252	LTC2252IUH	2445	LTC2445IUF	2615I	LTC2615CGN-1	2855	LTC2855IDE
1812I	LT1812IS8	1910E	LT1910ES8	1990A	LT1990ACS8	2253	LTC2253CUH	2446	LTC2446CUHF	2615I	LTC2615IGN	2855H	LTC2855HGN
1813	LT1813CS8	1911I18	LTC1911ES8-1.8	1990AH	LT1990AHS8	2253	LTC2253IUH	2446	LTC2446IUF	2615I1	LTC2615IGN-1	2855I	LTC2855IGN
1813D	LT1813DS8	1920	LT1920CS8	1990AI	LT1990AIS8	2254	LTC2254CUH	2447	LTC2447CUHF	2617	LTC2617CDE	2861	LTC2861CDE
1813HV	LT1813HVCS8	1920I	LT1920IS8	1990H	LT1990HS8	2254	LTC2254IUH	2447	LTC2447IUF	2617	LTC2617IDE	2861	LTC2861CGN
1813I	LT1813IS8	1921	LTC1921CS8	1990I	LT1990IS8	2255	LTC2255CUH	2448	LTC2448CUHF	2617I	LTC2617CDE-1	2861	LTC2861IDE
1814	LT1814CGN	1921I	LTC1921IS8	1994	LT1994CS8	2255	LTC2255IUH	2448	LTC2448IUF	2617I	LTC2617IDE-1	2861I	LTC2861IGN
1814I	LT1814IGN	1923	LTC1923EUH	1994I	LT1994IS8	2301	LTC2301CDE	2449	LTC2449CUHF	2619	LTC2619CGN	2901I	LTC2901-1CGN
1815	LT1815CS8	1925	LT1019CS8-2.5	19A125	LT1019AIS8-2.5	2301	LTC2301CMS	2449	LTC2449IUF	2619I	LTC2619CGN-1	2901I1	LTC2901-1IGN
1815I	LT1815IS8	1928	LTC1928CS8	19I05	LT1019IS8-5	2301	LTC2301HMS	2460	LTC2460CMS	2619I	LTC2619IGN	29012	LTC2901-2CGN
1816	LT1816CS8	1932	LT1932ES8	19I25	LT1019IS8-2.5	2301	LTC2301IDE	2460	LTC2460IMS	2619I1	LTC2619IGN-1	29012I	LTC2901-2IGN
1816I	LT1816IS8	1933	LT1933CS8	200I10	LT1933CS8-10	2301	LTC2301IMS	2461	LTC2461CMS	261L45	LTC261LCS8-4.5	29013	LTC2901-3CGN
1817	LT1817CGN	1940EFE	LT1940EFE	2050	LTC2050CS8	2305	LTC2305CDE	2461	LTC2461IMS	2620	LTC2620CGN	29013I	LTC2901-3IGN
1817I	LT1817IGN	1940LEFE	LT1940LEFE	2050H	LTC2050HS8	2305	LTC2305CMS	2462	LTC2462CMS	2620	LTC2620CUFD	29014	LTC2901-4CGN
1818	LT1818CS8	1942	LT1942EUH	2050HV	LTC2050HVCS8	2305	LTC2305HMS	2462	LTC2462IMS	2620	LTC2620IUF	29014I	LTC2901-4IGN
1818I	LT1818IS8	1945	LT1019CS8-4.5	2050I	LTC2050IS8	2305	LTC2305IDE	2463	LTC2463CMS	2620I	LTC2620IGN	2902I	LTC2902-1CGN
1819	LT1819CS8	1946	LT1946EUH	2051	LTC2051CS8	2305	LTC2305IMS	2463	LTC2463IMS	2620I	LTC2624CGN	2902I1	LTC2902-1IGN

TOP MARKINGS (TOP MARK TO PART NUMBER)

29022	LTC2902-2CGN	302118	LT3021ES8-1.8	3441	LTC3441EDE	3517FE	LT3517EFE	3603	LTC3603EUF	3728L1	LTC3728LIUH-1	3812IFE-5	LTC3812IFE-5
290221	LTC2902-21GN	302118	LT3021IS8-1.8	3442	LTC3442EDE	3517FE	LT3517IFE	3603	LTC3603IMSE	3728LE	LTC3728LEUH	3813	LTC3813EUH
2910	LTC2910CDHC	3024	LT3024EDE	3443	LTC3443EDE	3517HFE	LT3517HFE	3603	LTC3603IUF	3728LI	LTC3728LIUH	3813	LTC3813UIUH
2910	LTC2910CGN	3024	LT3024IDE	3445	LTC3445EUF	3518	LT3518EUF	36031	LTC3603EMSE-1	3728LX	LTC3728LXCUH	38135	LTC3813EUH-5
2910	LTC2910HDHC	3024EFE	LT3024EFE	3446	LTC3446EDE	3518	LT3518IUF	3603FE	LTC3603EFE	3728ZE	LTC3728ZEUH	3814EFE-5	LTC3814EFE-5
2910	LTC2910IHDHC	3024IFE	LT3024IFE	3446	LTC3446IDE	3518FE	LT3518EFE	3603FE	LTC3603IFE	3729	LTC3729EUH	3814IFE-5	LTC3814IFE-5
2910H	LTC2910HGN	3028	LT3028EDHC	3452	LTC3452EUF	3518FE	LT3518IFE	3605	LTC3605EUF	37296	LTC3729EUH-6	38221	LTC3822E6GN-1
2910I	LTC2910IGN	3028EFE	LT3028EFE	3453	LTC3453EUF	3518HFE	LT3518HFE	36051	LTC3605EUF-1	3729L6	LTC3729LEUH-6	3823	LTC3823EUH
29141	LTC2914CDHC-1	3028I	LT3028IDHC	3455	LTC3455EUF	3520	LT3520EUF	365142	LT3651EUEH-4.2	3731	LTC3731CUH	3825EFE	LTC3825EFE
29141	LTC2914CGN-1	3028IFE	LT3028IFE	34551	LTC3455EUF-1	3520	LT3520IUF	365142	LT3651UIHE-4.2	3731I	LTC3731UIUH	3826	LTC3826EUH
29141	LTC2914HDHC-1	3035	LTC3035ES8	3456	LTC3456EUF	3524	LT3524EUF	365182	LT3651EUEH-8.2	3732	LTC3732CUHF	3826	LTC3826UIUH
29141	LTC2914IDHC-1	3080	LT3080EST	3458	LTC3458EDE	352533	LTC3525ES8-3.3	365182	LT3651UIHE-8.2	37331	LTC3733CUHF-1	3827	LTC3827EUH
29142	LTC2914CDHC-2	3080EFE	LT3080EFE	3458EFE	LTC3458EFE	3533	LTC3533EDE	3681	LT3681EDE	3734	LTC3734EUH	3827	LTC3827UIUH
29142	LTC2914CGN-2	3101	LT3101EUF	3458L	LTC3458LEDE	3534	LT3534EDE	3682	LT3682EDE	3735	LTC3735EUHF	3827H	LTC3827HUIUH
29142	LTC2914HDHC-2	3150	LT3150CGN	3458LEFE	LTC3458LEFE	3534	LT3534EDHC	3682	LT3682IDE	3736	LTC3736EUF	3828	LTC3828EUH
29142	LTC2914IDHC-2	3205	LTC3205EUF	3459	LTC3459ES8	3534	LT3534EGN	3682H	LT3682HDE	37361	LTC3736EUF-1	3830	LTC3830EGN
2914H1	LTC2914HGN-1	3205X	LTC3205XEUF	3466EFE	LT3466EFE	3534	LT3534IDE	3683	LT3683EDE	37362	LTC3736EUF-2	3830	LTC3830ES8
2914H2	LTC2914HGN-2	3206	LTC3206EUF	3469	LTC3469ES8	3534	LT3534IDHC	368MI8	LTC2636CMS-HMI8	3737	LTC3737EUF	38301	LTC3830-1ES8
2914I1	LTC2914IGN-1	3207	LT3207EUF	3473A	LT3473AEDE	3534	LT3534IGN	368MI8	LTC2636HMS-HMI8	3738	LTC3738CUHF	38308	LTC3830EGN-8
2914I2	LTC2914IGN-2	3207I	LT3207EUF-1	3474EFE	LT3474EFE	3546	LTC3546EUF	368MI8	LTC2636IMS-HMI8	3740	LT3740EDHC	3831	LTC3831EGN
2921	LTC2921CGN	3208	LTC3208EUF	3474EFE-1	LT3474EFE-1	3546	LT3546IUF	368MX8	LTC2636CMS-HMX8	3742	LT3742EUF	3831	LTC3831IGN
292125	LTC2921CGN-2.5	32091	LTC3209EUF-1	3474IFE	LT3474IFE	3550	LT3550EDHC	368MX8	LTC2636HMS-HMX8	3742I	LT3742EUF-1	38311	LTC3831EGN-1
292133	LTC2921CGN-3.3	32092	LTC3209EUF-2	3474IFE-1	LT3474IFE-1	35501	LTC3550EDHC-1	368MX8	LTC2636IMS-HMX8	3745SN	LT1374CS8-5 SYNC	3832	LTC3832EGN
2921I	LTC2921IGN	3216	LTC3216EDE	3476	LT3476EUFH	3552	LT3552EDHC	36HZ10	LTC2636CMS-HZ10	374HVI	LT1374HVIS8	38321	LTC3832-1ES8
29221	LTC2922-1CGN	3220	LTC3220EUF	3477	LT3477EUF	35521	LTC3552EDHC-1	36HZ10	LTC2636HMS-HZ10	374SN	LT1374IS8-SYNC	3834	LTC3834EUF
29221I	LTC2922-1IGN	3220I	LTC3220EUF-1	3477	LT3477IUF	3555	LTC3555EUF	36HZ10	LTC2636IMS-HZ10	3751	LT3751EUF	3834	LTC3834IUF
2923	LTC2923CDE	3220T	LTC3220PEF	3478FE	LT3478FEF	35551	LTC3555EUF-1	36HZ12	LTC2636CMS-HZ12	3751	LT3751IUF	38341	LTC3834EDHC-1
2923	LTC2923IDE	3220T	LTC3220PIF	3478FE	LT3478IFE	35551	LTC3555IUF-1	36HZ12	LTC2636HMS-HZ12	3755	LT3755EMSE	38341	LTC3834EGN-1
2924	LTC2924CGN	3252	LTC3252EDE	3478FE-1	LT3478FE-1	35553	LTC3555EUF-3	36HZ12	LTC2636IMS-HZ12	3755	LT3755IMSE	38341	LTC3834IDHC-1
2924I	LTC2924IGN	326125	LTC1326IS8-2.5	3478FE-1	LT3478IFE-1	35553	LTC3555IUF-3	36HZ28	LTC2636CDE-HZ8	37551	LT3755EMSE-1	38341	LTC3834IGN-1
2925	LTC2925CUF	3401	LT1034CS8-1.2	3479	LT3479EDE	35551	LTC3555IUF	36HZ28	LTC2636HDE-HZ8	37551	LT3755IMSE-1	3835	LTC3835EUF
2925	LTC2925IUF	3402	LT1034CS8-2.5	3479EFE	LT3479EFE	3556	LTC3556EUF	36HZ28	LTC2636IDE-HZ8	3755A	LT3755AEMSE	3835	LTC3835IUF
2926	LTC2926CUF	3412	LTC3412EUF	3486	LTC3486EDHC	3557	LTC3557EUF	36LMi8	LTC2636CMS-LMI8	3755A	LT3755AIMSE	38351	LTC3835EDHC-1
2926	LTC2926IUF	3412A	LTC3412AEUF	3486EFE	LT3486EFE	35571	LTC3557EUF-1	36LMi8	LTC2636HMS-LMI8	3756	LT3756EMSE	38351	LTC3835EGN-1
2926	LTC2926IUF	3412A	LTC3412AIUF	3486IFE	LT3486IFE	3566	LTC3566EUF	36LMi8	LTC2636IMS-LMI8	3756	LT3756IMSE	38351	LTC3835IDHC-1
2926	LTC2926IUF	3412AEFE	LTC3412AEFE	3490	LTC3490ES8	3566	LTC3566IUF	36LMX8	LTC2636CMS-LMX8	37561	LT3756EMSE-1	38351	LTC3835IGN-1
2928	LTC2928CUHF	3412AIFE	LTC3412AIFE	3493ES	LT3493AES8	35662	LTC3566EUF-2	36LMX8	LTC2636HMS-LMX8	37561	LT3756IMSE-1	3836	LTC3836EUF
2928	LTC2928IUFH	3412AMPFE	LTC3412AMPFE	3496	LT3496EUF	3567	LTC3567EUF	36LMX8	LTC2636IMS-LMX8	3756A	LT3756AEMSE	3837EFE	LTC3837EFE
2933	LTC2933CDHD	3412EFE	LTC3412EFE	3496	LT3496IUF	3569FE	LTC3569EUF	36LZ10	LTC2636CMS-LZ10	3756A	LT3756AIMSE	3837FE	LTC3837IFE
2933	LTC2933CGN	3412IFE	LTC3412IFE	34102	LT1034IS8-2.5	3569FE	LTC3569IFE	36LZ10	LTC2636HMS-LZ10	375HVI	LT1375HVIS8	3844EFE	LTC3844EFE
2933	LTC2933IDHD	3413EFE	LTC3413EFE	3500	LT3500EUMSE	3570	LT3570EUF	36LZ10	LTC2636IMS-LZ10	376HVI	LT1376HVIS8	3844IFE	LTC3844IFE
2933I	LTC2933IGN	3413IFE	LTC3413IFE	3500	LT3500HMSE	3570	LT3570IUF	36LZ12	LTC2636CMS-LZ12	3770	LTC3770EUF	3845FE	LTC3845FEF
2952	LTC2952CUF	3415	LTC3415EUFH	3500	LT3500IMSE	3571	LT3571EMSE	36LZ12	LTC2636HMS-LZ12	3773	LTC3773CUHF	3845FE	LTC3845IFE
2952	LTC2952IUF	3417	LTC3417EDHC	3504	LT3504EUF	3571	LT3571IMSE	36LZ12	LTC2636IMS-LZ12	3773E	LTC3773EUFH	3850	LTC3850EUF
29532	LTC2953IMS-2	3417A	LTC3417AEDHC	3504	LT3504IUF	3572	LT3572EUF	36LZ28	LTC2636CDE-LZ8	3773I	LTC3773IUFH	3850	LTC3850EUF
2970	LTC2970CUFD	3417A1	LTC3417AEDHC-1	3506	LT3506EDHD	3572	LT3572IUF	36LZ28	LTC2636HDE-LZ8	3776	LTC3776EUF	3850	LTC3850EUF
2970	LTC2970IUF	3417A1	LTC3417AIDHC-1	3506	LT3506IDHD	3573	LT3573EMSE	36LZ28	LTC2636IDE-LZ8	3780	LTC3780EUFH	3850	LTC3850IUF
29701	LTC2970CUFD-1	3417A2	LTC3417AEDHC-2	3506A	LT3506AEDHD	3573	LT3573IMSE	3701	LTC3701EGN	3780I	LTC3780IUFH	3850	LTC3850IUF
29701	LTC2970IUF-1	3417A2	LTC3417AIDHC-2	3506A	LT3506AIDHD	3576	LT3576EUF	3703	LTC3703EGN	3780MP	LTC3780MPUH	3851	LTC3851EGN
3011	LT3011EMSE	3417AL	LTC3417ALEDHC	3506AEFE	LT3506AEFE	3576	LTC3576IUF	37035	LTC3703EGN-5	3782	LT3782EUF	3851	LTC3851EMSE
3011	LT3011HMSE	3417AL	LTC3417ALIDHC	3506AIFE	LT3506AIFE	35761	LTC3576EUF-1	3703H	LTC3703HGN	3782	LT3782IUF	3851	LTC3851IGN
3011	LT3011IMSE	3417S	LTC3417SEDHC	3506EFE	LT3506EFE	35761	LTC3576IUF-1	3703I	LTC3703IGN	3782A	LT3782AEUF	3851	LTC3851IMSE
3012	LT3012EDE	3418	LTC3418EUFH	3506IFE	LT3506IFE	3577	LTC3577EUF	3703I5	LTC3703IGN-5	3782A	LT3782AHUF	38511	LTC3851EGN-1
3012B	LT3012BEDE	3421	LTC3421EUF	3506L	LT3506LEDHD	35773	LT3577EUF-3	3705	LTC3705EGN	3782A	LT3782AIUF	38511	LTC3851EMSE-1
3012BEFE	LT3012BEFE	3425	LTC3425EUFH	3506LEFE	LT3506LEFE	3586	LTC3586EUF	3705I	LTC3705IGN	3782H	LT3782HUF	38511	LTC3851IGN-1
3012EFE	LT3012EFE	3430EFE	LT3430EFE	3507	LT3507EUFH	35861	LTC3586EUF-1	3708I	LTC3708EUFH	3783	LTC3783EDHD	38511	LTC3851EMSE-1
3012HFE	LT3012HFE	3430EFE-1	LT3430EFE-1	3507	LT3507HUHF	3595	LT3595EUFH	3709	LTC3709EUFH	3783	LTC3783IDHD	3853	LTC3853EUH
3012I	LT3012IDE	3430IFE	LT3430IFE	3507	LT3507IUFH	3595A	LT3595AEUHF	3710EFE	LT3710EFE	3783EFE	LTC3783EFE	3862	LTC3862EUF
3012IFE	LT3012IFE	3430IFE-1	LT3430IFE-1	3508	LT3508EUF	3597	LT3597EUFH	3717	LTC3717EGN	3783IFE	LTC3783IFE	3862	LTC3862EUF
3013	LT3013EDE	3431EFE	LT3431EFE	3508	LT3508IUF	3597	LT3597IUFH	37171	LTC3717EUFH-1	3785	LTC3785EUF	3862	LTC3862EUF
3013B	LT3013BEDE	3431IFE	LT3431IFE	3508FE	LT3508FEF	3598	LT3598EUF	3721I	LTC3721EGN-1	37851	LTC3785EUF-1	3862	LTC3862IUF
3013BEFE	LT3013BEFE	3433	LT3433EGN	3508FE	LT3508FEF	3598	LT3598IUF	3721I	LTC3721EUF-1	3800EFE	LT3800EFE	3862	LTC3862IUF
3013EFE	LT3013EFE	3433EFE	LT3433EFE	3508H	LT3508HUF	3599	LT3599EUFH	37231	LTC3723EGN-1	3800IFE	LT3800IFE	38621	LTC3862EUF-1
3013HFE	LT3013HFE	3433I	LT3433IGN	3508HFE	LT3508HFE	3599	LT3599IUFH	37232	LTC3723EGN-2	3802	LTC3802EUFH	38621	LTC3862EUF-1
3013I	LT3013IDE	3433IFE	LT3433IFE	3509	LT3509EDE	3599H	LTC3599HUF	3724EFE	LT3724EFE	3806	LTC3806EDE	38621	LTC3862HUIH-1
3013IFE	LT3013IFE	3434EFE	LT3434EFE	3509	LT3509EMSE	3602	LTC3602EUF	3724IFE	LT3724IFE	3806	LTC3806EGN	38621	LTC3862IUF-1
3013MPFE	LT3013MPFE	3434IFE	LT3434IFE	3509	LT3509HDE	3602	LTC3602IUF	3724MPFE	LT3724MPFE	3808	LTC3808EDE	38621	LTC3862IUF-1
3021	LT3021EDH	3435EFE	LT3435EFE	3509	LT3509HMSE	36021	LTC3602EUF-1	3726	LTC3726EGN	3808	LTC3808EGN	3862H	LTC3862HUF
3021	LT3021ES8	3435IFE	LT3435IFE	3509	LT3509IDE	36022	LTC3602EUF-2	3726I	LTC3726IGN	3810	LTC3810EGN	3878	LTC3878EGN
3021I2	LT3021EDH-1.2	3436EFE	LT3436EFE	3509	LT3509IMSE	3602EFE1	LTC3602EFE-1	37271	LTC3727EUFH-1	3810	LTC3810EUFH	3878	LTC3878IGN
3021I2	LT3021ES8-1.2	3437EFE	LT3437EFE	3513	LT3513EUFH	3602EFE2	LTC3602EFE-2	3728	LTC3728EUFH	38105	LTC3810EUFH-5	389A12	LT1389AC8S-1.25
3021I5	LT3021EDH-1.5	3437HFE	LT3437HFE	3513	LT3513IUFH	3602FE	LTC3602EFE	3728	LTC3728IUFH	38105	LTC3810IUFH-5	389B12	LT1389BC8S-1.25
3021I5	LT3021ES8-1.5	3437IFE	LT3437IFE	3517	LT3517EUF	3602FE	LTC3602IFE	3728L	LTC3728LCUH	3811	LTC3811EUFH	389B25	LT1389BC8S-2.5
3021I8	LT3021EDH-1.8	3439EFE	LT3439EFE	3517	LT3517IUF	3603	LTC3603EMSE	3728L1	LTC3728LXCUH-1	3812EFE-5	LTC3812EFE-5	3900	LTC3900ES8

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Space, Military,  
Harsh Envir.

Reference  
Material

TOP MARKINGS (TOP MARK TO PART NUMBER)

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

3900	LTC3900IS8	421712	LTC4217CDHC-12	42673	LTC4267CDHC-3	460E12	LT1460EIS8-2.5	55682	LT5568-2EUF	6079AI	LTC6079AIGN	634AI1	LT1634AIS8-1.25
3901	LTC3901EGN	421712	LTC4217IDHC-12	42673	LTC4267CGN-3	460E15	LT1460EIS8-5	5571	LT5571EUF	6079H	LTC6079HGN	634AI2	LT1634AIS8-2.5
3901EFE	LTC3901EFE	4218	LTC4218CGN	42673	LTC4267IDHC-3	460LH5	LT1460LHS8-5	5572	LT5572EUF	6079I	LTC6079IGN	634AI4	LT1634AIS8-4.096
4001	LTC4001EUF	421812	LTC4218CDHC-12	42671	LTC4267IGN	460MH5	LT1460MHS8-5	5575	LT5575EUF	6082	LTC6082CDHC	634AI5	LT1634AIS8-5
40011	LTC4001EUF-1	421812	LTC4218IDHC-12	426711	LTC4267IGN-1	461A10	LT1461ACS8-10	5579	LT5579IHF	6082	LTC6082CGN	634BI1	LT1634BIS8-1.25
400242	LTC4002ES8-4.2	42181	LTC4218IGN	426713	LTC4267IGN-3	461A25	LT1461ACS8-2.5	565311	LTC1565-31IS8	6082	LTC6082IDHC	634BI2	LT1634BIS8-2.5
400284	LTC4002ES8-8.4	4220	LT4220CGN	42681	LTC4268CDKD-1	461A33	LT1461ACS8-3.3	56L12	LTC2656LCUFD-12	6082H	LTC6082HGN	634BI4	LT1634BIS8-4.096
40062	LTC4006EGN-2	42201	LT4220IGN	42681	LTC4268IDKD-1	461AI3	LT1461AIS8-3	56L12	LTC2656LIUFD-12	6082I	LTC6082IGN	634BI5	LT1634BIS8-5
40064	LTC4006EGN-4	4221	LT4221CGN	42691	LTC4269CDKD-1	461AI4	LT1461AIS8-4	56L16	LTC2656LCUFD-16	6085	LTC6085CDHC	636HZ8	LTC2636CMS-HZ8
40066	LTC4006EGN-6	42211	LT4221IGN	42691	LTC4269IDKD-1	461AI5	LT1461AIS8-5	56L16	LTC2656LIUFD-16	6085	LTC6085CGN	636HZ8	LTC2636HMS-HZ8
4007	LTC4007EUF	4222	LTC4222CUH	42692	LTC4269CDKD-2	461B25	LT1461BCS8-2.5	573125	LT1573IS8-2.5	6085	LTC6085HDHC	636HZ8	LTC2636HMS-HZ8
40071	LTC4007EUF-1	4222	LTC4222IUH	42692	LTC4269IDKD-2	461B33	LT1461BCS8-3.3	573128	LT1573IS8-2.8	6085	LTC6085HGN	636LZ8	LTC2636CMS-LZ8
4008	LTC4008EUF	42231	LTC4223CDHD-1	42694	LTC4269CDKD-4	461B13	LT1461BIS8-3	573133	LT1573IS8-3.3	6088	LTC6088CDHC	636LZ8	LTC2636HMS-LZ8
4009	LTC4009CUF	42231	LTC4223CGN	42694	LTC4223IDKD-4	461BI4	LT1461BIS8-4	5765SN	LT1576CS8-SSYNC	6088	LTC6088CGN	636LZ8	LTC2636IMS-LZ8
4009	LTC4009EUF	42231	LTC4223IDHD-1	4305	LTC4305CDHD	461BI5	LT1461BIS8-5	5761SN	LT1576IS8-SYNC	6088	LTC6088HDHC	640AH1	LT1640AHIS8
40091	LTC4009CUF-1	42232	LTC4223CDHD-2	4305	LTC4305CGN	461C25	LT1461CCS8-2.5	578125	LT1578IS8-2.5	6088H	LTC6088HGN	640AIH	LT1640ALIS8
40091	LTC4009EUF-1	42232	LTC4223CGN-2	4305	LTC4305IDHD	461C33	LT1461CCS8-3.3	579133	LT1579IGN-3.3	60LH25	LT1460LHS8-2.5	6412	LT06412CUF
40092	LTC4009CUF-2	42232	LTC4223IDHD-2	43051	LTC4305IGN	461C13	LT1461CIS8-3	57L12	LTC2657LCUFD-12	60MH25	LT1460MHS8-2.5	6412	LT06412IUF
40092	LTC4009EUF-2	422311	LTC4223IGN-1	4306	LTC4306CUFD	461CI4	LT1461CIS8-4	57L12	LTC2657HUFD-12	61AI10	LT1461AIS8-10	641A16	LTC2641ACS8-16
40093	LTC4009EUF-3	422312	LTC4223IGN-2	4306	LTC4306IUFD	461CI5	LT1461CIS8-5	57L12	LTC2657LIUFD-12	61AI25	LT1461AIS8-2.5	641A16	LTC2641AIS8-16
4010CFE	LTC4010CFE	4242	LTC4242CUHF	4309	LTC4309CDE	461DH3	LT1461DHS8-3	57L16	LTC2657LCUFD-16	61AI33	LT1461AIS8-3.3	643AH1	LTC1643AHIGN
4010EFE	LTC4010EFE	4242	LTC4242IUHF	4309	LTC4309CGN	461DH4	LT1461DHS8-4	57L16	LTC2657LIUFD-16	61BI25	LT1461BIS8-2.5	643AL1	LTC1643AL-1CGN
4012	LTC4012CUF	4245	LTC4245CUHF	4309	LTC4309IDE	461DH5	LT1461DHS8-5	57L16	LTC2657LIUFD-16	61BI33	LT1461BIS8-3.3	643AL1	LTC1643ALIGN
4012	LTC4012EUF	4245	LTC4245IUHF	43091	LTC4309IGN	474133	LT1461BIS8-3.3	60010	LT6001CDF-10	61CI25	LT1461CIS8-2.5	643LI1	LTC1643L-1IGN
40121	LTC4012CUF-1	4250H	LT4250HCS8	4350	LTC4350CGN	485	LTC485CS8	60010	LT6001DF-10	61CI33	LT1461CIS8-3.3	6552	LT6552CS8
40121	LTC4012EUF-1	4250HI	LT4250HIS8	43501	LTC4350IGN	485I	LTC485IS8	6002	LT6002CDHC	61DH25	LT1461DHS8-2.5	6552I	LT6552IS8
40122	LTC4012CUF-2	4250L	LT4250LCS8	4351	LT4351CS8	490	LTC490CS8	6002	LT6002CGN	61DH33	LT1461DHS8-3.3	6553	LT6553CGN
40122	LTC4012EUF-2	4250LI	LT4250LIS8	43511	LT4351IS8	490I	LTC490IS8	6002	LT6002IDHC	6200	LT6200CS8	6553I	LT6553IGN
40123	LTC4012CUF-3	4251	LT4251CS8	4352	LTC4352CMS	502133	LTC1502IS8-3.3	60025	LT6002CDF-2.5	620010	LTC15020CS8-10	6554	LT6554CGN
4055	LTC4055EUF	42511	LT4251IS8	4352	LTC4352IMS	5031H8	LTC1503IS8-1.8	60025	LT6000IDF-2.5	62005	LT6200CS8-5	6554I	LT6554IGN
40551	LTC4055EUF-1	42521	LTC4252-1CS8	4354	LTC4354CS8	504A33	LTC1504ACS8-3.3	6002I	LT6002IGN	6200I	LT6200IS8	6555	LT6555CUF
4060	LTC4060EDHC	42522	LTC4252-2CS8	43541	LTC4354CS8-1	506I33	LT1506IS8-3.3	6005	LT6005CDHC	6200I5	LT6200IS8-5	6555	LT6555IUF
4060EFE	LTC4060EFE	4253	LTC4253CGN	43542	LTC4354CS8-2	5100	LTC5100EUF	6005	LT6005CGN	6201	LT6201CS8	6556	LT6556CUF
4066	LTC4066EUF	4253A	LTC4253ACGN	43541	LTC4354IS8	514133	LTC1514IS8-3.3	6005	LT6005HDHC	62011	LT6201IS8	6556	LT6556IUF
40661	LTC4066EUF-1	4253AI	LTC4253AIGN	4355	LTC4355CDE	515335	LTC1515CS8-3/5	6005	LT6005IDHC	6202	LT6202CS8	6557	LT6557CDHC
4066T	LTC4066EPF	4253I	LTC4253IGN	4355	LTC4355CMS	515135	LTC1515IS8-3/5	6005H	LT6005HGN	6202I	LT6202IS8	6557	LT6557CGN
4067	LTC4067EDE	4253J	LTC4253CUF-ADJ	4355	LTC4355EMS	530119	LTC1530IS8-1.9	6005I	LT6005IGN	6203	LT6203CS8	6557	LT6557IDHC
4085	LTC4085EDE	4253J	LTC4253IUF-ADJ	4355	LTC4355IDE	530125	LTC1530IS8-2.5	60010	LT6001IS8-10	6203I	LT6203IS8	6557I	LT6557IGN
4085	LTC4085EGN	4254	LT4254CGN	4355	LTC4355IMS	530128	LTC1530IS8-2.8	60015	LT6001IS8-15	6204	LT6204CGN	6558	LT6558CDHC
40851	LTC4085EDE-1	42541	LT4254-1CGN	4356	LTC4356CDE	530133	LTC1530IS8-3.3	60020	LT6000IS8-20	6204I	LT6204IGN	6558	LT6558CGN
4088	LTC4088EDE	42541	LT4254-1IGN	4356	LT4356HDE	5506	LT5506EUF	600125	LT6001IS8-2.5	6207	LT6207CGN	6558	LT6558IDHC
40881	LTC4088EDE-1	42542	LT4254-2CGN	4356	LT4356IDE	5506A	LT5506AEUF	6010	LT6010CS8	6207I	LT6207IGN	6558I	LT6558IGN
40882	LTC4088EDE-2	42542I	LT4254-2IGN	43561	LTC4356CDE-1	550L25	LTC1550LCS8-2.5	6010A	LT6010ACS8	6220	LT6220CS8	6560	LTC6560IUF
4089	LTC4089EDJC	4254I	LT4254IGN	43561	LT4356HDE-1	550L41	LTC1550LCS8-4.1	6010AI	LT6010AIS8	6220I	LT6220IS8	65612	LTC2656CUFD-12
40891	LTC4089EDJC-1	42561	LT4256-1CS8	43561	LT4356IDE-1	5511EFE	LT5511EFE	6010I	LT6010IS8	6221	LT6221CS8	65612	LTC2656IUF-12
40895	LTC4089EDJC-5	425611	LT4256-1IS8	43562	LTC4356CDE-2	5512	LT5512EUF	6011	LT6011CS8	6221I	LT6221IS8	65616	LTC2656CUFD-16
4090	LTC4090EDJC	42562	LT4256-2CS8	43562	LT4356HDE-2	5515	LT5515EUF	6011A	LT6011ACS8	6222	LT6222CGN	65616	LTC2656IUF-16
40905	LTC4090EDJC-5	425621	LT4256-2IS8	43562	LT4356IDE-2	5516	LT5516EUF	6011AI	LT6011AIS8	6222I	LT6222IGN	65712	LTC2657CUFD-12
4110	LTC4110EUF	42563	LT4256-3CGN	43563	LT4356CDE-3	5517	LT5517EUF	6011I	LT6011IS8	6231	LT6231CS8	65712	LTC2657HUFD-12
417AL1	LTC3417ALEDHHC-1	425631	LT4256-3IGN	43563	LT4356HDE-3	5518	LT5518EUF	6012	LT6012CGN	6231I	LT6231IS8	65712	LTC2657IUF-12
417AL1	LTC3417ALIDHC-1	4257	LTC4257CS8	43563	LT4356IDE-3	55182	LT5518EUF-2	6012A	LT6012ACGN	6232	LT6232CGN	65716	LTC2657IUF-16
4210	LTC4210CS8	42571	LTC4257CS8-1	435611	LT4356IGN-1	5519	LT5519EUF	6012AI	LT6012AIGN	6232I	LT6232IGN	65716	LTC2657HUFD-16
42101	LTC4210-1CS8	42571	LTC4257IS8	4358	LTC4358CDE	551L25	LTC1551LCS8-2.5	6012I	LT6012IGN	6234	LT6234CS8	65716	LTC2657IUF-16
421011	LTC4210-1IS8	425711	LTC4257IS8-1	4358	LTC4358IDE	551L41	LTC1551LCS8-4.1	6013	LT6013CS8	6234I	LT6234IS8	660	LTC6600CS8
42102	LTC4210-2CS8	4260	LTC4260CUH	4358FE	LTC4358CFE	5520	LT5520EUF	6013A	LT6013ACS8	6235	LT6235CGN	660010	LT6600CS8-10
421021	LTC4210-2IS8	4260	LTC4260IUF	4358FE	LTC4358IFE	5521	LT5521EUF	6013AI	LT6013AIS8	6235I	LT6235IGN	660015	LT6600CS8-15
42103	LTC4210-3CS8	4261	LTC4261CUFD	43AL11	LTC1643AL-1IGN	5521A	LT5521AEUF	6013I	LT6013IS8	6240	LTC6240CS8	660020	LT6600CS8-20
421031	LTC4210-3IS8	4261	LTC4261IUF	44001	LTC4400-1ES8	5522	LT5522EUF	6014	LT6014CS8	6240H	LTC6240HS8	660025	LT6600CS8-25
42104	LTC4210-4CS8	42612	LTC4261CUFD-2	4412	LTC4412CS8	5522T	LT5522TLNEUF	6014A	LT6014ACS8	6240HV	LTC6240HVCS8	66005	LT6600CS8-5
421041	LTC4210-4IS8	4412E	LTC4412ES8	4412E	LTC4412ES8	5525	LT5525EUF	6014AI	LT6014AIS8	6240I	LTC6240IS8	660015	LT6600IS8-15
4211	LTC4211CS8	4440	LTC4263CDE	4440	LTC4440ES8	5526	LT5526EUF	6014I	LT6014IS8	6241	LTC6241CS8	660010	LT6600CS8-10
42111	LTC4211IS8	4441	LTC4263IDE	4441	LTC4441ES8	5527	LT5527EUF	6014I	LT6014IS8	6241H	LTC6241HS8	660020	LT6600CS8-20
4213	LTC4213CS8	44411	LTC4263CDE-1	44411	LTC4441ES8-1	5528A	LT5528EUF	60410	LT6604CUFF-10	6241HV	LTC6241HVCS8	660025	LT6600CS8-25
42131	LTC4213IS8	44411	LTC4263IDE-1	44411	LTC4441ES8-1	5533	LTC5533EDE	60415	LT6604IUFF-15	6241I	LTC6241IS8	660015	LT6600IS8-15
4215	LTC4215CGN	444111	LTC4264CDE	444111	LTC4441IS8-1	5535	LTC5535EUF	60415	LT6604IUFF-15	6242	LTC6242CDHC	660015	LT6600IS8-15
4215	LTC4215CUFD	4445	LTC4264IDE	4445	LTC4445EDE	5536	LTC5536EUF	60425	LT6604CUFF-2.5	6242	LTC6242CGN	66010	LT66010CS8
4215	LTC4215IUF	4445	LTC4265CDE	4445	LTC4445IDE	5537	LT5537EUF	60425	LT6604IUFF-2.5	6242	LTC6242IDHC	66020	LT66020CS8
42151	LTC4215CUFD-1	44451	LTC4265IDE	44451	LTC4445EDE-1	5538	LTC5538EDE	6079	LTC6079ACDHC	6242H	LTC6242HGN	6603	LTC6603CUF
42151	LTC4215IUF-1	44451	LTC4266CUHF	44451	LTC4445IDE-1	5546	LTC5546EUF	6079	LTC6079AIDHC	6242HV	LTC6242HVCDHC	6603	LTC6603IUF
42151	LTC4215IGN	4456	LTC4266IUF	4556	LTC4556EUF	5554	LT5554IUF	6079	LTC6079CDHC	6242HV	LTC6242HVCN	66045	LT6604IUFF-5
4216	LTC4216CDE	460B11	LTC4267CDHC	460B11	LT1460BIS8-10	5557	LT5557EUF	6079	LTC6079CGN	6242HV	LTC6242HVCDHC	66045	LT6604IUFF-5
4216	LTC4216IDE	460B12	LTC4267CGN	460B12	LT1460BIS8-2.5	5558	LT5558EUF	6079	LTC6079IDHC	6242I	LTC6242IGN	660510	LT660510CS8
4217	LTC4217CDHC	460B15	LTC4267IDHC	460B15	LT1460BIS8-5	555L18	LTC1555LEGN-1.8	6079A	LTC6079ACGN	6300	LT6300CGN	660510	LT660510CS8
4217	LTC4217IDHC	460E11	LTC4267CGN-1	460E11</									



TOP MARKINGS (TOP MARK TO PART NUMBER)

66057	LTC6605CDJC-7	6LMX12	LTC2636IMS-LMX12	HMX12	LTC2636CDE-HMX12	LAEQ	LTC2053HDD	LBDX	LTC5530ES6	LBMW	LT6100CDD	LBSG	LTC3410ESC6-3
66057	LTC6605IDJC-7	6LMX8	LTC2636CDE-LMX8	HMX12	LTC2636HDE-HMX12	LAEQ	LTC2053IDD	LBDY	LTC3025EDC	LBMW	LT6100HDD	LBSH	LTC3410ESC6-4
682133	LTC16821S8-3.3	6LMX8	LTC2636HDE-LMX8	HMX12	LTC2636IDE-HMX12	LAET	LT6234CDD	LBDY	LTC3025IDC	LBMW	LT6100IDD	LBSJ	LTC3410ESC6-5
690	LTC690CS8	6LMX8	LTC2636IDE-LMX8	LAOA	LTC4555ESC6	LAET	LT6234IDD	LBFB	LTC3407EDD-2	LBNB	LTC2950CDDDB-2	LBSK	LTC3410ESC6-6
6909	LTC6909CMS	6LZ10	LTC2636CDE-LZ10	LAAB	LT1937ESC6	LAEU	LT6231CDD	LBFB	LTC3407IDD-2	LBNB	LTC2950IDDB-2	LBSM	LTC3410ESC6-7
6909	LTC6909HMS	6LZ10	LTC2636HDE-LZ10	LAAC	LTC3450EUD	LAEU	LT6231IDD	LBF0	LTC2908CDD-B1	LBNJ	LTC3548EDD	LBSN	LTC3410ESC6-8
6909	LTC6909IMS	6LZ10	LTC2636IDE-LZ10	LAAD	LTC5508ESC6	LAEV	LTC4058EDD-4.2	LBF0	LTC2908IDDB-A1	LBNJ	LTC3548IDD	LBSQ	LTC3410ESC6-9
6901	LTC6901S8	6LZ12	LTC2636CDE-LZ12	LAAE	LT1937BESOC6	LAEX	LT3020EED	LBF0	LTC2908CDDDB-B1	LBNK	LTC3204EDC-5	LBSQ	LTC2482CDD
69121	LTC6912CDE-1	6LZ12	LTC2636HDE-LZ12	LAAF	LT3460ESC6	LAF0	LT3463EED	LBFH	LTC2908IDDB-B1	LBNM	LTC3409EDD	LBSQ	LTC2482IDD
69121	LTC6912CGN-1	6LZ12	LTC2636IDE-LZ12	LAAG	LTC5507ESC6	LAF0	LT1618EED	LBFQ	LTC2611CDD	LBNM	LTC3409IDD	LBSR	LTC2483CDD
69121	LTC6912HDE-1	706119	LTC17061S8-19	LAAH	LT1490ACDD	LAFR	LTC5532EED	LBFQ	LTC2611IDD	LBNM	LTC2611IDD	LBSR	LTC2483IDD
69121	LTC6912IDE-1	726125	LTC17261S8-2.5	LAAB	LT1490AIDD	LAFU	LTC4059EED	LBF5	LTC2621CDD	LBNM	LTC2621CDD	LBSY	LTC2483IDD
69122	LTC6912CDE-2	727125	LTC17271S8-2.5	LAAC	LT1636CDD	LAFU	LTC4002EED-4.2	LBF5	LTC2621IDD	LBNM	LTC2621IDD	LBSY	LTC2484CDD
69122	LTC6912CGN-2	727LX1	LTC3727LXEUH-1	LAAD	LT1636IDD	LAFU	LTC3407EED	LBFZ	LTC4257CDD-1	LBNR	LTC3772EDDB	LBSY	LTC2484IDD
69122	LTC6912HDE-2	728LX1	LTC3728LXEUH-1	LAAG	LT1637CDD	LAFU	LTC2601CDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485CDD
69122	LTC6912IDE-2	728LX1	LTC3728LXCUH-1	LAAG	LT1637IDD	LAFU	LTC2601IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6912H1	LTC6912HGN-1	728LX1	LTC3728LXIUH	LAAL	LT1638CDD	LAFU	LTC3459ESC6	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6912H2	LTC6912HGN-2	728LZE	LTC3728LZEUH	LAAL	LT1638IDD	LAFU	LTC3459ESC6	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6912I1	LTC6912IGN-1	731E82	LTC1731E8S-8.2	LAAM	LT1801CDD	LAFU	LTC4557EUD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6912I2	LTC6912IGN-2	7415S9	LT18741S8-5 SYNC	LAAM	LT1801IDD	LAFU	LTC3023EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6915	LTC6915CDE	7510	LTC7510EUH	LAAN	LTC2051CDD	LAFU	LTC3023IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6915	LTC6915CGN	7510	LTC7510IUH	LAAN	LTC2051IDD	LAFU	LTC2905CDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6915H	LTC6915HGN	7510D	LTC7510DEUH	LAAP	LT2620CDD	LAFU	LTC3411AEDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6915I	LTC6915IDE	76315	LT1763CDE-1.5	LAAP	LT1763CDE-1.5	LAFU	LTC3411AIDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6915I	LTC6915IGN	76318	LT1763CDE-1.8	LAAP	LT1763CDE-1.8	LAFU	LTC3411AIDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
692	LTC692CS8	76325	LT1763CDE-2.5	LAAP	LT1763CDE-2.5	LAFU	LTC3411AIDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6921	LTC6921S8	76333	LT1763CDE-3	LAAP	LT1763CDE-3	LAFU	LTC3411AIDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
694	LTC694CS8	763MP5	LT1763MPS8-5	LAAR	LT1816CDD	LAFU	LTC2606CDD-1	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6943	LTC6943S8-3.3	7661SN	LT17661S8-SYNC	LAAR	LT1816IDD	LAFU	LTC2606IDD-1	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6943C	LTC6943CGN	7615SN	LT17615S8-5 SYNC	LAAS	LTC1540CDD	LAFU	LTC2606IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6943H	LTC6943HGN	787HVH	LT1787HVHS8	LAAS	LTC1540HDD	LAFU	LTC2606IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6943I	LTC6943IGN	787HVI	LT1787HVIS8	LAAS	LTC1540IDD	LAFU	LTC2606IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6941	LTC6941S8	789110	LT17891S8-10	LAAT	LT17891S8-10	LAFU	LTC6078AIDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
69413	LTC6941S8-3.3	798125	LTC17981S8-2.5	LAAT	LTC17981S8-2.5	LAFU	LTC6078CDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
699	LTC699CS8	798141	LTC17981S8-4.1	LAAU	LTC1542CDD	LAFU	LTC6078IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6991	LTC6991S8	8043E	LTC8043ES8	LAUU	LTC1542IDD	LAFU	LTC6078IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6991	LTC6991S8	8043F	LTC8043FS8	LAUU	LTC1542IDD	LAFU	LTC6078IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HMI10	LTC2636CMS-HMI10	813HVD	LT1813HVDS8	LAUV	LT1720CDD	LAFU	LTC4304IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HMI10	LTC2636HMS-HMI10	813HVI	LT1813HVIS8	LAUV	LT1720IDD	LAFU	LTC4304IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HMI10	LTC2636IMS-HMI10	862H1	LTC3862HUF-1	LAAX	LTC3403EED	LAFU	LTC4304IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HMI12	LTC2636CMS-HMI12	864LAI	LTC1864LAIS8	LAAY	LTC3403IDD	LAFU	LTC4304IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HMI12	LTC2636HMS-HMI12	864LAI	LTC1864LAIS8	LABB	LTC3403EED	LAFU	LTC4304IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HMI12	LTC2636IMS-HMI12	865LAI	LTC1865LAIS8	LABB	LTC3403EED	LAFU	LTC4304IDD	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HM18	LTC2636CDE-HM18	921125	LTC2921IGN-2.5	LABD	LT1396IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HM18	LTC2636HDE-HM18	921133	LTC2921IGN-3.3	LABD	LT1396IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HM18	LTC2636IDE-HM18	963A15	LT1963AES8-1.5	LABU	LTC2900-1CDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HMX10	LTC2636CMS-HMX10	963A15	LT1963AEST-1.5	LBBY	LTC2900-1IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HMX10	LTC2636HMS-HMX10	963A18	LT1963AES8-1.8	LBBY	LTC2900-2CDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HMX10	LTC2636IMS-HMX10	963A18	LT1963AES8-1.8	LBBY	LTC2900-2IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HMX12	LTC2636CMS-HMX12	963A25	LT1963AES8-2.5	LBCB	LT6011ACDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HMX12	LTC2636HMS-HMX12	963A25	LT1963AES8-2.5	LBCB	LT6011ACDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HMX12	LTC2636IMS-HMX12	963A25	LT1963AES8-2.5	LBCB	LT6011ACDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HM18	LTC2636CDE-HM18	963A33	LT1963AES8-3.3	LBCD	LT6011CDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HM18	LTC2636HDE-HM18	963A33	LT1963AES8-3.3	LBCD	LT6011CDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HM18	LTC2636IDE-HM18	963AMP	LT1963AMP58	LBCD	LT6011CDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HM18	LTC2636IDE-HM18	963118	LT19631S8-1.8	LACT	LTC4257IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HZ10	LTC2636CDE-HZ10	963125	LT19631S8-2.5	LACT	LTC4257IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HZ10	LTC2636HDE-HZ10	963133	LT19631S8-3.3	LBCW	LTC2055HDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HZ10	LTC2636IDE-HZ10	990110	LT19901S8-10	LBCW	LTC2055HDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HZ12	LTC2636CDE-HZ12	CXVT	LTC3548EKD-1	LBCW	LTC2055HDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HZ12	LTC2636HDE-HZ12	DBCT	LT3502AEK3	LBCW	LTC2055HDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6HZ12	LTC2636IDE-HZ12	DDVT	LTC4098EPDC	LBCW	LTC2055HDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LM110	LTC2636CMS-LM110	DQKT	LTC4099EPDC	LBCX	LTC2055HDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LM110	LTC2636HMS-LM110	DSZT	LTC4098EPDC-1	LBCX	LTC2055HDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LM110	LTC2636IMS-LM110	FDPT	LTC3554EPD	LBCX	LTC2055HDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LM112	LTC2636CMS-LM112	FDPT	LTC3554EPD	LBCY	LTC2055HDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LM112	LTC2636HMS-LM112	FDYU	LT3587EPD	LBCY	LTC2055HDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LM112	LTC2636IMS-LM112	HMI10	LTC2636CDE-HMI10	LBCZ	LTC2904CDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LM18	LTC2636CDE-LM18	HMI10	LTC2636HDE-HMI10	LBD0	LTC2904IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LM18	LTC2636HDE-LM18	HMI10	LTC2636IDE-HMI10	LBD0	LTC2904IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LM18	LTC2636IDE-LM18	HMI12	LTC2636CDE-HMI12	LBD0	LTC2904IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LMX10	LTC2636CMS-LMX10	HMI12	LTC2636HDE-HMI12	LBD0	LTC2904IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LMX10	LTC2636HMS-LMX10	HMI12	LTC2636IDE-HMI12	LBD0	LTC2904IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LMX10	LTC2636IMS-LMX10	HMI12	LTC2636CDE-HMI12	LBD0	LTC2904IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LMX12	LTC2636CMS-LMX12	HMX10	LTC2636HDE-HMX10	LBD0	LTC2904IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LMX12	LTC2636HMS-LMX12	HMX10	LTC2636IDE-HMX10	LBD0	LTC2904IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD
6LMX12	LTC2636IMS-LMX12	HMX10	LTC2636CDE-HMX10	LBD0	LTC2904IDD	LAFU	LTC5531EED	LBFZ	LTC4257IDD-1	LBNR	LTC3772EDDB	LBSY	LTC2485IDD

Amps, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

Space, Military, Harsh Envir.

Reference Material



TOP MARKINGS (TOP MARK TO PART NUMBER)

Reference Material	Space, Military, Harsh Envir.	High Frequency	Interface	Data Conversion	Power Management	Amps, Refs, Filters, Comps	LBXP	LT1634BIDD-2.5	LCCB	LT6004IDD	LGGP	LT6411CUD	LCKV	LTC6930CDCB-5.00	LCPD	LTC3547EDDB-1	LCSX	LT5575EDD-7	LXCN	LTC3851IUD
							LBXQ	LT3491ESC8	LCCD	LT3494EDDB	LGGP	LT6411IUD	LCKV	LTC6930HDCB-5.00	LCPD	LTC3547IIDD-1	LCSY	LT5575EDD-9	LXCP	LTC3527EUD-1
							LBXR	LT3532EDD	LCCF	LT6224CDD	LGGP	LTC2858CDD-1	LCKV	LTC6930IDCB-5.00	LCPD	LTC3547BEDDB	LCSZ	LTC3563EDC	LXQX	LTC4442EDCB-1
							LBXW	LT6700IDCB-1	LCCF	LT6224IDD	LGGP	LTC2858HDD-1	LCKW	LTC6930IDCB-7.37	LCPD	LTC3547BIDDB	LCTC	LTC6406HDC	LXQX	LTC4442IDCB-1
							LBXW	LT6700HDCB-1	LCCG	LTC3543EDCB	LGGP	LTC2858IDD-1	LCKW	LTC6930HDCB-7.37	LCPD	LTC3547BEDDB-1	LCTC	LTC6406IUD	LXCT	LTC3210EPD-1
							LBXW	LT6700IDCB-1	LCCN	LTC3221EDC-5	LGGG	LT3493AIDCB	LCKW	LTC6930HDCB-7.37	LCPF	LTC3547BIDDB-1	LCTF	LT6105DCDB	LXCW	LT1965IEDD
							LBXX	LT6700CDCB-2	LCCP	LTC3221EDC	LGGT	LT3497EDDB	LCKX	LTC6930CDCB-8.00	LCPG	LT3591EDDB	LCTF	LT6105HDCB	LXCW	LT1965IDD
							LBXX	LT6700HDCB-2	LCCQ	LT66400CUD-8	LGGV	LT3493EDCB-4	LCKX	LTC6930HDCB-8.00	LCPQ	LT4413IEDD-1	LCTF	LT6105IDCB	LXCY	LT3580EDD
							LBXX	LT6700IDCB-2	LCCQ	LT66400IUD-8	LGGW	LT3503EDCB	LCKX	LTC6930CDCB-8.00	LCPQ	LT4413IEDD-2	LCTG	LT6105EDCB	LXCY	LT3580IDD
							LBXY	LT6700CDCB-3	LCCR	LT66400CUD-14	LGGX	LTC3203BEDD	LCKY	LTC6930CDCB-8.19	LCPV	LTC3562EUD	LCTG	LT4442IDCB	LCYB	LTC3230EUD
							LBXY	LT6700HDCB-3	LCCR	LT66400IUD-14	LGGY	LTC3203BEDD-1	LCKY	LTC6930HDCB-8.19	LCPW	LTC3217EUD-1	LCTH	LT4442HDCB	LCYB	LTC3230IUD
							LBXY	LT6700IDCB-3	LCCS	LT66400CUD-20	LCCS	LT66400IUD-20	LCHB	LT3505EDD	LCPX	LT3467EDDB	LCTP	LT3480EDD	LCYC	LTC3523EUD
							LBXZ	LT6908CDCB-1	LCCS	LT66400IUD-20	LCCS	LT66400IUD-20	LCHC	LT3505IDD	LCPX	LT3467IDDB	LCTP	LT3480IDD	LCYD	LTC3528EDDB
							LBXZ	LT6908IDCB-1	LCCG	LT6400CUD-20A	LCCG	LT6400CUD-20A	LCHD	LT3505EDCB	LCPY	LT3585ESDCB-2	LCTQ	LT3480HDD	LCYG	LT3685EDD
							LBYP	LT6908CDCB-2	LCCV	LT6400CUD-20E	LCCV	LT6400CUD-20E	LCHF	LT3505IDCB	LCQZ	LTC3525LESC6-3.3	LCTR	LTC2450CDD	LCYG	LT3685IDD
							LBYP	LT6908IDCB-2	LCCW	LT6400CUD-20F	LCCW	LT6400CUD-20F	LCHG	LT6559CUD	LCQB	LTC3525LESC6-5	LCTR	LTC2450IUD	LCYH	LT3573EUD
							LBYG	LT3489EDD	LCCX	LT66400CUD-26	LCCX	LT66400CUD-26	LCHG	LT6559IUD	LCQC	LTC2850CDD	LCTS	LT4097XEDDB	LCYH	LT3573IUD
							LBYH	LT3020IDD	LCCX	LT66400IUD-26	LCCX	LT66400IUD-26	LCHH	LT6559HVCUD	LCQC	LTC2850HDD	LCTW	LT6703CDC-3	LCYK	LT3680EDD
							LBYJ	LT3020IDD-1.2	LCCY	LT66401CUD-8	LCCY	LT66401CUD-8	LCHH	LT6559HVIUD	LCLT	LT3502AEDC	LCTW	LT6703HDC-3	LCYK	LT3680IDD
							LBYK	LT3020IDD-1.5	LCCY	LT66401IUD-8	LCCY	LT66401IUD-8	LCHJ	LT3491EDC	LCLT	LT3502AIDC	LCTW	LT6703IDC-3	LCYN	LTC4443EDD-1
							LBYM	LT3020IDD-1.8	LCCZ	LT66401CUD-14	LCCZ	LT66401CUD-14	LCHM	LT3014BEDD	LCLV	LTC2854CDD	LCTX	LT6087CDD	LCYN	LTC4443IDD-1
							LBYS	LT1634BCDD-1.25	LCCZ	LT66401IUD-14	LCCZ	LT66401IUD-14	LCHM	LT3014BIDD	LCLV	LT3502IDD	LCTX	LT6087HDD	LCYP	LTC4078XEDD
							LBYS	LT1634BIDD-1.25	LCCB	LT66401CUD-20	LCCB	LT66401CUD-20	LCHP	LT3014BHVDD	LCLW	LT66404CUD-1	LCTZ	LTC3529EDCB	LCYQ	LTC2304CDD
							LBYT	LT6660HCDC-5	LCCB	LT66401IUD-20	LCCB	LT66401IUD-20	LCHP	LT3014BVIDD	LCLW	LT66404HVD-1	LCCV	LT66102HVDCD	LCYQ	LTC2304IDD
LBYT	LT6660JCDC-5	LCCD	LT6400CUD-20S	LCCD	LT6400CUD-20S	LCHQ	LTC3541IEDD-2	LCLW	LT66404IUD-1	LCVQ	LTC6102HVHDD	LCYR	LTC3225EDDB							
LBYT	LT6660KDC-5	LCCD	LT6401CUD-20E	LCCD	LT6401CUD-20E	LCHR	LTC3541IEDD-3	LCLX	LT66404CUD-2	LCVQ	LTC6102HVIDD	LCYT	LT3483EDC							
LBVU	LT6660HCDC-3	LCCD	LT6401CUD-20F	LCCD	LT6401CUD-20F	LCHS	LTC3218EDDB	LCLX	LT66404HVD-2	LCVQ	LT5538EDD	LCYT	LT3483IDC							
LBVU	LT6660JCDC-3	LCCG	LT66401CUD-26	LCCG	LT66401CUD-26	LCHT	LTC3872EDDB	LCLX	LT66404IUD-2	LCVQ	LT5538IDD	LCYV	LTC2630ACSC6-LZ8							
LBVU	LT6660KDC-3	LCCG	LT66401IUD-26	LCCG	LT66401IUD-26	LCHT	LTC3872IDDB	LCLY	LT66404CUD-2	LCVQ	LT66404HDCB-B1	LCYV	LTC2630AHSC6-LZ8							
LBVW	LT6660HCDC-3.3	LCDH	LT6410CUD-15	LCDH	LT6410CUD-15	LCHV	LT3410ESC6-1.2	LCLY	LT66404HVD-4	LCVQ	LTC2917HDD-B1	LCVY	LTC2630AISC6-LZ8							
LBVW	LT6660JCDC-3.3	LCDJ	LT6410LUD-15	LCDJ	LT6410LUD-15	LCHW	LTC3526EDC	LCLY	LT66404IUD-4	LCVQ	LTC2917IDDB-B1	LCVY	LTC2630CSC6-LZ8							
LBVW	LT6660KDC-3.3	LCDK	LTC3548EDD-2	LCDK	LTC3548EDD-2	LCHX	LTC3210EUD-2	LCMB	LTC3559EUD	LCVT	LT3684EDD	LCVY	LTC2630HSC6-LZ8							
LBVX	LT6660HCDC-10	LCDM	LT6000CDCB	LCDM	LT6000CDCB	LCHY	LTC3210EUD-3	LCMD	LTC2857CDD-1	LCVY	LT3684IDD	LCVY	LTC2630ISC6-LZ8							
LBVX	LT6660JCDC-10	LCDM	LT6000IDCB	LCDM	LT6000IDCB	LCHZ	LTC3410BESC6-1.875	LCMD	LTC2857HDD-1	LCVY	LTC4080XEDD	LCYW	LTC2630AHSC6-LM8							
LBVX	LT6660KDC-10	LCCP	LTC3547EDDB	LCCP	LTC3547EDDB	LCCB	LTC3407EDD-3	LCMD	LTC2857IDD-1	LCWQ	LTC2851CDD	LCYW	LTC2630AHSC6-LM8							
LBVY	LT1634BCDD-4.096	LCCP	LTC3547IDDB	LCCP	LTC3547IDDB	LCCD	LTC3407EDD-4	LCMG	LTC2856CDD-1	LCQY	LTC2851HDD	LCYW	LTC2630AISC6-LM8							
LBVY	LT1634BIDD-4.096	LCCR	LTC3525ESC6-3	LCCR	LTC3525ESC6-3	LCCF	LTC3410ESC6-1.65	LCMG	LTC2856HDD-1	LCQZ	LTC3525ESC6-3.3	LCYW	LTC2630CSC6-LM8							
LBVZ	LT1634BCDD-5	LCCD	LTC3540BEDD	LCCD	LTC3540BEDD	LCCG	LTC2954CDD-1	LCMG	LTC2856IDD-1	LCRB	LTC3538EDCB	LCYW	LTC2630HSC6-LM8							
LBVZ	LT1634BIDD-5	LCCV	LTC2641ACDD	LCCV	LTC2641ACDD	LCCG	LTC2954IDDB-1	LCMJ	LTC2856IDD-2	LCRM	LTC4097EDDB	LCYW	LTC2630ISC6-LM8							
LBZB	LT4067EDD	LCCV	LTC2641AIDD	LCCV	LTC2641AIDD	LCCJ	LTC3561EDD	LCMJ	LTC2856HDD-2	LCRN	LT3500EDD	LCYX	LTC2630ACSC6-HZ8							
LBZC	LTC3548EDD-1	LCCV	LTC2641BCDD	LCCV	LTC2641BCDD	LCCJ	LTC3805EDD	LCMJ	LTC2856IDD-2	LCRN	LTC3500IDD	LCYX	LTC2630AHSC6-HZ8							
LBZH	LTC2601CDD-1	LCCV	LTC2641BIDD	LCCV	LTC2641BIDD	LCCP	LTC6081CDD	LCMM	LTC2857CDD-2	LCRW	LTC3522EUD	LCYX	LTC2630AISC6-HZ8							
LBZH	LTC2601IDD-1	LCCX	LTC2642ACDD	LCCX	LTC2642ACDD	LCCP	LTC6081HDD	LCMM	LTC2857HDD-2	LCRW	LT4944AEDDB	LCYX	LTC2630CSC6-HZ8							
LBZJ	LTC2611CDD-1	LCCX	LTC2642AIDD	LCCX	LTC2642AIDD	LCCQ	LT5570IDD	LCMM	LTC2857IDD-2	LCRY	LTC2852CDD	LCYX	LTC2630HSC6-HZ8							
LBZJ	LTC2611IDD-1	LCCX	LTC2642BCDD	LCCX	LTC2642BCDD	LCCJ	LTC3219EUD	LCMR	LTC2858CDD-2	LCRY	LTC2852HDD	LCYX	LTC2630ISC6-HZ8							
LBZK	LTC2621CDD-1	LCCX	LTC2642BIDD	LCCX	LTC2642BIDD	LCCJ	LTC2912CDD-1	LCMR	LTC2858HDD-2	LCRY	LTC2852IDD	LCYX	LTC2630ACSC6-HM8							
LBZK	LTC2621IDD-1	LCCZ	LTC3499BEDD	LCCZ	LTC3499BEDD	LCCJ	LTC2912HDD-1	LCMR	LTC2858IDD-2	LCRY	LTC2630ACSC6-LZ12	LCYX	LTC2630AHSC6-HM8							
LBZR	LTC3549EDCB	LCCF	LT3482EUD	LCCF	LT3482EUD	LCCJ	LTC2912IDDB-1	LCMS	LTC3822EDD-1	LCRB	LTC2630AISC6-LZ12	LCYV	LTC2630AISC6-HM8							
LBZS	LTC2909CDD-3.3	LCCG	LT3482IUD	LCCG	LT3482IUD	LCCB	LTC2912CDD-2	LCMV	LTC3502AEDDB	LCRB	LTC2630AISC6-LZ12	LCYV	LTC2630CSC6-HM8							
LBZS	LTC2909HDD-3.3	LCCF	LTC3203EDD-1	LCCF	LTC3203EDD-1	LCCB	LTC2912HDD-2	LCMV	LTC3502AIDD	LCRB	LTC2630CSC6-LZ12	LCYV	LTC2630HSC6-HM8							
LBZS	LTC2909IDDB-3.3	LCCF	LTC3203IDDB-1	LCCF	LTC3203IDDB-1	LCCB	LTC2912IDDB-2	LCMW	LTC3502EDDB	LCRB	LTC2630HSC6-LZ12	LCYV	LTC2630AISC6-HM8							
LBZT	LTC2909CDD-5	LCCF	LTC3872EDDB-1	LCCF	LTC3872EDDB-1	LCCK	LTC2912CDD-3	LCMW	LT3502IDDB	LCRB	LTC2630ISC6-LZ12	LCYV	LTC2630AISC6-HM8							
LBZT	LTC2909HDD-5	LCCM	LTC3872EDDB-2	LCCM	LTC3872EDDB-2	LCCK	LTC2912HDD-3	LCMX	LTC3410BESC6-1.5	LCSC	LTC2630ACDC-LZ12	LCZB	LTC2630AHSC6-LM12							
LBZT	LTC2909IDDB-5	LCCM	LTC3410ESC6-1.875	LCCM	LTC3410ESC6-1.875	LCCK	LTC2912IDDB-3	LCMY	LTC3410BESC6-1.5	LCSC	LTC2630AIDC-LZ12	LCZB	LTC2630AISC6-LM12							
LBZX	LT4069EDC	LCCR	LTC3542EDC	LCCR	LTC3542EDC	LCKD	LTC3467AEDDB	LCMZ	LTC3410BESC6-1.8	LCSC	LTC2630AIDC-LZ12	LCZB	LTC2630CSC6-LM12							
LBZY	LTC3410BESC6	LCCR	LTC3542IDD	LCCR	LTC3542IDD	LCKD	LT3467AIDD	LCNB	LTC3410ESC6-1.5	LCSC	LTC2630CDC-LZ12	LCZB	LTC2630HDC-LM12							
LBZZ	LT6402CUD-6	LCCS	LTC3542ES6	LCCS	LTC3542ES6	LCKF	LT6003CDC	LCNC	LTC3410ESC6-1.8	LCSC	LTC2630HDC-LZ12	LCZB	LTC2630ISC6-LM12							
LBZZ	LT6402IUD-6	LCCS	LTC3542IS6	LCCS	LTC3542IS6	LCKF	LT6003HDC	LCND	LT3539EDD-1	LCSC	LTC2630IDC-LZ12	LCZB	LTC2630AISC6-HZ12							
LCCB	LT6402CUD-12	LCCV	LTC2908CDD-1	LCCV	LTC2908CDD-1	LCKF	LT6003IDC	LCNF	LT6003CSC6	LCSZ	LTC2630IDC-LZ12	LCZC	LTC2630AHSC6-HZ12							
LCCB	LT6402IUD-12	LCCV	LTC2908IDDB-C1	LCCV	LTC2908IDDB-C1	LCKH	LT66102CDD	LCNF	LT44311ISOC6	LCSZ	LTC2630AIDC-LZ12	LCZC	LTC2630AISC6-HZ12							
LCCB	LT6402CUD-20	LCCX	LTC3585EDDB-3	LCCX	LTC3585EDDB-3	LCKH	LT66102HDD	LCNG	LTC4311CDD	LCSF	LTC3480EDD-1	LCZC	LTC2630CSC6-HZ12							
LCCB	LT6402IUD-20	LCCZ	LT1934EDCB	LCCZ	LT1934EDCB	LCKH	LT66102IDD	LCNG	LT44311IDC	LCSG	LTC3568EDD	LCZC	LTC2630CSC6-HZ12							
LCCD	LT4065LEDC	LCCZ	LT1934IDCB	LCCZ	LT1934IDCB	LCKN	LTC2913CDD-1	LCNJ	LTC2954CDD-2	LCSH	LT40455EUD	LCZC	LTC2630ISC6-HZ12							
LCCF	LTC3822EDD	LCCB	LTC3872ETS8	LCCB	LTC3872ETS8	LCKN	LTC2913HDD-1	LCNJ	LTC2954IDDB-2	LCSJ	LTC4096EDD	LCXC	LTC4151CDD-1							
LCCB	LTC3530EDD	LCCB	LTC3872ITS8	LCCB	LTC3872ITS8	LCKN	LTC2913IDD-1	LCNM	LTC3526EDC-2	LCSK	LTC3873EDDB	LCXC	LT4151IDD-1							
LCCN	LT3080EDD	LCCD	LTC6244HVCDD	LCCD	LTC6244HVCDD	LCKP	LTC2913CDD-2	LCNN	LTC3526BEDC	LCSM	LTC3873EDDB-5	LCXF	LTC4357CDB							
LCCP	LTC3240EDC-2.5	LCCD	LTC6244HVHDD	LCCD	LTC6244HVHDD	LCKP	LTC2913HDD-2	LCNP	LTC3526BEDC-2	LCSM	LTC3873IDDB-5	LCXF	LTC4357IDCB							
LCCS	LTC3541EDD	LCCG	LT66424HVHDD	LCCG	LT66424HVHDD	LCKP	LTC2913IDD-2	LCNR	LT3470HDD	LCSQ	LTC3591EDDB-2	LXHX	LT4443EDD							
LCCB	LTC3210EUD-1	LCCG	LT3493EDCB	LCCG	LT3493EDCB	LCKQ	LTC4069EDC-4.4	LCNV	LTC4069EDC	LCSR	LT35945EUD	LXHX	LT4443IDD							
LCCV	LTC3531IEDD-3	LCCG	LT3493IDCB	LCCG	LT3493IDCB	LCKR	LTC4065EDC-4.4	LCNV	LTC2491IDC	LCSR	LTC3545IUD	LCXJ	LTC2450CDD							
LCCW	LTC3531IDD-3	LCCJ	LT3493IDCB-3	LCCJ	LT3493IDCB-3	LCKS	LTC4065LEDC	LCNW	LTC2491CDD	LCSZ	LTC3526LEDC	LCXJ	LTC2450IDD							
LCCX	LT5560EDD	LCCK	LT3493IDCB-3	LCCK	LT3493IDCB-3	LCKT	LTC6930CDCB-4.19	LCNW	LTC2491IDDB	LCST	LTC3526LEDC	LCXM	LTC3544EUD							
LCCB	LT6004CDD	LCCM	LT1933IDCB	LCCM	LT1933IDCB	LCKT	LTC6930HDCB-4.19	LCNZ	LT3590EDC	LCSV	LT5575EDD-2	LCXM	LTC3544IUD							
LCCB	LT6004HDD	LCCN	LT1933HDCB	LCCN	LT1933HDCB	LCKT	LTC6930IDCB-4.19	LCPB	LTC3590ESC8	LCSW	LT5575EDD-5	LCXN	LTC3851EUD							

TOP MARKINGS (TOP MARK TO PART NUMBER)

LCZF	LTC2630ISC6-LM10	LDDN	LTC6421CUDC-20	LDKQ	LT3011HDD	LDQS	LTC3025IDC-3	LFFH	LTC3619EDD	LTABE	LTC3251EMSE-1.5	LTAEJ	LTC2050HS6
LCZG	LTC2630ASC6-HZ10	LDDN	LTC6421IUDC-20	LDKQ	LT3011HDD	LDSR	LTC4082EDD	LFFH	LTC3619IDD	LTABF	LTC4300A-1CMS8	LTAEJ	LTC2050ISV6
LCZG	LTC2630AHS6-HZ10	LDDP	LTC3545EUD-1	LDKT	LTC2934CDC-1	LDSS	LTC3495EDDB	LFFM	LTC3689EUD-5	LTABG	LTC4300A-1IMS8	LTAEK	LTC2050HVCS6
LCZG	LTC2630AIS6-HZ10	LDDP	LTC3545IUD-1	LDKT	LTC3545IUD-1	LDST	LTC3495EDDB	LFFM	LTC3689HUI-5	LTABH	LTC4214-1CMS	LTAEK	LTC2050HVCS6
LCZG	LTC2630CS6-HZ10	LDDR	LTC3523EUD-2	LDKV	LTC2934CDC-2	LDSV	LTC3495EDDB-1	LFFM	LTC3689IUD-5	LTABJ	LTC4214-1IMS	LTAEK	LTC2050HVCS6
LCZG	LTC2630HSC6-HZ10	LDDS	LTC3650EDD-4.2	LDKV	LTC2934IUD-2	LDSW	LTC3495BEDDB-1	LFFN	LTC3631EUD-3.3	LTABK	LTC4214-2CMS	LTAEM	LTC2050CS5
LCZH	LTC2630ISC6-HZ10	LDDS	LTC3650IDD-4.2	LDKW	LT1965EDD-1.5	LDSY	LT1468ACDD-2	LFFN	LTC3631IDD-3.3	LTABL	LTC4214-2IMS	LTAEM	LTC2050HS5
LCZH	LTC2630ASC6-HM10	LDDT	LTC4098EUDC	LDKW	LT1965IDD-1.5	LDSY	LT1468AIDD-2	LFFQ	LTC3631EDD-5	LTABN	LTC6903CMS8	LTAEM	LTC2050IS5
LCZH	LTC2630AHS6-HM10	LDDW	LTC3025EDC-1	LDKY	LTC3025EDC-1.8	LDSY	LT1468CDD-2	LFFQ	LTC3631IDD-5	LTABN	LTC6903HMS8	LTAEN	LTC4411E5S
LCZH	LTC2630AIS6-HM10	LDDW	LTC3025IDC-1	LDKY	LT1965IDD-1.8	LDSY	LT1468IDD-2	LFFV	LTC6255CDC	LTABN	LTC6903IMS8	LTAES	LTC6904CMS8
LCZH	LTC2630HSC6-HM10	LDDX	LTC4447EDD-1	LDMB	LTC2934IUD-2.5	LDTD	LTC3060EDC	LFFV	LTC6255HDC	LTABS	LTC4257IMS8	LTAES	LTC6904HMS8
LCZH	LTC2630HSC6-HM10	LDDX	LTC4447IDD-1	LDMB	LT1965IDD-2.5	LDTD	LTC3060IDC	LFFV	LTC6255IDC	LTABY	LTC4302CMS-2	LTAES	LTC6904IMS8
LCZH	LTC2630ISC6-HM10	LDDY	LTC6416CDD	LDMD	LT1965EDD-3.3	LDTG	LTC3459EDC	LFGC	LTC3050EDDB	LTABZ	LTC4302IMS-2	LTAEW	LTC4057E5S-4.2
LCZJ	LTC6702CDC	LDDY	LTC6416IDDB	LDMD	LT1965IDD-3.3	LDTG	LTC3459IDC	LFGC	LT3050IDDB	LTAGA	LTC3469ETS8	LTAEY	LTC2433-1CMS
LCZJ	LTC6702HDC	LDFE	LT1938EDD	LDMJ	LTC2930CDD	LDTJ	LTC3642EDD	LFGF	LTC2461CDD	LTACB	LTC6200CS6-5	LTAEZ	LTC2433-1IMS
LCZJ	LTC6702IDD	LDFE	LT1938IDD	LDMJ	LTC2930HDD	LDTJ	LTC3642IDD	LFGF	LTC2461IDD	LTACB	LTC6200IS6-5	LTAF	LT1460CCMS8-5
LCZM	LTC2641CDD-12	LDBG	LTC3693EDD	LDMJ	LTC2930IDD	LDTK	LTC3878EUD	LFGG	LTC2463CDD	LTACC	LTC6200CS6-10	LTAFA	LTC4054LE5S-4.2
LCZM	LTC2641IDD-12	LDBG	LTC3693IDD	LDMK	LTC3025EDC-2	LDTK	LTC3878IUD	LFGG	LTC2463IDD	LTACC	LTC6200IS6-10	LTAFA	LTC2053HMS8
LCZN	LTC2641CDD-14	LDBG	LTC3755EUD	LDMK	LTC3025IDC-2	LDTN	LT3571EUD	LFGH	LTC3571EUD	LTAFC	LTC4300A-2CMS8	LTAFD	LTC1403AHMSE
LCZN	LTC2641IDD-14	LDBG	LTC3755IUD	LDMM	LTC3459EDCB	LDTN	LT3571IUD	LFGH	LTC3755AUIUD	LTAGC	LTC4300A-2IMS8	LTAFD	LTC1403AIMSE
LCZP	LTC2641ACDD-16	LDFG	LTC2917CDD-B-A1	LDMM	LTC3459IDCB	LDTQ	LTC3564EDCB	LFGJ	LTC3564EUD	LTAGH	LTC3467ES6	LTAFF	LTC1407ACMSE
LCZP	LTC2641AIDD-16	LDFG	LTC2917HDD-B-A1	LDMQ	LT3756EUD	LDTQ	LTC3564IDCB	LFGJ	LTC3756AUIUD	LTAGH	LT3467IS6	LTAFF	LTC1407AHMSE
LCZP	LTC2641CDD-16	LDFG	LTC2917IDDB-A1	LDMQ	LT3756IUD	LDTT	LTC4224CDD-B-1	LFGQ	LTC3650EDD-4.1	LTAH	LTC1992-1CMS8	LTAFF	LTC1407AIMSE
LCZP	LTC2641IDD-16	LDFG	LTC2918CDD-B-A1	LDMR	LT3756EUD-1	LDTT	LTC4224IDDB-1	LFGQ	LTC3650IDD-4.1	LTAH	LTC1992-5CMS8	LTAFF	LTC1968CMS8
LCZT	LTC2642CDD-12	LDFG	LTC2918HDD-B-A1	LDMR	LT3756IUD-1	LDTW	LTC3009EDC-1.2	LFRG	LTC3650EDD-8.4	LTAHL	LTC1992-10CMS8	LTAFF	LTC1968IMS8
LCZT	LTC2642IDD-12	LDFG	LTC2918IDDB-A1	LDMR	LT3756IUD-1	LDTW	LTC3009IDC-1.2	LFRG	LTC3650IDD-8.4	LTAHL	LTC1992-1IMS8	LTAFF	LTC230CS6
LCZV	LTC2642CDD-14	LDFG	LTC2451CDD	LDMR	LT3755IUD-1	LDTX	LTC3009ESC-1.2	LFRG	LTC3409AEDD	LTAHN	LTC1992-5IMS8	LTAFF	LTC230IS6
LCZV	LTC2642IDD-14	LDFG	LTC2451IDDB	LDMW	LTC2919CDD-B-3.3	LDTY	LTC3009EDC-2.5	LFRG	LTC5582IDD	LTAHP	LTC1992-10IMS8	LTAFF	LTC230CS6-10
LCZW	LTC2642ACDD-16	LDFG	LTC2919CDD-B-2.5	LDMW	LTC2919HDD-B-3.3	LDTY	LTC3009IDC-2.5	LFRH	LTC5582IDD-1	LTAHQ	LTC6910-2CTS8	LTAFF	LTC230IS6-10
LCZW	LTC2642AIDD-16	LDFG	LTC2919HDD-B-2.5	LDMW	LTC2919IDDB-3.3	LDTZ	LTC3009ESC-2.5	LFRH	LTC3008EDC-1.2	LTAHQ	LTC6910-2HTS8	LTAFL	LTC233CS6
LCZW	LTC2642CDD-16	LDFG	LTC2919IDDB-2.5	LDMX	LTC2919CDD-B-5	LDBV	LTC3009EDC-1.5	LFRH	LTC3008IDC-5.0	LTAHQ	LTC6910-2ITS8	LTAFL	LTC233IS6
LCZW	LTC2642IDD-16	LDFG	LTC2302CDD	LDMX	LTC2919HDD-B-5	LDBV	LTC3009IDC-1.5	LFRH	LTC3008EDC-1.5	LTAHQ	LTC3801ES6	LTAFL	LTC233CS6-10
LDBD	LTC3537EUD	LDFG	LTC2302IDD	LDMX	LTC2919IDDB-5	LDBV	LTC3009ESC-1.5	LFRH	LTC3008IDC-1.5	LTAHQ	LTC6910-3CTS8	LTAFL	LTC233IS6-10
LDBD	LTC3537IUD	LDFG	LTC2306CDD	LDBN	LTC3460EDC-1	LDBV	LT1964EDD	LFRH	LTC3008EDC-1.8	LTAGS	LTC6910-3HTS8	LTAFL	LT1803CS5
LDBG	LTC6410CUD-6	LDFG	LTC3060IDD	LDBN	LTC3460EDC-1	LDBV	LT1964IDD	LFRH	LTC3008IDC-1.8	LTAGS	LTC6910-3ITS8	LTAFL	LT1803IS5
LDBG	LTC6410IUD-6	LDFG	LTC3125EDCB	LDBN	LTC3587EUD	LDBV	LTC3495BEDDB12	LFRH	LTC3008EDC-2.5	LTAGV	LTC3803ES6	LTAFF	LTC6200CS5
LDBH	LTC3672BEDC-2	LDFG	LTC3125IDCB	LDBN	LTC6084HDD	LDBV	LTC3495EDDB12-1	LFRH	LTC3008IDC-2.5	LTAGV	LTC3801ES6	LTAFF	LTC6200IS5
LDBK	LTC3495EDDB-5	LDBH	LTC3805EDD-5	LDBN	LTC2452CDD	LDBV	LTC3495BEDDB12-1	LFRH	LTC3008EDC-3.3	LTAGY	LTC2602CMS8	LTAFF	LTC5532ES6
LDBM	LTC6403CUD-1	LDBH	LTC3805IDD-5	LDBN	LTC2452IDDB	LDBV	LT6700MPDCB-1	LFRH	LTC3008IDC-3.3	LTAGY	LTC2602IMS8	LTAFF	LT3465AES6
LDBM	LTC6403IUD-1	LDBH	LT1934EDCB-1	LDBN	LTC3565EDD	LDBV	LT6700MPDCB-2	LFRH	LTC3008EDC-5.0	LTAGZ	LTC2612CMS8	LTAFF	LTC2903CS6-A1
LDBP	LTC4307CDD-1	LDBH	LT1934IDCB-1	LDBN	LTC3565IDD	LDBV	LT6700MPDCB-3	LFRH	LTC3008IDC-5.0	LTAGZ	LTC2612IMS8	LTAFF	LTC2903IS6-A1
LDBP	LTC4307IDD-1	LDBH	LTC4447EDD	LDBN	LTC3851EUD-1	LDBV	LT1540MPDD	LFRH	LTC2935CDC-3	LTAGZ	LTC2622CMS8	LTAFF	LTC4252A-1CMS
LDBQ	LTC2453CDD	LDBH	LTC4447IDD	LDBN	LTC3851IUD-1	LDBV	LTC3542EDC-1	LFRH	LTC2935IDC-3	LTAGZ	LTC2622IMS8	LTAFF	LTC4252A-1IMS
LDBQ	LTC2453IDD	LDBH	LTC1778EUD	LDBN	LTC4224CDD-B-2	LDBV	LTC3542IDC-1	LFRH	LTC2935CDC-4	LTADE	LTC6800HMS8	LTAFF	LTC1992-1HMS8
LDBR	LTC3593EDC	LDBH	LTC1778IUD	LDBN	LTC4224IDDB-2	LDBV	LTC3085MPDCB	LFRH	LTC2935IDC-4	LTADE	LTC1403ACMSE	LTAFF	LT1460FCMS8-5
LDBX	LTC4081EDD	LDBH	LTC3653EDCB	LDBN	LTC3528EDDB-2	LDBV	LT1994MPDD	LFRH	LTC2935IDC-4	LTADE	LTC6700CS6-2	LTAFF	LTC1992-2HMS8
LDBY	LTC3670EDDB	LDBH	LTC3653IDCB	LDBN	LTC3528EDDB-2	LDBV	LTC6102CDD-1	LFRH	LTC2636HDE-LM110	LTADE	LTC6700HS6-2	LTAFF	LTC2054CS5
LDBZ	LTC2450CDD-1	LDBH	LTC3100EUD	LDBN	LTC3587EUD-1	LDBV	LTC6102HDD-1	LFRH	LTC2636IDE-LM110	LTADE	LTC6700HVS6-2	LTAFF	LTC2054HS5
LDBZ	LTC2450IDD-1	LDBH	LT1912EDD	LDBN	LTC3459EDC-1	LDBV	LTC6102IDD-1	LFRH	LTC2636IDE-LM112	LTADE	LTC6700HVS6-2	LTAFF	LTC2054IS5
LDCD	LTC3558EUD	LDBH	LTC3210EPD	LDBN	LTC3459IDC-1	LDBV	LTC3558EUD	LFRH	LTC2636IDE-LM112	LTADE	LTC6700HVS6-2	LTAFF	LTC2054HVCS5
LDCD	LTC3210EPD	LDBH	LTC3210EPD	LDBN	LTC3459EDCB-1	LDBV	LTC2462CDD	LFRH	LTC2636IDE-LM112	LTADE	LTC6700HVS6-2	LTAFF	LTC2054HVCS5
LDCM	LTC3210EPD-2	LDBH	LTC3210EPD-2	LDBN	LTC3459IDCB-1	LDBV	LTC2462IDD	LFRH	LTC2636IDE-LMX10	LTADE	LTC6700CS6-3	LTAFF	LTC2054HVS5
LDCN	LTC3210EPD-3	LDBH	LT1468ACDD	LDBN	LTC3539EDCB-2	LDBV	LTC3972EDD	LFRH	LTC2636HDE-LMX10	LTADE	LTC6700CS6-3	LTAFF	LTC4252A-2CMS
LDCP	LTC6102APCDD	LDBH	LT1468AIDD	LDBN	LTC4352CDD	LDBV	LTC3972IDD	LFRH	LTC2636IDE-LMX10	LTADE	LTC6700HVS6-3	LTAFF	LTC4252A-2IMS
LDCQ	LTC3592EDDB	LDBH	LT1468CDD	LDBN	LTC4352IDD	LDBV	LTC3650EDD-8.2	LFRH	LTC2636HDE-LMX12	LTADE	LTC6700HVS6-3	LTAFF	LTC3406B-2E5S
LDCQ	LT3592IDDB	LDBH	LT1468IDD	LDBN	LTC3080EDD-1	LDBV	LTC3650IDD-8.2	LFRH	LTC2636HDE-LMX12	LTADE	LTC6700HVS6-3	LTAFF	LTC3250ES6-1.2
LDCS	LTC3539EDCB	LDBH	LTC4078EUD	LDBN	LTC3025EDC-4	LDBV	LTC3127EDD	LFRH	LTC2636IDE-LMX12	LTADE	LTC6700IS6-3	LTAFF	LT3020EMS8
LDCV	LTC2918CDD-B1	LDBH	LT1939EDD	LDBN	LTC3025IDC-4	LDBV	LTC3642EDD-3.3	LFRH	LTC4351IMS	LTADE	LTC6211MS8	LTAFF	LTC3251EMSE-1.2
LDCV	LTC2918HDD-B1	LDBH	LT1939IDD	LDBN	LTC3470AEDDB	LDBV	LTC3642IDD-3.3	LFRH	LTC4412ES6	LTADE	LTC1540IMS8	LTAFF	LT1933ES6
LDCV	LTC2918IDDB-B1	LDBH	LTC3561AEDD	LDBN	LTC3470AIDD	LDBV	LTC3642EDD-5	LFRH	LTC4412IS6	LTADE	LTC1541IMS8	LTAFF	LTC1933IS6
LDCX	LTC2916CDD-B1	LDBH	LTC3561AIDD	LDBN	LTC3008EDC	LDBV	LTC3642IDD-5	LFRH	LTC6210CS6	LTADE	LTC1542IMS8	LTAFF	LTC3468ES5-1
LDCX	LTC2916HDD-B1	LDBH	LTC3009EDC-1.8	LDBN	LTC3008IDC	LDBV	LTC3554EUD	LFRH	LTC6210IS6	LTADE	LTC4054XES5-4.2	LTAFF	LTC1992HMS8
LDCX	LTC2916IDDB-1	LDBH	LTC3009IDC-1.8	LDBN	LTC2935CDC-1	LDBV	LTC3554IUD	LFRH	LTC2920-2IMS8	LTADE	LTC3461ES6	LTAFF	LTC2601CMS
LDCY	LTC3500HDD	LDBH	LTC3009EDC-3.3	LDBN	LTC2935IDC-1	LDBV	LTC3582AEDDB	LFRH	LTC3406ES5	LTADE	LTC3468ES5	LTAFF	LTC2601IMS
LDDB	LTC3582EUD	LDBH	LTC3009IDC-3.3	LDBN	LTC2935CDC-2	LDBV	LTC2460CDD	LFRH	LTC1663-8CMS8	LTADE	LTC2923CMS	LTAFF	LTC2601CMS8
LDDC	LTC3495EDDB-1D	LDBH	LTC3009EDC-5	LDBN	LTC2935IDC-2	LDBV	LTC2460IDD	LFRH	LTC1663-8IMS8	LTADE	LTC2923IMS	LTAFF	LTC2601IMS8
LDDD	LTC3495BEDDB-1D	LDBH	LTC3009IDC-5	LDBN	LTC3559EUD-1	LDBV	LTC3631EDD	LFRH	LTC1694IS5	LTADE	LTC3010EMS8E-5	LTAFF	LTC2601CTS8
LDDF	LTC3495BEDDB-1D	LDBH	LTC3009ESC8-1.8	LDBN	LTC3569EUD	LDBV	LTC3631IDD	LFRH	LTC1694-1IS5	LTADE	LTC2050CS5	LTAFF	LTC2601ITS8
LDDG	LTC3528BEDDB	LDBH	LTC3009ESC8-3.3	LDBN	LTC3569IUD	LDBV	LTC3682EDD	LFRH	LT1460CCMS8-2.5	LTADE	LTC2050HS5	LTAFF	LT1460CCMS8-10
LDDH	LTC3407AEDD-2	LDBH	LTC3009ESC8-5	LDBN	LTC4078EDD-2	LDBV	LTC3682IDD	LFRH	LTC6221CMS8	LTADE	LTC2050IS5	LTAFF	LTC3459ES6
LDDH	LTC3407AIDD-2	LDBH	LT5581IDDB	LDBN	LTC3495EDDB12	LDBV	LTC3592HVEDDB	LFRH	LTC4251-2IS6	LTADE	LTC2050HVCS5	LTAFF	LTC3459EMS8E
LDDK	LTC3527EUD	LDBH	LTC6405CUD	LDBN	LTC3085EDCB	LDBV	LT3592HVDD	LFRH	LTC460FCMS8-2.5	LTADE	LTC2050HVS5	LTAFF	LTC3459IMS8E
LDDM	LTC6420CUDC-20	LDBH	LTC6405IUD	LDBN	LTC3085IDCB	LDBV	LTC3526LEDC-2	LFRH	LTC3407EMSE	LTADE	LTC2050HVS5	LTAFF	LTC3461AES6
LDDM	LTC6420IUDC-20	LDBH	LTC3011EDD	LDBN	LTC3025EDC-3	LDBV	LTC3526BEDC-2	LFRH	LTC4056EMS8-4.2	LTADE	LTC2050CS6	LTAFF	LTC6911CMS-2

Amps, Refs,  
Filters, Comps  
Power  
Management  
Data  
Conversion  
Interface  
High  
Frequency  
Space, Military,  
Harsh Envir.  
Reference  
Material



# TOP MARKINGS (TOP MARK TO PART NUMBER)

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

LTAHJ	LTC6911MS-2	LTBCT	LTC2055HVHMS8	LTBMH	LTC3803HS6-5	LTBRV	LT1936IMS8E	LTBZD	LTC3548EMSE-1	LTCHK	LT3014BIS5	LTCMN	LTC6103HMS8
LTAAH	LTC6911CMS-1	LTBCT	LTC2055HVIMS8	LTBMH	LTC3803IS6-5	LTBRV	LTC1772HS6	LTBZF	LT1931SIS5	LTCHN	LT3014BHVES5	LTCMN	LTC6103IMS8
LTAAH	LTC6911IMS-1	LTBDM	LT3470ETS8	LTBMK	LTC3448EMSE8E	LTBRZ	LTC3824EMSE	LTBZG	LT1931AIS5	LTCHN	LT3014BHVISE5	LTCMP	LTC6104CMS8
LTAAH	LTC3801BES6	LTBDN	LTC1403CMSE	LTBMN	LTC3407EMSE-1	LTBSB	LTC6101ACMS8	LTBZV	LT2909CTS8-3.3	LTCHN	LT3407EMISE-4	LTCMP	LTC6104HMS8
LTAAH	LTC4064EMSE	LTBDP	LTC1403HMSE	LTBMQ	LTC3406ES5-1.2	LTBSB	LTC6101AHMS8	LTBZV	LT2909HTS8-3.3	LTCHN	LTC2954CTS8-1	LTCMP	LTC6104IMS8
LTAAH	LTC1669-1CS5	LTBDP	LTC1403IMS8	LTBMR	LTC3406BES5-1.2	LTBSB	LTC6101AHS8	LTBZV	LT2909ITS8-3.3	LTCHN	LTC2954ITS8-1	LTCMQ	LTC2858CMS-2
LTAAH	LTC1669-2CS5	LTBDQ	LTC1407CMSE	LTBMS	LTC3429BES6	LTBSV	LTC3725EMSE	LTBZW	LTC2909CTS8-5	LTCHN	LTC3805EMSE	LTCMQ	LTC2858HMS-2
LTAAH	LTC1669-8CMS8	LTBDR	LTC1407HMSE	LTBMT	LT1936EMSE8E	LTBSW	LTC3725IMS8E	LTBZW	LTC2909HTS8-5	LTCHN	LTC3805HMS8	LTCMQ	LTC2858IMS-2
LTAAH	LTC1669-8IMS8	LTDDR	LTC1407HMSE	LTBMV	LT6100CMS8	LTBSX	LTC6101HVACMS8	LTBZW	LTC2909ITS8-5	LTCHN	LTC6801CMS8	LTCNH	LTC3561EMS8
LTAAH	LTC1669CMS8	LTDDZ	LTC3407EMSE-2	LTBMV	LT6100HMS8	LTBSX	LTC6101HVAHMS8	LTC1	LT6550IMS	LTCHN	LTC6801HMS8	LTCNK	LTC2954CTS8-2
LTAAH	LTC1669CS5	LTBDZ	LTC3407IMS8E	LTBMV	LT6100IMS8	LTBSX	LTC6101HVAHMS8	LTC2	LT6551CMS	LTCHN	LTC6801IMS8	LTCNK	LTC2954ITS8-1
LTAAH	LTC1669IMS8	LTBE	LTC1541CMS8	LTBMX	LTC2903CS6-D1	LTBSZ	LTC6101HVACS5	LTC3	LT6551IMS	LTCHN	LTC3404IMS8	LTCNQ	LT3470HTS8
LTAAH	LTC1669IS5	LTBFC	LTC1871IMS	LTBMX	LTC2903IS6-D1	LTBSZ	LTC6101HVAHS5	LTC4	LTC3406ES5-1.8	LTCHN	LTC3803ES6-3	LTCNS	LT4356CMS-1
LTAAH	LT3023EMSE	LTBFJ	LTC2908CTS8-A1	LTBMZ	LTC2903CS6-E1	LTBSZ	LTC6101HVAIS5	LTC5	LT4C212CMS	LTCHN	LT4C212CMS	LTCNS	LT4356HMS-1
LTAAH	LT3023IMS8E	LTBFK	LTC2908ITS8-A1	LTBNB	LTC2903IS6-E1	LTBSZ	LTC6101HVBCS5	LTC6	LT4C212IMS	LTCHN	LTC2912CTS8-1	LTCNS	LT4356IMS-1
LTAAH	LT1460FCMS8-10	LTBFM	LTC2908CTS8-B1	LTBNC	LTC3803HS6	LTBSZ	LTC6101HVBHS5	LTC7	LTC1864LACMS8	LTCHN	LTC2912HTS8-1	LTCNX	LT3505EMSE8E
LTAAH	LT1934IS6	LTBFN	LTC2908ITS8-B1	LTBNC	LTC3803IS6	LTBSZ	LTC6101HVBIS5	LTC7	LTC1864LAIMS8	LTCHN	LTC2912ITS8-1	LTCNY	LT3505IMS8E
LTAAH	LT1934IS6-1	LTBFT	LTC2611CMS	LTBND	LTC6101ACS5	LTBSZ	LTC6101HVCCS5	LTC7	LTC1864LAIMS8	LTCHN	LTC2912CTS8-2	LTCPC	LTC1475CMS8-3.3
LTAAH	LT2905CTS8	LTBFV	LTC2611IMS	LTBND	LTC6101AHS5	LTBSZ	LTC6101HVCCHS5	LTC7	LTC1864LAIMS8	LTCHN	LTC2912HTS8-2	LTCPC	LT4065ES6
LTAAH	LT2905ITS8	LTBFW	LTC2621CMS	LTBND	LTC6101AIS5	LTBSZ	LTC6101HVCIS5	LTCB	LTC1482CMS8	LTCHN	LTC2912ITS8-2	LTCPC	LTC4210-3CS6
LTAAH	LT3420EMS-1	LTBFX	LTC2621IMS	LTBND	LTC6101BCS5	LTBT	LTC6101HVCIS5	LTCBG	LTC3822EMSE	LTCHN	LTC2912CTS8-3	LTCPC	LTC4210-3IS6
LTAAH	LTC1992-5HMS8	LTBFY	LT4430ES6	LTBND	LTC6101BHS5	LTBTC	LTC2951CTS8-1	LTCBJ	LTC3530EMS	LTCHN	LTC2912HTS8-3	LTCPC	LTC4210-4CS6
LTAAH	LTC1992-10HMS8	LTBG	LT1328CMS8	LTBND	LTC6101BIS5	LTBTC	LTC2951ITS8-1	LTCBK	LTC3531ES6-3	LTCHN	LTC2912ITS8-3	LTCPC	LTC4210-4IS6
LTAAH	LT3411AEMS	LTBGB	LT3462AE56	LTBND	LTC6101CCS5	LTBT	LTC2951CTS8-2	LTCBM	LT3080EMSE8E	LTCHN	LTC1659CMS8	LTCPS	LT4416EMS-1
LTAAH	LT3411AIMS	LTBGP	LTC1403CMSE-1	LTBND	LTC6101CHS5	LTBT	LTC2951ITS8-2	LTCBY	LTC3531IS6-3	LTCHN	LTC1659IMS8	LTCPS	LT4416IMS-1
LTAAH	LTC2903CS6-B1	LTBGQ	LTC1403IMS8E	LTBND	LTC1403CIS5	LTBTJ	LT3485EMSE-3	LTCBZ	LT6004CMS8	LTCHN	LT6003CS5	LTCQ	LTC1475CMS8-5
LTAAH	LTC2903IS6-B1	LTBGR	LTC1403ACMSE-1	LTBNF	LTC2950CTS8-2	LTBTR	LTC1871IMS-7	LTCBZ	LT6004HMS8	LTCHN	LT6003HS5	LTCQD	LTC2850CMS8
LTAAH	LTC2903CS6-C1	LTBGS	LTC1403AIMSE-1	LTBNF	LTC2950ITS8-2	LTBTS	LTC4308CMS8	LTCBZ	LT6004IMS8	LTCHN	LT6003IS5	LTCQD	LTC2850HMS8
LTAAH	LT3426ES6	LTBGT	LTC1407CMSE-1	LTBNH	LTC3548EMSE	LTBTS	LTC4308IMS8	LTCBZ	LTC1482IMS8	LTCHN	LTC6102CMS8	LTCQD	LTC2850IMS8
LTAAH	LT1937CESS5	LTBGV	LTC1407HMSE-1	LTBNH	LTC3548IMS8E	LTBTV	LTC4307CMS8	LTCBZ	LT4356HMS	LTCHN	LTC6102HMS8	LTCQH	LTC4080EMSE
LTAAH	LTC6078ACMS8	LTBGW	LTC1407ACMSE-1	LTBNP	LTC2053CMS8-SYNC	LTBTV	LTC4307IMS8	LTCBZ	LT4356CMS	LTCHN	LTC6102IMS8	LTCQH	LTC3419EMS
LTAAH	LTC6078AHMS8	LTBGX	LTC1407AIMSE-1	LTBNP	LTC2053HMS8-SYNC	LTBTX	LTC6907CS6	LTCBZ	LT4356IMS	LTCHN	LTC2913CMS-1	LTCQK	LTC3419IMS
LTAAH	LTC6078AIMS8	LTBH	LT1394CMS8	LTBNP	LTC2053IMS8-SYNC	LTBTX	LTC6907HS6	LTCBZ	LTC6244CMS8	LTCHN	LTC2913HMS-1	LTCQK	LTC2917CMS-B1
LTAAH	LTC6078AIMS8	LTBHD	LTC4300A-3CMS8	LTBNQ	LTC3772ETS8	LTBTX	LTC6907HS6	LTCBZ	LTC6244HMS8	LTCHN	LTC2913IMS-1	LTCQK	LTC2917HMS-B1
LTAAH	LTC6078CMS8	LTBHF	LTC4300A-3IMS8	LTBNW	LT1946EMS8E	LTBTY	LTC3531IS6	LTCBZ	LTC6244IMS8	LTCHN	LTC2913CMS-2	LTCQK	LTC2917IMS-B1
LTAAH	LTC6078HMS8	LTBHQ	LTC4301LIMS8	LTBPB	LT1996ACMS8	LTBTZ	LTC3531ES6	LTCBZ	LT1316CMS8	LTCHN	LTC2913HMS-2	LTCQK	LTC6652ACMS8-2.5
LTAAH	LTC6078IMS8	LTBHQ	LTC4301LIMS8	LTBPB	LT1996AIMS	LTBV	LTC1536CMS8	LTCBZ	LT6000CS6	LTCHN	LTC2913IMS-2	LTCQK	LTC6652AHMS8-2.5
LTAAH	LT3460ES5	LTBHR	LTC4412HVIS6	LTBPB	LT1996CMS	LTBVD	LT6001CMS8	LTCBZ	LT6000IMS8	LTCHN	LTC6930CMS8-4.19	LTCQV	LTC6652BMS8-2.5
LTAAH	LT6203CMS8	LTBHT	LT1615IS5-1	LTBPB	LT1996IMS	LTBVD	LT6001IMS8	LTCBZ	LT1761ES5-1.2	LTCHN	LTC6930HMS8-4.19	LTCQV	LTC6652BHMS8-2.5
LTAAH	LT6203IMS8	LTBJ	LT1394IMS8	LTBPF	LTC3803ES6-5	LTBVK	LT3485EMSE-1	LTCBZ	LT1761IS5-1.2	LTCHN	LTC6930IMS8-4.19	LTCR	LT1474CMS8-3.3
LTAAH	LTC3251EMSE	LTBJB	LTC3026EMSE	LTBPH	LTC6905CS5-80	LTBVM	LT3485EMSE-2	LTCBZ	LT1636CMS8	LTCHN	LT1636CMS8	LTCRP	LT1636HMS8
LTAAH	LTC6910-1CTS8	LTBJC	LTC6905ACS5	LTBPH	LTC6905HS5-80	LTBVT	LT3481EMSE	LTCBZ	LTC2641AIMS8	LTCHN	LT1636IMS8	LTCRR	LTC6240CS5
LTAAH	LTC6910-1HTS8	LTBJC	LTC6905AHS5	LTBPH	LTC6905IS5-80	LTBVT	LT3481HMS8E	LTCBZ	LTC2641BCMS8	LTCHN	LTC6930CMS8-5.00	LTCRR	LTC6240HS5
LTAAH	LTC6910-1ITS8	LTBJC	LTC6905AIS5	LTBPJ	LTC6905CS5-96	LTBVW	LT3481IMS8E	LTCBZ	LTC2641BCMS8	LTCHN	LTC6930HMS8-5.00	LTCRR	LTC6240IS5
LTAAH	LTC2920-2CMS8	LTBJC	LTC6905CS5	LTBPJ	LTC6905HS5-96	LTBVX	LTC4412CMS8	LTCBZ	LTC2642ACMS	LTCHN	LTC6930IMS8-5.00	LTCRS	LTC6240HVCS5
LTAAH	LT1772IS6	LTBJC	LTC6905HS5	LTBPJ	LTC6905IS5-96	LTBW	LTC1474CMS8	LTCBZ	LTC2642AIMS	LTCHN	LTC6930CMS8-7.37	LTCRS	LTC6240HVHMS8
LTAAH	LT6550CMS	LTBJC	LTC6905IS5	LTBPJ	LTC6905CS5-100	LTBW	LTC1474IMS8	LTCBZ	LTC2642BCMS	LTCHN	LTC6930HMS8-7.37	LTCRS	LTC6240HVIS5
LTAAH	LTC1326CMS8	LTBJD	LT1995CMS	LTBPK	LTC6905HS5-100	LTBWB	LT1936HMS8E	LTCBZ	LTC2642BIMS	LTCHN	LTC6930IMS8-7.37	LTCRX	LTC2852CMS
LTAAH	LT1490CMS8	LTBJD	LT1995IMS	LTBPK	LTC6905IS5-100	LTBWF	LT3493AE56	LTCBZ	LTC1540CMS8	LTCHN	LTC6930HMS8-8.00	LTCRX	LTC2852HMS
LTAAH	LTC4304CMS	LTBJM	LTC3400ES6-1	LTBPM	LTC6905CS5-133	LTBWK	LTC3531IS6-3.3	LTCBZ	LTC1258CMS8-2.5	LTCHN	LTC6930HMS8-8.00	LTCRX	LTC2852IMS
LTAAH	LTC4304IMS	LTBJN	LTC6906CS6	LTBPM	LTC6905HS5-133	LTBWM	LTC3531ES6-3.3	LTCBZ	LTC3499BEMS8	LTCHN	LTC6930IMS8-8.00	LTCRZ	LTC3407AEMSE
LTAAH	LTC4354CTS8	LTBJN	LTC6906HS6	LTBPM	LTC6905IS5-133	LTBWN	LTC3772BETS8	LTCBZ	LTC4416EMS	LTCHN	LTC6930CMS8-8.19	LTCRZ	LTC3407AIMSE
LTAAH	LT6211CMS	LTBJN	LTC6906IS6	LTBPW	LT3470ITS8	LTBWX	LTC3448EMS8E-1.5	LTCBZ	LTC4416IMS	LTCHN	LTC6930HMS8-8.19	LTCSC	LTC1474CMS8-5
LTAAH	LT6211IMS	LTBJP	LTC4441EMSE	LTBPY	LTC4303CMS8	LTBWX	LTC3448EMS8E-1.8	LTCBZ	LTC3003EMSE	LTCHN	LTC6930HMS8-8.19	LTCSC	LTC3407AIMSE
LTAAH	LT5531ES6	LTBJQ	LTC4441EMSE	LTBPY	LTC4303IMS8	LTBX	LTC1440CMS8	LTCBZ	LTC3872ETS8-1	LTCHN	LT3010HMS8E	LTCSP	LTC3873ETS8-5
LTAAH	LT3462ES6	LTBK	LTC1475CMS8	LTBQ	LTC1426CMS8	LTBX	LTC1440IMS8	LTCBZ	LTC3872ETS8-2	LTCHN	LT3010HMS8E-5	LTCSP	LTC3873ITS8-5
LTAAH	LTC4301CMS8	LTBKJ	LT3020EMS8-1.2	LTBQD	LT3750EMS	LTBXC	LT3487EMSE	LTCBZ	LTC2908CTS8-C1	LTCHN	LT3502ETS8	LTCST	LT1671CMS8
LTAAH	LTC4301IMS8	LTBKJ	LT3020EMS8-1.5	LTBQF	LTC4414EMS8	LTBXF	LTC2909CTS8-2.5	LTCBZ	LTC2908ITS8-C1	LTCHN	LT3502ITS8	LTCST	LTC6406CMS8E
LTAAH	LT1620CMS8	LTBKJ	LT3020EMS8-1.8	LTBQG	LT4414IMS8	LTBXF	LTC2909HTS8-2.5	LTCBZ	LTC3704IMS	LTCHN	LT3502AETS8	LTCST	LTC6406IMS8E
LTAAH	LT3467AE56	LTBKK	LT3027EMSE	LTBQJ	LTC2927CTS8	LTBXF	LTC2909ITS8-2.5	LTCBZ	LTC3560ES6	LTCHN	LT3502AITS8	LTCST	LT6105CMS8
LTAAH	LT3467AIS6	LTBKN	LTC2950CTS8-1	LTBQJ	LTC2927ITS8	LTBXX	LTC1772BHS6	LTCBZ	LTC3560IMS	LTCHN	LTC31199LCMS8	LTCST	LT6105HMS8
LTAAH	LTC6911HMS-1	LTBKN	LTC2950ITS8-1	LTBQN	LT1994CMS8	LTBXM	LTC1706EMS-63	LTCBZ	LTC1522CMS8	LTCHN	LTC2857CMS8-1	LTCST	LT6105IMS8
LTAAH	LTC6911HMS-2	LTBKR	LT4431EMSE	LTBQN	LT1994IMS8	LTBXS	LTC3532EMS	LTCBZ	LT6011CMS8	LTCHN	LTC2857HMS8-1	LTCST	LTC4442EMS8E
LTAAH	LT3468ES5-2	LTBKV	LTC4216CMS	LTBQT	LTC6908EMSE	LTBYC	LTC6908HS6-1	LTCBZ	LT6011IMS8	LTCHN	LTC2857IMS8-1	LTCST	LTC4442IMS8E
LTAAH	LT2904CTS8	LTBKV	LTC4216IMS	LTBQV	LTC3809EMSE-1	LTBYC	LTC6908HS6-1	LTCBZ	LTC6244HVCMS8	LTCHN	LTC2856CMS8-1	LTCST	LTC4442HMS8E
LTAAH	LT2904ITS8	LTBKW	LTC6905CMS8	LTBQV	LTC3809IMS8E-1	LTBYC	LTC6908HS6-1	LTCBZ	LTC6244HVMHMS8	LTCHN	LTC2856HMS8-1	LTCST	LT3480EMSE
LTAAH	LTC2906CTS8	LTBKW	LTC6905HMS8	LTBQW	LT1947EMSE	LTBYD	LTC6908CS6-2	LTCBZ	LTC6244HVMHMS8	LTCHN	LTC2856IMS8-1	LTCST	LT3480IMS8E
LTAAH	LTC2906ITS8	LTBKW	LTC6905IMS8	LTBRC	LTC3499EMSE8	LTBYD	LTC6908HS6-2	LTCBZ	LTC2858CMS-1	LTCHN	LTC2856CMS8-2	LTCST	LT3480HMS8E
LTAAH	LTC2907CTS8	LTBKX	LT3483ES6	LTBRF	LTC4404ES6-5	LTBYD	LTC6908IS6-2	LTCBZ	LTC2858HMS-1	LTCHN	LTC2856HMS8-2	LTCST	LTC1871EMS-1
LTAAH	LTC2907ITS8	LTBKX	LT3483IS6	LTBRG	LTC4404EMSE8E-5	LTBYF	LT3489EMSE8E	LTCBZ	LTC2858IMS-1	LTCHN	LTC2856IMS8-2	LTCST	LTC1871IMS-1
LTAAH	LTC2055CMS8	LTBL	LTC11917LIMS8	LTBRJ	LT3485EMSE	LTBYN	LTC3020IMS8	LTCBZ	LTC3824HMS8E	LTCHN	LTC2857CMS8-2	LTCST	LTC6087CMS8
LTAAH	LTC2055HMS8	LTBMD	LT3027IMS8E	LTBRP	LTC3405AE56-1.375	LTBYP	LT3020IMS8-1.2	LTCBZ	LTC3824IMS8E	LTCHN	LTC2857HMS8-2	LTCST	LTC6087HMS8
LTAAH	LTC2055IMS8	LTBMF	LT3014ES5	LTBRS	LT3014HVES5	LTBYQ	LT3020IMS8-1.5	LTCBZ	LTC1623CMS8	LTCHN	LTC2857IMS8-2	LTCST	LT1671IMS8
LTAAH	LT2055HVCMS8	LTBMF	LT3014IS5	LTBRS	LT3014HVIS5	LTBYR	LT3020IMS8-1.8	LTCBZ	LT3014BES5	LTCHN	LTC6103CMS8	LTCST	LT1634BCMS8-1.25



TOP MARKINGS (TOP MARK TO PART NUMBER)

LTCVB	LTC6102HVCMS8	LTCZK	LTC6702HTS8	LTDGK	LTC2360HS6	LTDHW	LTC2640ACTS8-LZ12	LDMV	LTC2919IMS-5	LTE8	LTC1844ES5-SD	LTFJ	LT1672IMS8
LTCVB	LTC6102HVHMS8	LTCZK	LTC6702ITS8	LTDGK	LTC2360IS6	LTDHW	LTC2640AHTS8-LZ12	LTDN	LT1389BCMS8-1.25	LTE9	LTC1844ES5-BYP	LTFM	LTC1199CMS8
LTCVB	LTC6102HVIMS8	LTCZK	LTC2641CMS8-12	LTDGM	LTC2361CTS8	LTDHW	LTC2640AITS8-LZ12	LTDNG	LTC6084CMS8	LTEB	LTC1693-3CMS8	LTFM	LTC1261CMS8
LTCVD	LTC2355CMSE	LTCZQ	LTC2641IMS8-12	LTDGM	LTC2361HTS8	LTDHW	LTC2640CTS8-LZ12	LTDNG	LTC6084HMS8	LTEC	LTC1502CMS8-3.3	LTFN	LTC1261CMS8-4
LTCVD	LTC2355IMSE	LTCZR	LTC2641CMS8-14	LTDGM	LTC2361ITS8	LTDHW	LTC2640HTS8-LZ12	LTDNS	LTC2451CTS8	LTED	LT1613CS5	LTFP	LTC1261CMS8-4.5
LTCVF	LTC2356CMSE-14	LTCZR	LTC2641IMS8-14	LTDGN	LTC2361CS6	LTDHW	LTC2640ITS8-LZ12	LTDNS	LTC2451ITS8	LTEE	LTC1694CS5	LTFQ	LTC1551LCMS8
LTCVF	LTC2356IMSE-14	LTCZS	LTC2641ACMS8-16	LTDGN	LTC2361HS6	LTDHX	LTC2640ACTS8-HM12	LTDNW	LTC4224CMS-2	LTEF	LTC1517CS5-3.3	LTFR	LTC1551LCMS8-2
LTCVH	LTC6652AHMS8-1.25	LTCZS	LTC2641AIMS8-16	LTDGN	LTC2361IS6	LTDHX	LTC2640AHTS8-HM12	LTDNW	LTC4224IMS-2	LTEG	LTC1550LCMS8	LTFM	LTC1551LCMS8-2.5
LTCVH	LTC6652BHMS8-1.25	LTCZS	LTC2641CMS8-16	LTDGP	LTC2362CS6	LTDHX	LTC2640AITS8-HM12	LTDPK	LTC2452CTS8	LTEH	LTC1550LCMS8-4.1	LTFM	LTC1551LCMS8-4.1
LTCVJ	LTC6652AHMS8-2.048	LTCZS	LTC2641IMS8-16	LTDGP	LTC2362HS6	LTDHX	LTC2640CTS8-HM12	LTDPK	LTC2452ITS8	LTEK	LTC1326CMS8-2.5	LTFV	LTC1550LCMS8-2.5
LTCVK	LTC6652AHMS8-3	LTCZX	LTC2642CMS-12	LTDGP	LTC2362IS6	LTDHX	LTC2640HTS8-HM12	LTDPN	LTC3080EMS8E-1	LTEL	LTC1258CMS8	LTFW	LTC1668IMS8
LTCVK	LTC6652BHMS8-3	LTCZX	LTC2642IMS-12	LTDGS	LTC2919CMS-2.5	LTDHX	LTC2640ITS8-HM12	LTDPW	LTC2935CTS8-1	LTEM	LTC1258CMS8-5	LTFX	LTC1503CMS8-1.8
LTCVM	LTC6652AHMS8-3.3	LTCZY	LTC2642CMS-14	LTDGS	LTC2919HMS-2.5	LTDHY	LTC2640ACTS8-HZ12	LTDPW	LTC2935ITS8-1	LTEN	LTC1258CMS8-4.1	LTFY	LTC1503IMS8-1.8
LTCVM	LTC6652BHMS8-3.3	LTCZY	LTC2642IMS-14	LTDGS	LTC2919MS-2.5	LTDHY	LTC2640AHTS8-HZ12	LTDPY	LTC4444EMS8E-5	LTEP	LTC1663CS5	LTFZ	LTC1503CMS
LTCVN	LTC6652AHMS8-4.096	LTCZZ	LTC2642ACMS-16	LTDGX	LTC3805EMSE-5	LTDHY	LTC2640AITS8-HZ12	LTDPY	LTC4444IMS8E-5	LTEP	LTC1663ES5	LTG2	LTC3464ETS8
LTCVN	LTC6652BHMS8-4.096	LTCZZ	LTC2642AIMS-16	LTDGX	LTC3805HMS-5	LTDHY	LTC2640CTS8-HZ12	LTDZP	LTC4444EMS8E	LTEQ	LTC1663CMS8	LTG4	LTC3464ETS8-7
LTCVP	LTC6652AHMS8-5	LTCZZ	LTC2642CMS-16	LTDGX	LTC3805IMSE-5	LTDHY	LTC2640HTS8-HZ12	LTDZP	LTC4446IMS8E	LTER	LTC1682CMS8	LTG5	LTC4056ETS8-4.2
LTCVP	LTC6652BHMS8-5	LTCZZ	LTC2642IMS-16	LTDGZ	LT6107MPS5	LTDHY	LTC2640ITS8-HZ12	LTDQB	LTC2935CTS8-2	LTES	LT1611CS5	LTG6	LT6202CS5
LTCVQ	LTC2915CTS8-1	TD2	LTC1860LCMS8	LTDGZ	LT6107WS5	LTDHZ	LTC2640AHTS8-LM10	LTDQB	LTC2935ITS8-2	LTEU	LTC1258CMS8-3	LTG6	LT6202IS5
LTCVQ	LTC2915HTS8-1	TD3	LTC1860IMS8	LTDH	LT1634BCMS8-4.096	LTDHZ	LTC2640HTS8-LM10	LTDOP	LTC3085EMS8E	LTEZ	LT1521CMS8	LTGA	LTC1503IMS8
LTCVQ	LTC2915ITS8-1	TD4	LTC1861LCMS	LTDHF	LTC1861CMS8-LM12	LTDHZ	LTC2640ITS8-LM10	LTDOP	LTC3085IMS8E	LTF1	LTC1844ES5-1.5	LTGC	LT1761ES5-BYP
LTCVS	LTC3684EMSE	TD5	LTC1861LIMS	LTDHF	LTC2631AHTS8-LM12	LTDJB	LTC2640CTS8-LZ10	LTDOS	LT1720CMS8	LTF2	LTC1844ES5-1.8	LTGC	LT1761IS5-BYP
LTCVS	LTC3684IMSE	TD6	LTC3406ES5-1.5	LTDHF	LTC2631AITS8-LM12	LTDJB	LTC2640HTS8-LZ10	LTDOS	LTC2990CMS	LTF3	LTC1844ES5-2.5	LTGD	LT1761ES5-2.5
LTCVW	LTC4080XEMSE	TD7	LTC2920-1CS5	LTDHF	LTC2631CTS8-LM12	LTDJB	LTC2640ITS8-LZ10	LTDOS	LTC2990IMS	LTF4	LTC1844ES5-3.3	LTGD	LT1761IS5-2.5
LTCVX	LTC2355CMSE-12	TD8	LTC2920-1IS5	LTDHF	LTC2631HTS8-LM12	LTDJC	LTC2640CTS8-HM10	LTDOS	LTC3008ETS8	LTF5	LTC4210-1IS6	LTGE	LT1761ES5-3
LTCVX	LTC2355IMSE-12	LDA	LTC1690CMS8	LTDHF	LTC2631ITS8-LM12	LTDJC	LTC2640HTS8-HM10	LTDOS	LTC3008ITS8	LTF6	LTC4210-2IS6	LTGE	LT1761IS5-3
LTCVY	LTC2355CMSE-14	LDB	LTC1622CMS8	LTDHG	LTC2631ACTS8-LZ12	LTDJC	LTC2640ITS8-HM10	LTDOT	LT1610CMS8	LTF7	LT1818CS5	LTGF	LT1761ES5-3.3
LTCVY	LTC2355IMSE-14	LDBB	LTC3406ABES5-2	LTDHG	LTC2631AHTS8-LZ12	LTDJD	LTC2640CTS8-HZ10	LTDOT	LTC3060ETS8	LTF7	LT1818IS5	LTGF	LT1761IS5-3.3
LTCW	LTC1658CMS8	LDBF	LTC4444EMS8E	LTDHG	LTC2631AITS8-HZ12	LTDJD	LTC2640AHTS8-HZ10	LTDTF	LTC3060IMS8E	LTF8	LT1934ES6-1	LTGG	LT1761ES5-5
LTCWB	LTC2480CMS	LDBF	LTC4444IMS8E	LTDHG	LTC2631CTS8-LZ12	LTDJD	LTC2640ITS8-HZ10	LTDTH	LTC3642EMS8E	LTF9	LTC4440EMS8E	LTGG	LT1761IS5-5
LTCWB	LTC2480IMS	LDBN	LTC4307CMS8-LZ12	LTDHG	LTC2631HTS8-LZ12	LTDJF	LTC2640CTS8-LM8	LTDTH	LTC3642IMS8E	LTF9	LT1521CMS8-5	LTGH	LT1761ES5-SD
LTCWF	LTC2851CMS8	LDBN	LTC4307IMS8-1	LTDHG	LTC2631ITS8-LZ12	LTDJF	LTC2640HTS8-LM8	LTDTR	LT3502EMS	LTFB	LT1521CMS8-3	LTGH	LT1761IS5-SD
LTCWF	LTC2851HMS8	LDBS	LT3593ES6	LTDHH	LTC2631ACTS8-HM12	LTDJF	LTC2640ITS8-LM8	LTDTR	LT3502IMS	LTFDB	LT3970EMS	LTGJ	LTC1754IS6-5
LTCWF	LTC2851IMS8	LDBV	LTC2362CTS8	LTDHH	LTC2631AHTS8-HM12	LTDJG	LTC2640CTS8-LZ8	LTDTS	LTC3502AEMS	LTFDB	LT3970HMS	LTGK	LTC1754ES6-3.3
LTCWJ	LTC3406AES5	LDBV	LTC2362HTS8	LTDHH	LTC2631AITS8-HM12	LTDJG	LTC2640HTS8-LZ8	LTDTS	LT3502AIMS	LTFDB	LT3970IMS	LTGL	LTC1754IS6-3.3
LTCWJ	LTC3406IMS	LDBV	LTC2362ITS8	LTDHH	LTC2631HTS8-HM12	LTDJG	LTC2640ITS8-LZ8	LTDTV	LTC4224CMS-1	LTFDD	LTC3824AMPMS8E	LTGM	LT1787CMS8
LTCWK	LT6106CS5	LDBW	LTC4081EMSE	LTDHH	LTC2631HTS8-HM12	LTDJH	LTC2640CTS8-HM8	LTDTV	LTC4224IMS-1	LTFDF	LTC4444AMPMS8E-5	LTGN	LT1787IMS8
LTCWK	LT6106HS5	LDCB	LTC2365CTS8	LTDHH	LTC2631ITS8-HM12	LTDJH	LTC2640HTS8-HM8	LTDU	LT1521CMS8-3.3	LTFDT	LTC3631EMS8E	LTGP	LT3504EMS8
LTCWK	LT6106IS5	LDCB	LTC2365HTS8	LTDHJ	LTC2631AHTS8-HZ12	LTDJH	LTC2640ITS8-HM8	LTDV	LTC1661CMS8	LTFDT	LTC3631IMS8E	LTGR	LTC1550LCMS8-2
LTCWN	LTC2356CMSE-12	LDCB	LTC2365ITS8	LTDHJ	LTC2631AITS8-HZ12	LTDJJ	LTC2640CTS8-HZ8	LTDVF	LT3594ETS8	LTFDX	LTC690AMPMS8	LTGS	LT1610IMS8
LTCWN	LTC2356IMSE-12	LDDC	LTC2365CS6	LTDHJ	LTC2631HTS8-HZ12	LTDJJ	LTC2640HTS8-HZ8	LTDVF	LT3594ITS8	LTFE	LT1494CMS8	LTGT	LTC1682CMS8-3.3
LTCWX	LTC3419EMS-1	LDDC	LTC2365HS6	LTDHJ	LTC2631CTS8-HZ12	LTDJJ	LTC2640ITS8-HZ8	LTDVJ	LTC3565EMSE	LTFG	LT1494IMS8	LTGU	LTC1682IMS8-3.3
LTCWX	LTC3419IMS-1	LDDC	LTC2365IS6	LTDHJ	LTC2631HTS8-HZ12	LTDJP	LT1762MPMS8-5	LTDVJ	LTC3565IMS8E	LTFHF	LT3592HVEMSE	LTGV	LTC1682CMS8-5
LTCWY	LTC4151CMS	LDDG	LTC2453CTS8	LTDHJ	LTC2631ITS8-HZ12	LTDJQ	LT4356CMS-2	LTDVV	LTC6905MPS5	LTFHF	LT3592HVIMSE	LTGW	LTC1682IMS8-5
LTCWY	LTC4151IMS	LDDG	LTC2453ITS8	LTDHK	LTC2631CTS8-LM10	LTDJQ	LT4356HMS-2	LTDVY	LTC1540HMS8	LTFHF	LT3592HVIMSE	LTGX	LT1675CMS8-1
LTCX	LTC1517CS5-5	LDDH	LT1761MPS5-1.8	LTDHK	LTC2631HTS8-LM10	LTDJQ	LT4356IMS-2	LTDVZ	LTC1540MPMS8	LTFHF	LTC2054AMPMS5	LTGY	LT1675IMS8-1
LTCXB	LTC4151CMS-1	LTDG	LT3580EMS8E	LTDHK	LTC2631ITS8-LM10	LTDJS	LT1912EMSE	LTDW	LTC1661IMS8	LTFHF	LTC2054HVMPMS5	LTGZ	LT1813DMS8
LTCXB	LTC4151IMS-1	LTDG	LT3580IMS8E	LTDHM	LTC2631CTS8-LZ10	LTDK	LT1634BCMS8-5	LTDWD	LTC3542ES6-1	LTFJ	LTC3619EMSE	LTH2	LTC3465ES6
LTCXD	LTC4357CMS8	LTDG	LT3592EMSE	LTDHM	LTC2631HTS8-LZ10	LTDKK	LT3581IMS8	LTDWD	LTC3542IS6-1	LTFJ	LTC3619IMS8E	LTH3	LT6206CMS8
LTCXD	LTC4357IMS8	LTDG	LT3592IMSE	LTDHM	LTC2631ITS8-LZ10	LTDKN	LTC6405CMS8E	LTDWQ	LTC3085AMPMS8E	LTFK	LT4356CMS-3	LTH4	LT6206IMS8
LTCXG	LTC3404AMPMS8	LTDCT	LTC2918CMS-B1	LTDHN	LTC2631CTS8-HM10	LTDKN	LTC6405IMS8E	LTDX	LTC1484CMS8	LTFK	LT4356HMS-3	LTH5	LTC3429ES6
LTCXK	LTC2366CS6	LTDCT	LTC2918HMS-B1	LTDHN	LTC2631HTS8-HM10	LTDKR	LTC2934CTS8-1	LTDXS	LTC3972EMSE	LTFK	LT4356IMS-3	LTH6	LTC4257CMS8
LTCXK	LTC2366HS6	LTDCT	LTC2918IMS-B1	LTDHN	LTC2631ITS8-HM10	LTDKR	LTC2934ITS8-1	LTDXS	LT3972HMS8E	LTFPF	LTC3631EMS8E-3.3	LTH7	LTC4054ES5-4.2
LTCXK	LTC2366IS6	LTDGW	LTC2916CTS8-HZ10	LTDHP	LTC2631CTS8-HZ10	LTDKS	LTC2934CTS8-2	LTDXS	LT3972IMS8E	LTFPF	LTC3631IMS8E-3.3	LTH8	LT1460HCS3-2.5
LTCXR	LTC4442EMS8E-1	LTDGW	LTC2916HTS8-1	LTDHP	LTC2631HTS8-HZ10	LTDKS	LTC2934ITS8-2	LTDXZ	LTC6102CMS8-1	LTFFR	LTC3631EMS8E-5	LTH8	LT1460HCS3-2.5
LTCXR	LTC4442IMS8E-1	LTDGW	LTC2916ITS8-1	LTDHP	LTC2631ITS8-HZ10	LTDKX	LT1965EMS8E-1.5	LTDXZ	LTC6102HMS8-1	LTFFR	LTC3631IMS8E-5	LTH8	LT1460HCS3-2.5
LTCXS	LTC1871HMS	LTDJJ	LTC3407AEMSE-2	LTDHQ	LTC2631CTS8-LM8	LTDKX	LT1965IMS8E-1.5	LTDXZ	LTC6102IMS8-1	LTFGD	LT4356MPMS-1	LTH9	LT1460HCS3-3
LTCXX	LT1965EMS8E	LTDJJ	LTC3407AIMSE-2	LTDHQ	LTC2631HTS8-LM8	LTDKZ	LT1965EMS8E-1.8	LTDY	LT1396CMS8	LTFH	LT1672CMS8	LTH9	LT1460HCS3-3
LTCXX	LT1965IMS8E	LTDQ	LT1933HS6	LTDHQ	LTC2631ITS8-LM8	LTDKZ	LT1965IMS8E-1.8	LTDYF	LTC3127EMSE	LTFHD	LTC3008ETS8-1.2	LTH9	LT1460KCS3-3
LTCXZ	LTC3406ABES5	LDE	LTC1542CMS8	LTDHR	LTC2631CTS8-LZ8	LTDMC	LT1965EMS8E-2.5	LTDYN	LTC3642EMS8E-3.3	LTFHD	LT3008ITS8-1.2	LTHA	LT1317CMS8
LTCY	LT1638CMS8	LDF	LT1634BCMS8-2.5	LTDHR	LTC2631HTS8-LZ8	LTDMC	LT1965IMS8E-2.5	LTDYN	LTC3642IMS8E-3.3	LTFHG	LTC3008ETS8-1.5	LTHB	LT1317BCMS8
LTCY	LT1638IMS8	LDFZ	LT3693EMSE	LTDHR	LTC2631ITS8-LZ8	LTDMF	LT1965EMS8E-3.3	LTDYQ	LTC3642EMS8E-5	LTFHG	LTC3008ITS8-1.5	LTHC	LT1619EMS8
LTCYF	LT3685EMSE	LDFZ	LT3693HMS8E	LTDHS	LTC2631CTS8-HM8	LTDMP	LT1965IMS8E-3.3	LTDYQ	LTC3642IMS8E-5	LTFHJ	LTC3008ETS8-1.8	LTHD	LTC1734ES6-4.1
LTCYF	LT3685IMS8E	LDFZ	LT3693IMSE	LTDHS	LTC2631HTS8-HM8	LTDMP	LT6703HVCS5-2	LTDYV	LT3082ETS8	LTFHJ	LTC3008ETS8-1.8	LTHE	LTC1694-1CS5
LTCYJ	LTC3564ES5	LTDGD	LTC2917CMS-A1	LTDHS	LTC2631ITS8-HM8	LTDMP	LT6703HVHS5-2	LTDYV	LTC3082ITS8	LTFHM	LTC3008ETS8-2.5	LTHF	LT1762EMS8
LTCYJ	LTC3564IS5	LTDGD	LTC2917HMS-A1	LTDHT	LTC2631CTS8-HZ8	LTDMP	LT6703HVHS5-2	LTDYX	LT3757EMSE	LTFHM	LTC3008ITS8-2.5	LTHG	LT1762EMS8-2.5
LTCYM	LTC3680EMSE	LTDGD	LTC2917IMS-A1	LTDHT	LTC2631HTS8-HZ8	LTDMP	LT6703HVCS5-3	LTDYX	LT3757IMS8E	LTFHP	LTC3008ETS8-3.3	LTHH	LT1762EMS8-3
LTCYM	LTC3680HMS8E	LTDGG	LTC2918CMS-A1	LTDHT	LTC2631ITS8-HZ8	LTDMP	LT6703HVHS5-3	LTDZ	LTC1710CMS8	LTFHP	LTC3008ITS8-3.3	LTHJ	LT1762EMS8-3.3
LTCYM	LTC3680IMS8E	LTDGG	LTC2918HMS-A1	LTDHV	LTC2640ACTS8-LM12	LTDMP	LT6703HVHS5-3	LTE2	LTC3406BES5	LTFHR	LTC3008ETS8-5.0	LTHK	LT1762EMS8-5
LTCYS	LTC3565EMS	LTDGG	LTC2918IMS-A1	LTDHV	LTC2640AHTS8-LM12	LTDMT	LTC2919CMS-3.3	LTE3	LTC3406BES5-1.5	LTFHR	LTC3008ITS8-5.0	LTHL	LTC1502IMS8-3.3
LTCYZ	LTC2366CTS8	LTDGJ	LTC2360CTS8	LTDHV	LTC2640AITS8-LM12	LTDMT	LTC2919HMS-3.3	LTE4	LTC3406BES5-1.8	LTFHV	LTC2935CTS8-3	LTHM	LTC1682IMS8
LTCYZ	LTC2366HTS8	LTDGJ	LTC2360HTS8	LTDHV	LTC2640CTS8-LM12	LTDMT	LTC2919IMS-3.3	LTE5	LT1819IMS8	LTFHV	LTC2935ITS8-3	LTHN	LTC1503CMS8-2
LTCYZ	LTC2366ITS8	LTDGJ	LTC2360IMS8	LTDHV	LTC2640HTS8-LM12	LTDMV	LTC2919CMS-5	LTE6	LT1734LES6-4.2	LTFHX	LTC2935CTS8-4	LTHQ	LTC1864CMS8
LTCZK	LTC6702CTS8	LTDGK	LTC2360CS6	LTDHV	LTC2640HTS8-LM12	LTDMV	LTC2919HMS-5	LTE7	LTC2819CMS8	LTFHX	LTC2935ITS8-4	LTHQ	LTC1864HMS8

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Space, Military,  
Harsh Envir.

Reference  
Material



# TOP MARKINGS (TOP MARK TO PART NUMBER)

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Space, Military, Harsh Envir.  
 Reference Material

LTHQ	LTC1864AIMS8	LTK5	LT6201IMS8E	LTMT	LT1761IS5-1.5	LTOV	LTC4251-1IS6	LTUB	LTC4300-1CMS8	LTXF	LTC4402-1EMS8	LTZW	LTC3405AES6
LTHQ	LTC1864CMS8	LTK6	LTC4251-2CS6	LTMU	LTC1536IMS8	LTOV	LTC4150CMS	LTUC	LTC4300-1IMS8	LTXG	LTC4403-1EMS8	LTZX	LTC5507ES6
LTHQ	LTC1864HMS8	LTK7	LT6700CS6-1	LTMV	LTC1773EMS	LTOV	LTC4150IMS	LTUD	LTC1701BES5	LTXH	LTC4402-2EMS	LTZY	LTC4440ES6
LTHQ	LTC1864IMS8	LTK7	LT6700HS6-1	LTMV	LTC1911EMS8-1.5	LTOX	LT1949-1EMS8	LTUE	LT1947EMS	LTXJ	LTC4403-2EMS	LTZZ	LT4351CMS
LTHS	LTC1865ACMS	LTK7	LT6700HVC6-1	LTNB	LT1616ES6	LTOY	LT1961EMS8E	LTUF	LT1809IS6	LTXK	LT1782HS5	OP07	OP07CS8
LTHS	LTC1865AHMS	LTK7	LT6700HVHS6-1	LTCN	LT1616IS6	LTOY	LT1961IMS8E	LTUG	LT1946EMS8	LTXL	LT1782HS6	OP27G	OP27GS8
LTHS	LTC1865AIMS	LTK7	LT6700HVIS6-1	LTND	LTC1799CS5	LTOZ	LT1009CMS8	LTUH	LTC1326IMS8	LTXM	LTC1442IMS8	OP37G	OP37GS8
LTHS	LTC1865CMS	LTK7	LT6700IS6-1	LTNE	LTC1799HS5	LTOZ	LT1009IMS8	LTUJ	LTC1326IMS8-2.5	LTXN	LTC3700EMS		
LTHS	LTC1865HMS	LTK8	LTC4410ES6	LTFN	LTC1799IS5	LTRA	LT1931ES6	LTUK	LT1713IMS8	LTXP	LT1934ES6		
LTHS	LTC1865IMS	LTK9	LTC1706EMS-61	LTFN	LT1490ACMS8	LTRB	LTC2051HVCMS10	LTUL	LT1815CS6	LTXQ	LTC3405ES6		
LTHU	LT1647-1CMS8	LTKA	LT1617ES5-1	LTFN	LT1618EMS	LTRC	LTC2051HVIMS10	LTUM	LT1880CS5	LTXR	LT1783HS5		
LTHV	LTC1647-2CMS8	LTKB	LTC1662CMS8	LTFN	LTC1732EMS-4	LTRD	LT1713CMS8	LTUN	LTC3400BES6	LTXS	LT1783HS6		
LTHW	LT1719CS6	LTKC	LTC1662IMS8	LTFN	LT1806CS6	LTRF	LT1810CMS8	LTUP	LT1815CS5	LTXT	LT1790ACS6-1.25		
LTHX	LTC1727EMS8-5	LTKD	LTC1771EMS8	LTFN	LT1806IS6	LTRG	LT1734ES6-4.2	LTUQ	LTC4251CS6	LTXU	LT1790AIS6-1.25		
LTHY	LTC1727EMS8-2.5	LTKE	LTC1771IMS8	LTFN	LTC1985ES5-1.8	LTRH	LTC1957-1EMS8	LTUR	LTC4251IS6	LTXV	LT1790BCS6-1.25		
LTHZ	LTC1728ES5-5	LTKF	LT1617ES5	LTFN	LT1617IMS	LTRJ	LTC1957-2EMS	LTVS	LT4352CMS8	LTXW	LT1790BIS6-1.25		
LTHZ	LTC1728HS5-5	LTKG	LTC1701ES5	LTFN	LTC3440EMS	LTRK	LT1490AHMS8	LTUT	LT4352IMS8	LTXU	LT1790ACS6-2.048		
LTIA	LTC1728ES5-2.5	LTKH	LT1615ES5-1	LTFN	LT1816IMS8	LTRL	LT1946-2EMS8	LTUU	LT4352CMS10	LTXU	LT1790AIS6-2.048		
LTIB	LT1307BCMS8	LTKJ	LT1787HVCMS8	LTFN	LT1948EMS8	LTRM	LT1946-2CMS8	LTUU	LT4352IMS10	LTXU	LT1790BCS6-2.048		
LTIC	LT1307CMS8	LTKK	LT1787HVIMS8	LTFN	LTC2411CMS	LTRN	LT1800CS5	LTUX	LTC2421CMS	LTXU	LT1790BIS6-2.048		
LTID	LT1614CMS8	LTKL	LTC1751EMS8	LTFN	LTC2411IMS	LTRP	LT1800IS5	LTUY	LTC2421IMS	LTXV	LTC5505-1ES5		
LTIE	LT1637CMS8	LTKM	LTC1751EMS8-3	LTFN	LTC1911EMS8-1.8	LTRQ	LTC4252-1IMS8	LTUZ	LTC2422CMS	LTXW	LT1790ACS6-3.3		
LTIE	LT1637IMS8	LTKN	LTC1751EMS8-3.3	LTFN	LTC3200EMS8	LTRR	LTC4252-2IMS8	LTVL	LTC2422IMS	LTXW	LT1790AIS6-3.3		
LTIG	LTC1757-2EMS	LTKP	LTC1751EMS8-5	LTFN	LTC1878EMS8	LTRS	LTC4252-1IMS	LTVB	LTC3201EMS	LTXW	LT1790BCS6-3.3		
LTIH	LTC1757-1EMS8	LTKQ	LTC1731EMS8-4.2	LTPC	LTC1983ES6-3	LTRT	LTC4252-2IMS	LTVC	LT1815IS5	LTXW	LT1790BIS6-3.3		
LTIJ	LTC1758CMS	LTKR	LTC3404EMS8	LTPD	LTC1983EMS8-3	LTRW	LTC5505-2ES5	LTDV	LT1815IS6	LTXX	LT1816AIMS		
LTIK	LTC1758CMS8	LTKS	LT1930ES5	LTPD	LTC1731EMS8-8.4	LTRX	LT1935ES5	LTVF	LTC2051HMS8	LTXY	LTC1872BES6		
LTIL	LTC1772CS6	LTKT	LTC1928ES6-5	LTPF	LTC1982ES6	LTRY	LT1936CS5	LTVH	LTC2051HVHMS8	LTXZ	LT1615IS5		
LTIM	LTC1772ES6	LTKU	LTC1663IS5	LTPG	LTC3401EMS	LTRZ	LT1310EMSE	LTVJ	LTC4300-2CMS8	LTYA	LT1816ACMS		
LTIQ	LTC2050CMS8	LTKV	LTC1197CMS8	LTPH	LTC1728ES5-1.8	LTTA	LTC1663-1CS5	LTVK	LTC4300-2IMS8	LTYB	LTC1983ES6-5		
LTIR	LTC2050IMS8	LTKW	LTC1197IMS8	LTPJ	LTC2051HVCMS8	LTSB	LTC1663-2CS5	LTVQ	LT1715CMS	LTYC	LT1723CMS8		
LTS	LT1782CS6	LTKX	LTC1986ES6	LTPK	LTC2051HVIMS8	LTSC	LTC4211CMS8	LTVS	LTC1983CS6-3	LTYD	LT1716CS5		
LTIT	LT1782IS6	LTKY	LT1809CS6	LTPL	LTC1757A-1EMS8	LTSD	LTC4211IMS8	LTVT	LTC2053CMS8	LTYD	LT1716HS5		
LTIU	LT1783CS6	LTKZ	LTC1726EMS8-2.5	LTPM	LTC1757A-2EMS	LTSF	LTC1981ES5	LTVU	LTC1772BES6	LTYD	LT1716IS5		
LTV	LT1783IS6	LTLA	LTC1726EMS8-5	LTPN	LT1990CMS8	LTSG	LTC1693-5CMS8	LTVU	LTC1772BIS6	LTYF	LTC4302CMS-1		
LTVW	LT1784CS6	LTLB	LT1761ES5-2.8	LTPP	LT1990IMS8	LTSH	LTC3200ES6-5	LTVV	LT1715HMS	LTYG	LTC4302IMS-1		
LTVX	LT1784IS6	LTLB	LT1761IS5-2.8	LTPQ	LT1962EMS8-3	LTSK	LTC3402EMS	LTVV	LT1715IMS	LTYH	LT3420EMS		
LTVY	LTC1695CS5	LTLC	LTC1700EMS	LTPR	LT1962EMS8-5	LTSL	LTC1758-1EMS8	LTVW	LT1880IS5	LTYJ	LTC2900-1CMS		
LTVZ	LT1615ES5	LTLD	LT1782CS5	LTPS	LT1962EMS8-3.3	LTSM	LTC1758-2EMS	LTVX	LT1964ES5-SD	LTYK	LTC2900-1IMS		
LTJ1	LT1460HCS3-3.3	LTLF	LT1782IS5	LTPU	LT1962EMS8-2.5	LTSN	LT1784IS5	LTVX	LT1964IS5-SD	LTYL	LTC2900-2CMS		
LTJ1	LT1460JCS3-3.3	LTLF	LT1783CS5	LTPU	LT1490AIMS8	LTSP	LT1931AES5	LTVY	LT1964ES5-BYP	LTYM	LTC2900-2IMS		
LTJ1	LT1460KCS3-3.3	LTLG	LT1783IS5	LTPV	LTC1699EMS8-80	LTSQ	LT1930AES5	LTVY	LT1964IS5-BYP	LTYN	LT1937ES5		
LTJ2	LT1460HCS3-5	LTLH	LT1812CS5	LTPW	LTC1699EMS8-81	LTSR	LT1932ES6	LTVZ	LT1964ES5-5	LTYP	LTC1728ES5-3.3		
LTJ2	LT1460JCS3-5	LTLJ	LT1812IS5	LTPZ	LT1790ACS6-2.5	LTSU	LTC4211CMS	LTVZ	LT1964IS5-5	LTYQ	LT1706EMS-85		
LTJ2	LT1460KCS3-5	LTLK	LT1812CS6	LTPZ	LT1790AIS6-2.5	LTSV	LTC4211IMS	LTVW	LT1816CMS8	LTYR	LT1801CMS8		
LTJ3	LT1460HCS3-10	LTLK	LT1812IS6	LTPZ	LT1790BCS6-2.5	LTSW	LTC1731EMS8-8.2	LTVW	LTC1199IMS8	LTSY	LT1801IMS8		
LTJ3	LT1460JCS3-10	LTLM	LT1797CS5	LTPZ	LT1790BIS6-2.5	LTSX	LT1817EMS	LTVW	LTC1199IMS8	LTYT	LTC3704EMS		
LTJ3	LT1460KCS3-10	LTLN	LT1797CS6	LTOA	LT1790ACS6-3	LTSZ	LT1962EMS8-1.5	LTDW	LT1767EMS8-2.5	LTYU	LTC1992CMS8		
LTJ4	LTC1865ACMS	LTLP	LTC1779ES6	LTOA	LT1790AIS6-3	LTTA	LT1962EMS8-1.8	LTHE	LT1767EMS8-3.3	LTYV	LTC1992-2CMS8		
LTJ4	LTC1865AIMS	LTLR	LTC1706EMS-81	LTOA	LT1790BCS6-3	LTTB	LTC1699EMS8-82	LTFW	LT1767EMS8-5	LTYW	LTC4210-1CS6		
LTJ4	LTC1865CMS	LTLR	LT1767EMS8	LTOA	LT1790BIS6-3	LTTC	LT1711CMS8	LTFW	LT1767EMS8-1.8	LTYX	LTC4210-2CS6		
LTJ4	LTC1865IMS	LTLT	LTC1696ES6	LTOB	LT1790ACS6-4.096	LTTD	LT1711IMS8	LTFW	LT1567CMS8	LTYZ	LTC4052EMS8E-4.2		
LTJ8	LT1937BES5	LTLU	LTC1877EMS8	LTOB	LT1790AIS6-4.096	LTTD	LTC1517ES5-3.3	LTFW	LT1567IMS8	LTYZ	LT1946AEMS8E		
LTJ9	LTC6901CMS	LTLV	LTC1877IMS8	LTOB	LT1790BCS6-4.096	LTFE	LT1517ES5-5	LTFW	LTC3400ES6	LTYZ	LT1723IMS8		
LTJA	LTC11971IMS8	LTLW	LTC1754ES6-5	LTOB	LT1790BIS6-4.096	LTFG	LTC1966CMS8	LTFW	LTC3202EMS	LTYZ	LT1722CS5		
LTJB	LT1614IMS8	LTLX	LTC1733EMSE	LTOC	LT1790ACS6-5	LTFH	LTC1966IMS8	LTFW	LTC4252-1CMS8	LTYZ	LT1722IS5		
LTCJ	LT1949EMS8	LTLY	LTC1729CMS8-4.1	LTOC	LT1790AIS6-5	LTFJ	LTC1967CMS8	LTFW	LTC4252-1CMS	LTYZ	LTC1992IMS8		
LTDJ	LT1784CS5	LTLZ	LTC1729CMS8-8.2	LTOC	LT1790BCS6-5	LTFJ	LTC1967IMS8	LTFW	LTC4252-2CMS8	LTDZ	LTC1992-2IMS8		
LTEJ	LT1761ES5-2	LTLA	LT1395CS5	LTOC	LT1790BIS6-5	LTFK	LT1797IS5	LTFW	LTC4252-2CMS	LTEZ	LTC3250ES6-1.5		
LTEJ	LT1761IS5-2	LTMB	LTC2401CMS	LTOC	LT1991ACMS	LTFM	LT1797IS6	LTFW	LTC1860CMS8	LTFZ	LT3010EMS8E		
LTFJ	LT1719IS6	LTMC	LTC2401IMS	LTOC	LT1991AIMS	LTFN	LT1969CMS	LTFW	LTC1860HMS8	LTFZ	LT1767EMS8E		
LTVG	LTC1729CMS8-8.4	LTMD	LTC2402CMS	LTOC	LT1991CMS	LTFP	LT1969IMS	LTFW	LTC1860IMS8	LTVZ	LT1767EMS8E-1.8		
LTVH	LTC1729CMS8-4.2	LTMF	LTC2402IMS	LTOC	LT1991HMS	LTFQ	LT1810IMS8	LTFW	LTC1861CMS	LTVZ	LT1767EMS8E-2.5		
LTVJ	LTC1663IMS8	LTMF	LT1395CS6	LTOC	LT1991IMS	LTFR	LT1944EMS	LTFW	LT1861HMS	LTVZ	LT1767EMS8E-3.3		
LTVK	LTC1731EMS8-4.1	LTMJ	LTC1706EMS-82	LTKQ	LTC1844ES5-2.8	LTFR	LT1945EMS	LTFW	LT1861IMS	LTVZ	LT1767EMS8E-5		
LTVM	LT1761ES5-1.8	LTMK	LTC1872ES6	LTKM	LTC3423EMS	LTFR	LT1945IMS	LTFW	LTC2411-1CMS	LTVZ	LTC6900CS5		
LTVM	LT1761IS5-1.8	LTML	LT1962EMS8	LTKM	LTC3424EMS	LTFR	LT1807CMS8	LTFW	LTC1732EMS-8.4	LTVZ	LTC6900IS5		
LTVY	LTC2053IMS8	LTMN	LT1962IMS8	LTKP	LTC4301-1CMS	LTFR	LT1944-1EMS	LTFW	LTC1983CS6-5	LTVZ	LTC3405AES6-1.5		
LTVZ	LT6200CS6	LTMN	LTC2051CMS8	LTKP	LTC4301-1IMS	LTFV	LT1807IMS8	LTFW	LTC4400-1ES6	LTVZ	LTC1697EMS		
LTVZ	LT6200IS6	LTMQ	LTC2051IMS8	LTKR	LTC2490CS6	LTFV	LTC4050EMS-4.1	LTFW	LTC4401-1ES6	LTVZ	LTC4053EMSE-4.1		
LTK1	LTC6901IMS	LTMQ	LTC2051CMS10	LTKS	LTC2490IS6	LTFX	LTC4050EMS-4.2	LTFX	LTC4400-2EMS8	LTVZ	LTC4053EMSE-4.1		
LTK2	LTC6902CMS	LTMR	LTC2051IMS10	LTKT	LTC3411EMS	LTFY	LTC1998CS6	LTFX	LTC4401-2EMS8	LTVZ	LTC4053EMSE-4.2		
LTK3	LTC6902IMS	LTMS	LT1612EMS8	LTKT	LTC3411IMS	LTFY	LTC1998IS6	LTFX	LTC2431CMS	LTVZ	LTC1921IMS8		
LTK4	LT6201CMS8E	LTMU	LT1761ES5-1.5	LTKU	LTC4251-1CS6	LTFY	LTC4251-1CS6	LTFX	LTC2431IMS	LTVZ	LTC1921CMS8		

Data Conversion Values

NUMBER OF BITS	NUMBER COUNTS	PPM	BIT WEIGHT	THEORETICAL SNR (dB)	10V LSB	5V LSB	3V LSB	2.5V LSB	1.8V LSB
6	64	15,625	$15.6 \times 10^{-3}$	37.86	156mV	78.1mV	46.9mV	39.1mV	28.1mV
8	256	3,906	$3.91 \times 10^{-3}$	49.96	39.1mV	19.5mV	11.7mV	9.77mV	7.03mV
10	1024	977	$977 \times 10^{-6}$	61.96	9.77mV	4.88mV	2.93mV	2.44mV	1.76mV
12	4096	244	$244 \times 10^{-6}$	73.96	2.44mV	1.22mV	732μV	610μV	439μV
14	16,384	61	$61.0 \times 10^{-6}$	86.06	610μV	305μV	183μV	153μV	110μV
16	65,536	15	$15.3 \times 10^{-6}$	98.06	153μV	76.3μV	45.8μV	38.1μV	27.5μV
18	262,144	3.8	$3.81 \times 10^{-6}$	110.16	38.1μV	19.1μV	11.4μV	9.54μV	6.87μV
20	1,048,576	0.95	$954 \times 10^{-9}$	122.16	9.54μV	4.77μV	2.86μV	2.38μV	1.72μV
24	16,777,216	0.06	$59.6 \times 10^{-9}$	146.24	596nV	298nV	179nV	149nV	107nV

Standard 1% Resistor Values

10.0	23.2	53.6	124	287	665	1.54k	3.57k	8.25k	19.1k	44.2k
10.2	23.7	54.9	127	294	681	1.58k	3.65k	8.45k	19.6k	45.3k
10.5	24.3	56.2	130	301	698	1.62k	3.74k	8.66k	20.0k	46.4k
10.7	24.9	57.6	133	309	715	1.65k	3.83k	8.87k	20.5k	47.5k
11.0	25.5	59.0	137	316	732	1.69k	3.92k	9.09k	21.0k	48.7k
11.3	26.1	60.4	140	324	750	1.74k	4.02k	9.31k	21.5k	49.9k
11.5	26.7	61.9	143	332	768	1.78k	4.12k	9.53k	22.1k	51.1k
11.8	27.4	63.4	147	340	787	1.82k	4.22k	9.76k	22.6k	52.3k
12.1	28.0	64.9	150	348	806	1.87k	4.32k	10.0k	23.2k	53.6k
12.4	28.7	66.5	154	357	825	1.91k	4.42k	10.2k	23.7k	54.9k
12.7	29.4	68.1	158	365	845	1.96k	4.53k	10.5k	24.3k	56.2k
13.0	30.1	69.8	162	374	866	2.00k	4.64k	10.7k	24.9k	57.6k
13.3	30.9	71.5	165	383	887	2.05k	4.75k	11.0k	25.5k	59.0k
13.7	31.6	73.2	169	392	909	2.10k	4.87k	11.3k	26.1k	60.4k
14.0	32.4	75.0	174	402	931	2.15k	4.99k	11.5k	26.7k	61.9k
14.3	33.2	76.8	178	412	953	2.21k	5.11k	11.8k	27.4k	63.4k
14.7	34.0	78.7	182	422	976	2.26k	5.23k	12.1k	28.0k	64.9k
15.0	34.8	80.6	187	432	1.00k	2.32k	5.36k	12.4k	28.7k	66.5k
15.4	35.7	82.5	191	442	1.02k	2.37k	5.49k	12.7k	29.4k	68.1k
15.8	36.5	84.5	196	453	1.05k	2.43k	5.62k	13.0k	30.1k	69.8k
16.2	37.4	86.6	200	464	1.07k	2.49k	5.76k	13.3k	30.9k	71.5k
16.5	38.3	88.7	205	475	1.10k	2.55k	5.90k	13.7k	31.6k	73.2k
16.9	39.2	90.9	210	487	1.13k	2.61k	6.04k	14.0k	32.4k	75.0k
17.4	40.2	93.1	215	499	1.15k	2.67k	6.19k	14.3k	33.2k	76.8k
17.8	41.2	95.3	221	511	1.18k	2.74k	6.34k	14.7k	34.0k	78.7k
18.2	42.2	97.6	226	523	1.21k	2.80k	6.49k	15.0k	34.8k	80.6k
18.7	43.2	100	232	536	1.24k	2.87k	6.65k	15.4k	35.7k	82.5k
19.1	44.2	102	237	549	1.27k	2.94k	6.81k	15.8k	36.5k	84.5k
19.6	45.3	105	243	562	1.30k	3.01k	6.98k	16.2k	37.4k	86.6k
20.0	46.4	107	249	576	1.33k	3.09k	7.15k	16.5k	38.3k	88.7k
20.5	47.5	110	255	590	1.37k	3.16k	7.32k	16.9k	39.2k	90.9k
21.0	48.7	113	261	604	1.40k	3.24k	7.50k	17.4k	40.2k	93.1k
21.5	49.9	115	267	619	1.43k	3.32k	7.68k	17.8k	41.2k	95.3k
22.1	51.1	118	274	634	1.47k	3.40k	7.87k	18.2k	42.2k	97.6k
22.6	52.3	121	280	649	1.50k	3.48k	8.06k	18.7k	43.2k	100.0k

Standard 5% Resistor Values

10	75	560	4.3k	33k	240k
11	82	620	4.7k	36k	270k
12	91	680	5.1k	39k	300k
13	100	750	5.6k	43k	330k
15	110	820	6.2k	47k	360k
16	120	910	6.8k	51k	390k
18	130	1.0k	7.5k	56k	430k
20	150	1.1k	8.2k	62k	470k
22	160	1.2k	9.1k	68k	510k
24	180	1.3k	10k	75k	560k
27	200	1.5k	11k	82k	620k
30	220	1.6k	12k	91k	680k
33	240	1.8k	13k	100k	750k
36	270	2.0k	15k	110k	820k
39	300	2.2k	16k	120k	910k
43	330	2.4k	18k	130k	1.0M
47	360	2.7k	20k	150k	
51	390	3.0k	22k	160k	
56	430	3.3k	24k	180k	
62	470	3.6k	27k	200k	
68	510	3.9k	30k	220k	



## Power Application Notes

### AN1 Understanding and Applying the LT1005 Multifunction Regulator

This application note describes the unique operating characteristics of the LT1005 and describes a number of useful applications which take advantage of the regulator's ability to control the output with a logic control signal.

### AN2 Performance Enhancement Techniques for 3-Terminal Regulators

This application note describes a number of enhancement circuit techniques used with existing 3-terminal regulators which extend current capability, limit power dissipation, provide high voltage output, operate from 110VAC or 220VAC without the need to switch transformer windings, and many other useful application ideas.

### AN8 Power Conditioning Techniques for Batteries

A variety of approaches for power conditioning batteries is given. Switching and linear regulators and converters are shown, with attention to efficiency and low power operation. 14 circuits are presented with performance data.

### AN11 Designing Linear Circuits for 5V Operation

This note covers the considerations for designing precision linear circuits which must operate from a single 5V supply. Applications include various transducer signal conditioners, instrumentation amplifiers, controllers and isolated data converters.

### AN15 Circuitry for Single Cell Operation

1.5V powered circuits for complex linear functions are detailed. Designs include a V/F converter, a 10-bit A/D, sample-hold amplifiers, a switching regulator and other circuits. Also included is a section of component considerations for 1.5V powered linear circuits.

### AN19 LT1070 Design Manual

This design manual is an extensive discussion of all standard switching configurations for the LT1070; including buck, boost, flyback, forward, inverting and "Cuk." the manual includes comprehensive information on the LT1070, the external components used with it, and complete formulas for calculating component values.

### AN25 Switching Regulators for Poets

Subtitled "A Gentle Guide for the Trepidatious," this is a tutorial on switching regulator design. the text assumes no switching regulator design experience, contains no equations, and requires no inductor construction to build the circuits described.

Designs detailed include flyback, isolated telecom, off-line, and others. Appended sections cover component considerations, measurement techniques and steps involved in developing a working circuit.

### AN29 Some Thoughts on DC/DC Converters

This note examines a wide range of DC/DC converter applications. Single inductor, transformer, and switched-capacitor converter designs are shown. Special topics like low noise, high efficiency, low quiescent current, high voltage, and wide-input voltage range converters are covered. Appended sections explain some fundamental properties of different types of converters.

### AN30 Switching Regulator Circuit Collection

Switching regulators are of universal interest. Linear Technology has made a major effort to address this topic. A catalog of circuits has been compiled so that a design engineer can swiftly determine which converter type is best. This catalog serves as a visual index to be browsed through for a specific or general interest.

### AN31 Linear Circuits for Digital Systems

Subtitled "Some Affable Analogs for Digital Devotees," discusses a number of analog circuits useful in predominantly digital systems.  $V_{P-P}$  generators for flash memories receive extensive treatment. Other examples include a current loop transmitter, dropout detectors, power management circuits, and clocks.

### AN32 High Efficiency Linear Regulators

Presents circuit techniques permitting high efficiency to be obtained with linear regulation. Particular attention is given to the problem of maintaining high efficiency with widely varying inputs, outputs and loading. Appendix sections review component characteristics and measurement methods.

### AN35 Step-Down Switching Regulators

Discusses the LT1074, an easily applied step-down regulator IC. Basic concepts and circuits are described along with more sophisticated applications. Six appended sections cover LT1074 circuitry detail, inductor and discrete component selection, current measuring techniques, efficiency considerations and other topics.

### AN37 Fast Charge Circuits for NiCad Batteries

Safe, fast charging of NiCad batteries is attractive in many applications. This note details simple, thermally-based fast charge circuitry for NiCads. Performance data is summarized and compared to other charging methods.

### AN39 Parasitic Capacitance Effects in Step-Up Transformer Design

This note explores the causes of the large resonating current spikes on the leading edge of the switch current waveform. These anomalies are exacerbated in very high voltage designs.

### AN44 LT1074/LT1076 Design Manual

This note discusses the use of the LT1074 and LT1076 high efficiency switching regulators. These regulators are specifically designed for ease of use. This application note is intended to eliminate the most common errors that customers make when using switching regulators as well as offering insight into the inner workings of switching designs. There is an entirely new treatment of inductor design based upon simple mathematical formulas that yield direct results. There are extensive tutorial sections devoted to the care and feeding of the Positive Step-Down (Buck) Converter, the Tapped Inductor Buck Converter, the Positive-to-Negative Converter and the Negative Boost Converter. Additionally, many troubleshooting hints are included as well as oscilloscope techniques, soft-start architectures, and micropower shutdown and EMI suppression methods.

### AN46 Efficiency Characteristics of Switching Regulator Circuits

Efficiency varies for different DC/DC converters. This application note compares the efficiency characteristics of some of the more popular types. Step-Up, step-down, flyback, negative-to-positive, and positive-to-negative are shown. Appended sections discuss how to select the proper aluminum electrolytic capacitor and explain power switch and output diode loss calculations.

### AN49 Illumination Circuitry for Liquid Crystal Displays

Current generation portable computers and instruments utilize backlight liquid crystal displays. the back light requires a highly efficient, high voltage AC source as well as other supply circuitry. AN49 details these circuits and also includes sections on efficiency measurements and instrumentation considerations. A separate section discusses physical and layout considerations for the display.

### AN51 Power Conditioning for Notebook and Palmtop Systems

Notebook and palmtop systems need a number of voltages developed from a battery. Competitive solutions require small size, high efficiency and light weight. This publication includes circuits for high efficiency 5V and 3.3V switching and linear regulators, back light display drivers and battery chargers. All the circuits are specifically tailored for the requirements outlined above.

### AN52 Linear Technology Magazine Circuit Collection, Vol 1

This application note consolidates the circuits from the first few years of *Linear Technology* magazine into one publication. Presented in the note are a variety of circuits ranging from a 50W high efficiency (>90%) switching regulator to steep roll-off filter circuits with low distortion to 12-bit differential temperature measurement systems.

### AN53 Micropower High-Side MOSFET Drivers

This application note describes the operation of high-side N-channel MOSFET switch drivers designed specifically for operation in battery-powered equipment, such as notebook and palmtop computers and portable medical instruments. A selection guide simplifies the proper choice of MOSFET and driver for a particular high-side switch application. Circuits to drive and protect load impedances ranging from large inductors to large capacitors are described and a section on surface mount and copper clad shunts is included.

### AN54 Power Conversion from Milliamps to Amps at Ultra High Efficiency (Up to 95%)

This application note discusses the use of the LTC1147, LTC1148, and LTC1149 ultra high efficiency switching regulators in a wide variety of applications. These controllers feature a current-mode architecture which includes an automatic low current operating mode called Burst Mode™ operation, making greater than 90% efficiencies possible at output currents as low as 10mA. This feature maximizes battery life while a product is in sleep or standby modes. In addition, the LTC1148 and LTC1149 are synchronous switching regulators which achieve high efficiency conversion from 10mA to 10A.

### AN55 Techniques for 92% Efficient LCD Illumination

This publication details several LCD backlight circuits which feature 92% efficiency. Other benefits include low voltage operation, synchronizing capability, higher output power for color displays, and extended dimming range. Extensive coverage of practical issues includes layout problems, multi-lamp displays, safety and reliability concerns and efficiency and photometric measurements. Also included is a review of circuits which did not work along with appropriate commentary.



**AN58 5V to 3.3V Converters for Microprocessor Systems**  
Many popular microprocessors operate from 3.3V supplies, yet they are used in systems where the predominate source of power is 5V. AN58 presents a collection of both linear and switching regulator solutions for conversion of 5V to 3.3V at currents ranging from 100mA to 20A. Applications information and a comparison of various bypass capacitor types is included. Most of the designs can be easily modified for other intermediate voltages such as 3.45V, 3.7V, and 4.1V.

**AN59 Applications of the LT1300 and LT1301 Micropower DC/DC Converters**  
This note covers operation and applications of the LT1300 and LT1301 high efficiency micropower step-up DC/DC converter ICs. Internal operation of the ICs is described in detail. A variety of applications are presented, ranging from straightforward 2-cell to 5V converters and 5V to 12V converters to exotic transducer-based circuits such as flame detectors and CCFL drivers. Converters from both 2-cell and 4-cell inputs are included. Operating hours at various load currents are presented and relative merits of different battery types are discussed.

**AN60 PCMCIA Card and Card Socket Power Management**  
Most portable systems have expansion sockets conforming to the standards set by the Personal Computer Memory Card International Association (PCMCIA). This standard requires the host to perform an unusual amount of switching on both the  $V_{CC}$  and  $V_{P-P}$  voltage lines. Card designers face difficult power management and DC/DC conversion issues of their own. Board real estate and component height are at a premium making design difficult and component selection critical. This application note discusses in detail both the host and card designer issues and highlights several new products designed specifically for these applications.

**AN61 Practical Circuitry for Measurement and Control Problems**  
This collection of circuits was worked out between June 1991 and July of 1994. Most were designed at customer request or are derivatives of such efforts. Types of circuits include power converters, transducer signal conditioners, amplifiers and signal generators. Specific circuits include low noise amplifiers, high power single cell DC/DC converters, portable high accuracy barometers, a 10mHz 1% accuracy RMS/DC converter, and random noise generators. Appended sections cover noise theory and present a historical perspective of wideband amplifiers.

**AN63 Power Supply Modules for the P54C-VR Pentium® Microprocessor**  
This application note describes the design of both linear and switching regulators which provide power for 90MHz Pentium® processors. The circuits are intended to comply with Intel's modular power supply specification and provide sufficient power for cache RAM and chip sets in addition to the CPU. They are also capable of providing the additional power required by an upgrade "overdrive" processor.

**AN64 Using the LTC1325 Battery Management IC**  
Application Note 64 details characteristics of various battery types and appropriate charging management schemes. The LTC1325 battery management IC is highlighted along with information for applying it to any type battery. Techniques and circuitry for conditioning, charging and monitoring NiCd, NiMH, Li-Ion and Lead-Acid batteries are presented.

**AN65 A Fourth Generation of LCD Backlight Technology**  
This publication, LTC's fourth effort devoted to LCD backlighting in as many years, treats the subject comprehensively. The text considers lamps, display and layout induced losses, circuitry, efficiency related issues, optimization and measurement techniques. Twelve appended sections cover lamp types, mechanical design, electrical and photometric measurement, layout, circuitry and related topics.

**AN66 Linear Technology Magazine Circuit Collection, Volume II**  
Application Note 66 is a compendium of "power circuits" from the first five years of *Linear Technology*. This application note contains circuits that can power most any system you can imagine, from desktop computer systems to micropower systems for portable and handheld equipment. Also included here are circuits that provide 300W or more of power factor corrected DC from a universal input. Battery chargers are included, some that charge several battery types, some that are optimized to charge a single type. MOSFET drivers, high side switches and H-bridge driver circuits are also included, as is an article on simple thermal analysis.

**AN68 LT1510 Design Manual**  
This application note is a comprehensive look at battery charger design using the LT1510. The LT1510 is a complete battery charger, incorporating a switching regulator with an integrated switch. It allows complete battery charger circuits to be built with efficiencies in the 90% range. This app note gives comprehensive information on the operation of the LT1510, component selection for all types of chargers and many important hints and tips for incorporating the LT1510 into a system. Also included is a section on battery types and how to charge and terminate charge for each type of battery (NiMH, NiCd, Li-Ion and Lead Acid).

**AN69 LT1575 UltraFast Linear Controller Makes Fast Transient Response Power Supplies**  
AN69 describes considerations for linear regulators based on the LT1575 UltraFast™ Linear Regulator controller. The LT1575 drives an external MOSFET pass transistor as an overdrive source follower. This configuration results in an extremely high speed regulation loop which minimizes the need for output capacitors. Target applications are state of the art microprocessor core supplies which exhibit large, high speed load transients while having very tight supply voltage tolerance requirements. The application note shows numerous examples of circuit implementations and offers detailed discussions of design considerations.

**AN70 A Monolithic Switching Regulator with 100 $\mu$ V Output Noise**  
This publication details circuitry and applications considerations for the LT1533 low noise switching regulator. Eleven DC/DC converter circuits are presented, some offering <100 $\mu$ V output noise in a 100MHz bandwidth. Tutorial sections detail low noise DC/DC design, measurement, probing and layout techniques, and magnetics selection.

**AN73 LT1339 Design Manual**  
This application note contains detailed design information to allow the reader to craft switching regulators using the LT1339 high power synchronous DC/DC converter. The note provides expanded pin descriptions for the LT1339 as well as easy-to-use graphical tools for the design of high power synchronous buck and boost converters. The manual includes extensive information on the LT1339 and the external components used with it along with formulas and/or graphics to calculate component values.

**AN75 Circuitry for Signal Conditioning and Power Conversion**  
This publication includes designs for data converters and signal conditioners, transducer circuits, crystal oscillators and power converters. Wideband and micropower circuitry receive special attention. Tutorials on micropower design techniques and parasitic effects of test equipment are included.

**AN76 OPTI-LOOP Architecture Reduces Output Capacitance and Improves Transient Response**  
Loop compensation is an uncomfortable subject for many engineers. Experienced power supply designers know that optimum loop compensation is necessary to get the best performance from their power supplies. This application note discusses power supply loop compensation utilizing the features provided by the OPTI-LOOP™ architecture. Loop compensation basics are presented and simple equations are given for frequency response approximations. Typical transient response requirements for the system supply and CPU supply, used in notebook computers, are discussed. Output voltage transient response waveforms and Bode plots are shown for both optimized and nonoptimized control loops as well as for circuits with optimized loops using different output capacitors. Although this publication focuses on circuits using the LTC1628, LTC1735 and LTC1736, the information applies to all regulators equipped with OPTI-LOOP architecture.

**AN77 High Efficiency, High Density, PolyPhase Converters for High Current Applications**  
This application note addresses the following questions. How much do I gain by using a PolyPhase™ architecture? How many phases do I need for my application? How do I design a PolyPhase converter? The design example of an LTC1629-based, 6-phase 90A power converter is presented. The mathematical equations and graphical curves for calculating the ripple currents are included.

**AN81 Ultracompact LCD Backlight Inverters**  
It has become desirable to fashion laptop computers with large area screens, leaving little room for the display's backlight inverter electronics. Miniaturization limitations of high voltage magnetic transformers impose limits on achievable space reduction. Another voltage step-up technology, piezoelectric transformers, permits the desired size reduction and provides additional benefits. This publication describes practical piezoceramic transformers and support circuitry. Ancillary benefits of the piezoelectric approach are also described. Appended sections detail transformer operation and feedback loop considerations.



**AN83 Performance Verification of Low Noise, Low Dropout Regulators**

In an increasing trend, telecommunications, networking, audio and instrumentation require low noise power supplies. In particular, there is interest in low noise, low dropout linear regulators (LDO). Establishing and specifying LDO dropout performance is relatively easy to do. Verifying that a regulator meets dropout specification is similarly straightforward. Accomplishing the same missions for noise and noise testing is considerably more involved. The noise bandwidth of interest must be called out, along with operating conditions. Low noise performance is effected by numerous subtleties; changes in operating conditions can cause unwelcome surprises. Because of this, LDO noise must be quoted under specified operating and bandwidth conditions to be meaningful. Failure to observe this precaution results in misleading data and erroneous conclusions. This Application Note suggests a noise testing method, details its implementation and presents results.

**AN84 Linear Technology Magazine Circuit Collection, Volume IV**

Application Note 84 is a collection of “power circuits” from the years 1996 through 1998 as seen in the pages of *Linear Technology* magazine. This Application Note collects circuits that can output tens of amps to circuits that can operate a handheld device for several years. In addition to a wide variety of traditional power supply circuits (Buck, Boost, Inverting, Flyback, Linear Regulators, etc.) we include circuits for charging batteries, several Power Management circuits as well as circuits that highlight a very low noise switching regulator.

**AN85 Low Noise Varactor Biasing with Switching Regulators**

Telecommunication, satellite links and set-top boxes all require tuning a high frequency oscillation. The actual tuning element, a varactor diode, requires high voltage bias for operation. The high voltage bias must be free of noise to prevent unwanted oscillator outputs. This publication details a method for generating noise-free high voltage from low voltage inputs using switching regulators. Spurious oscillator outputs are below -90dBc. Suggested circuit and layout information is included. Appendices cover varactor diode theory and performance verification techniques.

**AN88 Ceramic Input Capacitors Can Cause Overvoltage Transients**

When it comes to input filtering, ceramic capacitors are a great choice. They offer high ripple current rating and low ESR and ESL. Also, ceramic capacitors are not very sensitive to over voltage and can be used without derating the operating voltage. However, designers must be aware of a potential overvoltage condition that is generated when input voltage is applied abruptly. After applying an input voltage step, typical input filter circuits with ceramic capacitors can generate voltage transients twice as high as the input voltage. Application Note 88 describes how to efficiently use ceramic capacitors for input filters and how to avoid potential problems due to input voltage transients.

**AN89 A Thermoelectric Cooler Temperature Controller for Fiber Optic Lasers**

This application note presents circuitry for maintaining 0.01°C temperature control of fiber optic lasers over wide ambient range variations. The circuitry also features high efficiency power delivery, compact size and low noise. Detailed descriptions of circuitry and results are given with special emphasis on thermal loop optimization. An appended section covers practical considerations for thermoelectric cooler-based control loops.

**AN90 Current Sources for Fiber Optic Lasers**

A large group of fiber optic lasers are powered by DC current. Laser drive is supplied by a current source with modulation added to the signal. The current source, although conceptually simple, constitutes an extraordinarily tricky design problem. There are a number of practical requirements for a fiber optic current source and failure to consider them can cause laser and/or optical component destruction. This application note describes ten laser current source circuits with a range of capabilities. High and low current types are presented, along with designs for grounded anode, cathode or floating operation. Each circuit also includes laser protection features. Appended sections cover laser load simulation and current source noise measurement techniques.

**AN92 Bias Voltage and Current Sense Circuits for Avalanche Photodiodes**

Avalanche photodiodes, used in laser based fiberoptic systems, require high voltage bias and accurate, wide range current monitoring. Bias voltage varies from 15V–90V and current ranges from 100nA to 1mA, a 10,000:1 dynamic range. This publication presents various 5 volt powered circuits which meet these requirements. Appended sections detail specific circuit techniques and cover measurement practice.

**AN95 Simple Circuitry for Cellular Telephone/Camera Flash Illumination**

This publication concerns implementation of high quality “Flash” illumination in cellular telephones/cameras. Performance vs LED based illumination is discussed and flashlamp operation reviewed. Considerations for support circuitry are given, and a practical circuit, accompanied by performance data, is described. Layout and RFI issues are treated and a sample layout provided. An appended section details operation of the LT3468 flash capacitor charger used in the text’s circuit and lists appropriate magnetic components.

**AN98 Signal Sources, Conditioners and Power Circuitry**

Eighteen circuits are presented in this compilation. Signal sources include a voltage controlled current source, an amplitude/frequency stabilized sine wave oscillator, a versatile, 0V to 50V wideband level shift and four sub-nanosecond pulse generators with risetimes as low as 20ps. Five signal conditioners appear; a unique, single positive rail powered amplifier with output to (and below) zero volts, a milliohmeter, a 0.02% accurate instrumentation amplifier with 120dB CMRR at 125V<sub>CM</sub>, a 100MHz switch with 5mV control channel feedthrough and a 5V powered, 15ppm linearity quartz stabilized V→F converter. The power circuits section features a Xenon flashlamp supply, two 5V powered, 0V to 300V DC/DC converters, a fixed 200V output circuit for APD bias, a 100W 0V to 500V, 28V powered converter and a high current paralleling scheme for linear regulators. Two appended sections consider measurement technique and connection practice in sub-nanosecond circuits.

**AN100 Recommended Land Pad Design, Assembly and Rework Guidelines for DC/DC  $\mu$ Module in LGA Package**

AN100 describes the best practice approach for the use of the LTC  $\mu$ Module. Emphasis is placed on getting the best results in the customer application. AN100 is a general guideline with 5 areas of interest—manufacturing considerations, PCB design guidelines, screen printing processes, package to board assembly, and rework. Each area contains details to improve the workability of the  $\mu$ Module. Specific recommendations are also made to improve stencil design and package reliability.

**AN101 Minimizing Switching Regulator Residue in Linear Regulator Outputs**

Linear regulators are commonly employed to post-regulate switching regulator outputs. Benefits include improved stability, accuracy, transient response and lowered output impedance. Ideally, these performance gains would be accompanied by markedly reduced switching regulator generated ripple and spikes. In practice, all linear regulators encounter some difficulty with ripple and spikes, particularly as frequency rises. This publication explains the causes of linear regulators’ dynamic limitations and presents board level techniques for improving ripple and spike rejection. A hardware based ripple/spike simulator is presented, enabling rapid breadboard testing under various conditions. Three appendices review ferrite beads, inductor based filters and probing practice for wideband, sub-millivolt signals.

**AN103 LTM4600 DC/DC  $\mu$ Module™ Thermal Performance**

This application note provides an extensive guideline for the thermal performance of the LTM4600  $\mu$ Module. The LTM4600 is characterized with and without heatsinking over an extended operating temperature range. De-rating curves are derived with the different heatsinking types, and the equivalent  $\theta_{JA}$  (thermal resistance) is derived. The different  $\theta_{JA}$  parameters are tabulated with reference to the different test conditions.

**AN104 Transient Load Testing for Voltage Regulators**

Semiconductor memory, card readers, microprocessors, disc drives, piezoelectric devices and digitally based systems furnish transient loads that a voltage regulator must service. Ideally, regulator output is invariant during a load transient. In practice, some variation is encountered and becomes problematic if allowable operating voltage tolerances are exceeded. This mandates testing the regulator and its associated support components to verify desired performance under transient loading conditions. Various methods are employable to generate transient loads, allowing observation of regulator response. This application note presents open and closed loop transient load testing circuitry with measured performance taken under various conditions. Practical considerations for a memory supply voltage regulator are reviewed. Four appended sections cover capacitor parasitics and their effects on load transient response, output capacitor selection, probing techniques and a stabilized transient load tester.

**AN107 Extending the Input Voltage Range of PowerPath Circuits for Automotive and Industrial Applications**

The voltage range of Linear Technology's PowerPath circuits can be easily extended with just a few components, thus allowing them to meet the needs of virtually all applications. This application note presents solutions for circuits that must withstand large negative voltages, a reverse adapter input for example, and circuits that must withstand large positive inputs, such as automotive load-dump.

**AN108 LTC3207/LTC3207-1 User's Guide**

The LTC3207/LTC3207-1 is a 600mA LED/Camera driver which illuminates 12 Universal LEDs (ULEDs) and one camera flash LED. The (ULEDs) are considered universal because they may be individually turned on or off, set in general purpose output (GPO) mode, set to blink at a selected on-time and period, or gradate on and off at a selected gradation rate. This device also has an external enable (ENU) pin that may be used to blink, gradate, or turn on/off the LEDs without using the I<sup>2</sup>C bus. This may be useful if the microprocessor is in sleep or standby mode. If used properly, these features may save valuable memory space, programming time, and reduce the I<sup>2</sup>C traffic.

**AN110 LTM4601 DC/DC  $\mu$ Module™ Thermal Performance**

This application note provides an extensive guideline for the thermal performance of the LTM4601  $\mu$ Module. The LTM4601 is characterized with and without heatsinking over an extended operating temperature range. De-rating curves are derived with the different heatsinking types, and the equivalent  $\theta_{JA}$  (thermal resistance) is derived. The different  $\theta_{JA}$  parameters are tabulated with reference to the different test conditions.

**AN111 LTC3219 User's Guide**

The LTC3219 is a 250mA LED driver which illuminates 9 Universal LEDs (ULEDs). The ULEDs are considered universal because they may be individually turned on or off, set in general purpose output (GPO) mode, set to blink at a selected on-time and period, or gradate on and off at a selected gradation rate. This device also has an external enable (ENU) pin that may be used to blink, gradate, or turn on/off the LEDs without using the I<sup>2</sup>C bus. This may be useful if the microprocessor is in sleep or standby mode. If used properly, these features may save valuable memory space, programming time, and reduce I<sup>2</sup>C traffic.

**AN112 Developments in Battery Stack Voltage Measurement**

Automobiles, aircraft, marine vehicles, uninterruptible power supplies and telecom hardware represent areas utilizing series connected battery stacks. These stacks of individual cells may contain many units, reaching potentials of hundreds of volts. In such systems it is often desirable to accurately determine each individual cell's voltage. Obtaining this information in the presence of the high "common mode" voltage generated by the battery stack is more difficult than might be supposed.

**AN113 Power Conversion, Measurement and Pulse Circuits**

This ink marks LTC's eighth circuit collection publication. We are continually surprised, to the point of near mystification, by these circuit amalgams seemingly limitless appeal. Reader requests ascend rapidly upon publication, remaining high for years, even decades. All LTC circuit collections, despite diverse content, share this popularity, although just why remains an open question. Why is it? Perhaps the form; compact, complete, succinct and insular. Perhaps the freedom of selection without commitment, akin to window shopping. Or, perhaps, simply the pleasure of new recruits for the circuit aficionados intellectual palate. Locally based electrosociologists, spinning elegantly contrived theories, offer explanation, but no convincing evidence is at hand. What is certain is that readers are attracted to these compendiums and that calls us to attention. As such, in accordance with our mission to serve customer preferences, this latest collection is presented. Enjoy.

**AN114 Evaluating the Integrity of LGA Package, 2nd Level Interconnect for  $\mu$ Module Family of Products**

A good interconnect solution provides performance and cost benefits, ease of manufacturing, and meets or exceeds industry reliability requirements for any application. When the LGA component interconnect was introduced, board level manufacturers were given the task of incorporating the new component interconnect with their existing process. New interconnects often improve processing, but the acceptance for new interconnects can cause conflicts between the design engineers who need the new capability and manufacturing engineers who must accommodate the new package interconnect with their existing process and equipment. The LGA interconnect offers the designers better thermal and electrical performance and the manufacturing engineers the advantage of using existing equipment and processes, thus reducing both design and manufacturing development cycle times.

**AN115 LTC3220/LTC3220-1 User's Guide**

This application note illustrates how to program and use the unique features of the LTC3220/LTC3220-1 Universal LED (ULED) Driver. These features include individually controlling, gradually turning on and off, or blinking up to 18 LEDs. This device may also be used to provide digital signal(s) to other devices while in shutdown using a strong pull-down general-purpose output (GPO) and an external power source. Current limited GPO mode may also be used to control other devices using the charge pump output (CPO) of the device or an external supply. A programmable shutdown feature allows the device to go into and out of shutdown returning to its pre-shutdown state. These features give the user vast flexibility and control of LEDs and other devices while saving memory space, programming time, I<sup>2</sup>C traffic and even battery power.

**AN117 DC/DC  $\mu$ Module™ Regulator Printed Circuit Board Design Guidelines**

The LTM8020, LTM8021, LTM8022 and LTM8023  $\mu$ Modules are complete easy-to-use encapsulated step-down DC/DC regulators intended to take the pain and aggravation out of implementing a switching power supply onto a system board. With a  $\mu$ Module, you only need an input cap, output cap and one or two resistors to complete the design. As one might imagine, this high level of integration greatly simplifies the task of printed circuit board design, reducing the effort to four categories: component footprint generation, component placement, routing the nets and thermal vias.

**AN118 High Voltage, Low Noise, DC/DC Converters**

Photomultipliers (PMT), avalanche photodiodes (APD), ultrasonic transducers, capacitance microphones, radiation detectors and similar devices require high voltage, low current bias. Additionally, the high voltage must be pristinely free of noise; well under a millivolt is a common requirement with a few hundred microvolts sometimes necessary. Normally, switching regulator configurations cannot achieve this performance level without employing special techniques. One aid to achieving low noise is that load currents rarely exceed 5mA. This freedom permits output filtering methods that are usually impractical.

**AN119A Powering Complex FPGA-Based Systems Using Highly Integrated DC/DC  $\mu$ Module Regulator Systems**

In a recent discussion with a system designer, the requirement for his power supply was to regulate 1.5V and deliver up to 40A of current to a load that consisted of four FPGAs. This is up to 60W of power that must be delivered in a small area with the lowest profile (height) possible to allow a steady flow of air for cooling. The power supply had to be surface mountable and operate at high enough efficiency to minimize heat dissipation. He also demanded the simplest possible solution so his time could be dedicated to the more complex tasks. Aside from precise electrical performance, this solution had to remove the heat generated during DC to DC conversion quickly so that the circuit and the ICs in the vicinity do not overheat. Such a solution requires an innovative design to meet these criteria:

1. Very low profile to allow efficient air flow and to prevent thermal shadow on surrounding ICs
2. High efficiency to minimize heat dissipation
3. Current sharing capability to spread the heat evenly to eliminate hot spots and minimize or eliminate the need for heat sinks
4. Complete DC/DC circuit in a surface mount package that includes the DC/DC controller, MOSFETs, inductor, capacitors and compensation circuitry for a quick and easy solution

**AN119B Powering Complex FPGA-Based Systems Using Highly Integrated DC/DC  $\mu$ Module Regulator Systems**

In part one of this article, we discussed the circuit and electrical performance of a compact and low profile 48A, 1.5V DC/DC regulator solution for a four-FPGA design. The new approach uses four DC/DC  $\mu$ Module™ regulators in parallel to increase output current while sharing the current equally among each device. This solution relies on the accurate current sharing of these  $\mu$ Module regulators to prevent hot spots by dissipating the heat evenly over a compact surface area. Each DC/DC  $\mu$ Module is a complete power supply with onboard inductor, DC/DC controller, MOSFETs, compensation circuitry and input/output bypass capacitors. It occupies only 15mm  $\times$  15mm of board area and has a low profile (height) of only 2.8mm. This low profile allows air to flow smoothly over the entire circuit. Moreover, this solution casts no thermal shadow on its surrounding components, further assisting in optimizing thermal performance of the entire system.

**AN122 Diode Turn-On Time Induced Failures in Switching Regulators**

Most circuit designers are familiar with diode dynamic characteristics such as charge storage, voltage dependent capacitance and reverse recovery time. Less commonly acknowledged and manufacturer specified is diode forward turn-on time. This parameter describes the time required for a diode to turn on and clamp at its forward voltage drop. Historically, this extremely short time, units of nanoseconds, has been so small that user and vendor alike have essentially ignored it. It is rarely discussed and almost never specified. Recently, switching regulator clock rate and transition time have become faster, making diode turn-on time a critical issue.

**Data Conversion Application Notes****AN7 Some Techniques for Direct Digitization of Transducer Outputs**

Analog-to-digital conversion circuits which directly digitize low level transducer outputs, without DC preamplification, are presented. Covered are circuits which operate with thermocouples, strain gauges, humidity sensors, level transducers and other sensors.

**AN15 Circuitry for Single Cell Operation**

1.5V powered circuits for complex linear functions are detailed. Designs include a V/F converter, a 10-bit A/D, sample-and-hold amplifiers, a switching regulator and other circuits. Also included is a section of component considerations for 1.5V powered linear circuits.

**AN17 Consideration for Successive Approximation A/D Converters**

A tutorial on SAR type A/D converters, this note contains detailed information on several 12-bit circuits. Comparator, clocking, and preamplifier designs are discussed. A final circuit gives a 12-bit conversion in 1.8 $\mu$ s. Appended sections explain the basic SAR technique and explore D/A considerations.

**AN26 Interfacing the LTC1090/1/2**

A collection of interface applications between various microprocessors/controllers and the LTC1090 family of data acquisition systems. The note is divided into sections specific to each interface. The following sections are available:

Number	A/D	Microprocessor/ Microcontroller
AN26A	LTC1090	8051
AN26B	LTC1090	68HC05
AN26C	LTC1090	63705
AN26D	LTC1090	COP820
AN26E	LTC1090	TMS7742
AN26F	LTC1090	COP402N
AN26G	LTC1091	8051
AN26H	LTC1091	68HC05
AN26I	LTC1091	COP820
AN26J	LTC1091	TMS7742
AN26K	LTC1091	COP402N
AN26L	LTC1091	HD63705VO
AN26M	LTC1090	TMS320C25
AN26N	LTC1091/92	TMS320C25
AN26O	LTC1090	Z-80
AN26P	LTC1090	HD64180
AN26Q	LTC1091	HD64180
AN26R	LTC1094	TMS320C25

These interface notes demonstrate the ease with which the LTC1090 family can be interfaced to microprocessors/controllers having either parallel or serial ports. A complete hardware and software description of the interface is included.

**AN33 Converting Light to Digits: LTC1099 Half-Flash 8-Bit A/D Converter Digitizes Photodiode Array**

This application note describes a Linear Technology "Half-Flash" A/D converter, the LTC1099, being connected to a 256 element line scan photodiode array. This technology adapts itself to handheld (i.e., low power) bar code readers, as well as high resolution automated machine inspection applications.

**AN34 LTC1099 Enables PC-Based Data Acquisition Board to Operate DC-20kHz**

A complete design for a data acquisition card for the IBM PC is detailed in this application note. Additionally, C language code is provided to allow sampling of data at speed of more than 20kHz. The speed limitation is strictly based on the execution speed of the "C" data acquisition loop. A "Turbo" XT can acquire data at speeds greater than 20kHz. Machines with 80286 and 80386 processors can go faster than 20kHz. The computer that was used as a test bed in this application was an XT running at 4.77MHz and therefore all system timing and acquisition time measurements are based on a 4.77MHz clock speed.

**AN36 Interfacing the LTC1290**

A collection of interface applications between various microprocessors/controllers and the LTC1290 family of data acquisition systems. The note is divided into sections specific to each interface. The following sections are available:

Number	A/D	Microprocessor/ Microcontroller
AN36A	LTC1290	8051
AN36B	LTC1290	MC68HC05
AN36C	LTC1290/LTC1090	TMS370
AN36D	LTC1290	COP820C
AN36E	LTC1290	TMS7742
AN36F	LTC1290	COP402N
AN36O	LTC1290	Z-80
AN36P	LTC1290	HD64180

These interface notes demonstrate the ease with which the LTC1290 can be interfaced to microprocessors/controllers having either parallel or serial ports. A complete hardware and software description of the interface is included.

**AN45 Measurement and Control Circuit Collection**

A variety of measurement and control circuits are included in this application note. Eighteen circuits, including Ultralow noise amplifiers, current sources, transducer signal conditioners, oscillators, data converters and power supplies are presented. The circuits emphasize precision specifications with relatively simple configurations.

**AN52 Linear Technology Magazine Circuit Collection, Vol 1**

This application note consolidates the circuits from the first few years of *Linear Technology* magazine into one publication. Presented in the note are a variety of circuits ranging from a 50W high efficiency (>90%) switching regulator to steep roll-off filter circuits with low distortion to 12-bit differential temperature measurement systems.

**AN62 Data Acquisition Circuit Collection**

This application note presents a wide variety of data acquisition circuits. The detailed circuit schematics cover 8-, 10-, and 12-bit ADC and DAC applications, serial and parallel digital interfaces, battery monitoring, temperature sensing, isolated interfaces, and connections to various popular microprocessors and microcontrollers. An appendix covers suggested voltage references.



**AN67** **Linear Technology Magazine Circuit Collection, Volume III**  
Application Note 67 is a collection of circuits for data conversion, interface and signal processing from the first five years of *Linear Technology*. This application note includes circuits such as fast video multiplexers for high speed video, an ultrasensitive bandpass filter circuit with adjustable gain, and a fully differential, 8-channel, 12-bit A/D system. The categories included in this app note are data conversion, interface, filters, instrumentation, video/op amps and miscellaneous circuits.

**AN71** **The Care and Feeding of High Performance ADCs: Get All the Bits You Paid for**  
This application note describes proper techniques for applying high performance ADCs. It describes the problems designers encounter, how to recognize their symptoms and how to avoid them. Topics include ground planes and grounding, supply and reference bypassing, analog input signal conditioning, sampling clock generation, signal jitter and proper handling of the data outputs. A sample board layout is provided as well as performance curves showing the effects of correct and incorrect application.

**AN74** **Component and Measurement Advances Ensure 16-Bit DAC Settling Time**  
DAC DC specifications are relatively easy to verify. AC specifications require more sophisticated approaches to produce reliable information. In particular, the settling time of the DAC and its output amplifier is extraordinarily difficult to determine to 16-bit resolution. This application note presents methods for 16-bit DAC settling time measurement and compares results. Appendices discuss oscilloscope overdrive, frequency compensation, circuit and optimization techniques, layout, power stages and a historical perspective of precision DACs.

**AN78** **A Collection of Differential to Single-Ended Signal Conditioning Circuits for Use with the LTC2400, a 24-Bit No Latency  $\Delta\Sigma$  ADC in an SO-8**  
This application note describes six low power differential-to-single-ended signal conditioning circuits for the LTC2400 No Latency  $\Delta\Sigma$  24-bit ADC. These circuits offer the customer a number of choices for conditioning differential input signals as low as 5mV to as high as  $\pm 2.5V$ , as well as operation on a single 5V or  $\pm 5V$  supplies. Each circuit description also covers circuit design and implementation techniques that can help preserve the LTC2400's inherently high effective resolution. AN78 concludes with two circuits for digitizing temperature when using an RTD or Type S thermocouple.

**AN80** **How to Use the World's Smallest 24-Bit No Latency Delta-Sigma<sup>™</sup> ADC to its Fullest Potential**  
Linear Technology's LTC2400 is the world's first 24-bit ADC in an SO-8 package. An innovative new delta-sigma architecture has been developed. The result is a small, highly accurate, simple-to-use delta-sigma ADC. This Application Note was created to educate users on several topics associated with delta-sigma converters and to dispel confusion associated with this new one-shot, or No Latency  $\Delta\Sigma$  architecture. The key topics addressed include speed, noise, PGAs line frequency rejection, input current, multiplexing, analog input range and key features differentiating the LTC2400 from other delta-sigma ADCs.

**AN86** **A Standards Lab Grade 20-Bit DAC with 0.1ppm/°C Drift**  
This publication details a true 1ppm D-to-A converter. Total DC error of this processor corrected DAC remains within 1ppm from 18-32°C, including reference drift. DAC error exclusive of reference drift is substantially better. Construction details and performance verification techniques are included, along with a complete software listing.

**AN87** **Linear Technology Magazine Circuit Collection, Volume V**  
Application Note 87 is the fifth in a series that excerpts useful circuits from *Linear Technology* magazine. Data conversion, interface and signal conditioning circuits from issue VI:1 (February 1996) through issue VIII:4 (November 1998) are featured. Like its predecessor, AN67, this Application Note includes circuits for high speed video, interface and hot swap circuits, active RC and switched capacitor filter circuitry and a variety of data conversion and instrumentation circuits. All circuits are conveniently indexed by type.

**AN96** **Delta Sigma ADC Bridge Measurement Techniques**  
AN96 features several applications that demonstrate how to take full advantage of Linear Technology's delta sigma ADCs when interfacing to sensors. In many cases, signal conditioning can be greatly simplified or eliminated completely. This note explains where it is appropriate to use amplifiers and how to optimize amplifier gain. Also included are discussions on measuring effective number of bits (ENOB) and the relationship to instrument performance, frequency response of delta sigma ADCs, and test techniques. C source code for all of the applications is included to aid firmware development.

**AN113** **Power Conversion, Measurement and Pulse Circuits**  
This ink marks LTC's eighth circuit collection publication. We are continually surprised, to the point of near mystification, by these circuit amalgams seemingly limitless appeal. Reader requests ascend rapidly upon publication, remaining high for years, even decades. All LTC circuit collections, despite diverse content, share this popularity, although just why remains an open question. Why is it? Perhaps the form; compact, complete, succinct and insular. Perhaps the freedom of selection without commitment, akin to window shopping. Or, perhaps, simply the pleasure of new recruits for the circuit aficionados intellectual palate. Locally based electrosociologists, spinning elegantly contrived theories, offer explanation, but no convincing evidence is at hand. What is certain is that readers are attracted to these compendiums and that calls us to attention. As such, in accordance with our mission to serve customer preferences, this latest collection is presented. Enjoy.

## Signal Conditioning Application Notes

**AN3** **Applications for a Switched-Capacitor Instrumentation Building Block**  
This application note describes a wide range of useful applications for the LTC1043 dual precision instrumentation switched-capacitor building block. Some of the applications described are ultra high performance instrumentation amplifier, lock-in amplifier, wide range digitally controlled variable gain amplifier, relative humidity sensor signal conditioner, LVDT signal conditioner, charge pump F/V and V/F converters, 12-bit A/D converter and more.

**AN4** **Application for a New Power Buffer**  
The LT1010 150mA power buffer is described in a number of useful applications such as boosted op amp, a feed-forward, wideband DC stabilized buffer, a video line driver amplifier, a fast sample-hold with hold step compensation, an overload protected motor speed controller, and a piezoelectric fan servo.

**AN5** **Thermal Techniques in Measurement and Control Circuitry**  
6 applications utilizing thermally based circuits are detailed. Included are a 50MHz RMS to DC converter, and anemometer, a liquid flowmeter and others. A general discussion of thermodynamic considerations involved in circuitry is also presented.

**AN6** **Applications of New Precision Op Amps**  
Application considerations and circuits for the LT1001 and LT1002 single and dual precision amplifiers are illustrated in a number of circuits, including strain gauge signal conditioners, linearized platinum RTD circuits, an ultra precision dead zone circuit for motor servos and other examples.

**AN9** **Application Considerations and Circuits for a New Chopper-Stabilized Op Amp**  
A discussion of circuit, layout and construction considerations for low level DC circuits includes error analysis of solder, wire and connector junctions. Applications include sub-microvolt instrumentation and isolation amplifiers, stabilized buffers and comparators and precision data converters.

**AN10** **Methods for Measuring Op Amp Settling Time**  
The AN10 begins with a survey of methods for measuring op amp settling time. This commentary develops into circuits for measuring settling time to 0.0005%. Construction details and results are presented. Appended sections cover oscilloscope overload limitations and amplifier frequency compensation.

**AN12** **Circuit Techniques for Clock Sources**  
Circuits for clock sources are presented. Special attention is given to crystal-based designs including TXCOs and VXCOs.

**AN13** **High Speed Comparator Techniques**  
The AN13 is an extensive discussion of the causes and cures of problems in very high speed comparator circuits. A separate applications section presents circuits, including a 0.025% accurate 1Hz to 30MHz V/F converter, a 200ns 0.01% sample-hold and a 10MHz fiber-optic receiver. Five appendices covering related topics complete this note.

- AN14 Designs for High Frequency Voltage-to-Frequency Converters**  
A variety of high performance V/F circuits is presented. Included are a 1Hz to 100MHz design, a quartz-stabilized type and a 0.0007% linear unit. Other circuits feature 1.5V operation, sine wave output and nonlinear transfer functions. A separate section examines the trade-offs and advantages of various approaches to V/F conversion.
- AN15 Circuitry for Single Cell Operation**  
1.5V powered circuits for complex linear functions are detailed. Designs include a V/F converter, a 10-bit A/D, sample-and-hold amplifiers, a switching regulator and other circuits. Also included is a section of component considerations for 1.5V powered linear circuits.
- AN16 Unique IC Buffer Enhances Op Amp Designs, Tames Fast Amplifiers**  
This note describes some of the unique IC design techniques incorporated into a fast, monolithic power buffer, the LT1010. Also, some application ideas are described such as capacitive load driving, boosting fast op amp output current and power supply circuits.
- AN18 Power Gain Stages for Monolithic Amplifiers**  
This note presents output stage circuits which provide power gain for monolithic amplifiers. The circuits feature voltage gain, current gain, or both. Eleven designs are shown, and performance is summarized. A generalized method for frequency compensation appears in a separate section.
- AN20 Applications for a DC Accurate Lowpass Switched-Capacitor Filter**  
Discusses the principles of operation of the LTC1062 and helpful hints for its application. Various application circuits are explained in detail with focus on how to cascade two LTC1062s and how to obtain notches. Noise and distortion performance are fully illustrated.
- AN21 Composite Amplifiers**  
Applications often require an amplifier that has extremely high performance in several areas. For example, high speed and DC precision are often needed. If a single device cannot simultaneously achieve the desired characteristics, a composite amplifier made up of two (or more) devices can be configured to do the job. AN21 shows examples of composite approaches in designs combining speed, precision, low noise and high power.
- AN22 A Monolithic IC for 100MHz RMS/DC Conversion**  
AN22 details the theoretical and application aspects of the LT1088 thermal RMS/DC converter. The basic theory behind thermal RMS/DC conversion is discussed and design details of the LT1088 are presented. Circuitry for RMS/DC converters, wideband input buffers and heater protection is shown.
- AN23 Micropower Circuits for Signal Conditioning**  
Low power operation of electronic apparatus has become increasingly desirable. AN23 describes a variety of low power circuits for transducer signal conditioning. Also included are designs for data converters and switching regulators. Three appended sections discuss guidelines for micropower design, strobed power operation and effects of test equipment on micropower circuits.
- AN24 Unique Applications for the LTC1062 Lowpass Filter**  
Highlights the LTC1062 as a lowpass filter in a phase lock loop. Describes how the loop's bandwidth can be increased and the VCO output jitter reduced when the LTC1062 is the loop filter. Compares it with a passive RC loop filter.  
Also discussed is the use of LTC1062 as simple bandpass and bandstop filter.
- AN27A A Simple Method of Designing Multiple Order All Pole Bandpass Filters by Cascading 2nd Order Sections**  
Presents two methods of designing high quality switched-capacitor bandpass filters. Both methods are intended to vastly simplify the mathematics involved in filter design by using tabular methods. The text assumed no filter design experience but allows high quality filters to be implemented by techniques not presented before in the literature. The designs are implemented by numerous examples using devices from LTC's Switched-Capacitor filter family: LTC1060, LTC1061, and LTC1064. Butterworth and Chebyshev bandpass filters are discussed.
- AN28 Thermocouple Measurement**  
Considerations for thermocouple-based temperature measurement are discussed. A tutorial on temperature sensors summarizes performance of various types, establishing a perspective on thermocouples. Thermocouples are then focused on. Included are sections covering cold-junction compensation, amplifier selection, differential/isolation techniques, protection, and linearization. Complete schematics are given for all circuits. Processor-based linearization is also presented with the necessary software detailed.
- AN38 FilterCAD User's Manual, Version 1.00**  
This note is the manual for FCAD, a computer-aided design program for designing filters with LTC's switched-capacitor filter family. FCAD helps users design good filters with a minimum amount of effort. The experienced filter designer can use the program to achieve better results by providing the ability to play "what if" with the values and configuration of various components.
- AN40 Take the Mystery Out of the Switched-Capacitor Filter: the System Designer's Filter Compendium**  
This note presents guidelines for circuits utilizing LTC's switched-capacitor filters. The discussion focuses on how to optimize filter performance by optimizing the printed wiring board, the power supply, and the output buffering of the filter. Many additional topics are discussed such as how to select the proper filter response for the application and how to characterize a filter's THD for DSP applications.
- AN41 Questions and Answers on the SPICE Macromodel Library**  
This note provides answers to some of the more common questions concerning LTC's Macromodel Library. Topics include hardware and software requirements, model characteristics, and limitations and interpretation of results.
- AN42 Voltage Reference Circuit Collection**  
A wide variety of voltage reference circuits are detailed in this extensive guidebook of circuits. The detailed schematics cover simple and precision approaches at a variety of power levels. Included are 2 and 3 terminal devices in series and shunt modes for positive and negative polarities. Appended sections cover resistor and capacitor selection and trimming techniques.
- AN43 Bridge Circuits**  
Subtitled "Marrying Gain and Balance," this note covers signal conditioning circuits for various types of bridges. Included are transducer bridges, AC bridges, Wien bridge oscillators, Schottky bridges, and others. Special attention is given to amplifier selection criteria. Appended sections cover strain gauge transducers, understanding distortion measurements, and historical perspectives on bridge readout mechanisms and Wien bridge oscillators.
- AN45 Measurement and Control Circuit Collection**  
A variety of measurement and control circuits are included in this application note. Eighteen circuits, including Ultralow noise amplifiers, current sources, transducer signal conditioners, oscillators, data converters and power supplies are presented. The circuits emphasize precision specifications with relatively simple configurations.
- AN47 High Speed Amplifier Techniques**  
This application note, subtitled "A Designer's Companion for Wideband Circuitry," is intended as a reference source for designing with fast amplifiers. Approximately 150 pages and 300 figures cover frequently encountered problems and their possible causes. Circuits include a wide range of amplifiers, filters, oscillators, data converters and signal conditioners. Eleven appended sections discuss related topics including oscilloscopes, probe selection, measurement and equipment considerations, and breadboarding techniques.
- AN48 Using the LTC Op Amp Macromodels**  
LTC's op amp macromodels are described in detail, along with the theory behind each model and complete schematics of each topology. Extended modeling topics are discussed, such as phase/frequency response modifications and asymmetric slew rate for JFET op amp models. LTC's macromodels are optimized for accuracy and fast simulation times. Simulation times can be further reduced by using streamlining techniques found throughout AN48.
- AN50 Interfacing to Microprocessor Based 5V Systems**  
This application note discusses a variety of approaches for interfacing analog signals to 5V powered systems. Synthesizing a "rail-to-rail" op amp and scaling techniques for A/D converters are covered. A voltage-to-frequency converter, applicable where high resolution is required, is also presented.
- AN56 "Better Than Bessel" Linear Phase Filters for Data Communications**  
The pace of the world of digital communications is increasing at a tremendous rate. Each day the engineer is requested to compact more data in the same channel bandwidth with closer channel spacing. This application note discusses some of the requirements and techniques for using the new LTC1064/1164 and LTC1264-7 filters which were designed specifically for digital communications. The terms "channel bandwidth," "eye diagrams" and "linear phase" filtering are discussed without the need for the "engineering speak" which permeates many textbook explanations of the same subjects.



**AN57 Video Circuit Collection**

AN57, the Video Circuit Collection, features a variety of video circuits designed at LTC. The LT1204 70MHz multiplexer is featured in a number of circuits which require excellent video isolation from channel to channel. High speed voltage and current feedback amplifiers are highlighted throughout the section on video processing circuits. There is a section on applying Current Feedback Amplifiers (CFAs) and a number of articles taken from the *Linear Technology* magazine.

**AN61 Practical Circuitry for Measurement and Control Problems**

This collection of circuits was worked out between June 1991 and July of 1994. Most were designed at customer request or are derivatives of such efforts. Types of circuits include power converters, transducer signal conditioners, amplifiers and signal generators. Specific circuits include low noise amplifiers, high power single cell DC/DC converters, portable high accuracy barometers, a 10mHz 1% accuracy RMS/DC converter, and random noise generators. Appended sections cover noise theory and present a historical perspective of wideband amplifiers.

**AN67 Linear Technology Magazine Circuit Collection, Volume III**

Application Note 67 is a collection of circuits for data conversion, interface and signal processing from the first five years of *Linear Technology*. This application note includes circuits such as fast video multiplexers for high speed video, an ultraselective bandpass filter circuit with adjustable gain, and a fully differential, 8-channel, 12-bit A/D system. The categories included in this app note are data conversion, interface, filters, instrumentation, video/op amps and miscellaneous circuits.

**AN72 A Seven Nanosecond Comparator for Single Supply Operation**

AN72 is an extensive discussion of the causes and cures of problems in very high speed comparator circuits. A separate applications section uses the 7ns LT1394 in V-to-F converters, crystal oscillators, clock skew generators, triggers, sampling configurations and a nanosecond pulse stretcher. Appendices cover related topics.

**AN75 Circuitry for Signal Conditioning and Power Conversion**

This publication includes designs for data converters and signal conditioners, transducer circuits, crystal oscillators and power converters. Wideband and micropower circuitry receive special attention. Tutorials on micropower design techniques and parasitic effects of test equipment are included.

**AN79 30 Nanosecond Settling Time Measurement for a Precision Wideband Amplifier**

AN79 modifies methods presented in AN74, permitting verification of 30 nanosecond amplifier settling times to 0.1% resolution. The sampling-based technique used is detailed and results presented. Appendices cover oscilloscope overdrive issues, construction of a subnanosecond rise time pulse generator, amplifier compensation, circuit construction and calibration procedures.

**AN82 Understanding and Applying Voltage References**

Just how do bandgaps and buried Zeners stack up against Weston cells? Did you know your circuit board may induce more drift in a reference than time and temperature? Learn the answers to these and other commonly asked reference questions ranging from burn-in recommendations to  $\Delta V_{BE}$  generation in this Application Note.

**AN87 Linear Technology Magazine Circuit Collection, Volume V**

Application Note 87 is the fifth in a series that excerpts useful circuits from *Linear Technology* magazine. Data conversion, interface and signal conditioning circuits from issue VI:1 (February 1996) through issue VIII:4 (November 1998) are featured. Like its predecessor, AN67, this Application Note includes circuits for high speed video, interface and hot swap circuits, active RC and switched capacitor filter circuitry and a variety of data conversion and instrumentation circuits. All circuits are conveniently indexed by type.

**AN93 Instrumentation Applications for a Monolithic Oscillator**

Instrumentation applications for a monolithic programmable oscillator are presented in this publication. Circuits include platinum and thermistor based thermometers, an isolated thermometer and three relative humidity signal conditioners. Bipolar and FET input chopper stabilized amplifiers with noise below 45nV (0.1Hz to 10Hz) are detailed. Two clock tunable sine wave generators with settable amplitude appear, as well as a tunable notch filter, an interval generator and an A to D converter. The oscillator's performance is contrasted against other approaches and its interval operation discussed.

**AN94 Slew Rate Verification for Wideband Amplifiers**

Wideband amplifiers achieve slew rates beyond 2500V/ $\mu$ s. Verifying slew rates at this speed requires special techniques. In particular, a subnanosecond rise time input step is necessary for accurate slew rate measurement. A pulse generator with a 360 picosecond rise time is shown, and its construction detailed. Slew rate test results using this generator are presented and compared to data taken with slower rise time generators. Appendices cover high speed measurement technique, generator output level shifting and picosecond signal path construction considerations.

**AN98 Signal Sources, Conditioners and Power Circuitry**

Eighteen circuits are presented in this compilation. Signal sources include a voltage controlled current source, an amplitude/frequency stabilized sine wave oscillator, a versatile, 0V to 50V wideband level shift and four sub-nanosecond pulse generators with risetimes as low as 20ps. Five signal conditioners appear; a unique, single positive rail powered amplifier with output to (and below) zero volts, a milliohm meter, a 0.02% accurate instrumentation amplifier with 120dB CMRR at 125V<sub>CM</sub>, a 100MHz switch with 5mV control channel feedthrough and a 5V powered, 15ppm linearity quartz stabilized V $\rightarrow$ F converter. The power circuits section features a Xenon flashlamp supply, two 5V powered, 0V to 300V DC/DC converters, a fixed 200V output circuit for APD bias, a 100W 0V to 500V, 28V powered converter and a high current paralleling scheme for linear regulators. Two appended sections consider measurement technique and connection practice in sub-nanosecond circuits.

**AN105 Current Sense Circuit Collection**

Sensing and/or controlling current flow is a fundamental requirement in many electronics systems, and the techniques to do so are as diverse as the applications themselves. This Application Note compiles solutions to current sensing problems and organizes the solutions by general application type. These circuits have been culled from a variety of Linear Technology documents.

**AN106 Instrumentation Circuitry Using RMS  $\rightarrow$  DC Converters**

It is widely acknowledged that RMS measurement of waveforms furnishes the most accurate amplitude information. Rectify-and-average schemes, usually calibrated to a sine wave, are only accurate for one waveshape. Departures from this waveshape result in pronounced errors. Although accurate, RMS conversion often entails limited bandwidth, restricted range, complexity and difficult to characterize dynamic and static errors. The LTC1966/67/68 RMS converter family addresses these issues, making instrument grade applications practical. A variety of instrumentation oriented applications are presented. Included are basic circuits, a fully isolated AC line monitor, a distortionless AC line voltage regulator, wideband X1000 pre-amplifiers, a quartz crystal RMS current meter, a crystal stabilized AC voltage reference, an RMS amplitude leveled random noise generator and an RMS amplitude level controller. Appended sections cover RMS theory and converter operation, AC measurement and signal handling practice, test equipment recommendations, noise theory and noise diodes.

**AN112 Developments in Battery Stack Voltage Measurement**

Automobiles, aircraft, marine vehicles, uninterruptible power supplies and telecom hardware represent areas utilizing series connected battery stacks. These stacks of individual cells may contain many units, reaching potentials of hundreds of volts. In such systems it is often desirable to accurately determine each individual cell's voltage. Obtaining this information in the presence of the high "common mode" voltage generated by the battery stack is more difficult than might be supposed.

**AN113 Power Conversion, Measurement and Pulse Circuits**

This ink marks LTC's eighth circuit collection publication. We are continually surprised, to the point of near mystification, by these circuit amalgams seemingly limitless appeal. Reader requests ascend rapidly upon publication, remaining high for years, even decades. All LTC circuit collections, despite diverse content, share this popularity, although just why remains an open question. Why is it? Perhaps the form; compact, complete, succinct and insular. Perhaps the freedom of selection without commitment, akin to window shopping. Or, perhaps, simply the pleasure of new recruits for the circuit aficionados intellectual palate. Locally based electrosociologists, spinning elegantly contrived theories, offer explanation, but no convincing evidence is at hand. What is certain is that readers are attracted to these compendiums and that calls us to attention. As such, in accordance with our mission to serve customer preferences, this latest collection is presented. Enjoy.

## Interface Application Notes

- AN67** *Linear Technology Magazine Circuit Collection, Volume III*  
Application Note 67 is a collection of circuits for data conversion, interface and signal processing from the first five years of *Linear Technology*. This application note includes circuits such as fast video multiplexers for high speed video, an ultraselective bandpass filter circuit with adjustable gain, and a fully differential, 8-channel, 12-bit A/D system. The categories included in this app note are data conversion, interface, filters, instrumentation, video/op amps and miscellaneous circuits.
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## High Frequency Application Notes

- AN91** **Low Cost Coupling Methods for RF Power Detectors Replace Directional Couplers**  
AN91 describes an RF feedback coupling method which eliminates the directional coupler. Instead, a 0.4pF  $\pm$ 0.05pF capacitor and 50 $\Omega$  resistor are used to feed RF signal back to the LTC power controller. This method reduces coupling loss variations, cost and lead time.
- AN97** **Accurate Measurement of LT5514 Third Order Intermodulation Products**  
High linearity RF/IF amplifiers achieve output third order intercept point in excess of +40dBm. Verifying such high OIP3 figures with standard test equipment requires special precautions. This application note provides extensive guidelines for settings of the two-tone source and spectrum analyzer. Also included is a method to qualify the measurement setup prior to the amplifier linearity measurement.
- AN99** **LT5528 WCDMA ACPR and AltCPR Measurements**  
ACPR (adjacent channel power ratio) and AltCPR (alternate channel power ratio) are both measures of spectral regrowth. They are important performance metrics for digital communication systems that use, for example, WCDMA (wideband code division multiple access) modulation. This publication highlights key considerations for accurate measurements of these parameters. In particular, highly linear direct I/Q modulators such as the LT5528 require high performance measurement equipment and careful techniques to characterize their spectral regrowth.
- AN102** **Measuring Phase and Delay Errors Accurately in I/Q Modulators**  
A large image rejection can be achieved in an RF transmitter system using an I/Q modulator after performing a phase and gain calibration of the I and Q signals. This is usually done by monitoring the RF output signal and using an optimization algorithm in the baseband processor. However, delay errors in the system prevent a good image rejection to extend over a large bandwidth. This application note helps to characterize the delay errors in the system accurately, using a three-step measurement approach. It can derive the corresponding phase errors for each block in the system and the most dominant delay error source(s) can be identified.
- AN109** **Interfacing RF I/Q Modulators with Popular D/A Converters**  
Linear Technology's High Frequency Product lineup includes a variety of RF I/Q modulators. The purpose of this application note is to illustrate the circuits required to interface these modulators with several popular D/A converters. Such circuits typically are required to maximize the voltage transfer from the DAC to the baseband inputs of the modulator, as well as provide some reconstruction filtering.

Amps, Refs, Filters, Comps	<b>DN1</b> New Data Acquisition Systems Communicate with Microprocessors over Four Wires	<b>DN47</b> Switching Regulator Generates Both Positive and Negative Supply with a Single Inductor	<b>DN89</b> Applications of the LT1366 Rail-to-Rail Amplifier
	<b>DN2</b> Sampling of Signals for Digital Filtering and Gate Measurements	<b>DN48</b> No Design Switching Regulator 5V, 5A Buck (Step-Down) Regulator	<b>DN90</b> High Efficiency Power Sources for Pentium® Processors
	<b>DN3</b> Operational Amplifier Selection Guide for Optimum Noise Performance	<b>DN49</b> No Design Switching Regulator 5V Buck-Boost (Positive-to-Negative) Regulator	<b>DN91</b> 5V to 3.3V Circuit Collection
Power Management	<b>DN4</b> New Developments in RS232 Interfaces	<b>DN50</b> High Frequency Amplifier Evaluation Board	<b>DN92</b> An Adjustable Video Cable Equalizer using the LT1256
	<b>DN5</b> Temperature Measurement Using the LTC1090/91/92 Series of Data Acquisition Systems	<b>DN51</b> Gain Trimming in Instrumentation Amplifier Based Systems	<b>DN93</b> PCMCIA Socket Voltage Switching (Why Your Portable System Needs SafeSlot™ Protection)
	<b>DN6</b> Operational Amplifier Selection Guide for Optimum Noise Performance	<b>DN52</b> DC/DC Converters for Portable Computers	<b>DN94</b> Interfacing to V.35 Networks
Data Conversion	<b>DN7</b> DC Accurate Filter Eases PLL Design	<b>DN53</b> High Performance Frequency Compensation Gives DC-to-DC Converter 75µs Response with High Stability	<b>DN95</b> Capacitor and EMI Considerations for New High Frequency Switching Regulators
	<b>DN8</b> Inductor Selection for LT1070 Switching Regulators	<b>DN54</b> A 4-Cell Ni-Cad Regulator/Charger for Notebook Computers	<b>DN96</b> LTC1451/52/53: 12-Bit Rail-to-Rail Micropower DACs in an SO-8
	<b>DN9</b> Chopper Amplifiers Complement a DC Accurate Lowpass Filter	<b>DN55</b> New Low Cost Differential Input Video Amplifiers Simplify Designs and Improve Performance	<b>DN97</b> Flash Memory VPP Generator Reference Designs
Interface	<b>DN10</b> Electrically Isolating Data Acquisition Systems	<b>DN56</b> 3V Operation of Linear Technology Op Amps	<b>DN98</b> Highly Integrated High Efficiency DC/DC Conversion
	<b>DN11</b> Achieving Microamp Quiescent Current in Switching Regulators	<b>DN57</b> Video Circuits Collection	<b>DN99</b> LT1182 Floating CCFL with Dual Polarity Contrast
	<b>DN12</b> An LT1013 and LT1014 Op Amp SPICE MacroModel	<b>DN58</b> A Simple, Surface Mount Flash Memory V <sub>P-P</sub> Generator	<b>DN100</b> Dual Output Regulator Uses Only One Inductor
High Frequency	<b>DN13</b> Closed-Loop Control with the LTC1090 Series of Data Acquisition Systems	<b>DN59</b> 5V High Current Step-Down Switchers	<b>DN101</b> A Precision Wideband Current Probe for LCD Backlight Measurement
	<b>DN14</b> Extending the Applications of 5V Powered RS232 Transceivers	<b>DN60</b> The LTC1096 and 1097: Micropower, SO-8, 8-Bit A/Ds Sample at 1kHz on 3µA of Supply Current	<b>DN102</b> RS485 Transceivers Reduce Power and EMI
	<b>DN15</b> Noise Calculations in Op Amp Circuits	<b>DN61</b> Peak Detectors Gain in Speed and Performance	<b>DN103</b> New LTC1266 Switching Regulator Provides High Efficiency at 10A Loads
Space, Military, Harsh Envir.	<b>DN16</b> Switched-Capacitor Lowpass Filters for Anti-Aliasing Applications	<b>DN62</b> No Design Offline Power Supply	<b>DN104</b> LTC1410: 1.25Mbps 12-Bit A/D Converter Cuts Power Dissipation and Size
	<b>DN17</b> Programming Pulse Generators for Flash EPROMs	<b>DN63</b> 2 AA Cells Replace 9V Battery, Extend Operating Life	<b>DN105</b> LTC1265: A New, High Efficiency Monolithic Buck Converter
	<b>DN18</b> A Battery-Powered Laptop Computer Power Supply	<b>DN64</b> RS232 Transceivers for Handheld Computers Withstand 10kV ESD	<b>DN106</b> The LTC1392: Temperature and Voltage Measurement in a Single Chip
Reference Material	<b>DN19</b> A Two-Wire Isolated and Powered 10-Bit Data Acquisition System	<b>DN65</b> Send Color Video 1000 Feet Over Low Cost Twisted-Pair	<b>DN107</b> C-Load™ Op Amps Conquer Instabilities
	<b>DN20</b> Hex Level Shift Shrinks Board Space	<b>DN66</b> New 5V and 3V, 12-Bit ADCs Sample at 300kHz on 75mW and 140kHz on 12mW	<b>DN108</b> 250kHz, 1mA I <sub>Q</sub> Constant Frequency Switcher Tames Portable Systems Power
	<b>DN21</b> Floating Input Extends Regulator Capabilities	<b>DN67</b> A 1mV Offset, Clock-Tunable, Monolithic 5-Pole Lowpass Filter	<b>DN109</b> Micropower Buck/Boost Circuits, Part 1: Converting Three Cells to 3.3V
	<b>DN22</b> New 12-Bit Data Acquisition Systems Communicate with Microprocessors over Four Wires	<b>DN68</b> New Synchronous Step-Down Switching Regulators Achieve 95% Efficiency	<b>DN110</b> Micropower Buck/Boost Circuits, Part 2: Converting Four Cells to 5V
	<b>DN23</b> Micropower, Single Supply Applications: (1) A Self-Biased, Buffered Reference (2) Megaohm Input Impedance Difference Amplifier	<b>DN69</b> Low Parts Count DC/DC Converter Circuit with 3.3V and 5V Outputs	<b>DN111</b> LT1510 High Efficiency Lithium-Ion Battery Charger
	<b>DN24</b> Complex Data Acquisition System Uses Few Components	<b>DN70</b> A Broadband Random Noise Generator	<b>DN112</b> LTC1390: A Versatile 8-Channel Multiplexer
	<b>DN25</b> A Single Amplifier, Precision High Voltage Instrument Amp	<b>DN71</b> Regulator Circuit Generates Both 3.3V and 5V Outputs from 3.3V or 5V to Run Computers and RS232	<b>DN113</b> Big Power for Big Processors: The LTC1430 Synchronous Regulator
	<b>DN26</b> Auto-Zeroing A/D Offset Voltage	<b>DN72</b> Single LTC1149 Delivers 3.3V and 5V at 17W	<b>DN114</b> The LTC1267 Dual Switching Regulator Controller Operates from High Input Voltages
	<b>DN27</b> Design Considerations for RS232 Interfaces	<b>DN73</b> A Simple High Efficiency, Step-Down Switching Regulator	<b>DN115</b> Create a Virtual Ground with the LT1118-2.5 Sink/Source Voltage Regulator
	<b>DN28</b> A SPICE Op Amp Macromodel for the LT1012	<b>DN74</b> Techniques for Deriving 3.3V from 5V Supplies	<b>DN116</b> Micropower 12-Bit ADCs Shrink Board Space
	<b>DN29</b> A Single Supply RS232 Interface for Bipolar A/D Converters	<b>DN75</b> RS232 Interface Circuits for 3.3V Systems	<b>DN117</b> 70mΩ Protected Load Management Switch
	<b>DN30</b> RS232 Transceiver with Automatic Power Shutdown Control	<b>DN76</b> PC Card Power Management Techniques	<b>DN118</b> IR LocalTalk Link has Superior Range and Ambient Rejection
	<b>DN31</b> Isolated Power Supplies for Local Area Networks	<b>DN77</b> Single LTC1149 Provides 3.3V and 5V in Surface Mount	<b>DN119</b> LT1580 Fast Response Low Dropout Regulator Achieves 0.4 Dropout at 4 Amps
	<b>DN32</b> A Simple Ultralow Dropout Regulator	<b>DN78</b> Triple Output 3.3V, 5V, and 12V High Efficiency Notebook Power Supply	<b>DN120</b> The LT1304: Micropower DC/DC Converter with Independent Low Battery Detector
	<b>DN33</b> Powering 3.3V Digital Systems	<b>DN79</b> Single 4-Input IC Gives Over 90dB Crosstalk Rejection at 10MHz and is Expandable	<b>DN121</b> New Micropower, Low Dropout Regulators Ease Battery Supply Designs
	<b>DN34</b> Active Termination for SCSI-2 Bus	<b>DN80</b> ESD Testing for RS232 Interface Circuits	<b>DN122</b> Dual Regulators Power Pentium® Processor or Upgrade CPU
	<b>DN35</b> 12-Bit 8-Channel Data Acquisition System Interface to IBM PC Serial Port	<b>DN81</b> 4 × 4 Video Crosspoint has 100MHz Bandwidth and 85dB Rejection at 10MHz	<b>DN123</b> Ultralow Power Comparators Include Reference
	<b>DN36</b> Ultralow Noise Op Amp Combines Chopper and Bipolar Op Amps	<b>DN82</b> 5V to 3.3V Regulator with Fail-Safe Switchover	<b>DN124</b> Fused Lead Battery Charger ICs Need No Heat Sinks
	<b>DN37</b> High Dynamic Range Bandpass Filters for Communication	<b>DN83</b> C-Load™ Op Amps Tame Instabilities	<b>DN125</b> Monolithic DC/DC Converters Break Speed Limits to Shrink Board Space
	<b>DN38</b> Applications for a New Micropower, Low Charge Injection Analog Switch	<b>DN84</b> Source Resistance Induced Distortion in Op Amps	<b>DN126</b> The LT1166: Power Output Stage Automatic Bias System Control IC
	<b>DN39</b> Low Power CMOS RS485 Transceiver	<b>DN85</b> Interfacing to Apple LocalTalk® Networks	<b>DN127</b> 3V and 5V 12-Bit Rail-to-Rail Micropower DACs Combine Flexibility and Performance
	<b>DN40</b> Designing with a New Family of Instrumentation Amplifiers	<b>DN86</b> Ultralow Power, High Efficiency DC/DC Converter Operates Outside the Audio Band	<b>DN128</b> LT1307 Single-Cell Micropower Fixed-Frequency DC/DC Converter Needs No Electrolytic Capacitors
	<b>DN41</b> Switching Regulator Allows Alkalines to Replace NiCads	<b>DN87</b> Fast Regulator Paces High Performance Processors	<b>DN129</b> Precision Receiver Delay Improves Data Transmission
	<b>DN42</b> Chopper vs Bipolar Op Amps – An Unbiased Comparison	<b>DN88</b> New 500ksp/s and 600ksp/s ADCs Match Needs of High Speed Applications	<b>DN130</b> Power Supplies for Subscriber Line Interface Circuits
	<b>DN43</b> LT1056 Improved JFET Op Amp Macromodel Slews Asymmetrically		<b>DN131</b> The LTC1446/LTC1446L: World's First Dual 12-Bit DACs in SO-8
	<b>DN44</b> A Single Ultralow Dropout Regulator		
	<b>DN45</b> Signal Conditioning for Platinum Temperature Transducers		
	<b>DN46</b> Current Feedback Amplifier “Do’s and Don’ts”		



<b>DN132</b>	Fast Current Feedback Amplifiers Tame Low Impedance Loads	<b>DN172</b>	High Efficiency Linear and Switching Solutions for Splitting a Digital Supply	<b>DN211</b>	Low Cost, High Efficiency 30A Low Profile PolyPhase Converter
<b>DN133</b>	Low Input Voltage CCFL Power Supply	<b>DN173</b>	New 16-Bit SO-8 DAC Has 1LSB (Max) INL and DNL Over Industrial Temperature Range	<b>DN212</b>	LT1777 High Voltage, Low Noise Buck Switching Regulator
<b>DN134</b>	Telephone Ring-Tone Generation	<b>DN174</b>	10Mbps Multiple Protocol Serial Chip Set: Net1 and Net2 Compliance by Design	<b>DN213</b>	LT1399/LT1399HV Triple 300MHz Current Feedback Amplifiers Drive Component Video and LCD Displays
<b>DN135</b>	Efficient Processor Power System Needs no Heat Sink	<b>DN175</b>	Off-Line Power Supply Does Not Require Filtering to Meet FCC Emission Requirements	<b>DN214</b>	Selecting Op Amps for Precision 16-Bit DACs
<b>DN136</b>	LT1462/LT1463/LT1464/LT1465: Micropower Dual and Quad JFET Op Amps Feature pA Input Bias Currents and C-Load Drive Capability	<b>DN176</b>	LTC1387: 5V RS232/RS485 Multiprotocol Transceiver	<b>DN215</b>	Low Cost Surface Mount DC/DC Converter Delivers 100A
<b>DN137</b>	New Comparators Feature Micropower Operation Under All Conditions	<b>DN177</b>	16-Bit, 333kps ADC Achieves 90dB SINAD, -100dB THD and No Missing Codes	<b>DN216</b>	PolyPhase Surface Mount Power Supply Meets AMD Athlon™ Processor Requirements with no Heat Sink
<b>DN138</b>	Micropower ADC and DAC in SO-8 Give PCs a 12-Bit Analog Interface	<b>DN178</b>	LT1534 Ultralow Noise Switching Regulator Controls EMI	<b>DN217</b>	LTC1645 Dual Channel Hot Swap Controller/Power Sequencer Allows Insertion Into a Live Backplane
<b>DN139</b>	Safe Hot Swapping Using the LTC1421	<b>DN179</b>	Micropower 600kHz Step-Up DC/DC Converter Delivers 5V at 1A from a Li-Ion Cell	<b>DN218</b>	High Current Dual DC/DC Converter Operates from 3.3V Input
<b>DN140</b>	Updated Operational Amplifier Selection Guide for Optimum Noise Performance	<b>DN180</b>	16mW, Serial/Parallel 14-Bit ADC Samples at 200kps	<b>DN219</b>	24-Bit ADC Measures from DC to Daylight
<b>DN141</b>	LTC1436-PLL Low Noise Switching Regulator Helps Control EMI	<b>DN181</b>	A High Efficiency 500kHz, 4.5A Step-Down Converter in an SO-8 Package	<b>DN220</b>	Lowest Noise SOT-23 LDOs have 20µA Quiescent Current, 20µV <sub>RMS</sub> Noise
<b>DN142</b>	Ultralow Quiescent Current DC/DC Converters for Light Load Applications	<b>DN182</b>	The LT1167: Single Resistor Sets the Gain of the Best Instrumentation Amplifier	<b>DN221</b>	SOT-23 Micropower, Rail-to-Rail Op Amps Operate with Inputs Above the Positive Supply
<b>DN143</b>	Single IC, Power Factor Corrected, Off-Line Supply	<b>DN183</b>	The LT1370: A 500kHz, 6A Monolithic Boost Converter	<b>DN222</b>	High Efficiency PolyPhase Converter Uses Two Inputs for Single Output
<b>DN144</b>	LT1511 Low Dropout, Constant-Current/Constant-Voltage 3A Battery Charger	<b>DN184</b>	Micropower MSOP 10-Bit ADC Samples at 500kps	<b>DN223</b>	SOT-23 DC/DC Converters Generate Up to ±35V Outputs and Consume only 20µA of Quiescent Current
<b>DN145</b>	New Voltage References Are Smaller and More Precise	<b>DN185</b>	A Seven Nanosecond Comparator for Single-Supply Operation	<b>DN224</b>	Active Voltage Positioning Reduces Output Capacitors
<b>DN146</b>	LTC1415: 1.25Msps, 12-Bit ADC Conserves Power and Signal Integrity on a Single 5V Supply	<b>DN186</b>	Optimized DC/DC Converter Loop Compensation Minimizes Number of Large Output Capacitors	<b>DN225</b>	Low Cost, High Efficiency 42A DC/DC Converter
<b>DN147</b>	LTC1069-X: A New Family of 8th Order Monolithic Filters in an SO-8 Package	<b>DN187</b>	A New Low Power, High Output Current Dual CFA Makes xDSL Line Driving Clean and Easy	<b>DN226</b>	A 24V/48V Hot Swap™ Controller
<b>DN148</b>	Low Power, Fast Op Amps Have Low Distortion	<b>DN188</b>	Inexpensive Circuit Charges Lithium-Ion Cells	<b>DN227</b>	Sense Milliamps to Kiloamps and Digitize to 12 Bits
<b>DN149</b>	LTC1392 Monitors System Temperature and Multiple Supply Voltages and Currents	<b>DN189</b>	Step-Up/Step-Down DC/DC Conversion without Inductors	<b>DN228</b>	Isolated RS485 Transceiver Breaks Ground Loops
<b>DN150</b>	Single IC, Five Output Switching Power Supply System for Portable Electronics	<b>DN190</b>	Op Amp, Comparator and Reference IC Provides Micropower Monitoring Capability	<b>DN229</b>	Don't be Fooled by Voltage Reference Long-Term Drift and Hysteresis
<b>DN151</b>	The LT1500/LT1501 Low Noise Micropower DC/DC Converters	<b>DN191</b>	The LT1776 Provides Power for the IEEE1394 "Fire Wire"	<b>DN230</b>	Rail-to-Rail Amplifiers Operate on 2.7V with 20µV Offset
<b>DN152</b>	The LT1328: A Low Cost 4Mbps IrDA Receiver in MS8 and SO-8 Packages	<b>DN192</b>	12-Bit 3Msps SAR ADC Solves Pipeline Problems	<b>DN231</b>	Tiny Regulators Drive White LED Backlights
<b>DN153</b>	Micropower 4- and 8-Channel, 12-Bit ADCs Save Power and Space	<b>DN193</b>	SMBus Accelerator Improves Data Integrity	<b>DN232</b>	SOT-23 Switching Regulator with Integrated 1A Switch Delivers High Current Outputs in a Small Footprint
<b>DN154</b>	Short-Circuit Protection for Boost Regulators	<b>DN194</b>	New Charger Topology Maximizes Battery Charging Speed	<b>DN233</b>	Unique High Efficiency 12V Converter Operates with Inputs from 6V to 28V
<b>DN155</b>	Hot Swapping the PCI Bus	<b>DN195</b>	Get 100dB Stopband Attenuation with the LTC1562 Universal Filter Family	<b>DN234</b>	Low Cost PolyPhase DC/DC Converter Delivers High Current
<b>DN156</b>	High Power Synchronous Buck Converter Delivers Up to 50A	<b>DN196</b>	LTC1626: Step-Down Converter Operates from Single Li-Ion Cell	<b>DN235</b>	10µA Quiescent Current Step-Down Regulators Extend Standby Time in Handheld Products
<b>DN157</b>	UltraFast Linear Regulator Eliminates All Bulk Tantalum and Electrolytic Output Capacitors	<b>DN197</b>	Power Solutions for the Device Bay	<b>DN236</b>	1- and 2-Channel No Latency ΔΣ, 24-Bit ADCs Easily Digitize a Variety of Sensors, Part 1
<b>DN158</b>	Isolated DC/DC Conversion with the LT1425	<b>DN198</b>	Optimizing a DC/DC Converter's Output Capacitors with the LTC1435A	<b>DN237</b>	1- and 2-Channel No Latency ΔΣ, 24-Bit ADCs Easily Digitize a Variety of Sensors, Part 2
<b>DN159</b>	New 14-Bit, 800kps ADC Upgrades 12-Bit Systems with 81.5dB SINAD, 95dB SFDR	<b>DN199</b>	LTC1735 Provides Low Cost, Efficient Mobile CPU Power	<b>DN238</b>	SOT-23 SMBus Fan Speed Controller Extends Battery Life and Reduces Noise
<b>DN160</b>	Dual PowerPath™ Controller Simplifies Power Management	<b>DN200</b>	Hot Swapping the CompactPCI Bus	<b>DN239</b>	A Miniature, Low Dropout Battery Charger for Lithium-Ion Batteries
<b>DN161</b>	The "Smart Rock": A Micropower Transponder	<b>DN201</b>	A New, High Efficiency, Monolithic Synchronous Step-Down Regulator Works with Single or Dual Li-Ion Batteries	<b>DN240</b>	ADSL Modems That Use the LT1886 as a Line Driver Yield Long Reach and Fast Data Rates
<b>DN162</b>	LTC1474/LTC1475 High Efficiency Switching Regulators Draw Only 10µA Supply Current	<b>DN202</b>	60V, High Efficiency Buck Switching Regulators in SO-8	<b>DN241</b>	Fast Op Amps Operate Rail-to-Rail on 2.7V
<b>DN163</b>	1µA Op Amp Permits Precision Portable Circuitry	<b>DN203</b>	RS485 Transceivers Sustain ±60V Faults	<b>DN242</b>	Li-Ion Charge Termination IC Interfaces with PWM Switchers
<b>DN164</b>	High Power CCFL Backlight Inverter for Desktop LCD Displays	<b>DN204</b>	UL Isolated Self-Powered Sensing	<b>DN243</b>	New Charge Pumps Offer Low Input and Output Noise
<b>DN165</b>	New 16-Bit, 100kps A/D Converter Runs on 5V Supply	<b>DN205</b>	Tiny RGB Video Multiplexer Switches Pixels at 100MHz	<b>DN244</b>	Simple Li-Ion Charge Termination Using the LT1505
<b>DN166</b>	"LCD Bias" and "Backup Supply" Applications for the LT1316 Micropower DC/DC Converter	<b>DN206</b>	LTC1702/LTC1703 Switching Regulator Controllers Set a New Standard for Transient Response	<b>DN245</b>	Free FilterCAD 3.0 Software Designs Filters Quickly and Easily
<b>DN167</b>	The LTC1590: Applications Versatility of Dual 12-Bit DAC	<b>DN207</b>	LTC2400 High Accuracy Differential to Single-Ended Converter for ±5V Supplies	<b>DN246</b>	3MHz Micropower Synchronous Boost Converters Deliver 3W From Two Cells in a Tiny MSOP Package
<b>DN168</b>	RS485 Transceivers Operate at 52Mbps Over 100 Feet of Unshielded Twisted Pair	<b>DN208</b>	Low Dropout 550kHz DC/DC Controller Operates from Inputs as Low as 2V	<b>DN247</b>	Dual-Phase High Efficiency Mobile CPU Power Supply Minimizes Size and Thermal Stress
<b>DN169</b>	LTC1560-1 Tiny 1MHz Lowpass Filter Uses No Inductors	<b>DN209</b>	2-Step Voltage Regulation Improves Performance and Decreases CPU Temperature in Portable Computers	<b>DN248</b>	Rail-to-Rail I/O and 2.4V Operation Allow Ultrafast Comparators to be Used on Low Voltage Supplies
<b>DN170</b>	Battery Backup Regulator is Glitch-Free and Low Dropout	<b>DN210</b>	2-Phase, Dual Switching Regulator Fits in Tight Places		
<b>DN171</b>	Maximize Dynamic Range with the LT1466L Micropower Rail-to-Rail Op Amp				

Amps, Refs, Filters, Comps	<b>DN249</b> LTC1628-SYNC Minimizes Input Capacitors in Multioutput, High Current Power Supplies	<b>DN284</b> Efficient, Compact 2-Phase Power Supply Delivers 40A to Intel Mobile CPUs	<b>DN317</b> Boost Regulator Makes Low Profile SEPIC with Both Step-Up and Step-Down Capability
	<b>DN250</b> A Very Low Cost SOT-23 Li-Ion Battery Charger Requires Little Area and Few Components	<b>DN285</b> Cost Effective, Low Profile, High Efficiency 42A Supply Powers AMD Hammer Processors	<b>DN318</b> Efficient Dual Polarity Output Converter Fits into Tight Spaces
Power Management	<b>DN251</b> Replace Discrete Lowpass Filters with the LTC1563 Zero Design Effort, Two Item BoM and No Surprises	<b>DN286</b> Fast and Accurate 80MHz Amplifier Draws Only 2mA	<b>DN319</b> Low Voltage Hot Swap Controller Ignores Backplane Noise and Surges
	<b>DN252</b> Current-Limited DC/DC Converter Simplifies USB Power Supplies	<b>DN287</b> High Voltage Buck Regulators Provide High Current, Low Profile Power Solutions for FireWire Peripherals	<b>DN320</b> New ICs Simplify Battery Charging from the USB
Data Conversion	<b>DN253</b> LTC1646: Power Supply Isolation Controller Simplifies Hot Swapping the CompactPCI Bus for 5V-/3.3V-Only Applications	<b>DN288</b> RMS-to-DC Conversion Just Got Easy	<b>DN321</b> Dual Micropower Comparator with Integrated 400mV Reference Simplifies Monitor and Control Functions
	<b>DN254</b> LT1806: 325MHz Low Noise Rail-to-Rail SOT-23 Op Amp Saves Board Space	<b>DN289</b> Single Interface Chip Controls Two Smart Cards	<b>DN322</b> High Current Step-Down Controller Regulates to 0.6V Output from 3V Input
Interface	<b>DN255</b> LT1619: Tiny Boost Controller Provides Efficient Solutions for Low Voltage Inputs	<b>DN290</b> Monitor Network Compliant –48V Power Supplies	<b>DN323</b> New Instrumentation Amplifiers Maximize Output Swing on Low Voltage Supplies
	<b>DN256</b> 1.4MHz Switching Regulator Draws only 10µA Supply Current	<b>DN291</b> Design Low Noise Differential Circuits Using the LT1567 Dual Amplifier Building Block	<b>DN324</b> A Precision Active Filter Block with Repeatable Performance to 10MHz
High Frequency	<b>DN257</b> Resolving Very Small Temperature Differences with the LTC2402	<b>DN292</b> Very Low Dropout (VLDO) Linear Regulators Supply Low Voltage Outputs	<b>DN325</b> High Efficiency ThinSOT White LED Driver Features Internal Switch and Schottky Diode
	<b>DN258</b> High Efficiency I/O Power Generation for Mobile Pentium III Microprocessors	<b>DN293</b> Using the LTC6900 Low Power SOT-23 Oscillator as a VCO	<b>DN326</b> 3-Phase LTC3733 Provides High Performance Power Solutions for AMD Opteron and Athlon 64 Processors
Space, Military, Harsh Envir.	<b>DN259</b> A-to-D Converter Does Frequency Translation	<b>DN294</b> 250ksps, 16-Bit Micropower ADC Offers an Excellent Combination of Size, Power and Speed	<b>DN327</b> Video Signal Distribution using Low Supply Voltage Amplifiers
	<b>DN260</b> Isolated Flyback Converter Regulates without an Optocoupler	<b>DN295</b> High Efficiency Adaptable Power Supply for XENPAK 10Gb/s Ethernet Transceivers	<b>DN328</b> Monolithic Synchronous Regulator Drives 4A Loads with Few External Components
Reference Material	<b>DN261</b> Chip Set Offers Low Cost Alternative to 48V Telecom Modules	<b>DN296</b> LTC1871 No RSENSE Controller is Small and Efficient in Boost, Flyback and SEPIC Applications	<b>DN329</b> Addressable I <sup>2</sup> C Bus Buffer Provides Capacitance Buffering, Live Insertion and Nested Addressing in 2-Wire Bus Systems
	<b>DN262</b> SOT-23 1kHz to 30MHz Oscillator with Single Resistor Frequency Set	<b>DN297</b> 16-Channel, 24-Bit ΔΣ ADC Provides Small, Flexible and Accurate Solutions for Data Acquisition	<b>DN330A</b> High Input Voltage Monolithic Switcher Steps Up and Down Using a Single Inductor
	<b>DN263</b> LTC4300-1 Provides Data and Clock Hot Swapping and Capacitance Buffering in 2-Wire Bus Systems	<b>DN298</b> The LT1970 Power Op Amp Provides On-the-Fly Adjustable Current Limit for Flexibility and Load Protection in High Current Applications	<b>DN331</b> Dual 25µV Micropower Op Amp Fits in 3mm × 3mm Package
	<b>DN264</b> High Power Desktop LCD Backlight Controller Supports Wide Dimming Ratios while Maximizing Lamp Lifetime	<b>DN299</b> Multiple Output Isolated Power Supply Achieves High Efficiency with Secondary Side Synchronous Post Regulator	<b>DN332</b> 4-Phase Monolithic Synchronous Boost Converter Delivers 2.5A with Output Disconnect in a 5mm × 5mm QFN Package
	<b>DN265</b> Hot Swap Circuit Meets InfiniBand Specification	<b>DN300</b> Monolithic Synchronous Step-Down Regulators Pack 600mA Current Rating in a ThinSOT Package	<b>DN333</b> Easy-to-Use Differential Amplifiers Simplify Balanced Signal Designs
	<b>DN266</b> LT1880 SOT-23 Superbeta Op Amp Saves Board Space in Precision Applications	<b>DN301</b> 60V/3A Step-Down DC/DC Converter Maintains High Efficiency Over a Wide Input Range	<b>DN334</b> 2-Phase DC/DC Controller Makes Fast, Efficient and Compact Power Supplies
	<b>DN267</b> High Efficiency White LED Driver Guarantees Matching LED Brightness	<b>DN302</b> Ultraprecise Instrumentation Amplifier Makes Robust Thermocouple Interface	<b>DN335</b> Wideband RF ICs for Power Detection and Control
	<b>DN268</b> Tiny Buck Regulator Accepts Inputs from 3.6V to 25V and Eliminates Heat Sink	<b>DN303</b> Photoflash Capacitor Charger Has Fast Efficient Charging and Low Battery Drain	<b>DN336</b> Advanced Topology USB Battery Charger Optimizes Power Utilization for Faster Charging
	<b>DN269</b> 60V Step-Down DC/DC Converter Maintains High Efficiency	<b>DN304</b> 4MHz Monolithic Synchronous Step-Down Regulators Bring High Efficiency to Space-Sensitive Applications	<b>DN337</b> Multiple Output Range 16-Bit DAC Design Made Simple
	<b>DN270</b> LTC1840: I <sup>2</sup> C Fan Control Ensures Continuous System Cooling	<b>DN305</b> Dual Monolithic Buck Regulator Provides Two 1.4A Outputs with 2-Phase Switching to Reduce EMI	<b>DN338</b> Power over Ethernet Isolated Power Supply Delivers 11.5W at 90% Efficiency
	<b>DN271</b> Tiny Step-Up/Step-Down Power Supply Delivers 3.3V at 1.3A in Battery-Powered Devices	<b>DN306</b> High Performance Op Amps Deliver Precision Waveform Synthesis	<b>DN339</b> An Autoranging True RMS Converter
	<b>DN272</b> Multiple Power Supplies Track During Power Up	<b>DN307</b> Supply 2A Pulses for GSM Transmission From 500mA USB or PCMCIA Ports	<b>DN340</b> DC/DC Converter Drives Lumileds White LEDs From a Variety of Power Sources
	<b>DN273</b> Fiber Optic Communication Systems Benefit from Tiny, Low Noise Avalanche Photodiode Bias Supply	<b>DN308</b> 100MHz Op Amp Features Low Noise Rail-to-Rail Performance While Consuming only 2.5mA	<b>DN341</b> 16-Bit ADC Simplifies Current Measurements
	<b>DN274</b> 12-Bit ADC with Sequencer Simplifies Multiple-Input Applications	<b>DN309</b> 3A, 2MHz Monolithic Synchronous Step-Down Regulator Provides a Compact Solution for DDR Memory Termination	<b>DN342</b> Dual Smart Battery Charger Simplifies Battery Backup for Servers
	<b>DN275</b> Single Inductor, Tiny Buck-Boost Converter Provides 95% Efficiency in Lithium-Ion to 3.3V Applications	<b>DN310</b> New Step-Down Charge Pumps are Tiny, Efficient and Very Low Noise	<b>DN343</b> Video Difference Amplifier Brings Versatility to Low Voltage Applications
	<b>DN276</b> LTC1564: A Digitally Tuned Antialiasing/Reconstruction Filter Simplifies High Performance DSP Design	<b>DN311</b> Dual Output Supply Powers FPGAs from 3.3V and 5V Inputs	<b>DN344</b> Flyback Controller Improves Cross Regulation for Multiple Output Applications
	<b>DN277</b> Dual Battery Power Manager Increases Run Time by 12% and Cuts Charge Time in Half	<b>DN312</b> High Performance 3-Phase Power Supply Delivers 65A and High Efficiency Over the Entire Load Range	<b>DN345</b> Basic Flashlamp Illumination Circuitry for Cellular Telephones/Cameras
	<b>DN278</b> Efficient DC/DC Converter Provides Two 15A Outputs From a 3.3V Backplane	<b>DN313</b> High Frequency Active Antialiasing Filters	<b>DN346</b> PCI Express Power and Mini Card Solutions
	<b>DN279</b> Microprocessor Core Supply Voltage Set by I <sup>2</sup> C™ Bus without VID Lines	<b>DN314</b> 80V Linear Regulator is Micropower	<b>DN347</b> Simple Circuit Replaces and Improves on Power Modules at Less than Half the Price
	<b>DN280</b> Tiny and Efficient Boost Converter Generates 5V at 3A from 3.3V Bus	<b>DN315</b> White LED Driver in Tiny SC70 Package Delivers High Efficiency and Uniform LED Brightness	<b>DN348</b> Precise Gain without External Resistors
	<b>DN281</b> Wide Input Range, High Efficiency DDR Termination Power Supply Achieves Fast Transient Response	<b>DN316</b> Ultralow Noise Switching Power Supplies Simplify EMI Compliance	<b>DN349</b> Quad Output Switching Converter Provides Power for Large TFT LCD Panels
	<b>DN282</b> Reduce Component Count and Improve Efficiency in SLIC and RF Power Supplies		<b>DN350</b> Fully Autonomous IEEE 802.3af Power over Ethernet Midspan PSE Requires No Microcontroller
	<b>DN283</b> Li-Ion Linear Charger Allows Fast, Full Current Charging While Limiting PC Board Temperature to 85°C		<b>DN351</b> Versatile Micropower Voltage Reference Provides Resistor Programmable Output From 0.4V to 18V
			<b>DN352</b> 60V, 3A Step-Down DC/DC Converter Has Low Dropout and 100µA Quiescent Current



<b>DN353</b>	AdvancedTCA Hot Swap Controller Eases Power Distribution	<b>DN393</b>	Handheld High Power Battery Charger	<b>DN431</b>	Highly Integrated Quad 16-Bit, SoftSpan™, Voltage Output DAC for Industrial and Control Applications
<b>DN354</b>	2-Phase Boost Converter Delivers 10W from a 3mm × 3mm DFN Package	<b>DN394</b>	Pass HDMI Compliance Tests with Ease	<b>DN433</b>	A Positive-to-Negative Voltage Converter Can Be Used for Stable Outputs Even with a Widely Varying Input
<b>DN355</b>	Op Amp Selection Guide for Optimum Noise Performance	<b>DN395</b>	Universal Li-Ion Battery Charger Operates from USB and 6V to 36V Input in Just 2cm <sup>2</sup>	<b>DN434</b>	Multiphase DC/DC Controller Pushes Accuracy and Bandwidth Limits
<b>DN356</b>	Dual Monolithic Ideal Diode Manages Multiple Power Inputs	<b>DN396</b>	High Resolution Video Solutions Using Single 5V Power	<b>DN435</b>	Single Resistor Sets Positive or Negative Output for DC/DC Converter
<b>DN357</b>	Tiny, Highly Flexible, Dual Boost/Inverter Tracks Supplies	<b>DN397</b>	AdvancedTCA Hot Swap Controller Monitors Power Distribution	<b>DN436</b>	Tiny Dual Full-Bridge Piezo Motor Driver Operates from Low Input Voltage
<b>DN358</b>	Compact Step-Up Converter Conserves Battery Power	<b>DN399</b>	Low Noise Amplifiers for Small and Large Area Photodiodes	<b>DN437</b>	Hot Swap Solution Meets AMC and MicroTCA Standards
<b>DN359</b>	Dual DC/DC Converter with Integrated Schottkys Generates ±40V Outputs and Consumes only 40µA Quiescent Current	<b>DN400</b>	True Rail-to-Rail, High Input Impedance ADC Simplifies Precision Measurements	<b>DN438</b>	µModule Buck-Boost Regulators Offer a Simple and Efficient Solution for Wide Input and Output Voltage Range Applications
<b>DN360</b>	Protecting and Monitoring Hot Swappable Cards in High Availability Systems	<b>DN401</b>	Power Supply Sequencing Made Simple	<b>DN439</b>	Signal Chain Noise Analysis for RF-to-Digital Receivers
<b>DN361</b>	Simple Battery Circuit Extends Power over Ethernet (PoE) Peak Current	<b>DN402</b>	Electronic Circuit Breaker in Small DFN Package Eliminates Sense Resistor	<b>DN440</b>	Versatile TFT LCD Bias Supply and White LED Driver in a 4mm × 4mm QFN
<b>DN362</b>	Precision LVDT Signal Conditioning using Direct RMS to DC Conversion	<b>DN403</b>	A Compact Dual Step-Down Converter with V <sub>OUT</sub> Tracking and Sequencing	<b>DN441</b>	Compact Triple Step-Down Regulator Offers LDO Driver and Output Tracking and Sequencing
<b>DN363</b>	Replace ORing Diodes with MOSFETs to Reduce Heat and Save Space	<b>DN404</b>	Dual Monolithic Step-Down Switching Regulator Provides 1.6A Outputs with Reduced EMI and V <sub>OUT</sub> as Low as 0.8V	<b>DN442</b>	Compact I <sup>2</sup> C-Controllable Quad Synchronous Step-Down DC/DC Regulator for Power-Conscious Portable Processors
<b>DN364</b>	High Accuracy Synchronous Step-Down Controller Provides Output Tracking and Programmable Margining	<b>DN405</b>	Versatile Current Source Safely and Quickly Charges Everything from Large Capacitors to Batteries	<b>DN443</b>	Step-Down Synchronous Controller Operates from Inputs Down to 2.2V
<b>DN365</b>	ThinSOT Switching Regulator Controls Inrush Current	<b>DN406</b>	Versatile High Power LED Driver Controller Simplifies Design	<b>DN444</b>	Ideal Diodes Protect Against Power Supply Wiring Errors
<b>DN366</b>	Low Distortion, Low Noise Differential Amplifier Drives High Speed ADCs in Demanding Communications Transceivers	<b>DN407</b>	Dual Current-Sense Amplifiers Simplify H-Bridge Load Monitoring	<b>DN445</b>	µModule LED Driver Integrates All Circuitry, Including the Inductor, in a Surface Mount Package
<b>DN367</b>	Tiny Versatile Buck Regulators Operate from 3.6V to 36V Input	<b>DN408</b>	Versatile Voltage Monitors Simplify Detection of Overvoltage and Undervoltage Faults	<b>DN446</b>	Dual 8A DC/DC µModule Regulator is Easily Paralleled for 16A
<b>DN368</b>	“Easy Drive” Delta-Sigma Analog-to-Digital Converters Cancel Input Current Errors	<b>DN409</b>	Triple Output 3-Phase Controller Saves Space and Improves Performance in High Density Power Converters	<b>DN447</b>	A Complete Compact APD Bias Solution for a 10Gbits/s GPON System
<b>DN369</b>	Industry’s First 4-Switch Buck-Boost Controller Achieves Highest Efficiency Using a Single Inductor	<b>DN410</b>	Flyback Controller Simplifies Design of Low Input Voltage DC/DC Converters	<b>DN448</b>	12-Bit DAC in TSOT-23 Includes Bidirectional REF Pin for Connection to Op Amp or External High Precision Reference
<b>DN370</b>	Buck or Boost: Rugged, Fast 60V Synchronous Controller Does Both	<b>DN411</b>	Simple and Compact 4-Output Point-of-Load DC/DC µModule System	<b>DN449</b>	Triple LED Driver in 4mm × 5mm QFN Supports LCD Backlights in Buck, Boost or Buck-Boost Modes and Delivers 3000:1 PWM Dimming Ratio
<b>DN371</b>	High Efficiency 2-Phase Boost Converter Minimizes Input and Output Current Ripple	<b>DN412</b>	36V 2A Buck Regulator Integrates Power Schottky	<b>DN450</b>	Supercapacitors Can Replace a Backup Battery for Power Ride-Through Applications
<b>DN372</b>	Power Supply Tracker Can Also Margin Supplies	<b>DN413</b>	Wide Input Voltage Range Buck-Boost Converter Simplifies Design of Variable Input Supplies	<b>DN451</b>	Current Sense Amp Inputs Work from – 0.3V to 44V Independent of Supply
<b>DN373</b>	ThinSOT Micropower Buck Regulator Has Low Output Ripple	<b>DN414</b>	Micropower Op Amps Work Down to 1.8V Total Supply, Guaranteed over Temperature	<b>DN452</b>	Power Monitor for Automotive and Telecom Applications Includes ADC and I <sup>2</sup> C Interface
<b>DN374</b>	Monitor and Protect Automotive Systems with Integrated Current Sensing	<b>DN415</b>	Switching USB Power Manager with PowerPath Control Offers Fastest Charge Time with Lowest Heat	<b>DN453</b>	4-Phase Boost Converter Delivers 384W with no Heat Sink
<b>DN375</b>	LT5528 WCDMA ACPR and AltCPR Measurements	<b>DN417</b>	Drive Large TFT-LCD Displays with a Space-Saving Triple-Output Regulator	<b>DN454</b>	Single-Ended to Differential Amplifier Design Tips
<b>DN376</b>	Monolithic Converter Drives High Power LEDs	<b>DN418</b>	High Linearity Components Simplify Direct Conversion Receiver Designs	<b>DN455</b>	Low Profile Synchronous, 2-Phase Boost Converter Produces 200W with 98% Efficiency
<b>DN377</b>	Isolated Converters have Buck Simplicity and Performance	<b>DN419</b>	One IC Generates Three Sub-2V Power Rails from a Li-Ion Cell	<b>DN456</b>	Digitize a \$1000 Sensor with a \$1 Analog-to-Digital Converter
<b>DN378</b>	Monolithic Step-Down Regulator Withstands the Rigors of Automotive Environments and Consumes Only 100µA of Quiescent Current	<b>DN420</b>	USB Power Solution Includes Switching Power Manager, Battery Charger, Three Synchronous Buck Regulators and LDO	<b>DN457</b>	Monolithic Synchronous Step-Down Regulator Delivers up to 12A from a Wide Input Voltage Range
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