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(408) 432-1900  
www.linear.com

# Product Selection Guide

- Operational Amplifiers
- Data Converters
- Linear Regulators
- Switching Regulators
- $\mu$ Module DC/DC Converters
- Battery Chargers
- Hot Swap
- Interface
- Filters
- High Frequency
- Silicon Oscillators
- Comparators
- $\mu$ P Supervisor
- References



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
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**NOTES**

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

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and MOSFET Drivers  
PCMCIA Switches  
Bridge Drivers

Trackers and Sequencers  
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Pushbutton Controllers

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

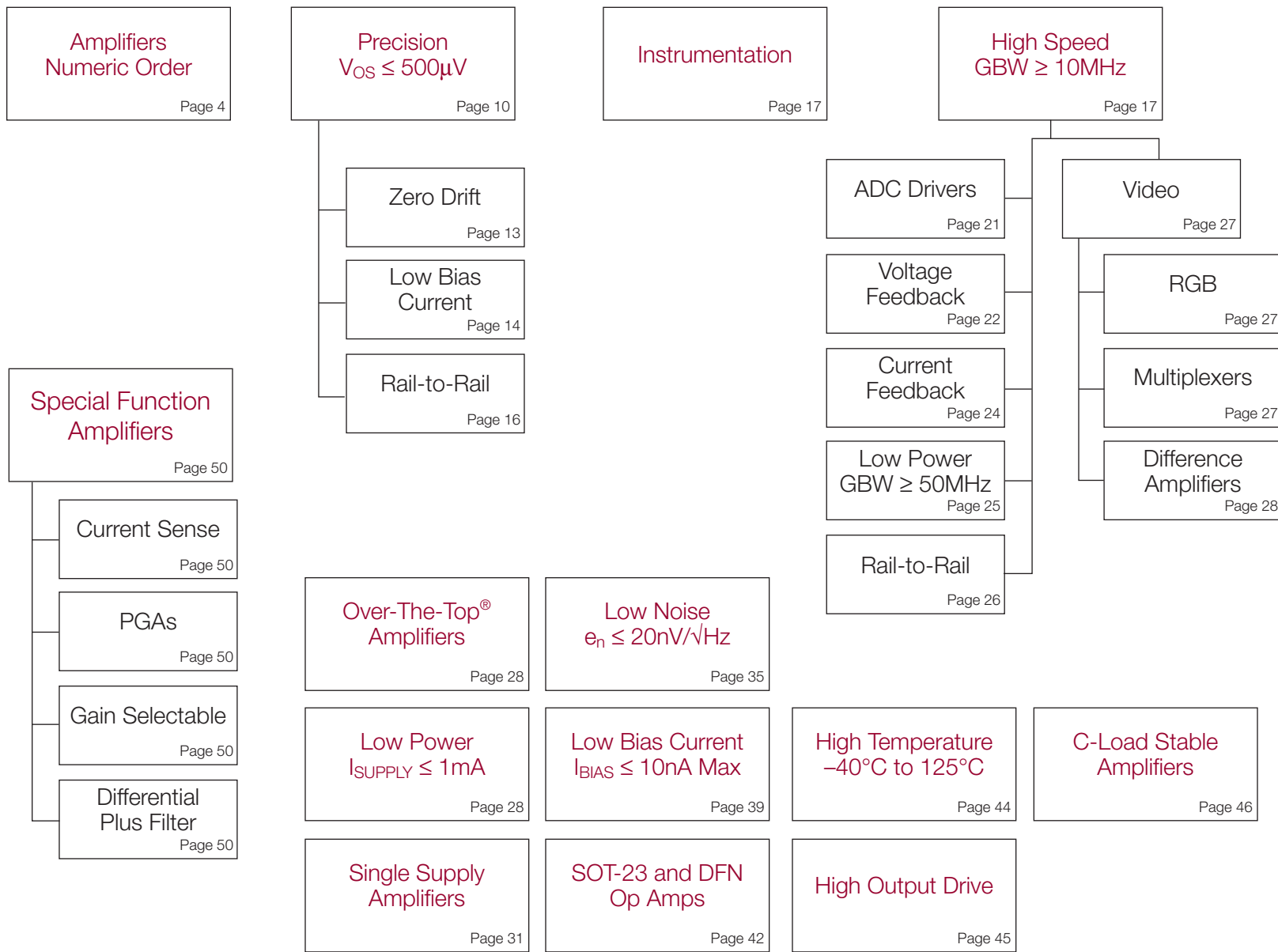
Interface

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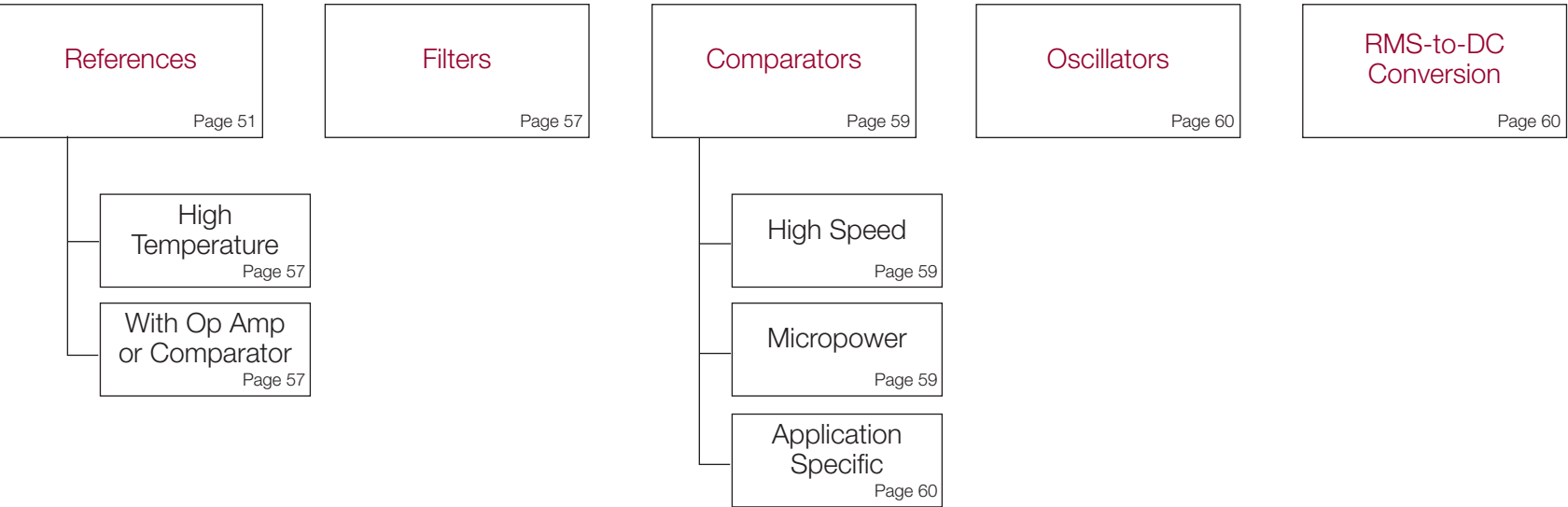
Reference  
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Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# Amplifiers



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



# AMPLIFIERS NUMERIC ORDER

Amps, Refs,  
Filters, Comps  
AMPS, NUMERIC

Power  
Management

Data  
Conversion

Interface

High  
Frequency

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>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> 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		2500	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> 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

AMPS, NUMERIC  
Amps, Refs, Filters, Comps  
Power Management  
Data Conversion  
Interface  
High Frequency  
Reference Material



# AMPLIFIERS NUMERIC ORDER

Amps, Refs,  
Filters, Comps  
AMPS, NUMERIC

Power  
Management

Data  
Conversion

Interface

High  
Frequency

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> 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
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	6	36		DIP-8/SO-8	300	VFB	1	\$2.95
LT1469	2	125	3	40	90	22	760	2000	5	0.6	15	5.2	6	36		DIP-8/SO-8	300	VFB	1	\$4.95
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 Typ	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
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

† 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> 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
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	20	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	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>1.4</b>		<b>40</b>	<b>190</b>	<b>4.75</b>	<b>5.25</b>		<b>5x5 QFN-32</b>		<b>DIFF/PGA</b>	<b>1.6</b>	<b>C.F.</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
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

† Primary Sort Column

Amplifiers, Refs, Filters, Comps  
AMPs, NUMERIC

Power Management

Data Conversion

Interface

High Frequency

Reference Material



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

# AMPLIFIERS NUMERIC ORDER

Amps, Refs,  
Filters, Comps  
AMPS, NUMERIC

Power  
Management

Data  
Conversion

Interface

High  
Frequency

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>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> 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
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	out	DFN-8/MS-8		CSA		\$1.18
LT6105	1	300	0.5 Typ	25000	0.1		5000				1	0.3	2.85	36	in	DFN-6/MS-8		CSA		\$0.99
LT6106	1	250	1 Typ	40	0.2						1	0.095	2.7	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
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

† 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> 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
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						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
<b>LTC6084</b>	<b>2</b>	<b>600</b>		<b>0.001 Typ</b>	<b>1.5</b>	<b>0.5</b>	<b>1000</b>	<b>6000</b>	<b>27</b>	<b>0.0006</b>		<b>0.11 Typ</b>	<b>2.1</b>	<b>5.5</b>	<b>yes</b>	<b>DFN-10/MS-8</b>	<b>200</b>	<b>VFB</b>	<b>1</b>	<b>C.F.</b>
<b>LTC6085</b>	<b>4</b>	<b>600</b>		<b>0.001 Typ</b>	<b>1.5</b>	<b>0.5</b>	<b>1000</b>	<b>6000</b>	<b>27</b>	<b>0.0006</b>		<b>0.11 Typ</b>	<b>2.1</b>	<b>5.5</b>	<b>yes</b>	<b>DFN-16/SSOP-16</b>	<b>200</b>	<b>VFB</b>	<b>1</b>	<b>C.F.</b>
LTC6087	2	750	5	0.001 Typ	14	7.2	800	6000	12	0.0056	1	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	0.0056	1	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
LTC6105	1	300	0.5 Typ	25000	0.1						1	0.30	2.85	36		DFN-6/MS-8		CSA		\$0.99
LTC6106	1	250	1 Typ	40	0.2						1	0.10	2.7	36	no	SOT23-5		CSA		\$0.82
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
LTC6400-20	1	2000	1.2 Typ		1840	4500	2		2.1		20	105	2.85	3.5		QFN-16		DIFF	10	\$3.20
LTC6400-26	1	2000	1 Typ		1900	6670	3		1.5		20	102	2.85	3.5		QFN-16		DIFF	20	\$3.20
LTC6401-8	1	4000	3 Typ		2220	3400	3		3.2		10	60	2.85	3.5		QFN-16		DIFF	2.5	\$2.95
<b>LTC6401-14</b>	<b>1</b>	<b>3000</b>	<b>1.2 Typ</b>		<b>1950</b>	<b>3600</b>	<b>2.8</b>		<b>2.5</b>		<b>10</b>	<b>60</b>	<b>2.85</b>	<b>3.5</b>	<b>no</b>	<b>3×3 QFN-16</b>		<b>DIFF</b>	<b>5</b>	<b>\$2.95</b>

† Primary Sort Column



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

Amplifiers, Filters, Comps  
AMPs, NUMERIC

Power Management

Data Conversion

Interface

High Frequency

Reference Material

# AMPLIFIERS NUMERIC ORDER

Amps, Refs, Filters, Comps  
AMPS NUM / PREC

Power Management

Data Conversion

Interface

High Frequency

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>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> 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
LTC6401-20	1	2000	1.4 Typ		1250	4500	3.2		2.1		10	62	2.85	3.5		QFN-16		DIFF	10	\$2.95
LTC6401-26	1	2500	1 Typ		1610	3300	3.3		1.5		10	60	2.85	3.5		QFN-16		DIFF	20	\$2.95
<b>LTC6403-1</b>	<b>1</b>	<b>1500</b>	<b>1 Typ</b>	<b>25000</b>	<b>200</b>	<b>200</b>	<b>30</b>	<b>32</b>	<b>2.8</b>	<b>1.8</b>	<b>30</b>	<b>11.8</b>	<b>2.7</b>	<b>5.25</b>	<b>out</b>	<b>QFN-16</b>		<b>DIFF</b>	<b>1</b>	<b>\$1.79</b>
LTC6404-1	1	2000	1 Typ		500	450	13	32	1.5	3	40	35.5	2.7	5.25	out	QFN-16		DIFF	1	\$3.44
LTC6404-2	1	2000	1 Typ	-2300	900	700	12	32	1.5	3	40	39	2.7	5.25	out	3×3 QFN-16		DIFF	2	\$3.44
LTC6404-4	1	2000	1 Typ	-2300	1700	1200	11	32	1.5	3	40	39	2.7	5.25	out	3×3 QFN-16		DIFF	4	\$3.44
LTC6406	1	3500	1 Typ		3000	630	11		1.6		38	22	2.7	3.5	in	QFN-16		DIFF	1	\$3.44
LTC6410-6	1	2000	-0.3 Typ		1400	1500			3		38	130	2.8	5.25		QFN-16		DIFF	2	\$2.89
<b>LTC6420-20</b>	<b>2</b>	<b>2000</b>	<b>1.2 Typ</b>		<b>1800</b>	<b>4500</b>			<b>2.2</b>		<b>20</b>	<b>95</b>	<b>2.85</b>	<b>3.5</b>	<b>out</b>	<b>3×4 QFN-20</b>		<b>DIFF</b>	<b>10</b>	<b>\$5.17</b>
<b>LTC6421-20</b>	<b>2</b>	<b>2000</b>	<b>1.4 Typ</b>		<b>1300</b>	<b>4500</b>			<b>2.2</b>		<b>10</b>	<b>50</b>	<b>2.85</b>	<b>3.5</b>	<b>out</b>	<b>3×4 QFN-20</b>		<b>DIFF</b>	<b>10</b>	<b>\$4.77</b>
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

## 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 25°C (dB)	A <sub>VO</sub> L 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> 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	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	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
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/RRO	\$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/RRO/A <sub>v</sub> >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

† Primary Sort Column

†† Secondary Sort Column

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

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 Typ 25°C (V/μs)	$E_{NOISE}$ Typ 25°C (nV/√Hz)	$I_{NOISE}$ Typ 25°C (pA/√Hz)	$I_{SUPPLY}$ 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	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 $V_{IN}$	\$2.90
1	LT1468	75	2	40	96	9000	90	22	5	0.6	5	6	36		DIP-8/SO-8	16-Bit Accuracy/760ns to 0.01% Settling	\$2.95
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	μPower 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/ Bi-Directional 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
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

† Primary Sort Column  
 †† Secondary Sort Column

Amps, Refs, Filters, Comps  
PRECISION OP AMPS

Power Management

Data Conversion

Interface

High Frequency

Reference Material



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

Amps, Refs,  
Filters, Comps  
PRECISION OP AMPS

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

† 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 Typ 25°C (V/μs)	$E_{NOISE}$ Typ 25°C (nV/√Hz)	$I_{NOISE}$ Typ 25°C (pA/√Hz)	$I_{SUPPLY}$ 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
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	0.0001	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	6	36		DIP-8/SO-8	16-Bit Accuracy/760ns to 0.01% Settling	\$4.95
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
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	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

† Primary Sort Column  
†† Secondary Sort Column

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

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 Typ 25°C (V/μs)	$E_{NOISE}$ Typ 25°C (nV/√Hz)	$I_{NOISE}$ Typ 25°C (pA/√Hz)	$I_{SUPPLY}$ 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	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 <sup>-</sup>	\$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 <sup>-</sup>	\$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

ZERO DRIFT 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)	CMRR Min 25°C (dB)	$A_{VOL}$ Typ 25°C (V/mV)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	$E_{NOISE}$ Typ 25°C (nV/√Hz)	$I_{SUPPLY}$ 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	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 <sup>+</sup>	\$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/ $A_V=0$ 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 <sup>+</sup>	\$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/SSOPN-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

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 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>VO</sub> L 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> 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
4	LTC2052HV	3	0.03	0.15	125	10000	3	2		1.5	2.7	12	out	S0-14/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 LOW INPUT BIAS CURRENT OP AMPS (I<sub>BIAS</sub> ≤ 10nA MAX)

† Amplifiers Per Package	Part Number	†† I <sub>BIAS</sub> Max 25°C (nA)	V <sub>OS</sub> Max 25°C (μV)	TC of V <sub>OS</sub> Max (μV/°C)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	CMRR Min 25°C (dB)	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>SUPPLY</sub> 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	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/RRIO/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/RRIO/CMOS	\$1.40
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	LTC2050HV	0.05	3	0.03	3	2	120	10000		0.003	1.5	2.7	12	out	S0-8/SOT23-5/SOT23-6	ZD	Zero-Drift 3V/5V/±5V Operation	\$1.45
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	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	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	LTC2050	0.075	3	0.03	3	2	120	10000		0.003	1.2	2.7	7	out	S0-8/SOT23-5/SOT23-6	ZD	Zero-Drift Op Amp 3V/5V Operation	\$1.15
1	LT6003	0.09	500	5	0.002	0.0008	88	500	325	0.012	0.001	1.6	16	yes	SOT23-5/DFN-4	VFB	1.6V/1μA Precision RRIO	\$0.72
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	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 <sub>OS</sub> Stable with Any C-Load	\$1.60
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	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	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 <sub>V</sub> >5	\$1.10
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	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	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	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	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	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	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	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	LT1996	5	50	1	0.56	0.12	80		18		0.11	2.7	36	yes	MS-10/DFN-10	SGA	Precision/A <sub>V</sub> =9 to 117	\$1.39
1	LT6000	5	750	5	0.05	0.015	90	75	18	0.025	4 Typ	0.016	1.8	yes	DFN-6	VFB	Low Power, 1.8V Precision Op Amp	\$0.80
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 <sub>V</sub> =10 or 100	\$4.75
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	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	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
1	LTC6915	10	10	0.05	0.2	0.2	105		50		1.6	2.7	11	yes	DFN-12/SSOP-16	IA/ZD/PGA	Serial or Par. PGA/A <sub>V</sub> =0 to 4096 V/V	\$2.44
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
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	3.5	1	110	120	13	0.0005	0.425	2.7	5.5	yes	DFN-10/MS-8	VFB	Precision/RRIO/Low Bias Current	\$1.74
2	<b>LTC6084</b>	<b>0.001 Typ</b>	<b>600</b>	<b>5</b>	<b>1.5</b>	<b>0.5</b>	<b>70</b>	<b>6000</b>	<b>27</b>	<b>0.00056</b>	<b>0.11 Typ</b>	<b>2.1</b>	<b>5.5</b>	<b>yes</b>	<b>DFN-10/MS-8</b>	<b>VFB</b>	<b>Precision/1.5MHz/RRIO/Low Bias Current</b>	<b>C.F.</b>
2	LTC6087	0.001 Typ	750	5	14	7.2	70	6000	16	0.00056	1.3	2.7	5.5	yes	MS-8/DFN-10	VFB	Precision/RRIO/Low Bias Current	\$0.91

† Primary Sort Column  
 †† Secondary Sort Column

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





# PRECISION 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 ( $\mu V$ )	TC of $V_{OS}$ Max ( $\mu V/^\circ C$ )	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/ $\mu s$ )	CMRR Min 25°C (dB)	$A_{VOL}$ Typ 25°C (V/mV)	$E_{NOISE}$ Typ 25°C (nV/ $\sqrt{Hz}$ )	$I_{NOISE}$ Typ 25°C (pA/ $\sqrt{Hz}$ )	$I_{SUPPLY}$ 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	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	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	6	out	DFN-8/MS-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	10.5	out	DFN-8/MS-8	VFB	50MHz/Low Noise/RRIO/CMOS	\$2.35
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	LTC6241HV	0.075	125	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	500	325	0.012	0.001	1.6	16	yes	DFN-8/MS-8	VFB	1.6V/1 $\mu A$ 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/ $\pm 5V$ 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 $\pm 5V$ 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	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	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	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	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	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
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
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	3.5	1	110	120	13	0.0005	0.425	2.7	5.5	yes	DFN-16/SSOP-16	VFB	Precision/RRIO/Low Bias Current	\$2.97
4	<b>LTC6085</b>	<b>0.001 Typ</b>	<b>600</b>	<b>5</b>	<b>1.5</b>	<b>0.5</b>	<b>70</b>	<b>6000</b>	<b>27</b>	<b>0.00056</b>	<b>0.11 Typ</b>	<b>2.1</b>	<b>5.5</b>	<b>yes</b>	<b>DFN-16/SSOP-16</b>	<b>VFB</b>	<b>Precision/1.5MHz/RRIO/Low Bias Current</b>	<b>C.F.</b>
4	LTC6088	0.001 Typ	750	5	14	7.2	70	6000	16	0.00056	1.3	2.7	5.5	yes	SSOP-16/DFN-16	VFB	Precision/RRIO/Low Bias Current	\$1.40
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	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	LTC6242	0.075	125	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	125	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	LT6005	0.09	650	5	0.002	0.0008	88	500	325	0.012	0.001	1.6	16	yes	DFN-8/MS-8	VFB	1.6V/1 $\mu A$ Precision RRIO	\$1.10
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/ $\pm 5V$ 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
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	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	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	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

† 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
- C.F. = Contact Factory



Amps, Refs, Filters, Comps  
 Precision Low Bias  
 Power Management  
 Data Conversion  
 High Frequency  
 Reference Material

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> 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
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	DFN-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	<b>LTC6084</b>	<b>600</b>	<b>5</b>	<b>0.001 Typ</b>	<b>1.5</b>	<b>0.5</b>	<b>70</b>	<b>6000</b>	<b>27</b>	<b>0.11 Typ</b>	<b>yes</b>	<b>2.1</b>	<b>5.5</b>	<b>0.05</b>	<b>0.05</b>	<b>DFN-10/MS-8</b>	<b>Precision/1.5MHz/RRIO/Low Bias Current</b>	<b>C.F.</b>
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	RRIO	\$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

† Primary Sort Column  
 †† Secondary Sort Column

## 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> 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
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	<b>LTC6085</b>	<b>600</b>	<b>5</b>	<b>0.001 Typ</b>	<b>1.5</b>	<b>0.5</b>	<b>70</b>	<b>6000</b>	<b>27</b>	<b>0.11 Typ</b>	<b>yes</b>	<b>2.1</b>	<b>5.5</b>	<b>0.05</b>	<b>0.05</b>	<b>DFN-16/SSOP-16</b>	<b>Precision/1.5MHz/RRIO/Low Bias Current</b>	<b>C.F.</b>
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	RRIO	\$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:

- 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
- C.F. = Contact Factory

## 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 (ppm/°C)	CMRR Min 25°C (dB)	TC of V <sub>OS</sub> Max (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> 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	LTC6401-8	2200	3400	3	3.2		4000			10	60		2.85	3.5		3×3 QFN-16		2.5	DIFF	\$2.95
1	<b>LTC6401-14</b>	<b>1950</b>	<b>3600</b>	<b>2.8</b>	<b>2.5</b>		<b>3000</b>			<b>10</b>	<b>60</b>	<b>yes</b>	<b>2.85</b>	<b>3.5</b>		<b>3×3 QFN-16</b>		<b>5</b>	<b>DIFF</b>	<b>\$2.95</b>
1	LTC6400-26	1900	6670	3	1.5		2000			20	102		2.85	3.5		3×3 QFN-16		20	DIFF	\$3.20
1	LTC6400-20	1840	4500	0.8	2.1		2000			20	105	yes	2.85	3.5		3×3 QFN-16		10	DIFF	\$2.95

† Primary Sort Column  
 †† Secondary Sort Column



Amps, Refs, Filters, Comps  
 RRIO, INSTANT, HI SPEED  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

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

**Amps, Refs, Filters, Comps**  
**Power Management**  
**Data Conversion**  
**Interface**  
**High Frequency**  
**Reference Material**

†	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> 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)	Price 1K Qty	
1	1	<b>LTC6404-4</b>	<b>1700</b>	<b>1200</b>	<b>11</b>	<b>1.5</b>	<b>3</b>	<b>2000</b>	<b>-23000</b>	<b>32</b>	<b>40</b>	<b>39</b>	<b>yes</b>	<b>2.7</b>	<b>5.25</b>	<b>out</b>	<b>3×3 QFN-16</b>		<b>4</b>	<b>DIFF</b>	<b>\$3.44</b>
	1	LT6401-26	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	1	<b>LTC6404-2</b>	<b>900</b>	<b>700</b>	<b>12</b>	<b>1.5</b>	<b>3</b>	<b>2000</b>	<b>-23000</b>	<b>32</b>	<b>40</b>	<b>39</b>	<b>yes</b>	<b>2.7</b>	<b>5.25</b>	<b>out</b>	<b>3×3 QFN-16</b>		<b>2</b>	<b>DIFF</b>	<b>\$3.44</b>
	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	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
	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	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	LT1675-1	250	1100				40000	30000		50	14	yes	5.2	12.6		MS-8/SO-8	5	2	VIDEO	\$1.95
	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	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	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	<b>LTC6403-1</b>	<b>200</b>	<b>200</b>	<b>30</b>	<b>2.8</b>	<b>1.8</b>	<b>1500</b>	<b>2500</b>	<b>32</b>	<b>30</b>	<b>11.8</b>	<b>yes</b>	<b>2.7</b>	<b>5.25</b>	<b>out</b>	<b>3×3 QFN-16</b>		<b>1</b>	<b>DIFF</b>	<b>\$1.79</b>
	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	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	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	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	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	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	LT1203	150	300	85			30000	5000	1	4.5	14	yes	9	36		DIP-8/SO-8	100	1	VIDEO	\$1.50
	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	LT1227	140	1100	50	3.2	1.7	10000			30	15	yes	4	36		DIP-8/SO-8	2000	1	CFA	\$2.40
	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	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	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	LT1228	100	500	45	20	1.4	5000	1000		30	15	no	4	36		DIP-8/SO-8	2000	1	CFA	\$3.75
	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	LT1204	95	1000	70	7	1.5	14000			35	24	no	9	36		DIP-16/SOW-16	4000	1	VIDEO	\$4.80
	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	LT1468	90	22	760	5	0.6	75	40	9000	15	5	no	6	36		DIP-8/SO-8	300	1	VFB	\$2.95
	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	LT1193	80	500	180	50	4	12000	3500	17	64	40	yes	4	18		DIP-8/SO-8	30	2	VIDEO	\$2.90
	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	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	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	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	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

† 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>VOL</sub> Typ 25°C (V/mV)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> 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)	Price 1K Qty	
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
1	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	1	LT6600-15	15			19		15000	90000		46	no	2.7	11	ss		SO-8	50	1	DIFF	\$2.95
1	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	1	LTC6910-2	13	16		9.1		15000			9.5	3	no	2.7	11	yes	SOT23-8	50	1	PGA	\$1.10
1	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	1	LTC6910-1	11	16		8.6		15000			9.5	3	no	2.7	11	yes	SOT23-8	50	1	PGA	\$1.10
1	1	LTC6910-3	11	16		10.6		15000			9.5	3	no	2.7	11	yes	SOT23-8	50	1	PGA	\$1.10
1	1	LT6600-10	10			14		13000	85000		39	no	2.7	11	ss		SO-8/DFN-12	50	1	DIFF	\$2.95
1	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	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	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	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	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	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	2	LT6411	650	3300	6	8		10000			50	22	yes	4.5	12.6		QFN-16	12	1	VFB	\$2.39
2	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	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	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	2	LT1398	300	800	25	4.5	6	10000			80	6.5	yes	3	12.6		SO-16	1000	1	CFA	\$2.25
2	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	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	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	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	2	LT6300	200	600		8	0.8	5000	4000	76	500	13.5	yes	8	27		SSOP-16	30	10	VFB	\$2.85
2	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	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	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
2	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	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	2	LT1205	150	300	85			30000	5000	1	4.5	14	yes	9	36		SO-16	100	1	VIDEO	\$2.60
2	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	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	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	2	LT1813HV	100	750	30	8	1	1500	4000	3	40	4	no	2.5	13.5		SO-8	100	1	VFB	\$1.19

† Primary Sort Column  
 †† Secondary Sort Column



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

Amps, Refs, Filters, Comps  
 HIGH SPEED  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

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

Amps, Refs, Filters, Comps  
HIGH SPEED

Power Management

Data Conversion

Interface

High Frequency

Reference Material

†	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> 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	LT6203	100	25	78	1.9	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	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	15	5.2	no	6	36		DIP-8/SO-8	300	1	VFB	\$4.95
2	LT1804	83	100	350	21	2.5	2000	750	60	20	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	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	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	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	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	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	
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	

† 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>VOL</sub> Typ 25°C (V/mV)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> 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	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	
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

# HIGH SPEED 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> 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, Low Distortion ADC 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> =2.5, Low Noise/Low Distortion ADC Driver, 140MHz IF	\$2.95
<b>LTC6401-14</b>	<b>1</b>	<b>1950</b>	<b>3600</b>	<b>2.5</b>	<b>-87/-82@70MHz</b>	<b>2.85</b>	<b>3.5</b>	<b>60</b>	<b>3×3 QFN-16</b>	<b>2GHz Low Noise/Distortion Diff ADC Driver, A<sub>V</sub>≥5</b>	<b>\$2.95</b>
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/Low Distortion ADC Driver, 140MHz IF	\$3.20
LTC6400-20	1	1840	4500	2.1	-73/-83@140MHz	2.85	3.5	105	3×3 QFN-16	A <sub>V</sub> =10, Low Noise, Low Distortion ADC Driver	\$3.20
<b>LTC6404-4</b>	<b>1</b>	<b>1700</b>	<b>1200</b>	<b>1.5</b>	<b>-100/-101@10MHz</b>	<b>2.85</b>	<b>3.5</b>	<b>39</b>	<b>3×3 QFN-16</b>	<b>1.7GHz Low Noise/Distortion Diff ADC Driver, A<sub>V</sub>≥4</b>	<b>\$3.44</b>
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/Low 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>4.75</b>	<b>5.25</b>	<b>190</b>	<b>5×5 QFN-32</b>	<b>Digitally Prog. Gain, 0.125dB per Step</b>	<b>C.F.</b>
<b>LTC6404-2</b>	<b>1</b>	<b>900</b>	<b>700</b>	<b>1.5</b>	<b>-98/-99@10MHz</b>	<b>2.7</b>	<b>5.25</b>	<b>39</b>	<b>3×3 QFN-16</b>	<b>0.9GHz Low Noise/Distortion Diff ADC Driver, A<sub>V</sub>≥2</b>	<b>\$3.44</b>
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	\$5.20
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 Distortion with Digitally Controlled Gain	\$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

† Primary Sort Column  
 †† Secondary Sort Column



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# HIGH SPEED ADC DRIVERS

Part Number	Number of Amplifiers	GBW Typ (MHz)	Slew Rate Typ (V/ $\mu$ s)	e <sub>NOISE</sub> (1MHz) Typ (nV/ $\sqrt$ Hz)	HD2/HD3 Typ (dBc)	V <sub>SUPPLY</sub> Min (V)	V <sub>SUPPLY</sub> Max (V)	I <sub>SUPPLY</sub> Max (mA)	Package	Features	Price 1K Qty
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
<b>LTC6403-1</b>	<b>1</b>	<b>200</b>	<b>200</b>	<b>2.8</b>	<b>-106/-94@3MHz</b>	<b>2.7</b>	<b>5.25</b>	<b>11.8</b>	<b>3×3 QFN-16</b>	<b>Low Noise, Low Power Op Amp/Driver</b>	<b>\$1.79</b>
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
<b>LTC6420-20</b>	<b>2</b>	<b>1800</b>	<b>4500</b>	<b>2.2</b>	<b>-80/-88@100MHz</b>	<b>2.85</b>	<b>3.5</b>	<b>95</b>	<b>3×4 QFN-20</b>	<b>Dual Matched Differential In/Out, A<sub>v</sub>=10</b>	<b>\$5.17</b>
<b>LTC6421-20</b>	<b>2</b>	<b>1300</b>	<b>4500</b>	<b>2.2</b>	<b>-74/-78@100MHz</b>	<b>2.85</b>	<b>3.5</b>	<b>50</b>	<b>3×4 QFN-20</b>	<b>Dual Matched Differential In/Out, A<sub>v</sub>=10</b>	<b>\$4.77</b>

† Primary Sort Column  
†† Secondary Sort Column

# HIGH SPEED VOLTAGE FEEDBACK AMPLIFIERS

Amplifiers Per Package	Part Number	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/ $\mu$ s)	Settle Time to 0.1% Typ 25°C (ns)	e <sub>NOISE</sub> Typ 25°C (nV/ $\sqrt$ Hz)	i <sub>NOISE</sub> Typ 25°C (pA/ $\sqrt$ Hz)	V <sub>OS</sub> Max 25°C ( $\mu$ V)	A <sub>VOL</sub> Typ 25°C (V/mV)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> 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	LTC6406	3000	630	7	1.6		5000	38	22	2.7	3.5	in	QFN-16			3GHz Low Noise, Low Distortion Differential ADC Driver	\$3.44	
1	<b>LTC6401-14</b>	<b>1950</b>	<b>3600</b>	<b>2.8</b>	<b>2.5</b>		<b>3000</b>	<b>10</b>	<b>60</b>	<b>yes</b>	<b>2.85</b>	<b>3.5</b>		<b>3×3 QFN-16</b>		<b>2GHz Low Noise/Distortion Diff ADC Driver/140MHz IF, A<sub>v</sub>=5</b>	<b>TBD</b>	
1	LT6400-20	1840	4500	2	2.2		2000	20	105	2.85	3.5		QFN-16			1.8GHz Low Noise/Low Distortion Differential ADC Driver/300MHz IF, A <sub>v</sub> =10	\$3.20	
1	<b>LTC6404-4</b>	<b>1700</b>	<b>1200</b>	<b>11</b>	<b>1.5</b>	<b>3</b>	<b>2000</b>	<b>32</b>	<b>40</b>	<b>39</b>	<b>yes</b>	<b>2.7</b>	<b>5.25</b>	<b>out</b>	<b>3×3 QFN-16</b>		<b>1.7GHz Low Noise/Distortion Diff ADC Driver/ A<sub>v</sub>≥4</b>	<b>TBD</b>
1	LT6400-26	1700	5550	3	0.9		1000	20	80	2.85	3.5		QFN-16			A <sub>v</sub> =20/Low Noise/Low Distortion Differential ADC Driver/300MHz IF	\$3.20	
1	LT6401-8	1700	4800	3	1.7		1000	10	45	2.85	3.5		QFN-16			A <sub>v</sub> =2.5/Low Noise/Low Distortion Differential ADC Driver/140MHz IF	\$2.95	
1	LT6200-10	1600	450		0.95	2.2	1000	200	60	23	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	Low Noise/RRIO/High Speed/A <sub>v</sub> >10	\$1.50
1	LT6230-10	1450	320		1.1	1	500	260	30	3.75	yes	3	12.6	out	SOT23-6	2000	Ultralow Noise/Low Power/A <sub>v</sub> >10	\$1.50
1	LTC6410-6	1400	1500		3		2000	42	130	yes	2.8	5.25	ss	QFN-16			Low Noise/Differential IF Amp/Configurable Input Impedance, A <sub>v</sub> =2	\$2.89
1	LTC6401-26	1300	4800	3.3	0.9		1000	10	45	2.85	3.5		QFN-16			A <sub>v</sub> =20/Low Noise/Low Distortion Differential ADC Driver/140MHz IF	\$2.95	
1	LTC6401-20	1250	4500	3.2	0.91		2000	10	62	2.85	3.5		QFN-16			1.3GHz Low Noise, Low Distortion Differential ADC Driver/140MHz IF	\$2.95	
1	LT1226	1000	400	100	2.6	1.5	1000	150	24	9	no	5	36		SO-8/DIP-8	1000	Low Noise/High Speed/High Gain	\$2.85
1	<b>LTC6404-2</b>	<b>900</b>	<b>700</b>	<b>12</b>	<b>1.5</b>	<b>3</b>	<b>2000</b>	<b>32</b>	<b>20</b>	<b>39</b>	<b>yes</b>	<b>2.7</b>	<b>5.25</b>		<b>3×3 QFN-16</b>		<b>0.9GHz Low Noise/Distortion Diff ADC Driver/ A<sub>v</sub>≥2</b>	<b>\$3.44</b>
1	LT1993-4	900	1100	4	2.15		6500	40	112	4	5.5		QFN-16		5	20dB Fixed Gain ADC Driver	\$2.95	
1	LT1993-2	800	1100	4	3.5		6500	40	112	4	5.5		QFN-16		5	6dB Fixed Gain ADC Driver	\$2.95	
1	LT6200-5	800	250		0.95	2.2	1000	200	60	23	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	Low Noise/RRIO/High Speed/A <sub>v</sub> >5	\$1.50
1	LT1993-10	700	1100	4	1.7		6500	40	112	4	5.5		QFN-16		5	12dB Fixed Gain ADC Driver	\$2.95	
1	LTC6404-1	500	450	13	1.5	3	2000	32	40	35.5	yes	2.7	5.25	out	QFN-16		500MHz/Low Noise, Differential I/O Amp/Driver	\$3.44
1	LT1222	500	200	75	3	2	300	200	24	10.5	no	5	36		SO-8/DIP-8	1000	Fast Setting Time/High Speed/Gain>10	\$3.40
1	LT1818	400	2500	10	6	1.2	1500	2.5	40	10	no	3.5	12.6		SO-8/SOT23-5	20	High Slew Rate VFB	\$0.95
1	LT6233-10	375	115		1.9	0.43	500	180	40	1.25	yes	3	12.6	out	SOT23-6	1000	Low Noise/Low Power/A <sub>v</sub> >10	\$1.90
1	LT1192	350	450	90	9	4	2500	180	50	38	yes	4	18		DIP-8/SO-8	50	±5V Supply Color Video	\$1.70
1	LT1806	325	125	60	3.5	1.5	550	220	35	13	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	High Speed/Precision/Low Noise	\$2.10
1	LT6402-6	300	400	10	3.8		6500	30	37	yes	4	5.5	ss	QFN-16		5	Low Distortion and Noise Diff. ADC Driver	\$2.39
1	LT6402-12	300	400	10	2.7		6500	30	37	yes	4	5.5	ss	QFN-16		5	Low Distortion and Noise Diff. ADC Driver	\$2.39
1	LT6402-20	300	1000	8	1.85		6500	30	37	yes	4	5.5	ss	QFN-16		5	Low Distortion and Noise Diff. ADC Driver	\$2.39
1	LT1815	220	1500	15	6	1.3	1500	3	50	7.8	no	4	12.6		SO-8/SOT23-5/SOT23-6	10	High SR VFB with Prog. Supply Current	\$0.88
1	<b>LTC6403-1</b>	<b>200</b>	<b>200</b>	<b>30</b>	<b>2.8</b>	<b>1.8</b>	<b>1500</b>	<b>32</b>	<b>30</b>	<b>11.8</b>	<b>yes</b>	<b>2.7</b>	<b>5.25</b>	<b>out</b>	<b>3×3 QFN-16</b>		<b>Low Noise/Low Distortion Differential ADC Driver</b>	<b>\$1.79</b>
1	LT6230	215	70	50	1.1	1	500	260	30	3.75	yes	3	12.6	out	SOT23-6	1000	Ultralow Noise/Low Power/High Speed	\$1.25
1	LT1722	200	70	91	3.8	1.2	400	17	35	4.5	no	4.6	12.6		SO-8/SOT23-5	100	Low Noise at Video Speed/Precision	\$0.88

† Primary Sort Column  
†† Secondary Sort Column



# HIGH SPEED VOLTAGE FEEDBACK AMPLIFIERS

† Amplifiers Per Package	Part Number	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1%				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> 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
				Typ 25°C (ns)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	Typ 25°C (ns)												
1	LT6200	165	50	140	0.95	2.2	1000	200	60	23	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	Low Noise/RRIO/High Speed	\$2.15	
1	LT1809	160	300	27	16	5	2500	80	45	17	yes	2.5	12.6	yes	SO-8/SOT23-6	1000	Low Distortion/High Speed/Low Noise	\$1.75	
1	LT1225	150	400	90	7.5	1.5	1000	20	24	9	no	5	36		SO-8/DIP-8	1000	Full Power Bandwidth 13MHz at ±5V	\$2.85	
1	LT1221	150	250	90	6	2	1000	100	24	10.5	no	5	36		SO-8/DIP-8	1000	Low Noise/High Speed/High Gain	\$3.30	
1	LT1812	100	750	30	8	1	1500	3	40	3.6	yes	2.5	12.6		SO-8/SOT23-5/SOT23-6	100	High Speed/Power/Low Noise	\$0.88	
1	LT6205	100	600	25	9	4	4500	133	25	5.6	no	3	12.6	out	SOT23-5	1000	3V 100MHz Single Supply Video Amp	\$0.88	
1	LT6202	100	25	78	1.9	0.75	500	200	30	3.5	no	2.5	12.6	yes	SO-8/SOT23-5	1000	Low Noise/Low Power/RRIO	\$1.45	
1	LT1191	90	450	110	25	4	5000	45	50	38	yes	4	18		DIP-8/SO-8	30	±5V Supply Color Video	\$1.70	
1	LT1468	90	22	760	5	0.6	75	9000	15	5	no	6	36		DIP-8/SO-8	300	16-Bit Accuracy/760ns to 0.01% Settling	\$2.95	
1	LT1803	83	100	350	21	2.5	2000	60	20	3	no	2.3	12.6	yes	SO-8/SOT23-5	1000	RRIO/High Speed	\$1.30	
1	LT1800	80	25	250	8.5	1	350	85	20	2	no	2.3	12.6	yes	SO-8/SOT23-5	1000	High Speed/Power/Precision/RRIO	\$1.30	
1	LT6552	75	600	35	55	0.7	20000		35	13.5	yes	3	12.6	out	DFN-8/SO-8	1000	Low Power Video Difference Amp	\$1.10	
1	LT1028	75	15		0.85	1	40	30000	18.3	9.5	no	8	44		DIP-8/SO-8/SOW-16	300	Lowest Noise Low Drift/Unity Gain Stable	\$4.75	
1	LT1363	70	1000	50	9	1	1500	9	50	7.5	no	3	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$2.40	
1	LT1115	70	15		0.9	1.2	200	20000	18.3	11.5	no	8	44		DIP-8/SOW-16	4000	Low Noise/Ultralow Distortion	\$2.90	
1	LT6220	60	20	300	10	0.8	350	100	20	1	no	2.2	12.6	yes	SO-8/SOT23-5	7000	Precision/Low Power/RRIO	\$1.20	
1	LT6233	60	17	170	1.9	0.43	500	180	40	1.25	yes	3	12.6	out	SOT23-6	1000	Ultralow Noise/Low Power/High Speed	\$1.45	
1	LT1037	60	15		2.5	0.4	25	20000	18.3	4.3	no	8	44		DIP-8/SO-8	100	Extremely Low Noise	\$1.90	
1	LT1360	50	800	60	9	0.9	1000	9	26	4.8	no	3	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$2.20	
1	LT1190	50	450	140	50	4	10000	22	50	38	yes	4	18		DIP-8/SO-8	10	±5V Supply Color Video	\$1.70	
1	LT1195	50	165	220	70	2	8000	11	20	16	yes	4	18		DIP-8/SO-8	10	Low Power/High Speed	\$1.70	
2	LTC6420-20	1800	4500		2.2		2000		20	95	yes	2.85	3.5	out	3x4 QFN-20		Dual Matched Differential In/Out, A <sub>v</sub> =10	\$5.17	
2	LTC6421-20	1300	4500		2.2		2000		10	50	yes	2.85	3.5	out	3x4 QFN-20		Dual Matched Differential In/Out, A <sub>v</sub> =10	\$4.77	
2	LT1969	700	200	50	6	2	4000	12	200	8.25	no	4	13.2		MS-10	1000	High Output Current/A <sub>v</sub> >10	\$2.95	
2	LT1886	700	200	50	6	2	4000	12	200	8.25	no	4	13.2		SO-8	1000	High Output Current/A <sub>v</sub> >10	\$2.80	
2	LT6411	650	3300	6	8		10000		50	11	yes	4.5	12.6		QFN-16	12	650MHz Diff. ADC Driver/Dual Selectable Gain Amp	\$2.39	
2	LT1819	400	2500	10	6	1.2	1500	2.5	40	10	no	3.5	12.6		MS-8/SO-8	20	High Slew Rate VFB	\$1.60	
2	LT1807	325	125	60	3.5	1.5	550	220	35	13	no	2.5	12.6	yes	MS-8/SO-8	1000	High Speed/Precision/Low Noise	\$3.40	
2	LT1816	220	1500	15	6	1.3	1500	3	50	7.8	no	2.5	12.6		DFN-8/MS-8/MS-10/SO-8	10	High SR VFB with Prog Supply Current	\$1.50	
2	LT6231	215	70	50	1.1	1	350	260	30	3.75	no	3	12.6	out	DFN-8/SO-8	1000	Ultralow Noise/Low Power/High Speed	\$1.95	
2	LT6300	200	600		8	0.8	5000	76	500	13.5	yes	8	27		SSOP-16	30	xDSL Driver	\$2.85	
2	LT1739	200	600		8	0.8	5000	6.3	500	13.5	yes	8	27		DFN-12/TSSOP-20	30	High I <sub>OUT</sub> /Low Noise/High Speed	\$3.55	
2	LT1794	200	600		8	0.8	5000	12.5	500	13.5	yes	8	36		SOW-20/TSSOP-20	30	High I <sub>OUT</sub> /Low Noise/High Speed	\$4.95	
2	LT1723	200	70	91	3.8	1.2	400	17	35	4.5	no	4.6	12.6		MS-8/SO-8	100	Low Noise at Video Speed/Precision	\$1.15	
2	LT6201	165	50	140	0.95	2.2	1000	200	60	23	no	2.5	12.6	yes	DFN-8/SO-8	1000	Low Noise/RRIO/High Speed	\$3.65	
2	LT1810	160	300	27	16	5	2500	80	45	17	no	2.3	12.6	yes	MS-8/SO-8	1000	Low Distortion/High Speed/Low Noise	\$2.65	
2	LT1813	100	750	30	8	1	1500	3	40	3.6	no	2.5	12.6		MS-8/SO-8/DFN-8	100	High Speed/Power/Low Noise	\$0.99	
2	LT1813HV	100	750	30	8	1	1500	3	40	4	no	2.5	13.5		SO-8	100	High Speed/Power/ V <sub>SUPPLY</sub> up to 13.5V	\$1.19	
2	LT6206	100	600	25	9	4	4500	133	25	5.6	no	3	12.6	out	MS-8	1000	3V 100MHz Single Supply Video Amp	\$1.05	
2	LT6203	100	25	78	1.9	0.75	500	200	30	3.5	no	2.5	12.6	yes	DFN-8/MS-8/SO-8	1000	Low Noise/Low Power/RRIO	\$2.45	
2	LT1469	90	22	760	5	0.6	125	2000	15	5.2	no	6	36		DIP-8/SO-8	300	16-Bit Accuracy/760ns to 0.01% Settling	\$4.95	
2	LT1804	83	100	350	21	2.5	2000	60	20	3	no	2.3	12.6	yes	DFN-8/SO-8	1000	RRIO/High Speed	\$1.95	
2	LT1801	80	25	250	8.5	1	350	85	20	2	no	2.3	12.6	yes	DFN-8/MS-8/SO-8	1000	High Speed/Power/Precision/RRIO	\$1.95	
2	LT1364	70	1000	60	9	1	1500	9	50	7.2	no	3	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$3.70	
2	LT1126	65	11		2.7	0.3	70	17000	6.25	3.1	no	8	44		SO-8/DIP-8	15	Low Noise/65MHz GBW/Precision	\$3.50	
2	LT6221	60	20	300	10	0.8	350	100	20	1	no	2.2	12.6	yes	DFN-8/SO-8	7000	Precision/Low Power/RRIO	\$1.85	
2	LT6234	60	17	170	1.9	0.43	350	180	40	1.25	no	3	12.6	out	DFN-8/SO-8	1000	Ultralow Noise/Low Power	\$2.45	
2	LT1361	50	800	60	9	0.9	1000	9	26	4.8	no	5	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$3.40	
2	LTC6244	50	35	535	8	0.00056	100	2500	25	7.4	no	2.8	6	out	DFN-8/MS-8	200	Dual 50MHz/Low Noise/RRIO/CMOS	\$1.65	
2	LTC6244HV	50	35	535	8	0.00056	100	2500	25	7.4	no	2.8	10.5	out	DFN-8/MS-8	200	Dual 50MHz/Low Noise/RRIO/CMOS	\$2.35	
4	LT1817	220	1500	15	6	1.3	1500	3	50	7	no	2.5	12.6		SO-14/SSOPN-16	10	High Slew Rate VFB	\$2.05	
4	LT6232	215	70	50	1.1	1	350	260	30	3.75	no	3	12.6	out	SSOP-16	1000	Ultralow Noise/Low Power/High Speed	\$3.30	

† Primary Sort Column  
†† Secondary Sort Column



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

Amps, Refs,  
Filters, Comps  
HI SPEED VFB  
Power  
Management  
Data  
Conversion  
Interface  
High  
Frequency  
Reference  
Material

# HIGH SPEED VOLTAGE FEEDBACK AMPLIFIERS

Amplifiers Per Package	Part Number	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	Settle Time to 0.1%		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> 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
				Typ 25°C (ns)	Typ 25°C (ns)														
4	LT6301	200	600		8	0.8	5000	76	500	13.5	yes	8	27		TSSOP-28	30	Dual xDSL Driver	\$6.20	
4	LT1724	200	70	91	3.8	1.2	400	17	35	4.5	no	4.6	12.6		SO-14	100	Low Noise at Video Speed/Precision	\$2.19	
4	LT1814	100	750	30	8	1	1500	3	40	3.6	no	2.5	12.5		SO-14/SSOPN-16	100	High Speed/Power/Low Offset	\$1.95	
4	LT6207	100	600	25	9	4	4500	133	25	5.6	no	3	12.6	out	SSOPN-16	1000	3V 100MHz Single Supply Video Amp	\$1.55	
4	LT6204	100	25	78	1.9	0.75	500	200	30	3.5	no	2.5	12.6	yes	SO-14/SSOPN-16	1000	Low Noise/Low Power/RRIO	\$4.50	
4	LT1805	85	100	350	21	2.5	2000	60	20	3	no	2.3	12.6	yes	SO-14	1000	RRIO/High Speed	\$3.50	
4	LT1802	80	25	250	8.5	1	350	85	20	2	no	2.3	12.6	yes	SO-14	1000	High Speed/Power/Precision/RRIO	\$3.50	
4	LT1365	70	1000	50	9	1	1500	9	50	7.2	no	3	36		DIP-14/SO-16	All	High Speed/Precision/C-Load	\$6.45	
4	LT1127	65	11		2.7	0.3	90	17000	6.25	3.1	no	8	44		DIP-14/SOW-16	15	Low Noise/65MHz GBW/Precision	\$5.70	
4	LT6222	60	20	300	10	0.8	350	100	20	1	no	2.2	12.6	yes	SSOP-16	7000	Precision/Low Power/RRIO	\$2.95	
4	LT6235	60	17	170	1.9	0.43	350	180	40	1.25	no	3	12.6	out	SSOP-16	1000	UltraLow Noise/Low Power	\$4.15	
4	LT1362	50	800	60	9	0.9	1000	9	26	4.8	no	5	36		SO-16/DIP-14	All	High Speed/Precision/C-Load	\$6.00	

† Primary Sort Column  
 †† Secondary Sort Column

Note:

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

# 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%		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> 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
				Typ 25°C (ns)	Typ 25°C (ns)														
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 ( $I_S \leq 8\text{mA/AMP}$ )

† Amplifiers Per Package	Part Number	†† I <sub>SUPPLY</sub> 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	5	no	90	22	760	5	0.6	75	15	6	36		DIP-8/SO-8	300	VFB	16-Bit Accuracy/760ns to 0.01% Settling	\$2.95
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	LT1469	5.2	no	90	22	760	5	0.6	125	15	6	36		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/3×3 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

† Primary Sort Column  
†† Secondary Sort Column



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

Amps, Refs,  
Filters, Comps  
 HI SPEED LOW POWER  
 Power  
Management  
 Data  
Conversion  
 Interface  
 High  
Frequency  
 Reference  
Material

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

Amplifiers Per Package	Part Number	I <sub>SUPPLY</sub> 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
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:  
 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, CSA = Current Sense Amplifier, PGA = Programmable Gain Amplifier

# HIGH SPEED RAIL-TO-RAIL INPUT/OUTPUT OP AMPS (GAIN BANDWIDTH PRODUCT $\geq 10\text{MHz}$ )

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>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>SUPPLY</sub> 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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

† Primary Sort Column  
 †† Secondary Sort Column

# 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>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>SUPPLY</sub> 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
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	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	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	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

## 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> Max 25°C (mA)	Shutdown (yes/no)	Supply Voltage Min (V)	Supply Voltage Max (V)	Package	C-Load Stable (pF)	Type	Unity Gain Stable	Important Features	Price 1K Qty
LT6556	Triple A <sub>v</sub> =1	750	2100	6.5	0.056	0.028			13	yes	4.5	12.6	SSOP-24/QFN	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	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 Min (V)	Supply Voltage Max (V)	Package	Unity Gain Stable	Important Features	Price 1K Qty
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

Amps, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

Reference Material

# 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 Min (V)	Voltage Max (V)	Package	Unity Gain Stable	Important Features	Price 1K Qty
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

# Over-The-Top® AMPLIFIERS

Channels	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> 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	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	0.1		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

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	I <sub>SUPPLY</sub> per Amp Max 25°C (mA)	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(1)	Package	C-Load Stable (pF)	Features	Price 1K Qty
1	LT6003	0.001	no	500	5	0.09	0.002	0.0008	88	150	325	1.6	16	yes	DFN-4/SOT23-5	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/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/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	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	DFN-8/DIP-8/MS-8/SO-8	10000	Over-the-Top Micropower Op Amp	\$1.45

† Primary Sort Column

†† Secondary Sort Column

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

†	Amplifiers Per Package	Part Number	†† I <sub>SUPPLY</sub> per Amp Max 25°C (mA)	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
1	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	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	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	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	1	LT1991	0.11	no	50	1	5	0.56	0.12	80		46	2.4	40	yes	MS-10/DFN-10	100	Precision/Gain Select Range -13 to 14	\$1.39
1	1	LT1996	0.11	no	50	1	5	0.56	0.12	80		18	2.7	36	yes	MS-10/DFN-10		Precision/A <sub>V</sub> =9 to 117	\$1.39
1	1	LT1787	0.12	no	75	2						2.5	36	ss	SO-8/MS-8		Precision/High Side Current Sense	\$2.05	
1	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	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	1	LT6100	0.13	no	300	3	10000	0.15	0.05	100			4.1	48	ss	DFN-8/MS-8		Precision/Gain Selectable Current Sense	\$1.18
1	1	LT6010	0.15	yes	35	0.8	0.11	0.33	0.09	107	2000	14	2.7	40	out	DFN-8/SO-8	500	Micropower/Precision/RRIO	\$1.10
1	1	LT6013	0.165	no	35	0.8	0.25	1.6	0.2	107	2000	9.5	2.7	40	out	DFN-8/SO-8	500	Micropower/Precision/RRIO/A <sub>V</sub> >5	\$1.10
1	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	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	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	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
1	1	LT1637	0.25	yes	350	3	50	1	0.35	88	800	27	1.8	44	yes	DFN-8/DIP-8/MS-8/SO-8	2000	High Voltage/Over-the-Top/Low Power	\$1.45
1	1	LT1049	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 <sub>OS</sub> 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 <sub>OS</sub> 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 <sub>OS</sub> 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 <sub>OS</sub> 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 <sub>OS</sub> 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		110			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 <sub>V</sub> =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 <sub>V</sub> =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 <sub>V</sub> =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 <sub>V</sub> =10	\$3.95
2	2	LT6004	0.001	yes	500	5	0.09	0.002	0.0008		150	325	1.6	16	yes	DFN-8/MS-8	2000	Low Power, 1.8V Precision	\$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/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	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/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

† Primary Sort Column  
 †† Secondary Sort Column



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

Amps, Refs, Filters, Comps  
 LOW POWER  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

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

Amplifiers Per Package	Part Number	$I_{SUPPLY}$ per Amp 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
2	<b>LTC6084</b>	<b>0.11 Typ</b>	yes	<b>600</b>	<b>5</b>	<b>0.001 Typ</b>	<b>1.5</b>	<b>0.5</b>	<b>70</b>	<b>6000</b>	<b>27</b>	<b>2.1</b>	<b>5.5</b>	yes	<b>DFN-10/MS-8</b>	<b>200</b>	<b>Precision/1.5MHz/RRIO/Low Bias Current</b>	<b>C.F.</b>
2	LTC2055	0.15	no	3	0.03	0.15	0.5	0.5	120	10000	2.7	7	out	DFN-8/MS-8	50	Micropower Zero-Drift/3V/5V Operation	\$1.60	
2	LT6011	0.15	no	60	0.8	0.3	0.33	0.09	107	2000	14	2.4	40	out	DFN-8/SO-8/MS-8	500	Micropower/Precision/RRIO	\$1.65
2	LT6014	0.165	no	60	0.8	0.4	1.6	0.2	107	2000	9.5	2.7	40	out	DFN-8/SO-8	500	Micropower/Precision/RRIO/ $A_V > 5$	\$1.65
2	LTC2055HV	0.18	no	5	0.03	0.15	0.5	0.5	120	10000	2.7	12	out	DFN-8/MS-8	50	Micropower Zero-Drift±5V Operation	\$2.00	
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	LT1638	0.23	no	600	6	50	1.2	0.38	88	1500	20	2.2	44	yes	DFN-8/DIP-8/MS-8/SO-8	6000	High Voltage/Over-the-Top/Low Power	\$1.95
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	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	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	LTC6081	0.425	yes	70	0.8	0.001	3.6	1	100	1000	13	2.7	5.5	yes	DFN-10/MS-8	200	Precision/RRIO/Picoamp Input Current	\$1.74
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	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	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	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
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 $V_{OS}$ /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	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	SSOP-16/DFN-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/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/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	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	<b>LTC6085</b>	<b>0.11 Typ</b>	yes	<b>600</b>	<b>5</b>	<b>0.001 Typ</b>	<b>1.5</b>	<b>0.5</b>	<b>70</b>	<b>6000</b>	<b>27</b>	<b>2.1</b>	<b>5.5</b>	yes	<b>DFN-16/SSOP-16</b>	<b>200</b>	<b>Precision/1.5MHz/RRIO/Low Bias Current</b>	<b>C.F.</b>
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	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  
 2. C.F. = Contact Factory



† 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>VL</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> 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	LTC6401-8	4000	3 Typ		2200	3400	36		3.2	10	60	yes	2.85	3.5	ss	3×3 QFN-16	8dB Fixed Gain/Differential ADC Driver/140MHz IF	\$3.20
<b>1</b>	<b>LTC6401-14</b>	<b>3000</b>	<b>1.2 Typ</b>		<b>1950</b>	<b>3600</b>	<b>40</b>		<b>2.9</b>	<b>10</b>	<b>60</b>	<b>yes</b>	<b>2.85</b>	<b>3.5</b>	<b>ss</b>	<b>3×3 DFN-16</b>	<b>2GHz Differential ADC Driver, A<sub>v</sub>=5</b>	<b>\$2.95</b>
1	LTC6400-26	2000	1 Typ		1900	6670	50		1.5	20	102	yes	2.85	3.5	ss	3×3 QFN-16	26dB Fixed Gain/Differential ADC Driver/140MHz IF	\$3.20
1	LTC6400-20	2000	1.2 Typ		1840	4500	45		2.1	20	105	yes	2.85	3.5	ss	3×3 QFN-16	1.8GHz Differential ADC Driver	\$3.20
<b>1</b>	<b>LTC6404-4</b>	<b>2000</b>	<b>1 Typ</b>	<b>-23000</b>	<b>1700</b>	<b>1200</b>	<b>60 Typ</b>	<b>32</b>	<b>1.5</b>	<b>40</b>	<b>39</b>	<b>yes</b>	<b>2.75</b>	<b>5.25</b>	<b>out</b>	<b>3×3 DFN-16</b>	<b>1.7GHz/Low Noise and Distortion</b>	<b>\$3.44</b>
1	LTC6401-26	2500	1 Typ		1610	3300	50		1.5	10	60	yes	2.85	3.5	ss	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	ss	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	ss	3×3 QFN-16	1.3GHz Low Noise, Low Distortion Differential ADC Driver	\$2.95
<b>1</b>	<b>LTC6404-2</b>	<b>2000</b>	<b>1 Typ</b>	<b>-23000</b>	<b>900</b>	<b>700</b>	<b>60 Typ</b>	<b>32</b>	<b>1.5</b>	<b>40</b>	<b>39</b>	<b>yes</b>	<b>2.75</b>	<b>5.25</b>	<b>out</b>	<b>3×3 QFN-16</b>	<b>0.9GHz/Low Noise and Distortion</b>	<b>\$3.44</b>
1	LT5514			20000	850					33	75	yes	4.75	5.25	ss	TSSOP-20	Low Distortion Differential, Digitally Controlled PGA	\$5.20
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	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	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	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
<b>1</b>	<b>LTC6403-1</b>	<b>1500</b>	<b>1 Typ</b>	<b>25000</b>	<b>200</b>	<b>200</b>	<b>50</b>	<b>32</b>	<b>2.8</b>	<b>30</b>	<b>11.8</b>	<b>yes</b>	<b>2.7</b>	<b>5.25</b>	<b>out</b>	<b>3×3 QFN-16</b>	<b>Low Noise/Low Distortion Diff ADC Driver</b>	<b>\$1.79</b>
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
1	LTC6910-3	15000			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	300	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

† Primary Sort Column  
†† Secondary Sort Column



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

Amps, Refs, Filters, Comps  
 SINGLE SUPPLY  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# SINGLE SUPPLY OP AMPS

Amps, Refs,  
Filters, Comps  
SINGLE SUPPLY

Power  
Management

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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>VL</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> 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	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	LT1150	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
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	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	LTC6420-20	2000	1.2 Typ		1800	4500	45		2.2	20	95	yes	2.85	3.5	out	3×4 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	3×4 QFN-20	Dual, Matched, Diff In/Out, A <sub>V</sub> =10	\$4.77
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

† Primary Sort Column  
†† Secondary Sort Column

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

# 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> 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	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/RRO/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/RRO/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	\$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	\$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+	\$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/RRO/A <sub>V</sub> >5	\$1.65
2	<b>LT6084</b>	<b>600</b>	<b>5</b>	<b>0.001 Typ</b>	<b>1.5</b>	<b>0.5</b>	<b>70</b>	<b>6000</b>	<b>27</b>		<b>0.11</b>	<b>yes</b>	<b>2.1</b>	<b>5.5</b>	<b>yes</b>	<b>DFN-10/MS-8</b>	<b>Precision/1.5MHz/RRIO/Low Bias Current</b>	<b>C.F.</b>
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	LTC6078	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/RRO	\$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
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

† Primary Sort Column  
 †† Secondary Sort Column



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

Amps, Refs, Filters, Comps  
 SINGLE SUPPLY  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# SINGLE SUPPLY OP AMPS

Amps, Refs,  
Filters, Comps  
SINGLE SUPPLY

Power  
Management

Data  
Conversion

Interface

High  
Frequency

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>VL</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> 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
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
<b>4</b>	<b>LTC6085</b>	<b>600</b>	<b>5</b>	<b>0.001 Typ</b>	<b>1.5</b>	<b>0.5</b>	<b>70</b>	<b>6000</b>	<b>27</b>		<b>0.11</b>	<b>no</b>	<b>2.1</b>	<b>5.5</b>	<b>yes</b>	<b>DFN-16/SSOP-16</b>	<b>Precision/1.5MHz/RRIO/Low Bias Current</b>	<b>C.F.</b>
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  
2. C.F. = Contact Factory

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 (μVp-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)	$I_{SUPPLY}$ 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	LT1252	3		1.5	15000			250	250	30	18	4	28		DIP-8/SO-8	100	High Voltage Video Amp	\$1.70
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	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	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	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	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
1	LT1993-2	3.5			6500			800	1100	40	112	4	5.5		3×3 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	3×3 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

† 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  
 Reference Material  
 LOW NOISE

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

Amps, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

Reference Material

†	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)	$I_{SUPPLY}$ Max 25°C (mA)				$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package
1	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	1	LT1468	5	0.3	0.6	75	2	40	90	22	15	5	6	36	DIP-8/SO-8	300	16-Bit Accuracy/760ns to 0.01% Settling	\$2.95	
1	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	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	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	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	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	1	LT1217	6.5		0.7	3000			10	500	50	2	10	36		DIP-8/SO-8	5000	Low Power CFA	\$3.20
1	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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 Settling 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

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

†	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> 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
1	1	LT1102	19								15			46	2.7	11	ss	SO-8	50	Low Noise Diff Amp w/15MHz LP Filter	\$2.95
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	300	10	2.25	25	1.5	2.1	12.6		SOT23-5	10000	RRIO/Low Noise/C-Load Stable	\$1.00	
1	1	LT1783	20	0.6	0.14	800	5	80	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	40000	165	50	60	23	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	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	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	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 <sub>v</sub> =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 <sub>v</sub> =10	\$4.77	
2	2	LT1126	2.7	0.07	0.3	70	1	20	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	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	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 <sub>OUT</sub> /High Speed	\$4.95	
2	2	LT1723	3.8		1.2	400	7	300	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	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	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	40	90	22	15	5.2	6	36		DIP-8/SO-8	300	16-Bit Accuracy/760ns to 0.01% Settling	\$4.95	
2	2	LT1969	6		2	4000	17	4000	4000	700	200	200	8.25	4	13.2		MS-10	1000	High Output Current/A <sub>v</sub> >10	\$2.95	
2	2	LT1886	6		2	4000	17	4000	4000	700	200	200	8.25	4	13.2		SO-8	1000	High Output Current/A <sub>v</sub> >10	\$2.80	
2	2	LT1819	6		1.2	1500	15	8000	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	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	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	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	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	0.075	18	15	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	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	4000	200	600	500	13.5	8	36		SOW-20/TSSOP-20	30	High I <sub>OUT</sub> /Low Noise/High Speed	\$4.95	
2	2	LT1739	8		0.8	5000	10 Typ	4000	4000	200	600	500	13.5	8	27		DFN-12/TSSOP-20	30	High I <sub>OUT</sub> /Low Noise/High Speed	\$3.55	
2	2	LT1813	8		1	1500	15	4000	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	4000	100	750	40	4	2.5	13.5		SO-8	100	High Speed/Power/ V <sub>S</sub> up to 13.5V	\$1.19	
2	2	LTC6244	8	1.5	0.00056	100	2.5	0.075	0.075	50	35	25	7.4	2.8	6	out	DFN-8/MSOP-8	200	50MHz/Low Noise/RRIO/CMOS	\$1.65	
2	2	LTC6244HV	8	1.5	0.00056	100	2.5	0.075	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	2	LT1358	8		0.8	600	8	500	500	25	600	24	2.5	5	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$3.90	
2	2	LT1801	8.5	1.4	1	350	5	250	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	2	LT6206	9	2	4	4500	18	30000	30000	100	600	25	5.6	3	12.6	out	MS-8	1000	3V 100MHz Single Supply Video Amp	\$1.05	
2	2	LT1364	9		1	1500	13	1000	1000	70	1000	50	7.2	3	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$3.70	
2	2	LT1361	9		0.9	1000	12	1000	1000	50	800	26	4.8	5	36		SO-8/DIP-8	All	High Speed/Precision/C-Load	\$3.40	
2	2	LT1884	9.5	0.4	0.05	50	0.8	0.4	0.4	2	0.9	15	0.9	2.4	40	out	DIP-8/SO-8	500	Picoamp Input Current/Precision	\$2.75	

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

Amps, Refs, Filters, Comps  
 LOW NOISE  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

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

Amps, Refs, Filters, Comps  
LOW NOISE

Power Management

Data Conversion

Interface

High Frequency

Reference Material

†	Amplifiers Per Package	Part Number	††					†††										C-Load Stable (pF)	Features	Price 1K Qty
			$e_{NOISE}$ Typ 25°C (nV/√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)	$I_{SUPPLY}$ Max 25°C (mA)	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	Rail-to-Rail I/O <sup>(1)</sup>	Package					
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/RRIO/ $A_V > 5$	\$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	LT6911-1	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	\$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	LT6911-2	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	\$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 $V_{SUPPLY}$	\$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 $V_{OS}$ /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/RRIO	\$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/ $A_V = 0$ 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/ $A_V = 1$ 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/Shutdown	\$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 2:1Video Multiplexer/ $A_V = 2$	\$2.75		
3	LT6553	9		4	10000		50000	650	2500	50	11	4	13.2		SSOP-16	10	High Speed Video Amp/ $A_V = 2$	\$2.50		
3	LT6556	11		3.5	67000			750	2100	50	13	4.5	12.6		SSOP-24/QFN-24	10	Triple 2:1Video Multiplexer/ $A_V = 1$	\$2.75		
3	LT6557	12		20	40000		70000 Typ	500	2200	70	25		7.5		SSOP-16/DFN-16		Single Supply Video Amp/ $A_V = 2$	\$2.50		
3	LT6550	12		8	35000		65000	110	340	45	11.5	3	12.6	out	MS-10	150	3V RGB Driver with $A_V = 2$	\$1.75		
3	LT6554	20		3.5	35000		50000	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		
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		

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

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



# 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 (μVp-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)	$I_{SUPPLY}$ 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
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/RRIO	\$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 ( $I_{BIAS} \leq 10\text{nA MAX}$ )

† 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)	$I_{SUPPLY}$ 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/RRIO/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/RRIO/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

† Primary Sort Column  
 †† Secondary Sort Column



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

Amplifiers, Refs, Filters, Comps

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# 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)	$I_{SUPPLY}$ 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	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	200	Precision/RRIO/Picoamp Input Current	\$1.74
2	<b>LTC6084</b>	<b>0.001 Typ</b>	<b>600</b>	<b>5</b>	<b>1.5</b>	<b>0.5</b>	<b>70</b>	<b>6000</b>	<b>27</b>	<b>0.00056</b>	<b>0.11</b>	<b>2.1</b>	<b>5.5</b>	<b>yes</b>	<b>DFN-10/MS-8</b>	<b>VFB</b>	<b>Precision/1.5MHz/RRIO/Low Bias Current</b>	<b>C.F.</b>
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	100	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

† Primary Sort Column  
 †† Secondary Sort Column

# 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)	$I_{SUPPLY}$ 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	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/RRO	\$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/RRO/ $A_V > 5$	\$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 RRO	\$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	RRO/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/RRO	\$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	200	Precision/RRO/Picoamp Input Current	\$2.97
4	<b>LTC6085</b>	<b>0.001 Typ</b>	<b>600</b>	<b>5</b>	<b>1.5</b>	<b>0.5</b>	<b>70</b>	<b>6000</b>	<b>27</b>	<b>0.00056</b>	<b>0.11</b>	<b>2.1</b>	<b>5.5</b>	<b>yes</b>	<b>DFN-16/SSOP-16</b>	<b>VFB</b>	<b>Precision/1.5MHz/RRO/Low Bias Current</b>	<b>C.F.</b>
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	100	Picoamp Input Current/RRO	\$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 RRO	\$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/RRO	\$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/RRO	\$3.25
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 RRO	\$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	RRO/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
  - C.F. = Contact Factory



Amps, Refs, Filters, Comps  
 LOW INPUT BIAS  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# SOT-23 AND DFN OP AMPS

Amps, Refs,  
Filters, Comps  
SOT-23 and DFN

Power  
Management

Data  
Conversion

Interface

High  
Frequency

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)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> 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	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 <sub>v</sub> >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 <sub>v</sub> >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 <sub>v</sub> >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 <sub>v</sub> >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	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	SOT23-5	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	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-8/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	LT6240	175	2.5	0.001	18	10	7	15	2.4		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		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
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	100	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

† Primary Sort Column  
†† Secondary 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)	†† 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> 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	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	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	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	LT6244	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	LT6244HV	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	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
2	<b>LTC6084</b>	<b>600</b>	<b>5</b>	<b>0.001 Typ</b>	<b>1.5</b>	<b>0.5</b>	<b>27</b>		<b>0.11</b>	<b>yes</b>	<b>yes</b>	<b>2.1</b>	<b>5.5</b>	<b>DFN-10/MS-8</b>	<b>200</b>	<b>VFB</b>	<b>Precision/1.5MHz/RRIO/Low Bias Current</b>	<b>C.F.</b>
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	LT6242	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	<b>LTC6085</b>	<b>600</b>	<b>5</b>	<b>0.001 Typ</b>	<b>1.5</b>	<b>0.5</b>	<b>27</b>		<b>0.11</b>	<b>yes</b>	<b>yes</b>	<b>2.1</b>	<b>5.5</b>	<b>DFN-16/SSOP-16</b>	<b>200</b>	<b>VFB</b>	<b>Precision/RRIO/1.5MHz/Low Bias Current</b>	<b>C.F.</b>
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  
 3. C.F. = Contact Factory

Amps, Refs, Filters, Comps  
 SOT-23 and DFN  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material



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

Amps, Refs, Filters, Comps  
HIGH TEMPERATURE

Power Management

Data Conversion

Interface

High Frequency

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)	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> 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
1	LTC6101HV	300	0.2 Typ		0.02					ss	1 Typ	0.45	no	5	100	CSA	SOT-23-5/MS-8	High Voltage/High-Side Current Sense	\$1.30
1	LT1637	350	3	50	1	0.35	800	88	27	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					ss	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	1500	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	10	69	18	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	10	69	18	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	10	69	18	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	10	69	18	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	LT6241HV	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	600	5	0.001 Typ	1.5	0.5	6000	70	27	yes		0.11	yes	2.1	5.5	VFB	DFN-10/MS-8	Precision/1.5MHz/RRIO/Low Bias Current	TBD
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

† Primary Sort Column  
†† Secondary Sort Column

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

# 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> 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
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
<b>4</b>	<b>LTC6085</b>	<b>600</b>	<b>5</b>	<b>0.001 Typ</b>	<b>1.5</b>	<b>0.5</b>	<b>6000</b>	<b>70</b>	<b>27</b>	<b>yes</b>		<b>0.11</b>	<b>no</b>	<b>2.1</b>	<b>5.5</b>	<b>VFB</b>	<b>DFN-16/SSOP-16</b>	<b>Precision/1.5MHz/RRIO/Low Bias Current</b>	<b>TBD</b>
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

HIGH TEMPERATURE: HIGH IOUT  
 Amps, Refs, Filters, Comps

Power Management

Data Conversion

# HIGH OUTPUT DRIVE OP AMPS

† 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 (ms)	I <sub>SUPPLY</sub> 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	LT1210	1100	66	900	3		50	yes	8	36		DDPAK-7/SO-16/TQ-220	10000	CFA	1	1A Output Current	\$6.40
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	LT1206	250	66	900	3.6		30	yes	10	36		DDPAK-7/DIP-8/SO-8/TQ-220	10000	CFA	1	High I <sub>OUT</sub> /Adj. Supply Current/C-Load	\$3.40
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	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	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	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	LT1194	64	350	500	15	200	40	no	4	18		DIP-8/SO-8	50	VIDEO	10	Amplitude Limiting Control	\$2.90
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	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	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	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	LT1192	50	350	450	9	90	38	yes	4	18		DIP-8/SO-8	50	VFB	5	±5V Supply Color Video	\$1.70
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	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	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	LT1191	50	90	450	25	110	38	yes	4	18		DIP-8/SO-8	30	VFB	1	±5V Supply Color Video	\$1.70
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	LT1190	50	50	450	50	140	38	yes	4	18		DIP-8/SO-8	10	VFB	1	±5V Supply Color Video	\$1.70
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	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	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	LT6300	500	200	600	8		13.5	yes	8	27		SSOP-16	30	VFB	10	High I <sub>OUT</sub> Driver	\$2.85
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	LT1207	250	66	900	3.6		30	yes	10	36		SO-16	10000	CFA	1	High Current/Prog. Supply/C-Load	\$6.90
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	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

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

High Frequency  
 Reference Material



# HIGH OUTPUT DRIVE OP AMPS

Amps, Refs, Filters, Comps  
HI OUTPUT DRIVE / C-Load

Power Management

Data Conversion

Interface

High Frequency

Reference Material

† 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> 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
2	LT1497	125	59	900	3	50	7	no	4	36		SO-8/SO-16	2000	CFA	1	125mA Output CFA	\$3.35
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	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	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	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	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	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	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	LT1399	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	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	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	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	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	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	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	LT6554	50	650	2500	20	6	10	yes	4	13.2		SSOP-16	12	VIDEO	1	High Speed CFA Video Buffer	\$2.50
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	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	LT6301	500	200	600	8		13.5	yes	8	27		TSSOP-28	30	VFB	10	High I <sub>OUT</sub> Driver	\$6.20
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	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	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

# C-Load OP AMPS

† 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)	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> 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	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	yes	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	yes	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	yes	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

† 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)	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> 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	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/SO-8	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 Settling 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
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/Shutdown	\$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

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

Amps, Refs, Filters, Comps  
 C-Load  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# C-Load OP AMPS

**Amps, Refs, Filters, Comps**  
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† 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)	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> 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	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	LT1542	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
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

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

† 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)	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> 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	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
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



Amps, Refs, Filters, Comps  
 C-Load  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

## 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>	V <sub>SENSE</sub> 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	\$1.72
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
<b>LTC6107</b>	<b>Unidirectional</b>	<b>250</b>	<b>1 Typ</b>	<b>0.04</b>	<b>44</b>	<b>optional</b>	<b>95</b>	<b>Programmable</b>	<b>106</b>	<b>SOT-23</b>	<b>-55°C to 150°C Military Plastic Current Sense</b>	<b>\$2.35</b>
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
<b>LTC4151</b>	<b>Unidirectional</b>	<b>4000</b>			<b>80</b>	<b>no</b>	<b>300 (85°C)</b>			<b>MSOP-10, 3×3 DFN-10</b>	<b>80V Current Sense and Voltage Monitor</b>	<b>\$2.60</b>

† Primary Sort Column

## 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, 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, 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, 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 Filter Order Cutoff Frequency	Passband Ripple (dB)	Differential Inputs	Differential Outputs	Adjustable Output Common Mode	Resistor Prog. Gain	SNR (dB)	I/P Referred Differential Offset (mV, Typ)	Differential Offset Drift (μV/°C, Typ)	Min (V)	Max (V)	I <sub>SUPPLY</sub> Max (mA)	Package	Price 1K Qty
LTC1992	Low Pass	1 4MHz	n/a	yes	yes	yes	yes	86	2.5	10	2.7	±5	1	MSOP-8	\$1.65
LTC1992-X	Low Pass	1 4MHz	n/a	yes	yes	yes	A <sub>V</sub> =1,2,5,10	82	2.4	10	2.7	±5	1.0	MSOP-8	\$3.95
LT1993-X	Low Pass	1 175MHz		yes	yes	yes	A <sub>V</sub> =2,4,10	86	6.5	2.5	4	5.5	112	3×3 QFN	\$2.95
LT6600-2.5	Low Pass	4 2.5MHz	0.5	yes	yes	yes	yes	86	3	10	2.7	±5	30	SO-8	\$2.95
LT6600-5	Low Pass	4 5MHz	0.5	yes	yes	yes	yes	82	13	10	2.7	±5	28	SO-8	\$2.95
LT6600-10	Low Pass	4 10MHz	0.5	yes	yes	yes	yes	82	5	5	2.7	±5	39	SO-8	\$2.95
LT6600-15	Low Pass	4 15MHz	0.5	yes	yes	yes	yes	76	15	10	2.7	±5	39	SO-8	\$2.95
LT6600-20	Low Pass	4 20MHz	0.5	yes	yes	yes	yes	76	10	10	2.7	±5	46	SO-8	\$2.95
LT1568	Any	4 0.2 to 10MHz	0.25	yes	yes	yes	yes	92	4	4	2.7	±5	35	SSOP-16	\$4.25

† 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>r-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 OpAmp	\$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 OpAmp	\$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 OpAmp	\$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 OpAmp	\$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
<b>1.25</b>	<b>Series</b>	<b>-40°C to 125°C</b>	<b>0.05</b>	<b>5</b>	<b>±5mA</b>	<b>LTC6652AHMS8-1.25</b>	<b>MSOP-8</b>	<b>560µA</b>	<b>1.55V</b>	<b>2.5</b>	<b>Precision, Low Noise, High Temperature Reference</b>	<b>\$3.36</b>
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	LT1790ACS8-1.25	SOT-23-6	60µA	0.1V	10	High Precision SOT-23 Reference	\$2.91
<b>1.25</b>	<b>Series</b>	<b>-40°C to 125°C</b>	<b>0.1</b>	<b>10</b>	<b>±5mA</b>	<b>LTC6652BHMS8-1.25</b>	<b>MSOP-8</b>	<b>560µA</b>	<b>1.55V</b>	<b>2.5</b>	<b>Precision, Low Noise, High Temperature Reference</b>	<b>\$1.65</b>
1.25	Shunt	0°C to 70°C	0.05	20	Shunt	<b>LT1389BCS8-1.25</b>	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	LT1634BIS8-1.25	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
<b>2.048</b>	<b>Series</b>	<b>-40°C to 125°C</b>	<b>0.05</b>	<b>5</b>	<b>±5mA</b>	<b>LTC6652AHMS8-2.048</b>	<b>MSOP-8</b>	<b>560µA</b>	<b>0.712V</b>	<b>4.1</b>	<b>Precision, Low Noise, High Temperature Reference</b>	<b>\$3.36</b>
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
<b>2.048</b>	<b>Series</b>	<b>-40°C to 125°C</b>	<b>0.1</b>	<b>10</b>	<b>±5mA</b>	<b>LTC6652BHMS8-2.048</b>	<b>MSOP-8</b>	<b>560µA</b>	<b>0.712V</b>	<b>4.1</b>	<b>Precision, Low Noise, High Temperature Reference</b>	<b>\$1.65</b>
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
2.5	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
<b>2.5</b>	<b>Series</b>	<b>-40°C to 125°C</b>	<b>0.05</b>	<b>5</b>	<b>±5mA</b>	<b>LTC6652AHMS8-2.5</b>	<b>MSOP-8</b>	<b>560µA</b>	<b>0.3V</b>	<b>5</b>	<b>Precision, Low Noise, High Temperature Reference</b>	<b>\$3.36</b>
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
<b>2.5</b>	<b>Series</b>	<b>-40°C to 125°C</b>	<b>0.1</b>	<b>10</b>	<b>±5mA</b>	<b>LTC6652BHMS8-2.5</b>	<b>MSOP-8</b>	<b>560µA</b>	<b>0.3V</b>	<b>5</b>	<b>Precision, Low Noise, High Temperature Reference</b>	<b>\$1.65</b>
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

† 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  
 Reference Material

# REFERENCES

Amps, Refs,  
Filters, Comps  
REFERENCES

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

† 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	LT1460HCS3-2.5	SOT-23	145µA	0.9V	10	Precision SOT-23 Reference	\$3.00
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	LT6660JDCDC-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	LT6660KDCDC-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	LT1034IIS8-2.5	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	LT1431IS8	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	0.15	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	-40°C to 125°C	0.05	5	±5mA	LTC6652AHMS8-3	MSOP-8	560µA	0.3V	6	<b>Precision, Low Noise, High Temperature Reference</b>	<b>\$3.36</b>
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>r-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
<b>3</b>	<b>Series</b>	<b>-40°C to 125°C</b>	<b>0.10</b>	<b>10</b>	<b>±5mA</b>	<b>LTC6652BHMS8-3</b>	<b>MSOP-8</b>	<b>560µA</b>	<b>0.3V</b>	<b>6</b>	<b>Precision, Low Noise, High Temperature Reference</b>	<b>\$1.65</b>
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	LT6660JCDC-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	LT6660KCDC-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	0.20	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
<b>3.3</b>	<b>Series</b>	<b>-40°C to 125°C</b>	<b>0.05</b>	<b>5</b>	<b>±5mA</b>	<b>LTC6652AHMS8-3.3</b>	<b>MSOP-8</b>	<b>560µA</b>	<b>0.3V</b>	<b>6.6</b>	<b>Precision, Low Noise, High Temperature Reference</b>	<b>\$3.36</b>
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	LT6660JCDC-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	LT1460KCDC-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
<b>3.3</b>	<b>Series</b>	<b>-40°C to 125°C</b>	<b>0.10</b>	<b>10</b>	<b>±5mA</b>	<b>LTC6652BHMS8-3.3</b>	<b>MSOP-8</b>	<b>560µA</b>	<b>0.3V</b>	<b>6.6</b>	<b>Precision, Low Noise, High Temperature Reference</b>	<b>\$1.65</b>
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
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
<b>4.096</b>	<b>Series</b>	<b>-40°C to 125°C</b>	<b>0.05</b>	<b>5</b>	<b>±5mA</b>	<b>LTC6652AHMS8-4.096</b>	<b>MSOP-8</b>	<b>560µA</b>	<b>0.3V</b>	<b>8.2</b>	<b>Precision, Low Noise, High Temperature Reference</b>	<b>\$3.36</b>
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
<b>4.096</b>	<b>Series</b>	<b>-40°C to 125°C</b>	<b>0.10</b>	<b>10</b>	<b>±5mA</b>	<b>LTC6652BHMS8-4.096</b>	<b>MSOP-8</b>	<b>560µA</b>	<b>0.3V</b>	<b>8.2</b>	<b>Precision, Low Noise, High Temperature Reference</b>	<b>\$1.65</b>
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

† Primary Sort Column  
 †† Secondary Sort Column



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

Amps, Refs, Filters, Comps  
 REFERENCES  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# REFERENCES

Amps, Refs, Filters, Comps  
REFERENCES

Power Management

Data Conversion

Interface

High Frequency

Reference Material

† 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>r-p</sub> )	Comment	Price 1K Qty
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
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	0.20	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	LT1019IN8-4.5	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
<b>5</b>	<b>Series</b>	<b>0°C to 70°C</b>	<b>0.10</b>	<b>10</b>	<b>±10mA</b>	<b>LT1236BCS8-5</b>	<b>SO-8</b>	<b>1.2mA</b>	<b>2.2V</b>	<b>3</b>	<b>Tight Tolerance and Low TC</b>	<b>\$2.35</b>
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	LT1460CCMS8-5	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	LT1460FCMS8-5	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
5	Shunt	0°C to 70°C	1.00	34	Shunt	LT1029CZ	TO-92	600µA-10mA	Shunt	-	General Purpose Reference	\$1.55

† 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	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	LT6660KCDC-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	LT1236ACS8-10	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
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

† 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  
 Reference Material

# REFERENCES

Amps, Refs,  
Filters, Comps  
REFERENCES

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

†	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
	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	LT1460FCMS8-10	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	±200μA	LT6650CS5	SOT-23-5	11μA	0.1V	20	400mV Reference with Internal Amplifier	\$1.25
Adjust	Series	0°C to 70°C	0.40	40	-2mA to 10mA	-2mA to 10mA	LTC1258CS8	SO-8	6.5μA	0.1V	40	V <sub>OUT</sub> Range 0 to ±12.5V	\$2.10
Adjust	Series	0°C to 70°C	0.40	40	-2mA to 10mA	-2mA to 10mA	LTC1798CS8	SO-8	6.5μA	0.1V	40	Industry Standard Pin-Out Version of LTC1258	\$2.10
Adjust	Shunt	0°C to 70°C	0.40	30 Typ	Shunt	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	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	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	0.46	60	-2mA to 10mA	-2mA to 10mA	LTC1258CMS8	MSOP-8	6.5μA	0.1V	40	Low Power LDO with Adj. V <sub>OUT</sub> Range	\$2.50
Adjust	Series	0°C to 70°C	5.5	30 Typ	±10mA	±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	±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	±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	±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	±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	±200μA	LT6650HS5	SOT-23-5	11μA	0.1V	20	400mV Reference with Internal Amplifier	\$1.69

† Primary Sort Column  
†† Secondary Sort Column



Amps, Refs, Filters, Comps

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
<b>LTC6652</b>	<b>-40° to 125°C</b>	<b>1.25V, 2V, 2.5V, 3V, 3.3V, 4V, 5V</b>	<b>±0.05</b>	<b>5</b>	<b>±5mA</b>	<b>MSOP-8</b>	<b>(V<sub>OUT</sub>+300mV) to 13.2V</b>	<b>2ppm Noise, Shutdown Mode with &lt;2μA</b>
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
LT1635	Micropower Rail-to-Rail Op Amp, LM10 Pinout	0.2	2.5%	1.3	V- to (V+ -1V)	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	-0.3V to 18V	18μs	1.4 to 18.5	10	SOT-23/DFN	\$1.25
LT6700-2	Dual Low Voltage Comparator, Two Inverting Inputs	0.4	2.0%	n/a	-0.3V to 18V	18μs	1.4 to 18.5	10	SOT-23/DFN	\$1.25
LT6700-3	Dual Low Voltage Comparator, Two Non-Inverting Inputs	0.4	2.0%	n/a	-0.3V to 18V	18μs	1.4 to 18.5	10	SOT-23/DFN	\$1.25
<b>LT6700HV-1</b>	<b>Dual Low Voltage Inverting/Non-Inverting Comparator</b>	<b>0.4</b>	<b>2.0%</b>	<b>n/a</b>	<b>-0.3V to 36V</b>	<b>18μs</b>	<b>1.4 to 18.5</b>	<b>10</b>	<b>SOT-23</b>	<b>C.F.</b>
<b>LT6700HV-2</b>	<b>Dual Low Voltage Comparator, Two Inverting Inputs</b>	<b>0.4</b>	<b>2.0%</b>	<b>n/a</b>	<b>-0.3V to 36V</b>	<b>18μs</b>	<b>1.4 to 18.5</b>	<b>10</b>	<b>SOT-23</b>	<b>C.F.</b>
<b>LT6700HV-3</b>	<b>Dual Low Voltage Comparator, Two Non-Inverting Inputs</b>	<b>0.4</b>	<b>2.0%</b>	<b>n/a</b>	<b>-0.3V to 36V</b>	<b>18μs</b>	<b>1.4 to 18.5</b>	<b>10</b>	<b>SOT-23</b>	<b>C.F.</b>
LT6703-2	Low Voltage Comparator, Access to Non-Inverting Input	0.4	2.0%	n/a	-0.3V to 18V	18μs	1.4 to 18.5	10	SOT-23/DFN	\$0.75
LT6703-3	Low Voltage Comparator, Access to Inverting Input	0.4	2.0%	n/a	-0.3V to 18V	18μs	1.4 to 18.5	10	SOT-23/DFN	\$0.75
<b>LT6703HV-2</b>	<b>Low Voltage Comparator, Access to Non-Inverting Input</b>	<b>0.4</b>	<b>2.0%</b>	<b>n/a</b>	<b>-0.3V to 36V</b>	<b>18μs</b>	<b>1.4 to 18.5</b>	<b>10</b>	<b>SOT-23</b>	<b>C.F.</b>
<b>LT6703HV-3</b>	<b>Low Voltage Comparator, Access to Inverting Input</b>	<b>0.4</b>	<b>2.0%</b>	<b>n/a</b>	<b>-0.3V to 36V</b>	<b>18μs</b>	<b>1.4 to 18.5</b>	<b>10</b>	<b>SOT-23</b>	<b>C.F.</b>
LTC1440	Ultralow Power Comparator	1.182	1.5%	10	V- to (V+ -1.3V)	8μs	2 to 11	4	DIP-8/MSOP-8/SO-8/DFN	\$1.45
LTC1442	Dual Ultralow Power Comparator	1.182	1.0%	10	V- to (V+ -1.3V)	8μs	2 to 11	5.7	DIP-8/SO-8	\$2.20
LTC1443	Quad Ultralow Power Comparator	1.182	1.0%	10	V- to (V+ -1.3V)	4μs	2 to 11	8.5	DIP-16/SO-16/DFN	\$2.25
LTC1540	Nanopower Comparator	1.182	2.2%	12	V- to (V+ -1.3V)	50μs	2 to 11	0.7	MSOP-8/SO-8/DFN	\$1.60
LTC1842	Dual Ultralow Power Comparator, Open Drain Outputs	1.182	1.0%	10	V- to (V+ -1.3V)	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- to (V+ -1.3V)	4μs	2.5 to 11	5.7	SO-8	\$1.40
LTC1541	Micropower Amplifier and Comparator	1.2	1.25%	2	V- to (V+ -1.3V)	8μs	2.5 to 12.6	7.5	MSOP-8/SO-8/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- to (V+ -1.3V)	4μs	2 to 11	8.5	DIP-16/SO-16/DFN	\$2.25
LTC1445	Quad Ultralow Power Comparator	1.221	1.0%	10	V- to (V+ -1.3V)	4μs	2 to 11	8.5	DIP-16/SO-16/DFN	\$2.25

† Primary Sort Column

C.F. = Contact Factory

## FILTERS

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>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

† Primary Sort Column



Power Management  
Data Conversion  
Interface  
High Frequency  
Reference Material

# FILTERS

Amps, Refs, Filters, Comps  
FILTERS  
Power Management  
Data Conversion  
Interface  
High Frequency  
Reference Material

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*
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 fc, 3V to ±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 ±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 fc	\$1.95
LTC1563-2	4	1	Butterworth	256kHz	N	n/a	10	SSOP-16	Active RC, Rail-to-Rail In/Out, One Resistor Sets fc	\$1.95
LTC1569-7	10	1	Root Raised Cosine	300kHz	Y	32:1	6	SO-8	One Resistor Sets fc, 3V to ±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
LTC1560-1	5	1	Elliptic	1MHz	N	n/a	22	SO-8	Active RC, Pin Select fc = 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
LT6600-2.5	4	1	Chebyshev	2.5MHz	N	n/a	30	SO-8	Low Noise Fully Differential Amp + 2.5MHz Lowpass	\$2.95
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
LT6600-10	4	1	Chebyshev	10MHz	N	n/a	39	SO-8	Low Noise Fully Differential Amp + 10MHz Lowpass	\$2.95
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
<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, fo x 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
LT1567	2	1	Building Block	5MHz	N	n/a	15	MSOP-8	Active RC, Differential Out, Low Noise, Rail-to-Rail	\$1.85

Note: \*C.F. = Contact Factory

† 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	Single	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	Single	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	Single	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	Single	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	Single	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	Single	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	Single	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	Single	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	Single	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	Dual	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	Independent Input/Output Supplies	\$3.35
LT1712	Dual	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	Dual	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/DFN	Low Cost Dual, 3×3 DFN	\$2.95
LT1714	Dual	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	Quad	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

# 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/DFN	\$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/DFN	\$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/DFN	\$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/DFN	\$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 Datasheet	(V <sup>-</sup> -0.3V) to (V <sup>-</sup> +18V)	18	6.5	yes	400mV	2	11	1.4 to 18	SOT-23/DFN	\$0.75
<b>LT6703HV</b>	<b>Single</b>	<b>see Datasheet</b>	<b>(V<sup>-</sup> -0.3V) to (V<sup>-</sup> +36V)</b>	<b>18</b>	<b>6.5</b>	<b>yes</b>	<b>400mV</b>	<b>2</b>	<b>11</b>	<b>1.4 to 18</b>	<b>SOT-23</b>	<b>C.F.</b>
LTC1998	Single	see Datasheet	see Datasheet	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 Datasheet	(V <sup>-</sup> -0.3V) to (V <sup>-</sup> +18V)	18	6.5	yes	0.400	2	15	1.4 to 18	SOT-23/DFN	\$1.25
<b>LT6700HV</b>	<b>Dual</b>	<b>see Datasheet</b>	<b>(V<sup>-</sup> -0.3V) to (V<sup>-</sup> +36V)</b>	<b>18</b>	<b>6.5</b>	<b>yes</b>	<b>400mV</b>	<b>2</b>	<b>15</b>	<b>1.4 to 18</b>	<b>SOT-23</b>	<b>C.F.</b>
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/DFN	\$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/DFN	\$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/DFN	\$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/DFN	\$2.25

C.F. = Contact Factory

Interface

High Frequency

Reference Material

# APPLICATION SPECIFIC COMPARATORS

Amps, Refs, Filters, Comps  
COMP, OSC, RMS-TO-DC

Power Management

Data Conversion

Interface

High Frequency

Reference Material

Part Number	Description	Typical Application	Supply Voltage (V)	Prop Delay Typ 25°C (mV)	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/DFN	\$1.25
<b>LT6700HV</b>	<b>36V Input/Output Dual Comparators and Reference</b>	<b>Flexible Window Comparator</b>	<b>1.4 to 18</b>	<b>18</b>	<b>6.5</b>	<b>10</b>	<b>SOT-23</b>	<b>C.F.</b>
<b>LT6703</b>	<b>Single Comparator and Internal Reference</b>	<b>Voltage Level Detector</b>	<b>1.4 to 18</b>	<b>18</b>	<b>6.5</b>	<b>10</b>	<b>SOT-23/DFN</b>	<b>\$0.75</b>
<b>LT6703HV</b>	<b>36V Input/Output Comparator and Reference</b>	<b>Voltage Level Detector</b>	<b>1.4 to 18</b>	<b>18</b>	<b>6.5</b>	<b>10</b>	<b>SOT-23</b>	<b>C.F.</b>
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/DFN	\$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/DFN	\$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/DFN	\$2.25
LTC1445	Quad Ultralow Power Comparators with Reference	Battery-Powered System Monitoring	2 to 11	4	Adj	8.5	DIP-16/SO-16/DFN	\$2.25
LTC1540	Nanopower Comparator with Reference	Battery-Powered System Monitoring	2 to 11	50	Adj	0.7	MSOP-8/SO-8/DFN	\$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/DFN	\$1.50
LTC1542	Micropower Amplifier and Comparator	Battery-Powered System Monitoring	2.5 to 12.6	8	2.25	5	MSOP-8/SO-8/DFN	\$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

C.F. = Contact Factory

# SILICON OSCILLATORS

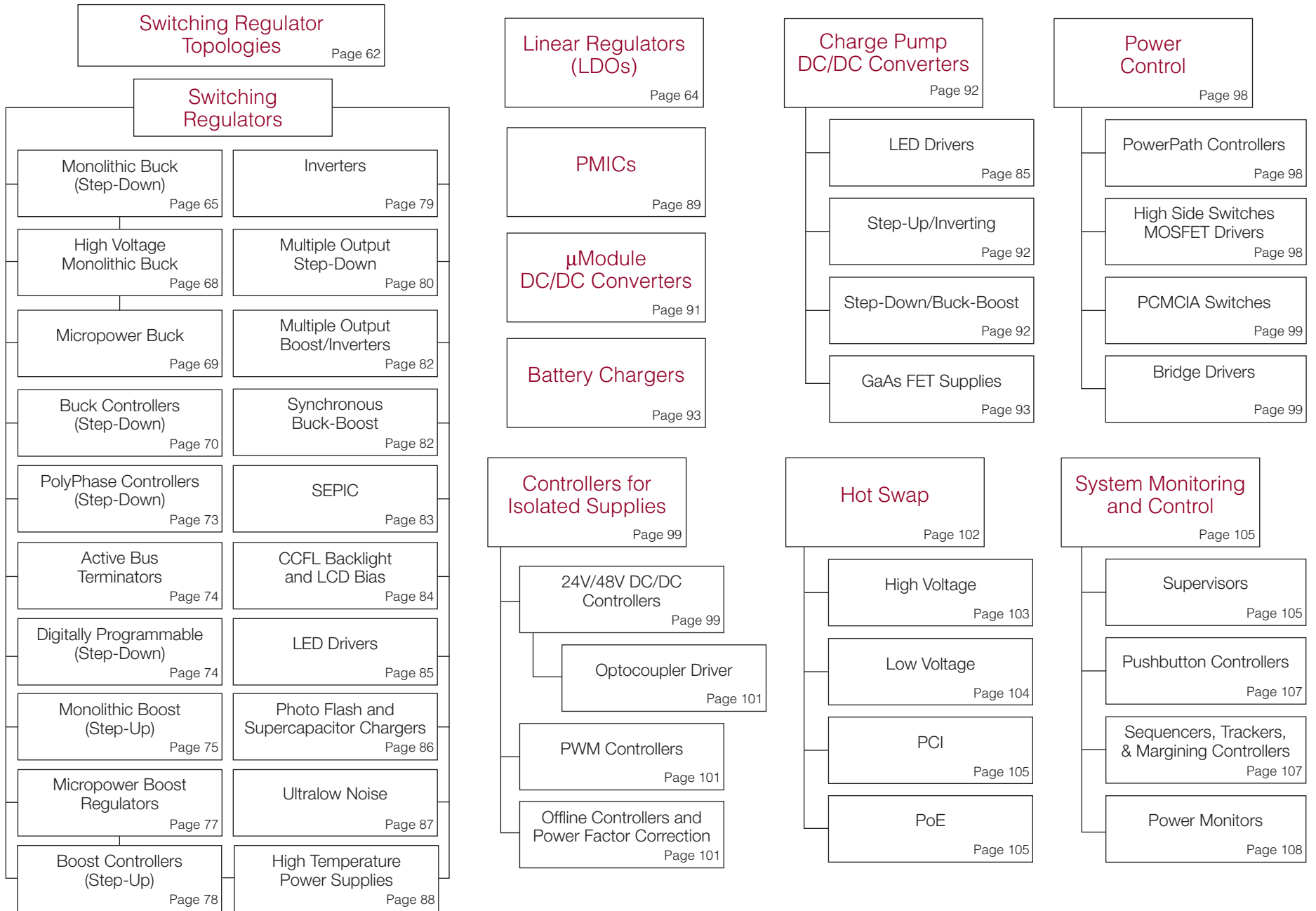
Part Number	Program Method	Frequency Range	Frequency Accuracy Max 25°C (%)	Frequency Temperature Drift (ppm/°C)	Duty Cycle	Timing Jitter (%)	Supply Voltage Min (V)	Supply Voltage Max (V)	Supply Current Max 25°C	Package	Comments	Price
LTC6906	Resistor	10kHz to 1MHz	0.5	50	50% ±5%	0.03	2.25	6	15µA@100kHz	SOT-23	Micropower, DIV by 1,3,10	\$1.25
LTC6907	Resistor	40kHz to 4MHz	0.5	50	50% ±7%	0.12	3	6	36µA@400kHz	SOT-23	Micropower, DIV by 1,3,10	\$1.25
LTC6908-1	Resistor	50kHz to 10MHz	1.5	40	50% ±1%	0.10	2.7	6	1.6mA@5MHz	SOT-23, 2x3 DFN-6	2 Outputs: 0°/90°, Spread Spectrum	\$1.65
LTC6908-2	Resistor	50kHz to 10MHz	1.5	40	50% ±1%	0.10	2.7	6	1.6mA@5MHz	SOT-23, 2x3 DFN-6	2 Outputs: 0°/180°, Spread Spectrum	\$1.65
LTC6900	Resistor	1kHz to 20MHz	1.5	40	50% ±1%	0.10	2.7	6	860µA@10MHz	SOT-23	Low Power, 50µsec Startup	\$1.55
LTC6902	Resistor	5kHz to 20MHz	1.5	40	50% ±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	50% ±1%	0.06	2.7	6	1.1mA@3MHz	SOT-23	Wide Frequency Range	\$1.55
LTC6905	Resistor	17MHz to 170MHz	1.4	20	50% ±2.5%	0.50	2.7	6	5mA@21MHz	SOT-23	High Frequency, Divide by 1,2,4	\$1.65
LTC6903	Serial – SPI	1kHz to 68MHz	1.1	10	50% ±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	50% ±1%	0.40	2.7	6	3.1mA@1MHz	MSOP-8	I <sup>2</sup> C Interface with Enable	\$2.10
LTC6905-80	Fixed	80MHz, 40MHz, 20MHz	1.0	20	50% ±2.5%	0.80	2.7	6	11µA@80MHz	SOT-23	Divide by 1,2,4, with Enable	\$1.15
LTC6905-96	Fixed	96MHz, 48MHz, 24MHz	1.0	20	50% ±2.5%	0.80	2.7	6	12µA@96MHz	SOT-23	Divide by 1,2,4, with Enable	\$1.15
LTC6905-100	Fixed	100MHz, 50MHz, 25MHz	1.0	20	50% ±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	50% ±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

# Power Management



Amps, Refs, Filters, Comp

Power Management

Data Conversion

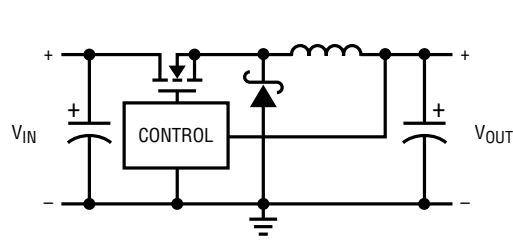
Interface

High Frequency

Reference Material

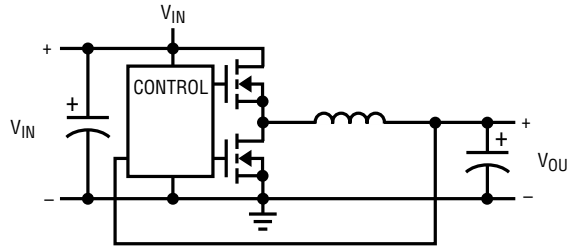


**Buck Regulator**



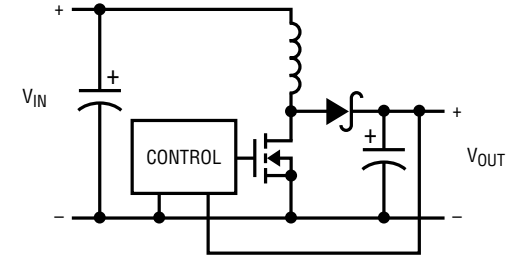
- $V_{OUT} < V_{IN}$
- $I_{OUT} \approx 0.8 \cdot I_{SW}$
- Switching Frequency 100kHz to 4MHz
- Monolithic and Controllers

**Synchronous Buck Regulator**



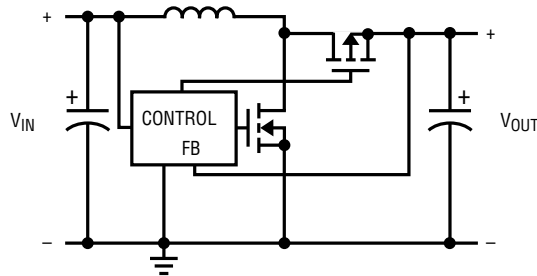
- Higher Efficiency than Standard Buck
- Switching Frequency up to 4MHz
- Combined for PolyPhase Operation from 60A to 240A

**Boost Regulator**



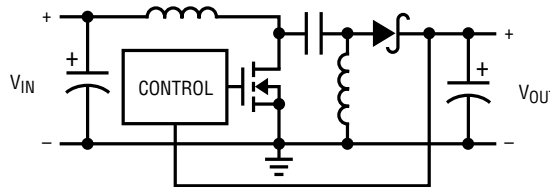
- $V_{OUT} > V_{IN}$
- $I_{OUT} \approx 0.64 \cdot \frac{V_{IN}}{V_{OUT}} \cdot I_{SW}$
- Monolithic and Controllers
- Switching Frequency up to 3MHz

**Synchronous Boost Regulator**



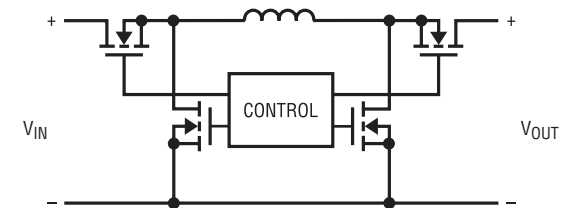
- Better Efficiency than Standard Boost
- Best for Low  $\frac{V_{OUT}}{V_{IN}}$  Ratios

**SEPIC**



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

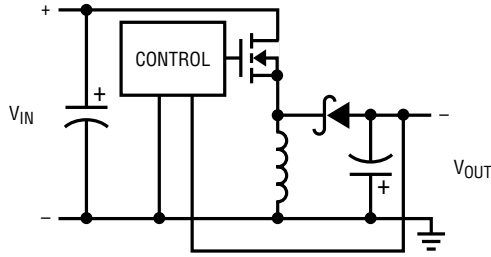
**Synchronous Buck-Boost**



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

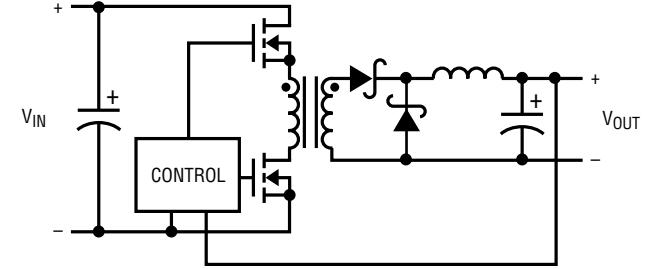


**Buck/Boost Inverter**



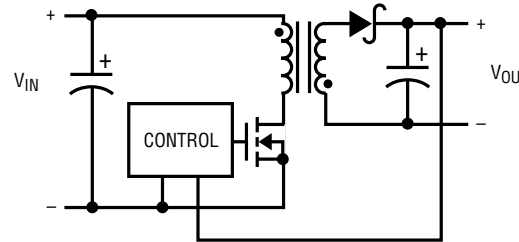
- $V_{IN} < |V_{OUT}|$
- Monolithic Solutions

**Dual Transistor forward Regulator**



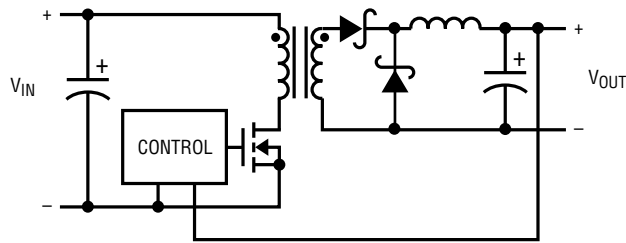
- Higher Output Power than Flyback
- Smaller Transformer than Flyback
- Higher Efficiency than Flyback
- Second Inductor Required

**Flyback Regulator**



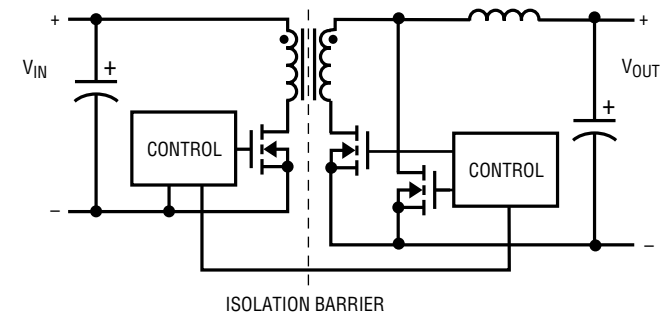
- Isolated and Nonisolated
- High  $\frac{V_{OUT}}{V_{IN}}$  Ratios
- 80% plus Efficiency
- Simple

**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, Comp

Power  
Management  
SW TOPOLOGIES

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

# LINEAR REGULATORS (LDOs)

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

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)	ThinSOT, DFN-8	E	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)	ThinSOT, DFN-8	E	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)	ThinSOT, DFN-8	E	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)	ThinSOT, DFN-8	E	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), 1.8, 3.3, 5	SC70-8, 2x2 DFN-6	E	Ultralow I <sub>O</sub> , 1μF Ceramic Caps, ±2% Accuracy, Low θ <sub>JA</sub> Pkgs	\$0.95
LT3010	0.05	1.5	80	1.275	0.30	30	<1	Adj, 5	MSOP-8	E	Low Noise <100μV <sub>RMS</sub> , Stable with 1μF Ceramic Capacitors	\$1.55
<b>LT3011</b>	<b>0.05</b>	<b>3.0</b>	<b>80</b>	<b>1.24</b>	<b>0.30</b>	<b>45</b>	<b>&lt;1</b>	<b>Adj</b>	<b>MSOPE-12, 3x3 DFN</b>	<b>E, H</b>	<b>Power Good Flag with Programmable Delay</b>	<b>TBD</b>
LT3020	0.1	0.9	10	0.20	0.15	120	<1	Adj, 1.2, 1.5, 1.8	MSOP-8, DFN-8	E, H	Low Noise <250μV <sub>RMS</sub> , V <sub>OUT</sub> (MIN) = 0.2V	\$1.50
LT1761	0.1	1.8	20	1.22	0.30	20	<1	Adj, 1.2, 1.5, 1.8, 2.5, 2.8, 3, 3.3, 5	ThinSOT	E, M	Low Noise <20μV <sub>RMS</sub> , Stable with 1μF Ceramic Capacitors	\$0.90
LT3023	Dual 0.1	1.8	20	1.22	0.30	40	<1	Adj (1.22 to 20)	MSOP-10E, DFN-10	E	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
LT1121/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	\$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	\$1.30
LTC1844	0.15	1.6	6.5	1.25	0.11	40	<1	Adj, 1.5, 1.8, 2.5, 2.8, 3.3	ThinSOT	E	Low Noise <30μV <sub>RMS</sub> , Stable with 1μF Ceramic Capacitors	\$1.15
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	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, 4x3 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, 4x3 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)	2x2 DFN-6	E	45mV Dropout Voltage, Minimum V <sub>IN</sub> of 0.9V, 2x2 DFN	\$1.65
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)	3x2 DFN-8	E	VLDO with Charge Pump Bias Generator	\$1.29
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, 4x3 DFN-12	M	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	5x5 DFN-16, SO-8	I	Stable with 3.3μF Ceramic Capacitors, High Accuracy	\$2.25
<b>LTC3025</b>	<b>0.5</b>	<b>0.9</b>	<b>5.5</b>	<b>0.40</b>	<b>0.08</b>	<b>54</b>	<b>&lt;1</b>	<b>Adj (0.4 to 3.6), 1.2, 1.5, 1.8</b>	<b>2x2 DFN-6</b>	<b>E</b>	<b>75mV Dropout @ 500mA</b>	<b>\$1.38</b>
LT3024	Dual 0.5/0.1	1.8	20	1.22	0.30	60	<1	Adj (1.22 to 20)	TSSOP-16E, 4x3 DFN-12	E	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, 5x3 DFN-16	I	Dual Inputs, Dual 500mA/100mA Output, Low Noise <20μV <sub>RMS</sub>	\$2.55
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, TO-220, TSSOP-20	E, I	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
<b>LT3080/-1</b>	<b>1.1</b>	<b>1.2</b>	<b>36</b>	<b>Current 10μA</b>	<b>0.30</b>	<b>1mA</b>	<b>n/a</b>	<b>Adj (0 to 35.7)</b>	<b>3x3 DFN-8, MSOP-8, SOT-223, TO-220</b>	<b>E</b>	<b>Current Reference; Single Resistor Sets V<sub>OUT</sub>; Parallel for Higher Current or to Spread PCB Heat, Low Noise &lt;40μV<sub>RMS</sub>; "-1" has Integrated Ballast Resistor</b>	<b>\$1.81</b>
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	3x3 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)	3x3 DFN-10, MSOP-10	E	Ideal for Low-Voltage Conversion, Good PSRR at High Frequency, External Boost Rail Gives 5.5V Max Input. PowerGood Output.	\$2.20
LT317A	1.5	3.8	40	1.25	2.50	1.5mA	n/a	Adjustable	TO-220	I	Guaranteed Voltage Tolerance and Line/Load Regulation	\$2.00
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	Low Noise <40μV <sub>RMS</sub> , "A" Version Stable with 10μF Ceramic Capacitors	\$2.45
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, M	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
LT1585/A-1.5/3.3	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	\$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

† Primary Sort Column

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

Amps, Refs,  
Filters, Comp

Power  
Management  
LDOs, MONO BUCK

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

Part Number	† Output Current (A)	VIN Min (V)	VIN Max (V)	Reference Voltage (V)	Dropout Voltage (V@IOUT)	IO (Supply) (µA)	Shutdown Current (µA)	Output Voltage (V)	Package	Extended Temp Range	Comments	Price 1K Qty
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		Fast Transient Response, Remote Sense	\$7.00
<b>Negative Regulators</b>												
LT1964	0.2	-1.9	-20	-1.21	0.34	30	3	Adj, -5	TO-220	E	Low Noise <30µVRMS, 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	-4.2	-35	-2.40	0.80	2.5mA	<1	Adjustable	DD, TO-220	I	Accurate Programmable Current Limit, Remote Sense	\$3.55
<b>Discrete Pass Element Drivers and Regulators - Very Low Dropout</b>												
LT1123	3	n/a	30	5.00	-(1)	700	n/a	5	SOT-223, TO-92		Fast Transient Response, Requires External Transistor	\$1.25
LT1573	5	2.8	10	1.265	-(1)	1.7mA	200	Adj, 2.5, 2.8, 3.3	SO-8	I	Fast Transient Response, Requires External Transistor	\$1.75
LT3150	10(1)	1.4	10	1.23	0.13	12mA	25	Adjustable	SSOP-16		Drives Low Cost N-Channel MOSFETs, Ultra-Fast Transient Response	\$3.70
LT1575	-(1)	n/a	22	1.210	-(1)	12mA	n/a	Adj, 1.5, 2.8, 3.3, 5	DP-8, SO-8		Drives Low Cost N-Channel MOSFETs, Ultra-Fast Transient Response	\$2.40
LT1577	-(1)	n/a	22	1.210	-(1)	12mA	n/a	Adj, 2.8, 3.3	SO-16		Drives Low Cost N-Channel MOSFETs, Ultra-Fast Transient Response	\$4.45

† Primary Sort Column

Note:  
1. Depends on selection of external MOSFET

MONOLITHIC BUCK (STEP-DOWN)

Part Number	VIN Min (V)	VIN Max (V)	VOUT Min (V)	VOUT Max(1) (V)	† Output Current(2) (A)	Max Switch Current (A)	Synchronous	Ext SYNC(3)	Switching Frequency(3) (kHz)	IO (SUPPLY) (µA)	ISHDN (µA)	Package	Extended Temp Range	Comments	Price 1K Qty(4)
LT3470	4.0	40	1.25	16	0.25	0.3	-	-	Hyster	26	<1	ThinSOT, 3x2 DFN-8	H	Integrated Schottky and Catch Diodes	\$2.30
LTC1779	2.5	9.8	0.8	VIN	0.25	0.5	-	-	550kHz	135	8	ThinSOT	E	100% Duty Cycle, 94% Efficiency	\$1.90
LTC3549	1.6	5.5	0.61	VIN	0.3	0.3	yes	-	2.25MHz	50	<1	2x3 DFN-6	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$1.35
LT1934/-1	3.2	34	1.25	0.83VIN	0.3/0.07	0.35/0.09	-	-	COT	12	<1	ThinSOT	E	-1, Same Electrical with Isw = 90mA	\$2.20
LTC3410/B	2.5	5.5	0.8	VIN	0.3	0.38	yes	-	2.25MHz	26	<1	SC70	E	96% Efficiency in 2x2 Footprint	\$1.50
LTC1474/75	3.0	18	1.23	VIN	0.32	0.4	-	-	COT	10	<6	MSOP-8	I	Pushbutton On/Off for LTC1475, 100% Duty Cycle, 92% Efficiency	\$3.75
<b>LTC3544/B</b>	<b>2.3</b>	<b>5.5</b>	<b>0.8</b>	<b>VIN</b>	<b>0.3/0.2x2/0.1</b>	<b>0.4</b>	<b>yes</b>	<b>-</b>	<b>2.25MHz</b>	<b>80</b>	<b>&lt;1</b>	<b>3x3 QFN-16</b>	<b>I</b>	<b>Quad Output, Synchronous, 100% Duty Cycle, 96% Efficiency, "B" has Burst Mode Disabled</b>	<b>\$2.95</b>
LTC3547/B	2.5	5.5	0.6		0.3x2	0.4	yes	-	2.25MHz	40	<1	3x2 DFN-8	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency	\$1.95
LTC3405/A	2.7	6	0.8	VIN	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	0.9VIN	0.4	0.5	-	yes	200kHz	75	<1	DFN-10, TSSOP-16E	H	80V, Burst Mode Device	\$2.25
<b>LTC3522</b>	<b>2.4</b>	<b>5.5</b>	<b>0.6</b>	<b>5.5</b>	<b>0.4/0.2</b>	<b>0.65</b>	<b>yes</b>	<b>-</b>	<b>100kHz to 2MHz</b>	<b>55</b>	<b>&lt;1</b>	<b>3x3 QFN-10</b>	<b>E</b>	<b>Dual Output Synchronous 400mA Buck-Boost and 200mA Buck</b>	<b>\$2.50</b>
LTC1174/HV	4.0	13.5/18.5	1.25	0.7VIN	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	0.7VIN	0.43	0.54	-	-	COT	130	<2	SO-16		Fixed Outputs of 3.3V, 5V Available	\$3.50
LT1777	7.0	48	1.24	0.85VIN	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	0.85VIN	0.44	0.55	-	yes	100kHz	3.2mA	2.5	SO-8	I	Wide Input Range	\$2.60
LT1776	7.4	40	1.24	0.85VIN	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	0.8VIN	0.48	0.6	yes	-	800kHz	160	<1	SO-8, MSOP-8	E	Synchronous, "B" Version is Burst Mode Defeat	\$1.95
LTC1433/34	3.5	13.5	1.3	VIN	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	0.9VIN	0.5	0.7	-	-	1.1/2.2MHz	1.5mA	<1	2x2 DFN-8	I	40V, 500mA from a 2x2 DFN	\$1.95
LTC3542	2.5	5.5	0.6	VIN	0.5	0.7	yes	yes	2.25MHz	26	<1	2x2 DFN-6, ThinSOT	E	Synchronous, 100% Duty Cycle, 95% Efficiency,	\$1.60
LTC3541	2.7	5.5	0.8	VIN	0.5/0.3	0.8	yes	-	2.25MHz	85µA	2.5	3x3 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	0.7	-	-	2.25MHz	26	<1	2x2 DFN-6	E	Pin-Selectable Outputs, Synchronous, 100% Duty Cycle, 95% Efficiency,	\$1.60
LT1616	3.6	25	1.25	0.8VIN	0.5	0.63	-	-	1.4MHz	1.9mA	<1	ThinSOT	E	Circuit Footprint ≤ VIN 50mm²	\$1.95
LTC1504/A	4.0	10	1.27	0.84VIN	0.5	1.0	-	-	200kHz	3mA	<1	SO-8	I	Synchronous, 100% Duty Cycle, 92% Efficiency, Fixed Output of 3.3V Available	\$2.40
LTC1707	2.9	8.5	0.8	VIN	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	VIN	0.6	0.8	yes	-	2.25MHz	45	<1	2x3 DFN-6	E	Synchronous, 100% Duty Cycle, 95% Efficiency, Spread Spectrum	\$1.95
LTC3403	2.5	5	0.3	VIN	0.6	0.7	yes	-	1.5MHz	20	<1	3x3 DFN-8	E	Synchronous, Integrated Bypass MOSFET	\$2.10
LTC3408	2.5	5	0.3	VIN	0.6	0.7	yes	-	1.5MHz	1.5mA	<1	3x3 DFN-8	E	Synchronous, Integrated 0.08Ω Bypass MOSFET	\$1.90
LTC3448	2.5	5.5	0.6	VIN	0.6	0.7	yes	yes	1.5MHz/2.25MHz	32	<1	MSOP-8E, 3x3 DFN-8	E	LDO Mode for Low Noise Operation	\$2.05
LTC3409	1.6	5.5	0.62	VIN	0.6	0.75	yes	yes	2.6MHz	60	<1	3x3 DFN-8	E	Minimum VIN = 1.6V, Synchronous, 100% Duty Cycle, Ideal for 2-Cell AA Alkaline	\$2.15

† Primary Sort Column

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



# MONOLITHIC BUCK (STEP-DOWN)

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 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>(2)</sup>	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SDRN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty <sup>(4)</sup>
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	<1	ThinSOT	E	Synchronous, 100% Duty Cycle, 96% Efficiency, "A" Version Has Low Ripple Pulse Skip Mode, "AB" Also Disables Burst Mode	\$1.83
LTC3406B	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.75	yes	-	1.5MHz	300	<1	ThinSOT	E	LTC3406 with 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/-1	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	\$1.95
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
<b>LT3509</b>	<b>3.7</b>	<b>36</b>	<b>0.8</b>	<b>0.9V<sub>IN</sub></b>	<b>0.7×2</b>	<b>1.2</b>	-	<b>yes</b>	<b>250kHz to 2.5MHz</b>	<b>2.8mA</b>	<b>&lt;1</b>	<b>4×3 DFN-14</b>	<b>H</b>	<b>36V Input, Dual 0.7A Outputs</b>	<b>C.F.</b>
LTC1701/B	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	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
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
LTC3407-2/ -3/-4/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; "A" has Soft-Start, "-4" has Reduced POR Time, "-3" has Fixed 1.8V and 3.3V Outputs	\$2.95
<b>LTC3545</b>	<b>2.3</b>	<b>5.5</b>	<b>0.6</b>	<b>V<sub>IN</sub></b>	<b>0.8×3</b>	<b>1.0</b>	<b>yes</b>	<b>yes</b>	<b>2.25MHz</b>	<b>60.0</b>	<b>&lt;1</b>	<b>3×3 QFN-16,</b>	<b>E</b>	<b>Synchronous Triple 800mA Outputs. "-1" Replaces SYNC Pin with Power Good and Forces Burst Mode Operation</b>	<b>\$3.10</b>
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	I	Fixed Output of 5V Available	\$3.10
LTC3561	2.6	5.5	0.8	V <sub>IN</sub>	1.0	1.3	yes	-	850kHz to 4MHz	240	<1	3×3 DFN	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$2.50
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	\$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
LT3505	3.6	36	0.78	0.87V <sub>IN</sub>	1.2	1.4	-	-	300kHz to 2.8MHz	1.9mA	2	3×3 DFN-6	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
LT1375/76/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/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
LTC1879	2.7	10	0.8	V <sub>IN</sub>	1.2	1.5	yes	yes	550kHz	15	<1	TSSOP-20E	E	Synchronous, 100% Duty Cycle, 95% Efficiency, Integrated PLL	\$3.60
LTC3411	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	\$3.20
LTC3417/A	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	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	\$2.85
<b>LT3417A-2</b>	<b>2.25</b>	<b>5.5</b>	<b>0.8</b>	<b>V<sub>IN</sub></b>	<b>1.5/1.0</b>	<b>1.8</b>	<b>yes</b>	<b>yes</b>	<b>600kHz to 4MHz</b>	<b>125</b>	<b>&lt;1</b>	<b>TSSOP-20E, 5×3 DFN-16</b>	<b>I</b>	<b>Dual Synchronous, 100% Duty Cycle, 95% Efficiency, "A-2" Grade Offers Lowest Noise</b>	<b>\$2.93</b>

† Primary Sort Column

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

# 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>(2)</sup>	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SDON</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty <sup>(4)</sup>
	LTC1875	2.7	6	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
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	-	-	750kHz/1.1MHz	3.8mA	<30	TSSOP-16E, 5×4 DFN	E	Dual Switches in TSSOP-16E or DFN	\$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	\$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
<b>LT1912</b>	<b>3.6</b>	<b>36</b>	<b>0.79</b>	<b>0.9V<sub>IN</sub></b>	<b>2.0</b>	<b>3</b>	-	<b>yes</b>	<b>260kHz to 2MHz</b>	<b>0.8mA</b>	<b>&lt;1</b>	<b>3×3 DFN-10</b>	<b>I</b>	<b>2A, 36V Step-Down</b>	<b>\$2.95</b>
LT3481	3.5	34	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, I <sub>Q</sub> <50μA, Synchronizable	\$3.25
LT3681	3.6	34	1.3	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	1.3	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	1.3	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
<b>LT1939</b>	<b>3</b>	<b>25</b>	<b>0.8</b>	<b>0.9V<sub>IN</sub></b>	<b>2/5</b>	<b>2.3</b>	-	<b>yes</b>	<b>250kHz to 2.2MHz</b>	<b>2.5mA</b>	<b>&lt;12</b>	<b>3×3 DFN-10</b>	<b>I</b>	<b>2A, 25V Step-Down with LDO Controller</b>	<b>\$3.05</b>
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 3A Switches in TSSOP-20E	\$3.25
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
<b>LT3507</b>	<b>4</b>	<b>40</b>	<b>0.8</b>	<b>0.9V<sub>IN</sub></b>	<b>2.4/1.5/1.5</b>	<b>3</b>	-	<b>yes</b>	<b>250kHz to 2.5MHz</b>	<b>2mA</b>	<b>&lt;1</b>	<b>5×7 QFN-38</b>	<b>H</b>	<b>40V Input with Triple Outputs</b>	<b>\$4.25</b>
<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 Dual Li-Ion</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	-	4.0MHz	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
<b>LT1913</b>	<b>3.6</b>	<b>25</b>	<b>0.79</b>	<b>30</b>	<b>3.5</b>	<b>4.6</b>	-	-	<b>250kHz to 2.4MHz</b>	<b>1.3mA</b>	<b>&lt;1</b>	<b>3×3 DFN-10</b>	<b>I</b>	<b>25V Operation</b>	<b>\$3.65</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	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	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
LTC3415	2.5	5.5	0.6	V <sub>IN</sub>	7	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	12	yes	yes	300kHz to 4MHz	380	<1	5×7 QFN-38	E	Tracking, Synchronous, 100% Duty Cycle, 95% Efficiency	\$5.73
<b>LTC3611</b>	<b>4</b>	<b>32</b>	<b>0.6</b>	<b>V<sub>IN</sub></b>	<b>10</b>	<b>15</b>	<b>yes</b>	-	<b>1MHz</b>	<b>900</b>	<b>&lt;15</b>	<b>9×9 QFN-64</b>	<b>I</b>	<b>32V, 10A Monolithic</b>	<b>\$9.95</b>
LTC3610	4	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. COT = Constant Off Time
4. C.F. = Contact Factory

Amps, Refs, Filters, Comp  
 Power Management  
 MONO BUCK  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material



Part Number	VIN Min (V)	VIN Max (V)	VOUT Min (V)	VOUT Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Max Switch Current (A)		Switching Frequency <sup>(3)</sup>	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
						Synchronous								
LTC3470	4	40	1.25	16	0.2	0.25	-	Hyster	26	<1	ThinSOT, 3×2 DFN-8	H	Integrated Schottky and Catch Diodes	\$2.30
LTC3549	1.6	5.5	0.61	V <sub>IN</sub>	0.25	0.3	yes	2.25MHz	50	<1	2×3 DFN-6	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
<b>LTC3670</b>	<b>2.5</b>	<b>5.5</b>	<b>0.8</b>	<b>V<sub>IN</sub></b>	<b>0.4</b>	<b>0.6</b>	<b>yes</b>	<b>2.25MHz</b>	<b>70</b>	<b>&lt;1</b>	<b>2×3 DFN-12</b>	<b>E</b>	<b>Triple Output, Synchronous Switchers + Dual LDOs, Adjustable Outputs</b>	<b>\$1.95</b>
<b>LTC3672B</b>	<b>2.9</b>	<b>5.5</b>	<b>0.8</b>	<b>V<sub>IN</sub></b>	<b>0.4</b>	<b>1.2</b>	<b>yes</b>	<b>2.25MHz</b>	<b>260</b>	<b>&lt;1</b>	<b>2×2 DFN-8</b>	<b>E</b>	<b>Triple Output, Synchronous Switchers + Dual LDOs, Fixed Outputs</b>	<b>\$1.95</b>
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	E	Dual Output, Synchronous, 100% Duty Cycle, 96% Efficiency	\$1.95
LTC3544	2.3	5.5	0.8	V <sub>IN</sub>	0.3/0.2×2/ 0.10	0.4	yes	2.25MHz	80	<1	3×3 QFN-16	E	Quad Output, Synchronous, 100% Duty Cycle, 96% Efficiency.	\$2.95
LT1934/-1	3.2	34	1.25	0.85V <sub>IN</sub>	0.3/0.07	0.35/0.09	-	COT	12	<1	2×3 DFN-6, TSOT-23	E	-1, Same Electricals with 90mA I <sub>sw</sub>	\$2.20
LTC3410	2.5	5.5	0.8	V <sub>IN</sub>	0.3	0.38	yes	2.25MHz	26	<1	SC70	E	96% Efficiency in 2×2 Footprint	\$1.50
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
LTC1474/75	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
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
LTC3406/A/AB	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.75	yes	1.5MHz	20	<1	ThinSOT	I	Synchronous, 100% Duty Cycle, 96% Efficiency, "B" Version Disables Burst Mode, "A" Version Has Low Ripple Pulse Skip Mode	\$1.83
LTC3406B	2.5	5.5	0.6	V <sub>IN</sub>	0.6	0.75	yes	1.5MHz	300	<1	ThinSOT	E	Synchronous, 100% Duty Cycle, 96% Efficiency, "B" Version Disables Burst Mode 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/-1	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	\$1.95
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
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	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
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	\$2.95
LTC3407-2/ -3/-4/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; "A" has Soft-Start, "-4" has Reduced POR Time, "-3" has Fixed 1.8V and 3.3V Outputs	\$2.95
<b>LTC3545/-1</b>	<b>2.3</b>	<b>5.5</b>	<b>0.6</b>	<b>V<sub>IN</sub></b>	<b>0.8×3</b>	<b>1</b>	<b>yes</b>	<b>2.25MHz</b>	<b>60</b>	<b>&lt;1</b>	<b>3×3 QFN-16</b>	<b>E</b>	<b>Synchronous Triple 800mA Outputs</b>	<b>\$3.10</b>
<b>LTC3562</b>	<b>2.9</b>	<b>5.5</b>	<b>0.6</b>	<b>V<sub>IN</sub></b>	<b>0.8×2/ 0.6×2</b>	<b>yes</b>	<b>yes</b>	<b>2.25MHz</b>	<b>100</b>	<b>&lt;1</b>	<b>3×3 QFN-20</b>	<b>E</b>	<b>Quad Output with I<sup>2</sup>C Interface, Synchronous, 100% Duty Cycle, 96% Efficiency</b>	<b>\$3.25</b>
LTC3561	2.6	5.5	0.8	V <sub>IN</sub>	1.0	1.4	yes	850kHz to 4MHz	240	<1	3×3 DFN-8	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$2.50
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	\$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
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	2.5	5.5	0.8	V <sub>IN</sub>	1.25	1.6	yes	300kHz to 4MHz	60	<1	MSOP-10	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$3.20
LTC3417/A	2.25	5.5	0.8	V <sub>IN</sub>	1.4/1.5	1.8	yes	600kHz to 4MHz	125	<1	TSSOP-20E, 3×5 DFN-20	E	Synchronous, 100% Duty Cycle, 95% Efficiency	\$3.45
<b>LTC3417A-2</b>	<b>2.25</b>	<b>5.5</b>	<b>0.8</b>	<b>V<sub>IN</sub></b>	<b>1.5/1.0</b>	<b>1.8</b>	<b>yes</b>	<b>600kHz to 4MHz</b>	<b>125</b>	<b>&lt;1</b>	<b>TSSOP-20E, 5×3 DFN-20</b>	<b>I</b>	<b>Dual Synchronous, 100% Duty Cycle, 95% Efficiency, "A-2" Grade Offers Lowest Noise</b>	<b>\$2.93</b>
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

† Primary Sort Column

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



Amps, Refs,  
Filters, Comp

Power  
Management  
µPOWER BUCK

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

# MICROPOWER MONOLITHIC BUCK

Amps, Refs,  
Filters, Comps

Power  
Management  
µPWR BUCK / BUCK CONTROLLERS

Data  
Conversion

Interface

High  
Frequency

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	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
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 w/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>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
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>O</sub> =75µA	\$4.15
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>LTC3611</b>	<b>4</b>	<b>32</b>	<b>0.6</b>	<b>V<sub>IN</sub></b>	<b>10</b>	<b>15</b>	<b>yes</b>	<b>1MHz</b>	<b>900</b>	<b>&lt;15</b>	<b>9×9 QFN-64</b>	<b>I</b>	<b>32V, 10A Monolithic</b>	<b>\$9.95</b>
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

# 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>O</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	2.5	9.8	0.8	V <sub>IN</sub>	5	-	-	550kHz		270	ThinSOT	H	Burst Mode at Light Load	\$2.70
LTC1772B	2.5	9.8	0.8	V <sub>IN</sub>	5	-	-	550kHz		270	ThinSOT	E	Continuous 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>O</sub> , No R <sub>SENSE</sub>	\$1.85
LTC3801	2.5	9.8	0.8	V <sub>IN</sub>	5	-	-	550kHz		16	ThinSOT	E	Very Low Standby Current, LTC1772 Pin-Out	\$1.95
LTC3801B	2.5	9.8	0.8	V <sub>IN</sub>	5	-	-	550kHz		16	ThinSOT	E	Continuous Operation at Light Load	\$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	With Spread Spectrum Frequency Modulation	\$2.60
LTC3809	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	With Spread Spectrum Frequency Modulation	\$2.00
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	With Output Tracking	\$2.00
LTC3700	2.65	9.8	0.8	5	5/0.15	-	-	550kHz		210	MSOP-10	E	Controller with 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	Output Tracking and Enhanced Gate Drivers	\$3.80
LTC3736-1	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	Dual, 2-Phase, Spread Spectrum Operation and Output Tracking	\$4.40
LTC3736-2	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	Dual, 2-Phase Output Tracking	\$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	\$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
<b>LT3742</b>	<b>3.5</b>	<b>30</b>	<b>0.8</b>	<b>V<sub>IN</sub></b>	<b>5×2</b>	-	-	<b>500kHz</b>	-	<b>5mA</b>	<b>4×4 QFN-24</b>	<b>E</b>	<b>100% Duty Cycle, High Output Voltage, Capacitor Charger</b>	<b>\$2.30</b>
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	2.7	10	2.7	10	10	yes	-	100kHz to 1MHz	yes	86	4×4 QFN-24	E	Very High Efficiency Buck-Boost Controller, Low I <sub>O</sub>	\$3.56
LTC1143	3.5	16	1.25	V <sub>IN</sub>	10×2	-	-	Variable		1.6mA	SO-16		Dual, See the LTC3850 or LTC3728 for Improved Performance and Smaller Design	\$1.85
LTC1142	3.5	20	1.25	V <sub>IN</sub>	10×2	yes	-	Variable		1.6mA	SSOP-28		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

† 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		Switching Frequency	No Sense Resistor	I <sub>Q</sub> (I <sub>SUPPLY</sub> ) (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
						External SYNC <sup>(1)</sup>	External SYNC <sup>(1)</sup>							
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	I	100% Duty Cycle, Low Quiescent Current	\$2.34
LT3844	4	60	1.23	36	10	-	yes	100kHz to 500kHz		120	TSSOP-16	E, I	High Voltage 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		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/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
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
<b>LTC3834</b>	<b>4</b>	<b>36</b>	<b>0.8</b>	<b>10</b>	<b>20</b>	<b>yes</b>	<b>yes</b>	<b>140kHz to 650kHz</b>		<b>30</b>	<b>4×5 QFN, TSSOP-20</b>	<b>E, I</b>	<b>Low Quiescent Current (30μA)</b>	<b>\$3.88</b>
<b>LTC3834-1</b>	<b>4</b>	<b>36</b>	<b>0.8</b>	<b>10</b>	<b>20</b>	<b>yes</b>	<b>yes</b>	<b>140kHz to 650kHz</b>		<b>30</b>	<b>3×5 DFN, SSOP-16</b>	<b>E, I</b>	<b>LTC3834 with No PGOOD, EXT<sub>VCC</sub> or CLOCKSOUT Pins</b>	<b>\$3.69</b>
LTC3835	4	36	0.8	10	20	yes	yes	140kHz to 650kHz		80	4×5 QFN-20, TSSOP-20	E	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 CLOCKSOUT 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	7	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 + Power Good signal	\$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

† Primary Sort Column  
 †† Secondary Sort Column



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

Amps, Refs, Filters, Comp  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 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
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, SSOP-24	I	Very High Efficiency Buck-Boost Controller	\$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
<b>LTC3850</b>	<b>4</b>	<b>24 or 30</b>	<b>0.8</b>	<b>5.5</b>	<b>25×2</b>	<b>yes</b>	<b>yes</b>	<b>250kHz to 750kHz</b>	<b>optional</b>	<b>850</b>	<b>4×4 QFN-28, 4×5 QFN-28, SSOP-28</b>	<b>E, I</b>	<b>Dual, Tracking, PLL, Synchronizable and Adjustable Soft-Start. "I" Temp Grade has 28V Operational and 30V Abs Max</b>	<b>\$2.40</b>
<b>LTC3850-1</b>	<b>4</b>	<b>24 or 30</b>	<b>0.8</b>	<b>5.5</b>	<b>25×2</b>	<b>yes</b>	<b>yes</b>	<b>250kHz to 750kHz</b>	<b>optional</b>	<b>850</b>	<b>SSOP-28</b>	<b>E, I</b>	<b>LTC3850 with I<sub>LIM</sub> Replaced by EXT<sub>VCC</sub> in SSOP Package</b>	<b>\$2.40</b>
LTC3728L	4.5	28	0.8	5.5	25×2	yes	yes	≤550kHz		450	5×5 QFN-32, SSOP-28	E, I	Dual, Small Package, High Frequency	\$4.55
LTC3728LX/-1	4.5	28	0.8	5.5	25×2	yes	yes	≤550kHz		450	5×5 QFN-32	E	Dual, 2% Reference Voltage Accuracy	\$4.30
LTC3728	4.5	36	0.8	5.5	25×2	yes	yes	≤550kHz		450	QFN-32, SSOP-28	E	Dual, Small Package, High Frequency	\$5.00
LTC3707/-SYNC	4	30	0.8	6	25×2	yes	-/yes	100kHz to 300kHz		350	SSOP-28	E	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, On-Board 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	SSOP-28, 5×5 QFN-32	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
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 Skip, 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 w/ 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 Skip, or Low Ripple Burst Mode	\$5.50
LTC3826-1	4	36	0.8	10	25×2	yes	yes	140kHz to 650kHz		50	SSOP-28	E, I	LTC3826 w/ No PHASE MODE, CLKOUT, PGOOD2 or FoldBack Disable Pins	\$5.38
LTC3812-5	4.2	60	0.8	0.93V <sub>IN</sub>	25	yes	-	100kHz to 1MHz	optional	3mA	TSSOP-16E	E	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	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	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
LTC3722-1	3.8	10.3	5	5	40	yes	yes	≤1MHz		7mA	SSOP-24	E	Current Mode	\$5.50
LTC3722-2	3.8	10.3	5	5	40	yes	yes	≤1MHz		7mA	SSOP-24	E	Voltage Mode	\$5.50
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	0.99V <sub>IN</sub>	40	yes	yes	150kHz to 300kHz		470	SSOP-28	I	2-Phase Operation; Great Thermal Management	\$4.25
LTC3732	4.5	36	0.8	7	60 or 20×3	yes	yes	250kHz to 600kHz		2.3mA	SSOP-28		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 - Up to 12 Phases	\$3.75
LTC3729L-6	4.5	30	0.6	7	240	yes	yes	250kHz to 550kHz		450	SSOP-28	E	LTC3729 with 0.6V Reference	\$5.60
LTC3729	4.5	36	0.8	0.99V <sub>IN</sub>	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	0.99V <sub>IN</sub>	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	0.99V <sub>IN</sub>	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

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>O</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	E	Low I <sub>O</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	\$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	\$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
LTC3824	4	60	0.8	V <sub>IN</sub>	10	no		200kHz to 600kHz		40	MSOP-10	I	100% Duty Cycle, Small Package	\$2.34
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
<b>LTC3834</b>	<b>4</b>	<b>36</b>	<b>0.8</b>	<b>10</b>	<b>20</b>	<b>yes</b>		<b>140kHz to 650kHz</b>		<b>30</b>	<b>4×5 QFN, TSSOP-20</b>	<b>E, I</b>	<b>Low Quiescent Current</b>	<b>\$3.88</b>
<b>LTC3834-1</b>	<b>4</b>	<b>36</b>	<b>0.8</b>	<b>10</b>	<b>20</b>	<b>yes</b>		<b>140kHz to 650kHz</b>		<b>30</b>	<b>3×5 DFN, SSOP-16</b>	<b>E, I</b>	<b>LTC3834 without PGOOD, EXT<sub>V</sub>CC, CLOCKOUT or PhaseMode Pins</b>	<b>\$3.69</b>
LTC3835	4	36	0.8	10	20	yes		140kHz to 650kHz		80	4×5 QFN, TSSOP-20	E	Low Quiescent Current	\$3.55
LTC3835-1	4	36	0.8	10	20	yes		140kHz to 650kHz		80	3×5 DFN, SSOP-16	E, I	LTC3835 with No P <sub>GOOD</sub> , EXT <sub>V</sub> CC 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>O</sub> , Selectable Continuous, Pulse Skip, or Low Ripple Burst Mode	\$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>O</sub> , Selectable Continuous, Pulse Skip, 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

PolyPhase® DC/DC CONTROLLERS

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>O</sub> (μA)	Frequency Per Phase	No Sense Resistor	Package	Extended Temp Range	Comments	Price 1K Qty
LT3782 <sup>(1)</sup>	1	2	6	40	>V <sub>IN</sub>	<sup>(1)</sup>	30	11mA	150kHz to 500kHz		SSOP-28	E, I	Step-Up Controller	\$4.70
LTC1929	1	2	4	36	0.8	7	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
<b>LT3742</b>	<b>2</b>	<b>2</b>	<b>3.5</b>	<b>30</b>	<b>0.8</b>	<b>V<sub>IN</sub></b>	<b>5×2</b>	<b>5mA</b>	<b>500kHz</b>		<b>4×4 QFN-24</b>	<b>E</b>	<b>100% Duty Cycle, High Output Voltage, Capacitor Charger</b>	<b>\$2.30</b>
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
LTC3707	2	2	4	30	0.8	6	25×2	350	150kHz to 300kHz		SSOP-28	E	99% Duty Cycle, Low V <sub>IN</sub>	\$4.45
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
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
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
<b>LTC3850</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>24, 30</b>	<b>0.8</b>	<b>5.5</b>	<b>25×2</b>	<b>850</b>	<b>250kHz to 750kHz</b>	<b>x</b>	<b>4×4 QFN-28, 4×5 QFN-28 SSOP-28</b>	<b>E, I</b>	<b>Tracking, PLL, Synchronizable and Adjustable Soft-Start</b>	<b>\$2.40</b>
<b>LTC3850-1</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>24, 30</b>	<b>0.8</b>	<b>5.5</b>	<b>25×2</b>	<b>850</b>	<b>250kHz to 750kHz</b>	<b>x</b>	<b>SSOP-28</b>	<b>E, I</b>	<b>LTC3850 with I<sub>LIM</sub> replaced by EXT<sub>V</sub>CC, SSOP Package</b>	<b>\$2.40</b>
LTC3850	2	2	4	24	0.8	5.5	25×2	850	250kHz to 750kHz	x	4×4 QFN-28, SSOP-28	E	On-Board Tracking, PLL, Synchronizable and Adjustable Soft-Start	\$2.40

† Primary Sort Column

†† Secondary Sort Column

Amps, Refs, Filters, Comp  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# PolyPhase® DC/DC CONTROLLERS

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
LTC3728/L/LC/LXC	2	2	4	30	0.8	7	20×2	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	36	0.8	7	25×2	450	140kHz to 650kHz		5×5 QFN-32, SSOP-28	E	Overcurrent Latch-Off Disabled	\$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	On-Board 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
LTC3731	1 to 4	3 to 12	4	36	0.6	7	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	7	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	7	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	7	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	7	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	7	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

## 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>IT</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	\$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	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	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

† Primary Sort Column

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
LTC3734	Centrino, Banias	1	VID		4	36	0.7	1.71	20	External, Synchronous	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	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

MONOLITHIC BOOST (STEP-UP)

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)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
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
LT1944-1	1	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	2.3	15	±34	0.29 * 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	E	Integrated Schottky Diode, Soft-Start	\$1.65
LT3460	2.5	16	36	0.20 * V <sub>IN</sub> /V <sub>OUT</sub>	0.3	-	1.3MHz	2mA	<1	SC70, ThinSOT	E	320mA Switch in SC70, V <sub>OUT</sub> to 36V	\$1.60
LT3461	2.5	16	38	0.20 * V <sub>IN</sub> /V <sub>OUT</sub>	0.3	-	1.3MHz	2.8mA	<1	ThinSOT	E	300mA Switch in with Integrated Schottky in ThinSOT	\$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
<b>LT3495/B</b>	<b>2.3</b>	<b>16</b>	<b>40</b>	<b>0.42 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.35</b>	-	<b>APC</b>	<b>60</b>	<b>&lt;1</b>	<b>3×2 DFN-10</b>	<b>E</b>	<b>Low Noise, /B Version Disables Burst Mode</b>	<b>C.F.</b>
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
LT3494/A	2.3	16	38	0.22 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35/0.18	-	COT	65	<1	3×2 DFN-6	E	Integrated Schottky Diode, Soft-Start, Output Disconnect	\$1.45
LT1944	1	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	15	+36	0.23 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35×2	-	COT	20	<1	MSOP-10	E	Dual 350mA, at ±34V Boost Converters in Single Package	\$2.06
LT3482	2.5	16	90	Up to 4mA	0.36	-	650kHz/1.1MHz	3.3mA	<1	3×3 QFN-16	E, I	APD Bias or General Purpose High Voltage (to 90V) Boost	\$3.45
LT3463/A	2.3	15	±34	0.29 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4/0.25	-	COT	40	<1	DFN-10	E	Dual 250mA/250mA (400mA for "A"), Internal Schottkys. Boost/Inverter Converters in Single Package—Ideal for CCD Biasing	\$1.95
LT3472	2.2	16	±34	0.29 * 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

† Primary Sort Column

Amps, Refs, Filters, Comp

Power Management  
DIGITAL PROG. MONO BOOST

Data Conversion

Interface

High Frequency

Reference Material

# MONOLITHIC BOOST (STEP-UP)

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

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)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3525	0.85	4	3/3.3/5	0.26 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4	-	APC	7	<1	SC70	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	0.7	4	3.3	0.26 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4	-	APC	7	<1	SC70	E	Output Disconnect, Only 3 External Components, 0.7V Start-Up	\$1.90
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> Equals 1V, V <sub>OUT</sub> to 30V	\$1.65
LTC3526	0.85	5	5.25	0.325 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5	yes	1.0MHz/2MHz	9/250	<1	2x2 DFN-6	E	Ideal for 2-Cell Applications, "B" Disables Burst Mode, "-2" Has Higher Switching Frequency, "L" Has 0.7V Minimum Start-Up	\$1.75
LTC3427	1.8	5	5.25	0.325 * V <sub>IN</sub> /V <sub>OUT</sub>	0.5	yes	1.25MHz	350	<1	2x2 DFN-6	E	Ideal for Two 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
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		Logic Controlled Shutdown, Adj or Fixed 5V, 12V	\$2.35
LT1307/B	1	12	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, Low-Battery Detector	\$2.05
LT1613	1	10	36	0.36 * V <sub>IN</sub> /V <sub>OUT</sub>	0.55	-	1.4MHz	3mA	<1	ThinSOT		Operates with V <sub>IN</sub> Equals 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	\$1.75
<b>LTC3523/-2</b>	<b>1.8</b>	<b>5.5</b>	<b>5.5</b>	<b>0.39 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.6</b>	<b>yes</b>	<b>1.2/2.4MHz</b>	<b>45</b>	<b>&lt;1</b>	<b>3x3 QFN-16</b>	<b>E</b>	<b>Synchronous Boost and Buck Converter, "-2" Has 2.4MHz Switching</b>	<b>\$2.95</b>
<b>LTC3537</b>	<b>0.7</b>	<b>5.25</b>	<b>5.5</b>	<b>0.39 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.6</b>	<b>yes</b>	<b>2.2MHz</b>	<b>30</b>	<b>&lt;1</b>	<b>3x3 QFN-16</b>	<b>E</b>	<b>Synchronous Boost Converter and LDO</b>	<b>\$2.40</b>
LTC3400/B	0.5	5	6	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	-	1.2MHz	19	<1	ThinSOT	E	/B Version Disables Burst Mode, 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	<1	ThinSOT	E	/B Version Disables Burst Mode, 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	160/7mA	<1/3	MSOP-8, SO-8	I	/B Version Disables Burst Mode, Low-Battery Detector	\$2.25
<b>LT3495-1/B-1</b>	<b>2.3</b>	<b>16</b>	<b>40</b>	<b>0.42 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.65</b>	-	<b>APC</b>	<b>60</b>	<b>&lt;1</b>	<b>3x2 DFN-10</b>	<b>E</b>	<b>Low Noise, /B Version Disables Burst Mode</b>	<b>TBD</b>
LTC3499/B	1.8	5.5	6	0.49 * V <sub>IN</sub> /V <sub>OUT</sub>	0.75	yes	1.2MHz	20	<1	3x3 DFN-8, MSOP-8	E	/B Version Disables Burst Mode, Reverse Battery Protection, Output Disconnect	\$2.15
LT1300/01/03	1.8	10	50	0.49 * 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	\$2.45
LT1304	1.5	8	25	0.52 * V <sub>IN</sub> /V <sub>OUT</sub>	0.8	-	300kHz	120	<10	SO-8		Programmable Peak Current Limit, Low-Battery Detect	\$2.45
<b>LTC3527</b>	<b>0.7</b>	<b>5.25</b>	<b>5.5</b>	<b>0.52 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.8/0.4</b>	<b>yes</b>	<b>1.2 or 2.2MHz</b>	<b>12</b>	<b>&lt;1</b>	<b>3x3 QFN-16</b>	<b>E</b>	<b>Dual Synchronous Outputs, "-1" Quickly Discharges V<sub>OUT</sub> When Entering Shutdown</b>	<b>\$2.95</b>
<b>LT3572</b>	<b>2.7</b>	<b>10</b>	<b>40</b>	<b>0.58 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.9</b>	<b>yes</b>	<b>500kHz to 2.5MHz</b>	<b>3.4mA</b>	<b>&lt;1</b>	<b>4x4 QFN-20</b>	<b>E</b>	<b>Dual Piezo Driver and Boost Regulator</b>	<b>\$2.75</b>
LT3487	2.3	16	28	0.59 * V <sub>IN</sub> /V <sub>OUT</sub>	0.9/0.75	-	2MHz	3.7mA	<5.3	3x3 DFN-10	E	Dual Boost/Inverter	\$2.30
LTC3528/B	0.7	5.5	5.25	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	yes	1.0MHz	12	<1	3x2 DFN-8	E	/B Version Disables Burst Mode, Output Disconnect in Shutdown	\$1.95
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		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		Can Use as Step-Up or Step-Down, 5V or 12V or Adj Output	\$2.30
LT1949	1.5	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 V <sub>IN</sub> 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>PP</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	2.6	6	36	0.72 * V <sub>IN</sub> /V <sub>OUT</sub>	1.1	-	3MHz	9.5mA	<1	MSOP-10	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
LT3473/A	2.2	16	36	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1.2	-	1.2MHz	150	<1	3x3 DFN-8, 4x3 DFN-12	E	Integrated Output Disconnect, Schottky Diode, "A" Version has Dual NPN Transistors for Additional Outputs	\$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	\$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	1.6	4.3	6	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1.4	yes	1.5MHz	15	<1	4x3 DFN-12	E	Outputs Up to 6V, Output Disconnect	\$3.30
LTC3458	1.6	4	8	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1.4	yes	1.5MHz	15	<1	4x3 DFN-12	E	Outputs Up to 7.5V, Output Disconnect	\$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	3x3 DFN-10	E	Output Disconnect, Inrush Current Limiting	\$2.95
LT1618	1.6	18	36	0.98 * V <sub>IN</sub> /V <sub>OUT</sub>	1.5	-	1.4MHz	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	E		\$1.69
LT1946/A	2.45	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
LT1372/77	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	\$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	\$3.50
LT1310	2.75	18	35	0.98 * V <sub>IN</sub> /V <sub>OUT</sub>	1.5	-	4.5MHz	12mA	<1	MSOP-10E	E	Low Noise Output, Synchronizable/Constant Frequency, Thermally Enhanced Package	\$2.85
<b>LT3580</b>	<b>2.5</b>	<b>32</b>	<b>42</b>	<b>1.30 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>2</b>	-	<b>200kHz to 2.5MHz</b>	<b>1mA</b>	<b>&lt;1</b>	<b>3x3 DFN-8, MSOP-8</b>	<b>I</b>	<b>42V, 2A Switch for Boost or Inverting</b>	<b>\$2.00</b>

† Primary Sort Column

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

# MONOLITHIC BOOST (STEP-UP)

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)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
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	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, 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		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	16	38	1.63 * 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
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	\$4.60
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
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	\$2.75
LT3479	2.5	24	40	1.95 * V <sub>IN</sub> /V <sub>OUT</sub>	3	-	3MHz	6.5mA	<1	TSSOP-20E, 4×3 QFN-20	E	3A, 40V Internal Switch, Ideal for Multiple High Current LEDs	\$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, 4×4 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
LT1269/71	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	3×3 DFN-10	E	2-Phase Operation for Small Size, Low Ripple	\$3.50
LTC3425	0.5	4.5	5.25	3.25 * V <sub>IN</sub> /V <sub>OUT</sub>	5	yes	8MHz	12	<1	5×5 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	\$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:

- 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.
- COT = Constant Off Time, APC = Adaptive Power Control

# 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
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>	0.115	-	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	3×2 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>	0.18×2	-	COT	20	<1	MSOP-10	E	Dual 350mA and 150mA Boost Converters in Single Package	\$2.00
<b>LT3495/B</b>	<b>2.3</b>	<b>16</b>	<b>40</b>	<b>0.42 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.35</b>	-	<b>APC</b>	<b>60</b>	<b>&lt;1</b>	<b>3×2 DFN-10</b>	<b>E</b>	<b>Low Noise, /B Version Disables Burst Mode</b>	<b>C.F.</b>
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	0.12 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35	-	APC	65	<1	3×2 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>	0.35×2	-	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>	0.35×2	-	COT	20	<1	MSOP-10	E	Dual 350mA, @ +34V Boost Converters in Single Package	\$2.06
LTC3525-3.0/3.3/5	0.85	4	3.3/5	0.26 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4	-	APC	7	<1	SC70	E	Output Disconnect, Only 3 External	\$1.75
LT3463/A	2.3	15	±34	0.29 * V <sub>IN</sub> /V <sub>OUT</sub>	0.4/0.25	-	COT	40	<1	3×3 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

† Primary Sort Column



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

Amps, Refs, Filters, Comp  
 Power Management  
 MONO, MICRO BOOST  
 Data Conversion  
 Interface  
 High Frequency  
 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
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	2×2 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	2×2 DFN-6	E	2×2 DFN, Output Disconnect, Inrush Current Limit	\$1.75
<b>LTC3523/-2</b>	<b>1.8</b>	<b>5.5</b>	<b>5.5</b>	<b>0.39 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.6</b>	<b>yes</b>	<b>1.2/2.4MHz</b>	<b>45</b>	<b>&lt;1</b>	<b>3×3 QFN-16</b>	<b>E</b>	<b>Synchronous Boost and Buck Converter, "-2" Has 2.4MHz Switching</b>	<b>\$2.95</b>
<b>LTC3537</b>	<b>0.7</b>	<b>5.25</b>	<b>5.5</b>	<b>0.39 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.6</b>	<b>yes</b>	<b>2.2MHz</b>	<b>30</b>	<b>&lt;1</b>	<b>3×3 QFN-16</b>	<b>E</b>	<b>Synchronous Boost Converter and LDO</b>	<b>\$2.40</b>
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, 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	<1	ThinSOT	E	/B Version Disables Burst Mode, 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, Low-Battery Detector	\$2.25
<b>LT3495-1/B-1</b>	<b>2.3</b>	<b>16</b>	<b>40</b>	<b>0.42 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.65</b>	-	<b>APC</b>	<b>60</b>	<b>&lt;1</b>	<b>3×2 DFN-10</b>	<b>E</b>	<b>Low Noise, /B Version Disables Burst Mode</b>	<b>C.F.</b>
LT1300/01/03	1.8	10	50	0.49 * 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	\$2.45
LTC3499/B	1.8	5.5	6	0.49 * V <sub>IN</sub> /V <sub>OUT</sub>	0.75	yes	1.2MHz	20	<1	DFN-8, MSOP-8	E	/B Version Disables Burst Mode, 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		Programmable Peak Current Limit, Low Battery Detect	\$2.45
<b>LTC3527</b>	<b>0.7</b>	<b>5.25</b>	<b>5.5</b>	<b>0.52 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.8/0.4</b>	<b>yes</b>	<b>1.2 or 2.2MHz</b>	<b>12</b>	<b>&lt;1</b>	<b>3×3 QFN-16</b>	<b>E</b>	<b>Dual Synchronous Outputs, "-1" Quickly Discharges V<sub>OUT</sub> when Entering Shutdown</b>	<b>\$2.95</b>
LTC3528/B	0.7	5.5	5.25	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	yes	1.0MHz	12	<1	3×2 DFN-8	E	/B Version Disables Burst Mode, 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		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		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 Slow Rates	\$4.65
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 Dual NPN Transistors for Additional Outputs	\$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
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, 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		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

C.F. = Contact Factory

# 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	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
<b>LTC3805-5</b>	<b>4.5</b>	<b>75<sup>(1)</sup></b>	<b>6V and higher</b>	<b>5</b>	-	<b>70kHz to 700kHz</b>	<b>MSOP-10, 3×2 DFN-10</b>	<b>E, I</b>	<b>Flyback, Boost and SEPIC, Adj Frequency and Synchronizable</b>	<b>\$1.39</b>
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

† Primary Sort Column

†† Secondary 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> (1) Max (V)	† Output Current(1) (A)	Synchronous	Switching Frequency	Package	Extended Temp Range	Comments	Price 1K Qty
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
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	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 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; Optional R <sub>SENSE</sub> , On-Board LDO Control	\$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	Synchronous; Optional R <sub>SENSE</sub> , On-Board 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	6	40	12 and higher	30	yes	150kHz to 500kHz	SSOP-28, 4×5 QFN-28	E, I	2-Phase Operation; High Power, High Efficiency	\$4.70

† Primary Sort Column  
 †† Secondary Sort Column

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

Amps, Refs, Filters, Comp

Power Management BOOST CONTROLLERS, INVERTERS

Data Conversion

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	I	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	3×3 DFN-10	E	Dual Inverter or Boost/Inverter	\$2.80
LT1372/77/HV	2.7	30/42	-35/-42	1.5	500kHz/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	3×3 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	4×3 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</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

Interface

High Frequency

Reference Material

# MULTIPLE OUTPUT (STEP-DOWN)

Part Number	† Number of Converters	Number of Step-Downs	Number of LDOs	Other	V <sub>IN</sub>	V <sub>IN</sub>	V <sub>OUT</sub>	V <sub>OUT</sub>	†† Output Current (A)	Synchronous	PolyPhase	Switching Frequency	Package	Extended Temp Range	Comments	Price 1K Qty
					Min (V)	Max (V)	Min (V)	Max (V)								
<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	\$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 QFN1-16	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/-1/-2/-3	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	0.8	0.9V <sub>IN</sub>	0.7×2	-	-	250kHz to 2.5MHz	TBD	H	Dual 36V Part	C.F.
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, 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	\$2.95
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
LTC3407-2/-3/-4/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; "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, 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>(†)</sup>	-	-	250kHz to 2.2MHz	3×3 DFN-10	E, I, H	2A 36V Step-Down with LDO Controller	\$3.25
LT3500	2	1	1		3	36	0.8	0.9V <sub>IN</sub>	2 (Buck)/5 (LDO) <sup>(†)</sup>	-	-	250kHz to 2.2MHz	3×3 DFN-10	E, I	2A 25V Step-Down with LDO Controller	\$3.05
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	C.F.
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 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
LT1941	3	2	0	Boost/Inv	3.5	25	0.6	V <sub>IN</sub> ×0.9	2.5/1.5/0.5 (Boost/Inv)	-	-	1.1MHz	TSSOP-28E	E	Integrated Power Sequencing, Soft-Start	\$5.25
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

† Primary Sort Column  
 †† Secondary Sort Column

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

MULTIPLE OUTPUT

# MULTIPLE OUTPUT (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		Price 1K Qty
										Comments	Comments					
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 \$2.95 Burst Mode Disabled	\$3.25
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
<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	On-Board 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	Output Tracking. "-1" Version Adds Spread Spectrum; "-2" has Higher Current Limit	\$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
<b>LT3742</b>	<b>2</b>	<b>2</b>	<b>0</b>		<b>3.5</b>	<b>30</b>	<b>0.8</b>	<b>V<sub>IN</sub></b>	<b>5×2</b>	<b>-</b>	<b>2</b>	<b>500kHz</b>	<b>4×4 QFN-24</b>	<b>E</b>	<b>100% Duty Cycle, High Output Voltage, Capacitor Charger</b>	<b>\$2.30</b>
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	\$4.10
<b>LTC3850/-1</b>	<b>2</b>	<b>2</b>	<b>0</b>		<b>4</b>	<b>24, 30</b>	<b>0.8</b>	<b>5.5</b>	<b>25×2</b>	<b>yes</b>	<b>2</b>	<b>250kHz to 750kHz</b>	<b>4×4 QFN-28, 4×5 QFN-28, SSOP-28</b>	<b>E, I</b>	<b>Tracking, PLL, Synchronizable, Adj Soft-Start, "-1" (SSOP-28 Only) Has EXT<sub>VCC</sub> In Place Of ILIM</b>	<b>\$2.40</b>
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	On-Board 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 w/ Relaxed Ref Accuracy (1.5%), Lower V <sub>IN</sub> Range	\$4.35
LTC3728	2	2	0		4.5	36	0.8	6	25×2	yes	2	250kHz to 550kHz	SSOP-28, 5×5 QFN-32	E		\$5.00
LTC3707/-SYNC	2	2	0		4.5	30	0.8	6	25×2	yes	2	150kHz to 300kHz	SSOP-28	E	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

† Primary Sort Column  
 †† Secondary Sort Column

Notes:

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

Amps, Refs, Filters, Comp

Power Management  
 MULTIPLE OUTPUT

Data Conversion

Interface

High Frequency

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 (A)	Switch Configuration	Switching Frequency	I <sub>O</sub> (SUPPLY) (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>	0.18/0.18	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>	0.25/0.25	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>	0.35/0.35	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>	0.35/0.35	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
<b>LTC3523/-2</b>	<b>1.8</b>	<b>5.5</b>	<b>5.5</b>	<b>0.39 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.6</b>	<b>Internal</b>	<b>1.2/2.4MHz</b>	<b>45</b>	<b>&lt;1</b>	<b>3×3 QFN-16</b>	<b>E</b>	<b>Synchronous Boost and Buck Converter, “-2” has 2.4MHz Switching</b>	<b>\$2.95</b>
<b>LTC3537</b>	<b>0.7</b>	<b>5.25</b>	<b>5.5</b>	<b>0.39 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.6</b>	<b>Internal</b>	<b>2.2MHz</b>	<b>30</b>	<b>&lt;1</b>	<b>3×3 QFN-16</b>	<b>E</b>	<b>Synchronous Boost Converter and LDO</b>	<b>\$2.40</b>
<b>LTC3527/-1</b>	<b>0.7</b>	<b>5.25</b>	<b>5.5</b>	<b>0.52 * V<sub>IN</sub>/V<sub>OUT</sub></b>	<b>0.8/0.4</b>	<b>Internal</b>	<b>1.2 or 2.2MHz</b>	<b>12</b>	<b>&lt;1</b>	<b>3×3 QFN-16</b>	<b>E</b>	<b>Dual Synchronous Outputs, “-1” Quickly Discharges V<sub>OUT</sub> When Entering Shutdown</b>	<b>\$2.95</b>
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
LT1947	2.6	8	34	0.92 * 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	1.10 * 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/Dual Inverter/Boost-Inverter in Single Package	\$2.80
LT1943	4.5	22	40	1.69 * V <sub>IN</sub> /V <sub>OUT</sub>	2.6	Internal	1.2MHz	10mA	<1	TSSOP-28E	E	High Current Quad Output Regulator for TFT-LCD Displays	\$4.75

† Primary Sort Column

Note:

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.

# 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> (SUPPLY) (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
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
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, 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
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	4-Switch, High Efficiency Controller	\$4.65

† Primary Sort Column

Notes:

1. Estimated value  
2. Depends on external MOSFET selection

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>Monolithics</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, 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, Low-Battery Detector	\$2.25
LT1300/1/3	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
LT1304	1.5	8	25	0.8	300kHz	120	<10	SO-8	Programmable Peak Current Limit, Low-Battery Detect, 3.3V, 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 w/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, 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
<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
<b>LTC3805-5</b>	<b>4.5</b>	<b>75<sup>(1)</sup></b>	<b>52</b>	<b>3</b>	<b>70kHz to 700kHz</b>	<b>360</b>	<b>&lt;40</b>	<b>3×3 DFN-10, MSOP-10</b>	<b>Synchronizable, Programmable Slope Compensation</b>	<b>\$1.39</b>
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

Amps, Refs, Filters, Comp  
 Power Management  
 SEPIC  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# CCFL BACKLIGHT AND LCD BIAS

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

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> (SUPPLY) (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>	0.18/0.18	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>	0.25/0.25	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	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>	0.35/0.35	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>	0.55/0.55	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, 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, 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
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
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 w/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-10, E	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 w/LT1930/LT1613	\$1.90
LT1182/83	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>	1.3/1.3	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, 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
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:

- 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.

## BOOST REGULATOR 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>O</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 x 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
<b>LT3498</b>	<b>2.5</b>	<b>12</b>	<b>27</b>	<b>0.4/0.25</b>	<b>8</b>	<b>Analog</b>	<b>2.3MHz</b>	<b>1.65</b>	<b>&lt;8</b>	<b>2×3 DFN-12</b>	<b>E</b>	<b>Dual, Integrated Schottky Diodes, Output Disconnect. Drives OLED and LED Display</b>	<b>\$1.95</b>
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
<b>LT3593</b>	<b>2.7</b>	<b>5.5</b>	<b>45</b>	<b>0.55</b>	<b>10</b>	<b>Analog</b>	<b>1MHz</b>	<b>0.3</b>	<b>&lt;10</b>	<b>2×2 DFN-6, SOT-23-6</b>	<b>E</b>	<b>Drives Up to 10 LEDs. Output Disconnect, One Pin I<sub>LED</sub> Adjust.</b>	<b>\$1.40</b>
<b>LT3496</b>	<b>3.0</b>	<b>30</b>	<b>45</b>	<b>0.75×3</b>	<b>30</b>	<b>True Color PWM</b>	<b>330kHz to 2.1MHz</b>	<b>6</b>	<b>&lt;1</b>	<b>4×5 QFN-28</b>	<b>I</b>	<b>Triple Output, Can be Used in Buck, Buck-Boost or Boost Mode, 3000:1 True Color PWM Dimming</b>	<b>\$3.50</b>
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
<b>LT3517</b>	<b>3.0</b>	<b>30</b>	<b>45</b>	<b>1.5</b>	<b>8</b>	<b>True Color PWM</b>	<b>250kHz to 2.5MHz</b>	<b>4.5</b>	<b>&lt;1</b>	<b>4×4 QFN-16</b>	<b>I</b>	<b>Buck, Buck-Boost or Boost Mode, 5000:1 Dimming</b>	<b>\$2.70</b>
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
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
<b>LT3518</b>	<b>3.0</b>	<b>30</b>	<b>45</b>	<b>2.3</b>	<b>8</b>	<b>True Color PWM</b>	<b>250kHz to 2.5MHz</b>	<b>4.5</b>	<b>&lt;1</b>	<b>4×4 QFN-16</b>	<b>I</b>	<b>Buck, Buck-Boost or Boost Mode, 3000:1 Dimming</b>	<b>\$2.95</b>
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	\$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
<b>LT3755/-1</b>	<b>4.5</b>	<b>40</b>	<b>60</b>	<b>20<sup>(1)</sup></b>	<b>25<sup>(1)</sup></b>	<b>True Color PWM</b>	<b>100kHz to 1MHz</b>	<b>1.1</b>	<b>&lt;1</b>	<b>3×3 QFN-16</b>	<b>I</b>	<b>40V Max V<sub>IN</sub>; Boost, Buck Mode, Buck-Boost Mode, SEPIC; 3000:1 Dimming</b>	<b>C.F.</b>
<b>LT3756/-1</b>	<b>6.0</b>	<b>100</b>	<b>100</b>	<b>20<sup>(1)</sup></b>	<b>25<sup>(1)</sup></b>	<b>True Color PWM</b>	<b>100kHz to 1MHz</b>	<b>1.1</b>	<b>&lt;1</b>	<b>3×3 QFN-16</b>	<b>I</b>	<b>100V Max V<sub>IN</sub>; Boost, Buck Mode, Buck-Boost Mode, SEPIC; 3000:1 Dimming</b>	<b>C.F.</b>

† Primary Sort Column

Notes:

- Output voltage and current depend on the choice of external components.
- C.F. = Contact Factory

## 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> ) (mA)	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



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

Amps, Refs, Filters, Comp

Power Management

Data Conversion

Interface

High Frequency

Reference Material

# CHARGE PUMP LED DRIVERS (INDUCTORLESS): LEDs IN PARALLEL

Amps, Refs, Filters, Comps

Power Management

CHARGE PUMP BUCK LED DRIVERS

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
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
LTC3209-1	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: 6 Main, 1 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/-1	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
<b>LTC3220/-1</b>	<b>2.9</b>	<b>5.5</b>	<b>1/1 : 3/2 : 2/1</b>	<b>360</b>	<b>18</b>	<b>I<sup>2</sup>C</b>	<b>850kHz</b>	<b>500</b>	<b>&lt;1</b>	<b>4×4 UTQFN-28</b>	<b>E</b>	<b>Drives 18 Universal LEDs. "-1" has Different I<sup>2</sup>C Address</b>	<b>C.F.</b>

† Primary Sort Column

Data Conversion

Interface

## BUCK HIGH CURRENT 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>Q</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	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	\$6.95
LT3474/-1	4	36	1	4	True Color PWM	200kHz to 2MHz	2.6	<1	TSSOP-16E	I	Buck LED Driver, 400:1 Dimming	\$2.95
LT3517	3	30	1	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
LT3496	3	30	1	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
LT3518	3	30	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/-1	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/-1	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	\$3.60
<b>LT3755/-1</b>	<b>4.5</b>	<b>40</b>	<b>20<sup>(1)</sup></b>	<b>25<sup>(1)</sup></b>	<b>True Color PWM</b>	<b>100kHz to 1MHz</b>	<b>1.1</b>	<b>&lt;1</b>	<b>3×3 QFN-16</b>	<b>I</b>	<b>40V Max V<sub>IN</sub>; Boost, Buck Mode, Buck-Boost Mode, SEPIC; 3000:1 Dimming, "-1" has SYNC Pin</b>	<b>C.F.</b>
<b>LT3756/-1</b>	<b>6.0</b>	<b>100</b>	<b>20<sup>(1)</sup></b>	<b>25<sup>(1)</sup></b>	<b>True Color PWM</b>	<b>100kHz to 1MHz</b>	<b>1.1</b>	<b>&lt;1</b>	<b>3×3 QFN-16</b>	<b>I</b>	<b>100V Max V<sub>IN</sub>; Boost, Buck Mode, Buck-Boost Mode, SEPIC; 3000:1 Dimming, "-1" has SYNC Pin</b>	<b>C.F.</b>

† Primary Sort Column

High Frequency

Reference Material

## XENON PHOTO FLASH AND SUPERCAPACITOR CHARGING

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	>75%	5	<1	3×3 DFN-10	E	Integrated IGBT Driver	\$2.25
LT3585-0/-1/-2/-3	1.5	16	0.5/0.225/0.35/0.75	>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	Can Charge Any Size Capacitor	\$3.50
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
<b>LTC3225</b>	<b>2.9</b>	<b>5.5</b>	<b>0.15</b>	<b>&gt;80%</b>	<b>20μA</b>	<b>&lt;1</b>	<b>2×3 DFN-10</b>	<b>E</b>	<b>Charge Pump (No Inductor), Charges 2 Series Supercaps; Auto Cell Balancing</b>	<b>C.F.</b>

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





# 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

Amps, Refs,  
Filters, Comp

Power  
Management

LED PHOTO FLASH, ULTRALOW NOISE

# 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
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, 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, 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	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
<b>LT1965</b>	<b>Low Drop Out Reg</b>	<b>Step-Down</b>	<b>&lt;40</b>	<b>1.8</b>	<b>20</b>	<b>1.2</b>	<b>19.5</b>	<b>1.1</b>	<b>Internal</b>	<b>–</b>	<b>TO-220, DD-5, MSOP-8, DFN-8</b>	<b>E, I</b>	<b>Reverse Battery Protection, No Reverse Current</b>	<b>\$1.88</b>
<b>LT3080</b>	<b>Low Drop Out Reg</b>	<b>Step-Down</b>	<b>&lt;40</b>	<b>1.2</b>	<b>36</b>	<b>0</b>	<b>34.7</b>	<b>1.1</b>	<b>Internal</b>	<b>–</b>	<b>TO-220, SOT-223, MSOP-8, DFN-8</b>	<b>E</b>	<b>V<sub>OUT</sub> (Set With Single Resistor) Down to 0V. Parallel Devices for Higher I<sub>OUT</sub> or to Spread PCB Heat.</b>	<b>\$1.81</b>
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	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
LT1533	Switching Reg	Push-Pull	<100μV <sub>p-p</sub>	2.7	23	1.3	n/a	1	Internal	20kHz to 250kHz	SO-16	I	See LT1683 for Higher Power	\$4.65
LT3439	Switching Controller, Isolated	Step-Up or Down	<200μV <sub>p-p</sub>	2.8	20	2.8	n/a	1	Internal	20kHz to 250kHz	TSSOP-16E	E	Adjustable Slew Rates. 40dB Decrease in Noise	\$3.50
LT1534	Switching Reg	Boost, Inverting	<100μV <sub>p-p</sub>	2.7	23	1.3	n/a	2	Internal	20kHz to 250kHz	SO-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	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	External	20kHz to 250kHz	SSOP-20	E, I	See LT1534 for Lower Power	\$4.10

† Primary Sort Column  
 †† Secondary Sort Column

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

# ULTRALOW NOISE REGULATORS

Part Number	Type	Function	Noise ( $\mu\text{V}_{\text{RMS}}$ )	$V_{\text{IN}}$ Min (V)	$V_{\text{IN}}$ Max (V)	$V_{\text{OUT}}$ Min (V)	$V_{\text{OUT}}$ Max (V)	Output Current (A)	Switch Configuration	Switching Frequency	Package	Extended Temp Range	Comments	Price 1K Qty
<b>Duals</b>														
LTC3252	Dual Charge Pump, Spread Spectrum	Step-Down	<2mV <sub>RMS</sub>	2.7	5.5	0.9	1.6	0.25×2	Internal	1MHz to 1.6MHz	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	0.1×2	Internal	–	MSOP-10E, DFN-10	I	Adjustable	\$1.60
LT3027	Dual 100mA Low Drop Out Reg	Step-Down	<20	1.8	20	1.2	20	0.1×2	Internal	–	MSOP-10E, 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	Internal	–	TSSOP-16E, DFN-12	I	Dual 500mA/100mA Output, Low Noise <20 $\mu\text{V}_{\text{RMS}}$	\$2.45
LT3028	Dual 500/100mA Low Drop Out Reg	Step-Down	<20	1.8	20	1.22	20	0.5/0.1	Internal	–	TSSOP-16E, DFN-16	I	Adjustable, Dual Inputs	\$2.55

† Primary Sort Column  
 †† Secondary Sort Column

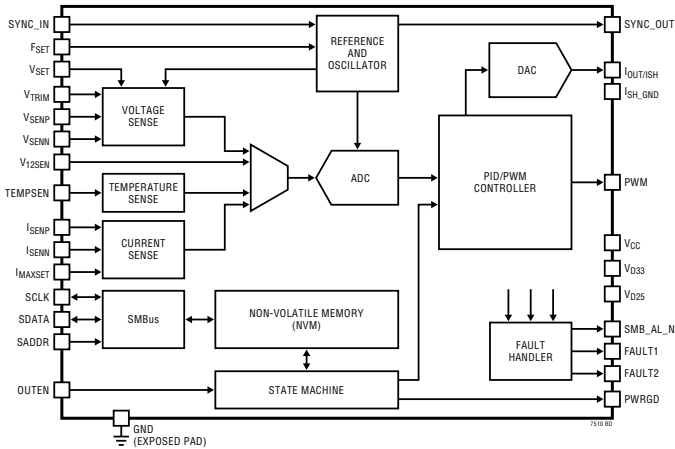
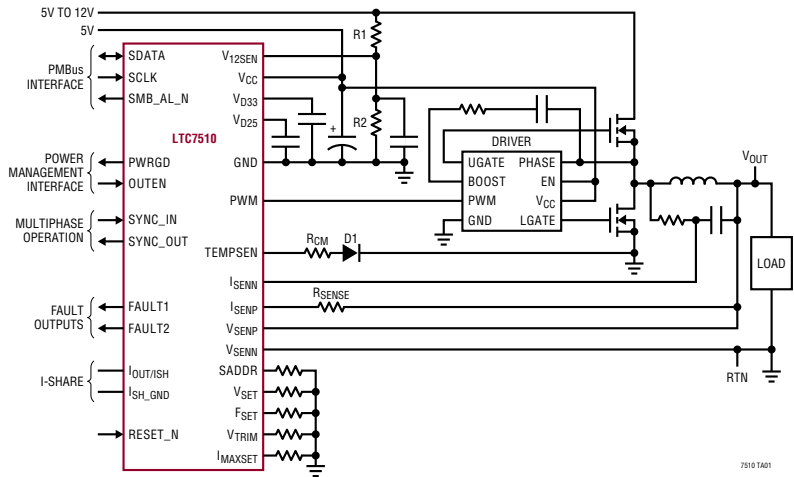
# HIGH TEMPERATURE POWER SUPPLIES ( $T_J = -40^\circ\text{C}$ TO $140^\circ\text{C}$ )

Part Number	$V_{\text{IN}}$ Min (V)	$V_{\text{IN}}$ Max (V)	$V_{\text{OUT}}$ Min (V)	$V_{\text{OUT}}$ Max <sup>(1)</sup> (V)	Output Current <sup>(2)</sup> (A)	Switch Current (A)	Switch Configuration	Switching Frequency	$I_{\text{O}}$ ( $I_{\text{SUPPLY}}$ ) ( $\mu\text{A}$ )	$I_{\text{SHDN}}$ ( $\mu\text{A}$ )	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 <100 $\mu\text{V}_{\text{RMS}}$ , Stable with 1 $\mu\text{F}$ Ceramic	\$2.05
LT3012H	4.0	80	1.24	60	0.2	N/A	Internal	N/A	40	<1	TSSOP-16	H	Low Noise <100 $\mu\text{V}_{\text{RMS}}$ , Stable with 3.3 $\mu\text{F}$ 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 <100 $\mu\text{V}_{\text{RMS}}$ , Stable with 3.3 $\mu\text{F}$ Ceramic	\$2.95
LT3470H	4.0	40	1.25	16V	0.2	0.25	Internal	Hysteretic	26	<1	2×3 DFN-8, ThinSOT	H	$T_{\text{JMAX}} = 150^\circ\text{C}$ , 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, $I_{\text{O}} = 100\mu\text{A}$	\$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
<b>LT3509H</b>	<b>3.7</b>	<b>36</b>	<b>0.8</b>	<b>0.9V<sub>IN</sub></b>	<b>0.7 × 2</b>	<b>1.2</b>	<b>Internal</b>	<b>250kHz to 2.5MHz</b>	<b>2.8mA</b>	<b>&lt;1</b>	<b>TBD</b>	<b>H</b>	<b>36V Input, Dual 0.7A Outputs</b>	<b>C.F.</b>
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
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
<b>LT3500H</b>	<b>3.6</b>	<b>40</b>	<b>0.8</b>	<b>0.9V<sub>IN</sub></b>	<b>2</b>	<b>2.6</b>	<b>Internal + LDO</b>	<b>250kHz to 2.5MHz</b>	<b>2.5mA</b>	<b>&lt;12</b>	<b>3×3 DFN-12</b>	<b>H</b>	<b>40V, 2A Switcher Plus LDO Controller</b>	<b>\$4.15</b>
LTC3803H-5	4	– <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
<b>LT3507H</b>	<b>4</b>	<b>40</b>	<b>0.8</b>	<b>0.9V<sub>IN</sub></b>	<b>2.4/1.5/1.5</b>	<b>3</b>	<b>Internal</b>	<b>250kHz to 2.5MHz</b>	<b>2mA</b>	<b>&lt;1</b>	<b>5×7 QFN-38</b>	<b>H</b>	<b>40V Input with Triple Outputs and LDO Controller</b>	<b>C.F.</b>
LTC1772H	2.5	9.8	0.8	$V_{\text{IN}}$	5	N/A	External	550kHz	270	<22	ThinSOT	H	Burst Mode at Light Load; Continuous Operation at Light Load	\$2.36
LTC1778	4	36	0.8	$V_{\text{IN}}$	10 <sup>(3)</sup>	– <sup>(3)</sup>	External	COT	900	<15	SSOP-16	H	Excellent for High $V_{\text{IN}}$ to Low $V_{\text{OUT}}$ , No $R_{\text{SENSE}}$ , Fast Transient Response	\$2.25
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
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

† 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 index for the LTC2970 dual digital power monitor and margining controller for DC/DC converters

Note:  
1. C.F. = Contact Factory

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

Part Number	Number of Regulators <sup>(1)</sup>	Buck(s)	Buck-Boost	LDO(s)	Input Voltage (V)	Interface	Package (mm <sup>2</sup> )	Notes	Price 1K Qty <sup>(1)</sup>
LTC3522	2	200mA	0.3A	-	2.4 to 5.5	-	3×3 QFN-16	Sync Buck-Boost and Buck	\$2.50
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
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	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

Amps, Refs, Filters, Comp  
 Power Management  
 Digital Power, PMIC  
 Data Conversion  
 Interface  
 High Frequency  
 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>(5)</sup>	Ideal Diode	Input Voltage (V)	Interface	Package (mm <sup>2</sup> )	Notes	Price 1K Qty <sup>(4)</sup>
LTC4080/X	1	300mA	-	-	linear	0.5	-	-	3.75 to 5.5	-	3×3 DFN-10	/ACPR, "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	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	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, "-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/-2	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	\$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
<b>LTC3558</b>	<b>2</b>	<b>400mA</b>	<b>0.4A BB</b>	-	<b>linear</b>	<b>0.95</b>	-	-	<b>5, USB</b>	-	<b>3×3 QFN-20</b>		<b>\$2.35</b>
LTC3559/-1	2	400mA×2	-	-	linear	0.95	-	-	5, USB	-	3×3 QFN-16	"-1" Has 4.1V V <sub>FLOAT</sub>	\$2.15
LTC3552/-1	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
<b>LTC3566</b>	<b>2</b>	-	<b>1A BB</b>	<b>3.3V, 25mA always on</b>	<b>sync buck + linear</b>	<b>1.5<sup>(2)</sup></b>	<b>switching</b>	<b>int + ext (opt.)</b>	<b>4.25 to 5.5</b>	-	<b>4×4 QFN-24</b>		<b>\$3.85</b>
<b>LTC3567</b>	<b>2</b>	-	<b>1A BB</b>	<b>3.3V, 25mA always on</b>	<b>sync buck + linear</b>	<b>1.5<sup>(2)</sup></b>	<b>switching</b>	<b>int + ext (opt.)</b>	<b>4.25 to 5.5</b>	<b>I<sup>2</sup>C</b>	<b>4×4 QFN-24</b>		<b>C.F.</b>
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	Hot Swap Output	\$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/-1	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, "-1" Has 4.1V V <sub>FLOAT</sub>	\$4.65
<b>LTC3576</b>	<b>4</b>	<b>1A/400mA×2</b>	-	<b>3.3V, 25mA always on</b>	<b>sync buck + linear</b>	<b>1.5<sup>(2)</sup></b>	<b>switching</b>	<b>int + ext (opt.)</b>	<b>TBD</b>	<b>I<sup>2</sup>C</b>	<b>4×6 QFN-38</b>	<b>Bat-Track, Bidirectional USB On-The-Go (OTG)</b>	<b>C.F.</b>
<b>LTC3586</b>	<b>5</b>	<b>400mA×2</b>	<b>1A BB, 0.8A Boost</b>	<b>3.3V, 25mA always on</b>	<b>sync buck + linear</b>	<b>1.5<sup>(2)</sup></b>	<b>switching</b>	<b>int + ext (opt.)</b>	<b>5, USB, Li Ion</b>	-	<b>4×6 QFN-38</b>	<b>Bat-Track, Integrated Buck-Boost and Boost Regulators</b>	<b>C.F.</b>

### Notes:

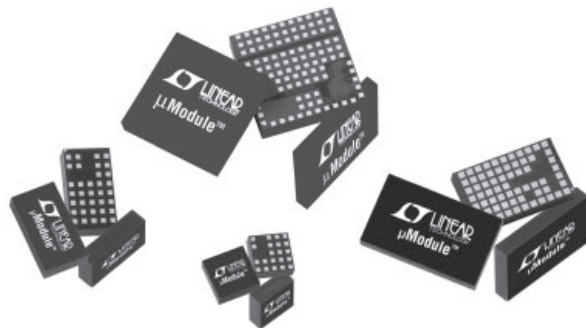
1. Excludes the linear regulator of the battery charger
2. The DC-DC converter can provide charge current and system power but the total cannot exceed the max charge current
3. May be increased to 1A with additional components
4. C.F. = Contact Factory
5. Switching PowerPath means a switcher is on the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

Amps, Refs, Filters, Comps  
 Power Management  
 POWER MGMT ICs (PMIC)  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

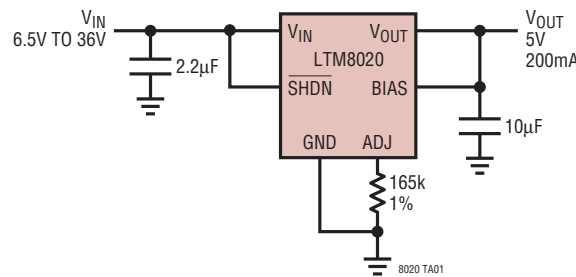
Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	† Continuous Output Current (A)	PLL	Track Margin	Remote Sense	Max. ICs Parallel for Current Share	External Components	LGA Package (mm)	Maximum Junction Temperature	Comments	Price 1K Qty <sup>(1)</sup>
<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	Small 6.25×6.25 LGA Package, 2.3mm Height	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	Cooler Operating Temperature and Smaller than Linear Regulator	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	Pin-Compatible with 2A LTM8023	6.95
LTM8023	3.6	36	0.8	10	2			2		C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	9 × 11.25 × 2.8	125°C	Pin-Compatible with 1A LTM8022	7.95
LTM4604	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	Low Profile (2.3mm) Package:	8.50
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	Pin-Compatible with 10A LTM4600	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	Pin-Compatible with 12A LTM4601	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	"-1" Does Not Have Remote Sense	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	Pin-Compatible with 10A LTM4600/HV	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	Pin-Compatible with 12A LTM4601/-1/HV	16.47
LTM4608	2.375	5.5	0.6	5	8	•	•		3	C <sub>BULK</sub> ; R to Adjust V <sub>OUT</sub>	9 × 15 × 2.8	125°C	8A in 9×15 LGA Package	11.30
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	Pin-Compatible with 6A LTM4602	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	Pin-Compatible with 6A LTM4602/HV	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	Military Plastic; 100% Tested over Temperature, Guaranteed Startup at -55°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	Pin-Compatible with 6A LTM4603	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	"-1" Does Not Have Remote Sense	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	LTM4601 with Extra LGA Pads	C.F.
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	Pin-Compatible with 6A LTM4603/-1/HV	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	Extra LGA Pads	C.F.
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	Military Plastic; 100% Tested over Temperature, Guaranteed Startup at -55°C	39.95
<b>Buck-Boost</b>														
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	94% to 98% Efficiency, External inductor	18.80
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	94% to 98% Efficiency, External inductor	21.55

Notes:  
1. C.F. = Contact Factory

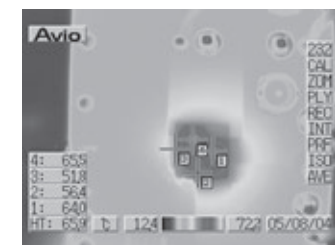
LGA (Land Grid Array) Package



Simple DC/DC μModule



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

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

Amps, Refs, Filters, Comp  
 Power Management  
 DC/DC  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# 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>O</sub> (I <sub>SUPPLY</sub> ) (μA)	Shut-Down Current (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
<b>Regulated Charge Pump Converters (Step-Up/Inverting)</b>										
LTC1502-3.3	0.9 to 1.8	3.3	10	500kHz	40	5	MSOP-8, SO-8	I	Quadrupler, Shutdown Disconnects Load	\$1.95
LTC1986	2.6 to 4.4	5/V <sub>IN</sub>	10	900kHz	14	<1	ThinSOT	E	SIM Power Supply	\$1.45
LTC1517-3.3	2.2 to 4.4	3.3	15	700kHz	6	n/a	ThinSOT	E		\$1.95
LTC1517-5	2.7 to 5	5	20	800kHz	6	n/a	ThinSOT	E		\$1.95
LTC1522	2.7 to 5	5	20	700kHz	6	n/a	MSOP-8, SO-8	I	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	3/5	20	1MHz	40	<1	SSOP-16	E, I	SIM Power Supply and Level Translator	\$2.00
LTC1555L-1.8	2.6 to 6.6	1.8/3/5	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	ThinSOT	E	Doubler with Internal LDO Linear Regulator, Low Noise	\$1.76
LTC1754-3.3	2 to 4	3.3	40	600kHz	13	<1	ThinSOT	E	Shutdown Disconnects Load	\$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, Low Noise, Doubler, 2×2 DFN, 3 Externals	\$1.50
LTC1754-5	2.7 to 5.5	5	50	600kHz	13	<1	ThinSOT	E	Shutdown Disconnects Load	\$1.45
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
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	500μV <sub>PP</sub> Output Noise	\$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	3/5	60	PFM	60	<1	SSOP-16, SSOP-24	E	Universal Smart Card Interface	\$2.55
LTC1756	2.7 to 6	3/5	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 Charge Pumps with Burst Mode Operation	\$1.60
LTC3221-3.3	1.8 to 4.4	3.3	60	600kHz	8	<1	2×2 DFN-6	E	Micropower Charge Pumps with Burst Mode Operation	\$1.60
LTC3221-5	2.7 to 5.5	5	60	600kHz	8	<1	2×2 DFN-6	E	Micropower Charge Pumps with Burst Mode Operation	\$1.60
LTC1751-3.3	2 to 4.4	3.3	80	800kHz	20	2	MSOP-8	E	Output Disconnect in Shutdown	\$2.25
LTC1751	2 to 5.5	Adjustable	100	PFM	20	2	MSOP-8	E	Output Disconnect in Shutdown	\$2.25
LTC1751-5	2.7 to 5.5	5	100	PFM	20	2	MSOP-8	E	Output Disconnect in Shutdown	\$2.25
LTC1983-3	3 to 5.5	-3	100	900kHz	25	<1	ThinSOT	E	Regulated Inverter	\$1.75
LTC1983-5	2.3 to 5.5	-5	100	900kHz	25	<1	ThinSOT	E	Regulated Inverter	\$1.75
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	ThinSOT	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 Voltage/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, 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	\$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 Defeated	\$2.00
LTC3203-1	2.7 to 5.5	4.5, 5	500	1MHz	120	<1	3×3 DFN-10	E	Burst Mode	\$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 Defeated	\$2.00
<b>Regulated Charge Pump Converters (Step-Down)</b>										
LTC1503-1.8	2.4 to 6	1.8	100	600kHz	25	5	MSOP-8, SO-8	I	Shutdown Disconnects Load	\$1.70
LTC1503-2	2.4 to 6	2	100	600kHz	25	5	MSOP-8, SO-8	I	Shutdown Disconnects Load	\$1.75
LTC1911-1.5/1.8	2.7 to 5.5	1.5/1.8	250	1.5MHz	180	10	MSOP-8	E	Low Noise, 70% Efficiency	\$2.34
LTC3250-1.5/1.2	3.1 to 5.5	1.5/1.2	250	1.5MHz	35	<1	ThinSOT	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
LTC3251-1.5/1.2	2.7 to 5.5	0.9 to 1.6, 1.5/1.2	500	1MHz-1.6MHz	9	<1	MSOP-10	E	Spread Spectrum, Ultralow Noise, 2-Phase Operation	\$1.95
<b>Regulated Charge Pump Converters (Buck-Boost)</b>										
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

† 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)	Shut-Down Current (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
<b>Unregulated Inverting Converters</b>										
LT1026	4 to 10	±2V <sub>IN</sub>	15	n/a	7mA	n/a	DIP-8, SO-8	I	Dual Supply Generator (+5V to ±10V)	\$2.05
LTC1044	1.5 to 9	-V <sub>IN</sub>	20	5kHz	200	1.5	SO-8	I	Industry Standard (7660) Charge Pump	\$1.65
LTC1044A	1.5 to 12	-V <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	-V <sub>IN</sub>	50	20kHz	165	n/a	SO-8	I	Higher Current than LTC1044/7660	\$2.15
LTC1144	2 to 18	-V <sub>IN</sub>	50	10kHz	1.1mA	8	SO-8	I	High Voltage, Shutdown	\$2.45
LTC660	1.5 to 5.5	-1V <sub>IN</sub> or 2V <sub>IN</sub>	100	80kHz	230	n/a	SO-8, DIP-8	I	High Current, +5V to -5V	\$2.75
<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	-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
LTC1551L	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
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

BATTERY CHARGERS

Part Number	† 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 <sup>(1)</sup>
<b>NiMH, NiCd, SLA Battery Chargers</b>										
LT1510-5	1	7 to 29		1 to 12	switching	Internal	SO-8, SSOP-16, SO-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
LT1512/ LT1513	0.75/2	2.4 to 29		1 to 18	switching	Internal	LT1512: SO-8 LT1513: DD and T7	Microcontroller	SEPIC, Input Supply Voltage Can Be Above or Below Battery Voltage	\$3.60
LT1511	3	7 to 29		1 to 12	switching	Internal	SO-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
<b>LTC4009</b>	<b>4</b>	<b>6 to 28</b>	<b>-</b>	<b>1-4 Li, up to 18 Ni</b>	<b>switching</b>	<b>External, Synchronous</b>	<b>4x4 QFN-20</b>	<b>Microcontroller</b>	<b>Multi-Chemistry, External Resistor Sets V<sub>FLOAT</sub>, V<sub>OUT</sub> Range: 3V to 28V</b>	<b>C.F.</b>
<b>LTC4009-1/-2</b>	<b>4</b>	<b>6 to 28</b>	<b>-</b>	<b>1-4 Li</b>	<b>switching</b>	<b>External, Synchronous</b>	<b>4x4 QFN-20</b>	<b>Microcontroller</b>	<b>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</b>	<b>C.F.</b>
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
<b>Li-Ion and Li-Polymer Battery Chargers</b>										
LTC4054L	0.15	4.25 to 6.5		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		1	linear	Internal	2x2 DFN-6	Timer + C/10	2x2 DFN, Precision 250mA Charge Current, For Coin Cells	\$1.10
LTC4080/X*	0.5	3.75 to 5.5	yes	1	linear	Internal	3x3 DFN-10, MSOP-10	Timer + C/10	"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	3x3 DFN-10	Timer + C/10	NTC Input; Integrated High Efficiency 300mA Sync Buck	\$1.90

† Primary Sort Column

Amps, Refs, Filters, Comp  
 Power Management  
 CHARGE PUMP DC/DC  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# BATTERY CHARGERS

Part Number	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 <sup>(1)</sup>
LTC4056*	0.7	4.5 to 6.5	yes	1	linear	External	ThinSOT	On-Board Timer	No Charging Interruption Due to Input Voltage Fluctuation	\$1.35
LTC1734	0.7	4.55 to 8	yes	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	2x2 DFN-6	Timer + C/10	2x2 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	2x2 DFN-6	Timer + C/10	2x2 DFN with AC/DC Power Detection, Standalone	\$1.05
LTC4069/-4.4*	0.75	3.75 to 5.5	yes	1	linear	Internal	2x2 DFN-6	Timer + C/10	2x2 DFN with Thermistor Input, Standalone, -4.4 Has 4.4V Float Voltage	\$1.10
LTC4054*	0.8	4.25 to 6.5	yes	1	linear	Internal	ThinSOT	C/10	Fully Integrated, Standalone, Thermal Regulation	\$1.40
LTC4054X*	0.8	4.25 to 6.5	yes	1	linear	Internal	ThinSOT	C/10	High Trickle Charge Current	\$1.40
LTC4057*	0.8	4.25 to 6.5	yes	1	linear	Internal	ThinSOT	Microcontroller	LTC4054 with External Charge Termination Control	\$1.35
LTC4059*	0.9	3.75 to 8	yes	1	linear	Internal	2x2 DFN-6	Microcontroller	2x2 DFN	\$1.35
LTC4059A*	0.9	3.75 to 8	yes	1	linear	Internal	2x2 DFN-6	Microcontroller	2x2 DFN with AC/DC Power Detection	\$1.45
LTC4058*	0.95	4.25 to 6.5	yes	1	linear	Internal	3x3 DFN-8	C/10	Complete, Standalone Linear Charger in DFN Package	\$1.70
LTC4058X*	0.95	4.25 to 6.5	yes	1	linear	Internal	3x3 DFN-8	C/10	High Trickle Charge Current	\$1.70
LTC4068*	0.95	4.25 to 6.5	yes	1	linear	Internal	3x3 DFN-8	C/x	Adjustable Charge Termination Current	\$1.70
LTC4068X*	0.95	4.25 to 6.5	yes	1	linear	Internal	3x3 DFN-8	C/x	High Trickle Charge Current	\$1.70
LTC4075*	0.95	4.3 to 8	yes	1	linear	Internal	3x3 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	3x3 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	3x3 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	3x3 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	3x3 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*	0.95	4.3 to 5.5 22V abs max	yes	1	linear	Internal	3x3 DFN-10	C/x	22V Abs Max; Dual Input: USB or AC Adapter, "X" = No Trickle Charge, BATDET Pin, 650mA USB Compatible	\$2.00
LTC3550-1*	0.95	4.3 to 8	yes	1	linear	Internal	5x3 DFN-16	C/x	Dual Input: USB or AC Adapter, No Trickle Charge, Integrated 600mA Synchronous Buck	\$2.00
LTC3550*	0.95	4.3 to 8	yes	1	linear	Internal	5x3 DFN-16	C/x	Dual Input: USB or AC Adapter, No Trickle Charge, Integrated 600mA Sync Buck, Adj Output	\$2.00
LTC3552-1*	0.95	4.25 to 8	yes	1	linear	Internal	5x3 DFN-16	C/x	Integrated 1.8V @ 800mA and 1.575V @ 400mA Dual Synchronous Buck Regulator Outputs	\$2.30
LTC3552*	0.95	4.25 to 8	yes	1	linear	Internal	5x3 DFN-16	C/x	Integrated 1.8V @ 800mA and 1.575V @ 400mA Dual Adj Sync Buck Regulator Outputs	\$2.30
LTC4095*	0.95	4.3 to 5.5	yes	1	linear	Internal	2x2 DFN-8	Timer + C/10	HPWR + SUSP USB Pins, 2x2 DFN-8 w/ NTC, 4 Indicator /CHRG States	\$1.15
LTC4064*	1	4.25 to 6.5	yes	1	linear	Internal	MSOP-10	Timer + C/10	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	4.5 to 8	yes	1	linear	Internal	3x3 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	yes	1	linear	Internal	3x3 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	3x3 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	3x3 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	4x4 QFN-16	On-Board Timer	USB Power Manager and Battery Charger with Low-loss 200mΩ Ideal Diode; "-1" has 4.1V V <sub>FLOAT</sub>	\$2.20
LTC4089*	1.2	4.35 to 5.5 USB, 6-36V Wall	yes	1	linear	Internal	6x3 DFN-22	Timer + C/10	USB Power Manager and High Voltage, High Efficiency Charger, Bat-Track	\$2.95
LTC4089-5*	1.2	4.35 to 5.5 USB, 6-36V Wall	yes	1	linear	Internal	6x3 DFN-22	Timer + C/10	USB Power Manager and High Voltage, High Efficiency Charger, Fixed 5V <sub>OUT</sub>	\$2.95
LTC4089-1*	1.2	4.35 to 5.5 USB, 6-36V Wall	yes	1	linear	Internal	6x3 DFN-22	Timer + C/10	USB Power Manager and High Voltage, High Efficiency Charger, for 4.1V Li-Ion	\$2.95
LTC4096*	1.2	4.25 to 5.5	yes	1	linear	Internal	3x3 DFN-10	C/x	Dual Input: USB or AC Adapter, 950mA USB Compatible	\$1.50
LTC4096X*	1.2	4.25 to 5.5	yes	1	linear	Internal	3x3 DFN-10	C/x	Dual Input: USB or AC Adapter, 950mA USB, ISL6299 Replacement, No Trickle	\$1.50
LTC4097*	1.2	4.25 to 5.5	yes	1	linear	Internal	3x2 DFN-12	C/x	2x3 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, 3x3 DFN-10	Timer + C/10	USB Compatible; Complete and Standalone; Thermal Regulation Prevents Overheating	\$1.90
LTC4067*	1.25	4.35 to 5.5	yes	1	linear	Internal	4x3 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	Minimum Heat Dissipation; Current Limit for Safety; Standalone	\$1.85
LTC4066	1.5	4.3 to 5.5	yes	1	linear	Internal	4x4 QFN-24	On-Board Timer	USB Power Manager and Battery Charger with Low-Loss 50mΩ Ideal Diode, "-1" has 4.1V Li-Ion Cell Float Voltage	\$2.30
<b>LTC4088</b>	<b>1.5</b>	<b>4.25 to 5.5</b>	<b>yes</b>	<b>1</b>	<b>linear</b>	<b>Internal</b>	<b>4x3 DFN-14</b>	<b>Timer + C/x</b>	<b>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"</b>	<b>\$2.20</b>
LTC4098	1.5	4.25 to 5.5	yes	1	Linear	Internal	3x4 UTQFN-20	Timer + C/x	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	\$2.50

† Primary Sort Column



Part Number	† 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 <sup>(1)</sup>
<b>LTC4085/-1</b>	<b>1.5</b>	<b>4.35 to 5.5</b>	<b>yes</b>	<b>1</b>	<b>linear</b>	<b>Internal</b>	<b>4×3 DFN-14</b>	<b>Timer + C/10</b>	<b>USB Power Manager and Charger, Optional External Ideal Diode Controller. "-1" Has 4.1V Float Voltage</b>	<b>\$1.65</b>
LTC1733	1.5	4.5 to 6.5	yes	1	linear	Internal	MSOP-10E	Timer + C/10	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		1	linear	Internal	3×6 DFN-22	timer + C/10	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
LTC4001	2	4.0 to 5.5		1	switching	Internal	4×4 QFN-16	Timer + C/x	Integrated R <sub>SENSE</sub> , Small Inductor, Synchronous, High Efficiency	\$2.20
LTC4050	2	4.5 to 12		1	linear	External	MSOP-10	Timer + C/10	LTC1732 + Thermistor Interface	\$2.25
LTC1731	2	4.5 to 12		1,2	linear	External	MSOP-8, SO-8	Timer + C/10	Standalone Linear Charger	\$1.55
LTC1732	2	4.5 to 12		1,2	linear	External	MSOP-10	Timer + C/10	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
LT1512	0.8	2.4 to 29	-	1 to 6	switching	Internal	SO-8	Microcontroller	Input Supply Voltage Can Be Above or Below Battery Voltage	\$3.75
LT1513	1.6	2.4 to 29	-	1 to 6	switching	Internal	DD, TO-220	Microcontroller	Input Supply Voltage Can Be Above or Below Battery Voltage	\$4.00
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	On-Board Timer	Charges 1- or 2-cell Li-Ion Battery From High V <sub>IN</sub>	\$1.80
LTC4006	4	6 to 28		2 to 4	switching	External, Synchronous	SSOP-16	Timer + C/10	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	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
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>										
LTC1980	2	4.1 to 12		1, 2	switching	External	SSOP-24	Timer + C/10	Combination Battery Charger and System DC/DC Converter	\$3.75
LT1512	0.8	2.4 to 29	-	1 to 6	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	switching	Internal	DD, TO-220	LTC1729	Input Supply Voltage Can Be Above or Below Battery Voltage	\$4.00
<b>SMBus, I<sup>2</sup>C, SPI Controlled Battery Chargers</b>										
<b>LTC4110</b>	<b>3</b>	<b>6 to 20</b>	<b>-</b>	<b>1-4 Li, up to 10 Ni, up to 6 SLA</b>	<b>switching</b>	<b>External, Synchronous</b>	<b>5×7 QFN-38</b>	<b>C/10, Timer, Microcontroller</b>	<b>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</b>	<b>\$9.25</b>
LTC1960	4	6 to 28		1 to 6	switching	External, Synchronous	SSOP-36, 5×7 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. C.F. = Contact Factory  
\*USB Compatible

Amps, Refs, Filters, Comp

Power Management  
BATTERY CHARGERS

Data Conversion

Interface

High Frequency

Reference Material

# BATTERY CHARGER PowerPath™ MANAGERS

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	Price 1K Qty
<b>Li-Ion and Li-Polymer Battery Chargers</b>											
LTC4055	1	yes	linear	4.3 to 5.5	1	linear	Internal	4×4 QFN-16	On-Board 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	3×6 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	3×6 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	3×4 DFN-14	On-Board Timer	13V OVP; Integrated 200mΩ Ideal Diode w/ 50mΩ Optional External Ideal Diode Controller	\$1.70
LTC4088/-1/-2	1.5	yes	switching	4.25 to 5.5	1	linear	Internal	3×4 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	3×4 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	\$2.50
LTC4090/-5	1.5	yes	linear	4.35 to 5.5 USB, 6-36V wall	1	linear	Internal	3×6 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	1.5	yes	linear	4.3 to 5.5	1	linear	Internal	4×4 UTQFN-24, 4×4 QFN-24	On-Board Timer	Integrated Low-Loss 50mΩ Ideal Diode; "-1" has 4.1V V <sub>FLOAT</sub>	\$2.30
LTC4085/-1	1.5	yes	linear	4.35 to 5.5	1	linear	Internal	3×4 DFN-14	On-Board Timer	Integrated 200mΩ Ideal Diode w/ 50mΩ Optional External Ideal Diode Controller; "-1" has 4.1V V <sub>FLOAT</sub>	\$1.65

\* USB Compatible

# 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
LTC4088	1	1.2A	-	-	sync buck + linear	1.5 <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> ), 38V Buck Interface, 3.3V LDO	\$2.20
LTC4088-1	1	1.2A	-	-	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	4.25 to 5.5	-	3×4 DFN-14	Bat-Track, No 3.3V LDO, Charger Disabled at Power-Up	\$2.20
LTC4088-2	1	1.2A	-	-	sync buck + linear	1.5 <sup>(2)</sup>	switching	int + ext (opt.)	4.25 to 5.5	-	3×4 DFN-14	Bat-Track, No 3.3V LDO, Charger Enabled at Power-Up	\$2.20
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	4.2V Li-Ion, Bat-Track	\$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	4.2V Li-Ion, DC-DC Provides Fixed 5V Output	\$2.95
LTC4089-1	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	4.1V Li-Ion, DC-DC Provides Fixed 5V Output	\$2.95
LTC4090	1	1.2A	-	-	HV buck + linear	1.2 <sup>(2)</sup>	linear	int + ext (opt.)	6 to 36 (60V max), USB	-	3×6 DFN-22	60V V <sub>IN</sub> Abs Max, Bat-Track	\$3.25
LTC3550	1	600mA	-	-	linear	0.95	-	-	4.3 to 8	-	3×5 DFN-16	Dual Input Battery Charger, Adjustable Output Buck	\$2.00
LTC3550-1	1	600mA	-	-	linear	0.95	-	-	4.3 to 8	-	3×5 DFN-16	Dual Input Battery Charger, Fixed Output Buck: 1.875V	\$2.00
LTC3552/-1	2	400mA, 800mA	-	-	linear	0.95	-	-	4.25 to 8	-	3×5 DFN-16	Adjustable Output Bucks. "-1" has Fixed Output Bucks (1.575V and 1.8V)	\$2.30
LTC3559/-1	2	400mA×2	-	-	linear	0.95	-	-	5, USB	-	3×3 QFN-16	"-1" Has 4.1V V <sub>FLOAT</sub>	\$2.15
LTC3558	2	400mA	0.4A BB	-	linear	0.95	-	-	5, USB	-	3×3 QFN-20		\$2.35
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		\$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		C.F.
LTC3455	3	400mA, 600mA(3)	-	Flexible Gain Block for LDO Controller	linear	0.5	linear	-	5, USB, Li-Ion	-	4×4 QFN-24	Hot Swap Output	\$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	\$4.65
LTC3557/-1	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 (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.)	TBD	I <sup>2</sup> C	4×6 QFN-38	Bat-Track; Bidirectional USB On-The-Go (OTG)	C.F.
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	C.F.

† Primary Sort Column

Notes:

1. Excludes the 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

Part Number	Basic Function	Package	Comments and Features	Price 1K Qty
LTC4411	2.6A PowerPath Control IC w/ Internal P-FET	ThinSOT	Integrated Switch: Replaces Power Supply OR'ing Diodes w/High Efficiency Solution	\$1.60
LTC4413	Dual 2.6A PowerPath Control IC w/ Internal P-FETs	3×3 DFN-10	Integrated Switches.	\$2.13
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°C to 125°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°C to 125°C	\$1.30
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°C to 125°C, High Gate Drive for Large P-FETs, "-1" Version has Fast-Off Feature	\$2.45
LTC4414	36V 75A PowerPath Controller for Large P-FETs	MSOP-8	Higher Gate Drive vs. LTC4412; Faster Gate Turn-On/Off Times	\$1.85
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; 2.5µA Supply Current	\$0.95
LTC1325	Microprocessor-Controlled Battery Mgmt System	SO-18	Fast Charge NiCd, NiMH, Li-Ion or Lead-Acid Batteries Under µP Control	\$7.25
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, 3×3 DFN-8	Ultralow Power Comparator with Reference	\$1.45
LTC1540	Battery Monitoring Building Blocks	DIP-8, SO-8	Dual Ultralow Power Comparators with Reference	\$1.80
LTC1441/2	Battery Monitoring Building Blocks	DIP-16, SO-16	Quad Ultralow Power Comparators with Reference	\$2.45
LTC1842/3	Battery Monitoring Building Blocks	MSOP-8, SO-8, 3×3 DFN-8	Combined Amplifier, Comparator and Reference	\$1.50
LTC1443/4/5	Battery Monitoring Building Blocks	DIP-16, SO-16	Quad Ultralow Power Comparators with Reference	\$2.45
LTC1541/2	Battery Monitoring Building Blocks	MSOP-8, SO-8, 3×3 DFN-8	Combined Amplifier, Comparator and Reference	\$1.50

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
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	3×3 QFN-20	400mA Sync Buck-Boost, 400mA Sync Buck	\$3.95
LTC4055-1	1	1	linear	yes	-	yes	-	4.3 to 5.5	4×4 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	3×6 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, E-10		\$2.35
LTC4066-1	1	1.5	linear	yes	-	yes	-	4.3 to 5.5	4×4 QFN-24	Integrated 50mΩ Ideal Diode	\$2.30
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
<b>LTC3557-1</b>	<b>1</b>	<b>1.5</b>	<b>linear</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>3 Bucks, 1 LDO</b>	<b>4.35 to 5.5</b>	<b>4×5 QFN-28</b>	<b>3 Bucks (0.6A, 0.4A×2), 25mA Always-ON LDO, Interfaces to HV (8V to 38V) Buck for Efficient Charging</b>	<b>\$3.95</b>
LTC1731-4.1	1,2	2	linear	-	-	-	-	4.5 to 12	MSOP-8, SO-8	External $R_{SENSE}$	\$1.55
LTC1732-4	1,2	2	linear	-	-	-	-	4.5 to 12	MSOP-10	External $R_{SENSE}$ , AC Present Status Pin	\$2.15
LTC4050	1	2	linear	-	-	-	-	4.5 to 12	MSOP-10	Thermistor Interface	\$2.25
LTC4001-1	1	2	switchmode	-	-	-	-	4 to 5.5	4×4 QFN-16	Synchronous, Integrated $R_{SENSE}$	\$2.20
LTC1980	1,2	2	switchmode	-	-	-	-	4.1 to 12	SSOP-24	Buck-Boost, Combination Charger and DC-Dc Converter	\$3.75
LTC4007/-1	3,4	4	switchmode	-	-	-	-	6 to 28	SSOP-24	Synchronous, NTC Thermistor Input, Full-Featured	\$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 UC for Charge Termination	\$3.70
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 uC	\$3.70

† Primary Sort Column

Note: 1. Excludes DC-DC converters used for battery charging

Amps, Refs, Filters, Comp

Power Management

Data Conversion

Interface

High Frequency

Reference Material

BATTERY MGMT 4.1V/4.0V Li-Ion

# PowerPath™ AND IDEAL DIODE-OR CONTROLLERS

Part Number	Input Supply Range	† Typical Current Capability	External FET	Supply for FET Gate Drive	Comments	Ext. Temp.	Package	Price 1K Qty
<b>P-Channel FET</b>								
LTC4411	2.6 to 5.5	≤2.6A	single	n/a	Dual, One Integrated Switch, One External Switch	E	ThinSOT	\$1.60
LTC4413	2.5 to 5.5	≤2.6A	dual	n/a	Dual, Two Internal Switches	E	3×3 DFN-10	\$2.15
LTC4413-1/-2	2.5 to 5.5	≤2.6A	dual	n/a	Dual, Two Internal Switches, Faster Version of LTC4413, "-2" Version has 13V (max) OVP	E	3×3 DFN-10	\$2.15
LTC4412	2.5 to 28	≤5A	single	n/a	Dual, Two External Switches	E, I	ThinSOT	\$1.30
LTC4412HV	2.5 to 36	≤5A	single	n/a	-40°C to 125°C, High Input Voltage	I	ThinSOT	\$1.70
LTC2952	2.7 to 28	>5A <sup>(1)</sup>	dual	n/a	PowerPath Controller with Pushbutton Interface	I	TSSOP-20, 4×4 QFN-20	\$2.95
LTC4414	3 to 36	≤5-75A <sup>(1)</sup>	single	n/a	-40°C to 125°C, High Gate Drive for Large PFETs, Load Current up to 75A	E, I	MSOP-8	\$1.85
LTC4416	3 to 36	≤5-75A <sup>(1)</sup>	dual	n/a	Dual, -40°C to 125°C, High Gate Drive for Large PFETs, "-1" Version has Fast-Off Feature	E, I	MSOP-10	\$2.45
<b>N-Channel FET</b>								
LTC1473	4.75 to 30	≤5A	dual	On-Board Boost Regulator	Dual, Battery and AC Wall Adapter Input Power Sources ("L" Version has 3.3V to 10V V <sub>IN</sub> )	I	SSOP-16	\$3.55
LTC1479	6 to 28	≤5A	triple	On-Board Boost Regulator	Triple PowerPath Controller for Dual Battery Systems and Wall Adapter	I	SSOP-36	\$7.05
LTC4350	1.5 to 12	>5A <sup>(1)</sup>	single	Charge Pump	Single Hot Swappable Load Current Sharing Controller, Shared Bus for N+1 Redundant Supplies	I	SSOP-16	\$4.25
LT4351	1.2 to 18	>5A <sup>(1)</sup>	single	On-Board Boost Regulator	Single Fast Switch-Over, High Gate Drive	I	MSOP-10	\$2.50
LTC4354	-4.5 to -80	>5A <sup>(1)</sup>	dual	n/a	Negative Voltage Diode-OR Controller and Monitor	I	SO-8, 3×2 DFN-8	\$1.95
LTC4355	9 to 80	>5A <sup>(1)</sup>	dual	n/a	Positive High Voltage Ideal Diode-OR and Monitor	I	SO-16, 4×3 DFN-14	\$2.50
LTC4357	9 to 80	>5A <sup>(1)</sup>	single	n/a	Positive High Voltage Ideal Diode Controller	I	MSOP-8, 2×3 DFN-6	\$1.70

† Primary Sort Column

Note:

1. Depends on external FET

## 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>Circuit Breaker/Overvoltage Protection</b>							
LTC1153	Electronic Circuit Breaker	4.5 to 18	22	SO-8, DIP-8	I	Programmable Trip, Reset, Current Level	\$2.05
LTC1696	Overvoltage Protection Controller	2.7 to 27	28	TSOT	E	Gate Drive for SCR Crowbar or MOSFET; Monitors Two Output Voltages	\$1.70

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

# 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>Synchronous MOSFET Drivers</b>							
LTC4443	N-Channel Synchronous Driver	6 to 9	38	3×3 DFN-12	E, I	Synchronous Step-Down or Step-Up Applications. "-1" has Higher Gate Driver UVLO	\$1.35
LTC4442	N-Channel Synchronous Driver	6 to 9	38	MSOP-8E	E, I	For Synchronous Step-Down/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	For Synchronous Step-Down, Step-Up or Buck-Boost Applications	\$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 AND PRIMARY SIDE CONVERTER

Part Number	† Output Power <sup>(1)</sup>	Input Voltage	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 10W	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
LTC3803	up to 15W	36V to 75V (w/ Resistor)	0.8V and higher <sup>(1)</sup>	200kHz	TSOP-6	no	E	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 (w/ Resistor)	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 (w/ Resistor)	0.8V and higher <sup>(1)</sup>	200kHz	TSOP-6	no	E, H	LTC3803 with 4.8V V <sub>CC</sub> Turn-On Voltage	\$1.12
LTC3805	5W to 25W	36V to 75V (w/ Resistor)	0.8V and higher <sup>(1)</sup>	70kHz to 700kHz	MSOP-10, DFN-10	no	E	Adjustable Frequency Current Mode Controller with Programmable Soft Start	\$1.45
LTC3873	up to 25W	36V to 75V (w/ Resistor)	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	36V to 75V (w/ Resistor)	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
LTC3805	5W to 25W	36V to 75V (w/ Resistor)	0.8V and higher <sup>(1)</sup>	70kHz to 700kHz	MSOP-10, 3×2 DFN-10	no	E	Adjustable Freq Current Mode Controller with Programmable Soft Start	\$1.45
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
LTC3805-5	5W to 35W	4.5V to 75V (w/ Resistor)	0.8V and Higher <sup>(1)</sup>	70kHz to 700kHz	MSOP-10, 3×3 DFN-10	no	E, I	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

† Primary Sort Column

Amps, Refs, Filters, Comp  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# 24V/48V DC/DC CONTROLLERS FLYBACK AND PRIMARY SIDE CONVERTER

Part Number	† Output Power <sup>(1)</sup>	Input Voltage	Output Voltage	Operating Frequency	Package	Synchronous	Extended Temp Range	Description	Price 1K Qty
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 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	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 (w/ Resistor)	1.23V and higher <sup>(1)</sup>	250kHz	4x3 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 (with Zener)	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 (with Zener)	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 (with Zener)	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.	\$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>									
LTC3721-1	100W to 750W	10.7V to 75V	1.2V to 52V	Up to 1MHz	4x4 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: 1. Dependent on external components  
2. MOSFET drive current

## FET Drivers

Part Number	MOSFET Drive Current	Switching Frequency	Package	Temp Range	Description	Price 1K Qty
LTC3900	2A	100kHz to 500kHz	SO-8	E	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 (w/ Resistor)	Flyback, Boost, SEPIC	TSOT-6	E	0.8V and Higher <sup>(1)</sup>	\$1.12
LTC3803-3	Up to 25W	9.2V to 75V (w/ Resistor)	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 (w/ Resistor)	Flyback, Boost, SEPIC	TSOT-6	E, H	0.8V and Higher <sup>(1)</sup>	\$1.12
LTC3873	Up to 35W	8.4V to 75V (w/ Resistor)	Flyback, Boost, SEPIC	TSOT-8, 3×2 DFN-8	E	1.2V and Higher <sup>(1)</sup>	\$1.25
LTC3873-5	Up to 35W	4V to 75V (w/ Resistor)	Flyback, Boost, SEPIC	TSOT-8, 3×2 DFN-8	E	1.2V and Higher <sup>(1)</sup>	\$1.25
LTC3805	Up to 35W	8.8V to 75V (w/ Resistor)	Flyback, Boost, SEPIC	MSOP-10, 3×3 DFN-10	E	0.8V and Higher <sup>(1)</sup>	\$1.45
<b>LTC3805-5</b>	<b>Up to 35W</b>	<b>4.5V to 75V (w/ Resistor)</b>	<b>Flyback, Boost, SEPIC</b>	<b>MSOP-10, 3×3 DFN-10</b>	<b>E, I</b>	<b>0.8V and Higher<sup>(1)</sup></b>	<b>\$1.45</b>
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	1.23V and Higher <sup>(1)</sup>	\$2.65
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
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
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 Startup, 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

OFFLINE CONTROL/POWER FACTOR CORRECTION

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

Amps, Refs, Filters, Comp  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

# HOT SWAP

Amps, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

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				
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			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	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
<b>LTC4217</b>	<b>1</b>	<b>2.9 to 26.5</b>	<b>Active</b>	<b>yes</b>	<b>yes</b>		<b>yes</b>	<b>yes</b>	<b>I</b>	<b>I</b>	<b>TSSOP-20, DFN-16</b>	<b>Integrated MOSFET and Sense Resistor, 5% Accurate Current Limit, Current/Temperature Outputs</b>	<b>C.F.</b>
<b>LTC4218</b>	<b>1</b>	<b>2.9 to 26.5</b>	<b>Ramp</b>	<b>yes</b>			<b>yes</b>	<b>yes</b>	<b>I</b>	<b>I</b>	<b>SSOP-16, DFN-16</b>	<b>Wide Operating Voltage, 5% Accurate, 15mV Current Limit, Current Monitor Output</b>	<b>\$2.65</b>
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
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	On Board 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	-20 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	On Board 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
LT4356-1	1	4 to 80	Active	yes			yes	yes	yes	H	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 Monitoring or Linear Regulator	\$1.98
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
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		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		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		I	SSOP-16, 5×4 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
<b>LTC4222</b>	<b>2</b>	<b>2.9 to 29</b>	<b>Active</b>	<b>yes</b>	<b>yes</b>		<b>yes</b>	<b>yes</b>	<b>I</b>	<b>I</b>	<b>SSOP-36, QFN-32</b>	<b>Dual Hot Swap Controller with I<sup>2</sup>C, Internal 10-Bit ADC, Foldback, dI/dt Controlled and Soft-Start</b>	<b>C.F.</b>

† Primary Sort Column  
‡‡ Secondary Sort Column



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				
LTC4230	3	(1) 2.7 to 16.5, (1) 2.375 to 16.5, (1) 1.7 to 15.5	Active			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		I	SSOP-36, 5×7 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		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		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		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		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		I	SSOP-36, 5×7 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		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

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				
LTC4261/-2	-12 to -100	Active	yes	yes	yes	yes	yes	yes	I	SSOP-28, 4×5 QFN-24	On Board 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	-20 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	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
LTC4252-2/ LTC4252A-2	-15 to -80 (floating)	Active/SS	yes	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 Advanced TCA 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
LT4254	10.8 to 36	Active	yes		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	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	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	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	yes	I	SO-24, SSOP-24, 5×5 QFN-32	On Board 8-bit ADC for Card Voltage and Current Monitoring, I <sup>2</sup> C Compatible Interface. Optional Latch-Off or Auto-Retry	\$5.95
LT4356-1	4 to 80	Active	yes				yes	yes	H	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	\$1.98

† Primary Sort Column

# LOW VOLTAGE HOT SWAP

Amps, Refs,  
Filters, Comps

Power  
Management  
LOW VOLTAGE HOT SWAP

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

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, 4x3DFN-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	2.9 to 16.5	Active/SS	yes	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
<b>LTC4217</b>	<b>1</b>	<b>2.9 to 26.5</b>	<b>Active</b>	<b>yes</b>	<b>yes</b>		<b>yes</b>	<b>yes</b>			<b>I</b>	<b>TSSOP-20, DFN-16</b>	<b>Integrated MOSFET and Sense Resistor, 5% Accurate Current Limit, Current/Temperature Outputs</b>	<b>C.F.</b>
<b>LTC4218</b>	<b>1</b>	<b>2.9 to 26.5</b>	<b>Ramp</b>	<b>yes</b>			<b>yes</b>	<b>yes</b>			<b>I</b>	<b>SSOP-16, DFN-16</b>	<b>Wide Operating Voltage, 5% Accurate, 15mV Current Limit, Current Monitor Output</b>	<b>\$2.65</b>
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	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	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
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
<b>LTC4222</b>	<b>2</b>	<b>2.9 to 29</b>	<b>Active</b>	<b>yes</b>	<b>yes</b>		<b>yes</b>	<b>yes</b>			<b>I</b>	<b>SSOP-36, QFN-32</b>	<b>Dual Hot Swap Controller with I<sup>2</sup>C, Internal 10-Bit ADC, Foldback, di/dt Controlled and Soft-Start</b>	<b>C.F.</b>
LTC4230	3	(1) 2.7 to 16.5 (1) 2.375 to 16.5 (1) 1.7 to 15.5	Active			yes	yes	yes	Together		I	SSOP-20	Controls Three Supplies; Active Current Limiting on In-Rush, 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, 5×7 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

Part Number	PCI / cPCI Supplies				Internal Switch Current Limit	Outputs			Ext. Temp.	Package	Comments	Price 1K Qty
	3.3V	5V	12V	-12V		PWRGD	Local PCI Reset	Fault				
LTC4242	yes	yes			n/a	yes	yes		I	SSOP-36, 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
LTC1646	yes <sup>(1)</sup>	yes <sup>(1)</sup>			n/a	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
LTC1643AL-1	yes	yes	yes		850mA on 12V, 450mA on -12V	yes	yes		I	SSOP-16	Active Current Limiting with Foldback, Does Not Require -12V Supply	\$4.25
LTC1643AL	yes	yes	yes	yes	850mA on 12V, 450mA on -12V	yes	yes		I	SSOP-16	Active Current Limiting with Foldback, Active Low ON Pin for CompactPCI	\$4.25
LTC4240	yes	yes	yes	yes	1250mA on 12V, 500mA on -12V	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
LTC4241	yes	yes	yes	yes	850mA on 12V, 450mA on -12V	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	850mA on 12V, 610mA on -12V	yes	yes	yes	I	SSOP-20	Pin-Compatible with LTC1644 But with Higher Absolute Maximum Ratings	\$3.90
LTC4245	yes	yes	yes	yes	n/a (ext. FET and R <sub>SENSE</sub> )	yes	yes	yes	I	SSOP-36, QFN-38	I <sup>2</sup> C, Internal 8-Bit ADC, di/dt Controlled Soft-Start, Configurable for CPCI or PCI-Express	\$5.95
LTC1643AH	yes	yes	yes	yes	850mA on 12V, 450mA on -12V	yes	yes		I	SSOP-16	Active Current Limiting with Foldback, Active High ON Pin for PCI	\$4.25
LTC1644	yes <sup>(1)</sup>	yes <sup>(1)</sup>	yes	yes <sup>(1)</sup>	840mA on 12V, 320mA on -12V	yes	yes	yes	I	SSOP-20	Active Current Limiting with Foldback, Active Low ON Pin for CompactPCI	\$3.60

Note:  
1. Optional supply, see data sheet for details

Amps, Refs, Filters, Comp

Power Management  
PCI, PoE, SYSTEM MONITORING

POWER OVER ETHERNET CONTROLLERS

Part Number	PSE/PD	Channels	Description	IEEE-Compliant Detection	IEEE-Compliant Classification	IEEE-Compliant Disconnection	Ext. Temp	Package	Comments	Price 1K Qty
LTC4257-1	PD	1	IEEE 802.3af PD PoE Interface Controller with Dual Current Limit	yes (internal 25k resistor)	yes (Programmable)	n/a	I	SO-8, 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 (internal 25k resistor)	yes	n/a	I	DFN-12	For High Power (up to 40W) Applications, Onboards 100V, 750mA Power MOSFET	\$1.80
LTC4268-1	PD	1	35W High Power PD with Synchronous NoOpto Flyback Controller	yes (internal 25k resistor)	yes (Programmable)	n/a	I	DFN-32	For High Power (Up to 35W) Applications, Onboards 100V, 750mA Power MOSFET	\$2.40
LTC4267/-1/-3	PD	1	IEEE 802.3af PD PoE Interface Controller with Integrated 200kHz/300kHz Switching Regulator	yes (Internal 25k resistor)	yes (Programmable)	n/a	I	SSOP-16, 3x5 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
LTC4263/-1	PSE	1	Single PoE Controller with AC and DC Disconnect	yes	yes	yes (DC- or AC-current)	I	SO-14, 4x3 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

Data Conversion

Interface

SYSTEM MONITORING AND CONTROL  
μP SUPERVISORY

Part Number	† Number of Voltage Monitors	Fixed Voltage Range, (V)	Minimum Adj Threshold, (V)		OV Monitor	Negative Monitor	Reset Threshold Tolerance	Minimum Reset Level		Supply Current (μA)	Watchdog Timer	Power Fail Warning	Comments	Ext. Temp.	Package	Price 1K Qty
			Adjustable Inputs	(V)				Reset Level (V)	Reset Pulse Width							
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, DFN-16	\$3.20
LTC2908-A1	6	5, 3.3, 2.5, 1.8	2	0.5				0.5	200ms	26				I	TSOT-8, 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, DFN-8	\$2.50
LTC2908-C1	6	2.5	5	0.5			5%	0.5	200ms	26				I	TSOT-8, DFN-8	\$2.50
<b>LTC2930</b>	<b>6</b>	<b>5 to 1.5</b>	<b>up to 4</b>	<b>0.5</b>		<b>yes</b>	<b>5%</b>	<b>1</b>	<b>Adj</b>	<b>52</b>			<b>16 Selectable Thresholds, Adj. Reset Timer, Manual Reset</b>	<b>I, H</b>	<b>3x3 DFN-12</b>	<b>\$2.56</b>

† Primary Sort Column

High Frequency

Reference Material



# SYSTEM MONITORING AND CONTROL

## µP SUPERVISORY

Amps, Refs,  
Filters, Comps

Power  
Management  
SYSTEM MONITORING

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

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
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, 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
LTC2902 <sup>(1)</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, 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, 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, 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, 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, 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, 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, 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, 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, DFN-8	\$1.35
LTC1921	2	48V			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	1.6V to 6V	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	C.F.

† 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
LTC2935	1	1.6V to 6V	1	0.4			5%	2.25	200ms	0.5		yes	500nA Supply Current, 8 User-Selectable Reset and Power Fail Thresholds	I	TSOT-8, 2x2 DFN-8	C.F.
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, DFN-8	\$1.05
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, 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, 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, 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, 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	2.5-3.25				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			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, 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, 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, QFN-20	\$2.95
LTC2953	2.7 to 27	14	32	Adj	512			I	Pushbutton Controller with Dual Input Battery Monitor and Output Supervisor	3x3 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, DFN-8	\$1.81

SUPPLY TRACKERS, SEQUENCERS AND MARGINING CONTROLLERS

Part Number	Supply Voltage (V)	Max Voltage (V)	Total Supplies	Tracking <sup>(1)</sup>	Sequencing	Tracking Methods			Circuit Breakers	Input Monitors	DC/DC Enable	Margining	PWRGD	Ext. Temp.	Comments	Package	Price 1K Qty
						Series FETs	DC/DC Feedback	Up/Down									
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- and Overvoltage/Current Measurements	4x5 QFN-24	\$3.99



Amps, Refs, Filters, Comp

Power Management

Data Conversion

Interface

High Frequency

Reference Material

SYSTEM MONITORING TRACKERS

# SYSTEM MONITORING AND CONTROL

## μP SUPERVISORY

Part Number	Supply Voltage (V)	Max Voltage (V)	Total Supplies	Tracking <sup>(1)</sup>	Sequencing	Tracking Methods		Circuit Breakers	Input Monitors	DC/DC Enable	Margining	PWRGD	Ext. Temp.	Comments	Package	Price 1K Qty	
						Series FETs	DC/DC Feedback										
LTC2923	2.9 to 5.5	3	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, 4×3 DFN-12	\$2.95
LTC2926	2.9 to 5.5	3	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, 4×5 QFN-20	\$3.50
LTC2925	2.9 to 5.5	4	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, 4×4 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, 5×7 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

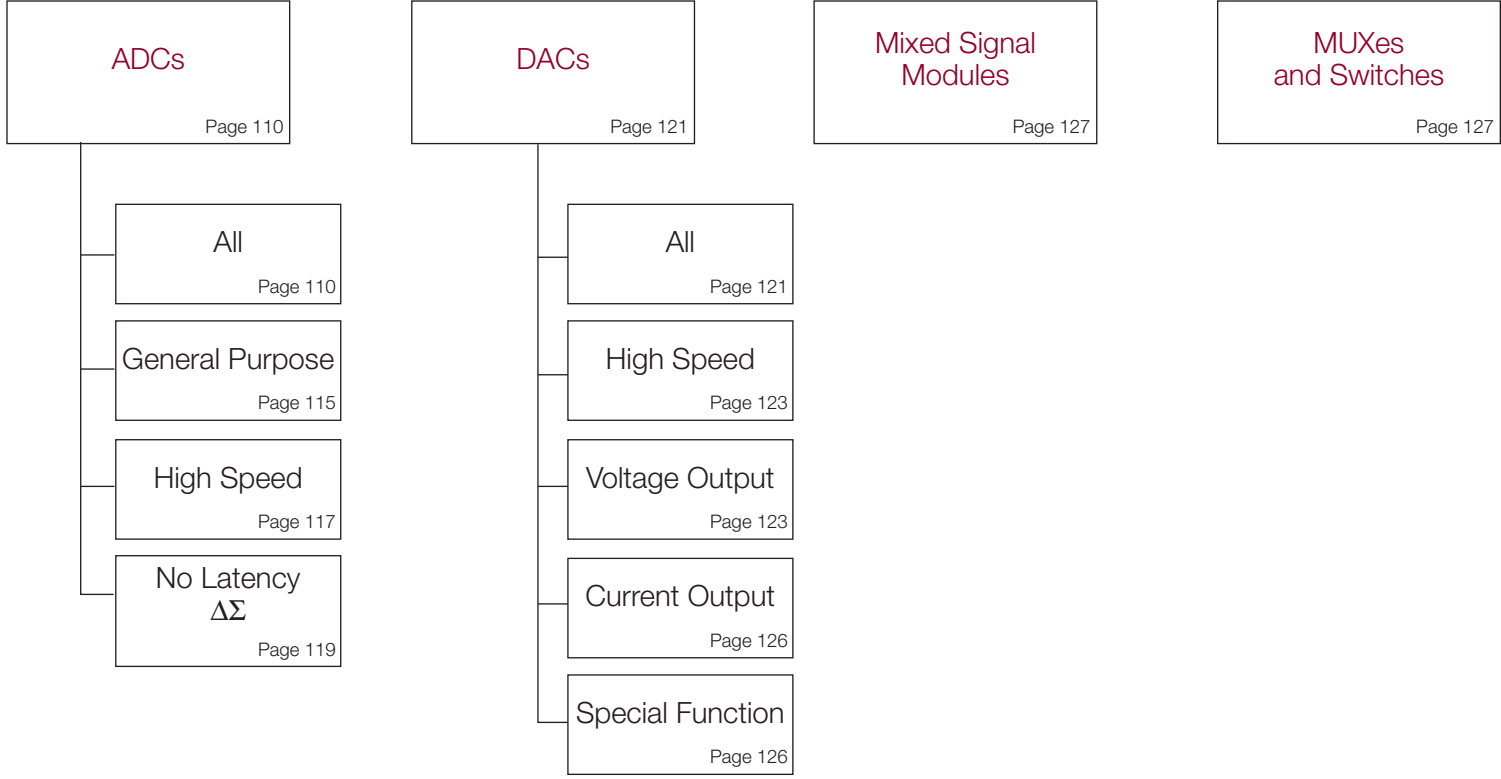
Notes:

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,	3×3 DFN-10, MSOP-10	\$1.55
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- and Overvoltage/Current Measurements	4×5 QFN-24	\$3.99

# Data Conversion







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
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
<b>LTC2451</b>	<b>16</b>		<b>60</b>		<b>1</b>	<b>10</b>	<b>2mV</b>	<b>0.02%</b>	<b>1.05</b>	<b>2.7 to 5.5</b>		<b>I<sup>2</sup>C</b>		<b>0V to V<sub>CC</sub></b>	<b>yes</b>	<b>I</b>	<b>Ultra Tiny ΔΣ ADC, 60Hz Output</b>	<b>3×2 DFN-8/TSOT-8</b>	<b>\$1.15</b>
<b>LTC2452</b>	<b>16</b>		<b>60</b>		<b>1</b>	<b>10</b>	<b>2mV</b>	<b>0.02%</b>	<b>1.05</b>	<b>2.7 to 5.5</b>		<b>SPI</b>		<b>0V to V<sub>CC</sub></b>	<b>yes</b>	<b>I</b>	<b>Ultra Tiny ΔΣ ADC, Differential Input</b>	<b>3×2 DFN-8/TSOT-8</b>	<b>\$1.25</b>
<b>LTC2453</b>	<b>16</b>		<b>60</b>		<b>1</b>	<b>10</b>	<b>2mV</b>	<b>0.02%</b>	<b>1.05</b>	<b>2.7 to 5.5</b>		<b>I<sup>2</sup>C</b>		<b>0V to V<sub>CC</sub></b>	<b>yes</b>	<b>I</b>	<b>Ultra Tiny ΔΣ ADC, Differential Input</b>	<b>3×2 DFN-8/TSOT-8</b>	<b>\$1.25</b>
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	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	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	
LTC2285	14		125M			0.6	1.5	12mV	2.5%	790	3	yes	yes	±0.5V to ±1V	yes	I		9×9 QFN-64	\$73.50
LTC2255	14		125M	72.2	1	5	12mV	2.5%	395	3	yes	yes	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$49.00
LTC2284	14		105M	72.2	0.6	1.5	12mV	2.5%	540	3	yes	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	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$41.00
LTC1748	14		80M	76	1.5	3	35mV	3.5%	1400	5	yes	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	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	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$25.00
LTC2299	14		80M	72.9	1	5	12mV	2.5%	444	3	yes	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	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	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$23.35
LTC2298	14		65M	74.3	1	5	12mV	2.5%	400	3	yes	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	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	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$15.85
LTC2297	14		40M	74.4	1	5	12mV	2.5%	235	3	yes	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	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	yes	±0.5V to ±1V	yes	I, H		5×5 QFN-32/7×7 LQFP	\$12.50
LTC2296	14		25M	74.5	1	5	12mV	2.5%	150	3	yes	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	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	yes	±0.5V to ±1V	yes	I	Dual ADC	9×9 QFN-64	\$17.00

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

Amps, Refs, Filters, Comps

Power Management

Data Conversion  
 ADCs (ALL)

Interface

High Frequency

Reference Material



# ADCs (ALL)

Amps, Refs,  
Filters, Comps

Power  
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Conversion  
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Interface

High  
Frequency

Reference  
Material

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 <sup>(1)</sup>
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	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	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/SQ(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
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
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
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
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
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
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
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
<b>LTC2366</b>	<b>12</b>		<b>3M</b>	<b>72</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>7.8</b>	<b>2.35 to 3.6</b>		<b>SPI</b>		<b>0V to 3.6V</b>	<b>yes</b>	<b>I, H</b>	<b>Industry Standard Pinout</b>	<b>TSOT-6/TSOT-8</b>	<b>C.F.</b>
LTC1407	12	2*	3M	70.5	1	2	10	30	12	3		SPI	yes	0V to 2.5V	yes	I	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

† 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 Q.
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	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
<b>LTC2365</b>	<b>12</b>		<b>1M</b>	<b>72</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>2.35 to 3.6</b>		<b>SPI</b>		<b>0V to 3.6V</b>	<b>yes</b>	<b>I, H</b>	<b>Industry Standard Pinout</b>	<b>TSOT-6/TSOT-8</b>	<b>C.F.</b>
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
<b>LTC2362</b>	<b>12</b>		<b>500K</b>	<b>72</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>3.3</b>	<b>2.35 to 3.6</b>		<b>SPI</b>		<b>0V to 3.6V</b>	<b>yes</b>	<b>I, H</b>	<b>Industry Standard Pinout</b>	<b>TSOT-6/TSOT-8</b>	<b>C.F.</b>
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
<b>LTC2302</b>	<b>12</b>		<b>500K</b>	<b>73</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>9</b>	<b>15</b>	<b>5</b>	<b>yes</b>	<b>SPI</b>		<b>0V to V<sub>REF</sub>, ±V<sub>REF</sub>/2</b>	<b>yes</b>	<b>I</b>	<b>Differential Input</b>	<b>3×3 DFN-10</b>	<b>\$2.10</b>
<b>LTC2306</b>	<b>12</b>	<b>2</b>	<b>500K</b>	<b>73</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>9</b>	<b>15</b>	<b>5</b>	<b>yes</b>	<b>SPI</b>		<b>0V to V<sub>REF</sub>, ±V<sub>REF</sub>/2</b>	<b>yes</b>	<b>I</b>	<b>Two Single-Ended Inputs</b>	<b>3×3 DFN-10</b>	<b>\$2.10</b>
<b>LTC2308</b>	<b>12</b>	<b>8</b>	<b>500K</b>	<b>73</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>9</b>	<b>17.5</b>	<b>5</b>	<b>yes</b>	<b>SPI</b>	<b>yes</b>	<b>0V to V<sub>REF</sub>, ±V<sub>REF</sub>/2</b>	<b>yes</b>	<b>I</b>		<b>4×4 QFN-24</b>	<b>\$2.95</b>
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
LTC1273A	12		300K	70	0.75	0.5	3	10	75	5			yes	0V to 5V	no	I		DIP-24/SO(W)-24	\$12.35
LTC1275A	12		300K	70	0.75	0.5	3	10	75	±5	yes		yes	±2.5V	no	I		DIP-24/SO(W)-24	\$11.60
LTC1276A	12		300K	70	0.75	0.5	3	10	75	±5	yes		yes	±5V	no	I		DIP-24/SO(W)-24	\$11.60
<b>LTC2361</b>	<b>12</b>		<b>250K</b>	<b>72</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>2.2</b>	<b>2.35 to 3.6</b>		<b>SPI</b>		<b>0V to 3.6V</b>	<b>yes</b>	<b>I, H</b>	<b>Industry Standard Pinout</b>	<b>TSOT-6/TSOT-8</b>	<b>C.F.</b>
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	I		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	I		DIP-24/SO(W)-24	\$13.80
LTC1272-8	12		110K	72	1	0.5	3	10	75	5			yes	0V to 5V	no	I		DIP-24/SO(W)-24	\$7.90
<b>LTC2360</b>	<b>12</b>		<b>100K</b>	<b>72</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>1.5</b>	<b>2.35 to 3.6</b>		<b>SPI</b>		<b>0V to 3.6V</b>	<b>yes</b>	<b>I, H</b>	<b>Industry Standard Pinout</b>	<b>TSOT-6/TSOT-8</b>	<b>C.F.</b>
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
<b>LTC2301</b>	<b>12</b>	<b>1</b>	<b>14K</b>	<b>73</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>9</b>	<b>TBD</b>	<b>5</b>	<b>yes</b>	<b>I<sup>2</sup>C</b>	<b>yes</b>	<b>0V to V<sub>REF</sub>, ±V<sub>REF</sub>/2</b>	<b>yes</b>	<b>I</b>	<b>I<sup>2</sup>C I/O, One Differential Input</b>	<b>4×3 DFN-12</b>	<b>C.F.</b>
<b>LTC2305</b>	<b>12</b>	<b>2</b>	<b>14K</b>	<b>73</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>9</b>	<b>TBD</b>	<b>5</b>	<b>yes</b>	<b>I<sup>2</sup>C</b>	<b>yes</b>	<b>0V to V<sub>REF</sub>, ±V<sub>REF</sub>/2</b>	<b>yes</b>	<b>I</b>	<b>I<sup>2</sup>C I/O, Two Single-Ended Inputs</b>	<b>4×3 DFN-12</b>	<b>C.F.</b>
<b>LTC2309</b>	<b>12</b>	<b>8</b>	<b>14K</b>	<b>73</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>9</b>	<b>11.5</b>	<b>5</b>	<b>yes</b>	<b>I<sup>2</sup>C</b>	<b>yes</b>	<b>0V to V<sub>REF</sub>, ±V<sub>REF</sub>/2</b>	<b>yes</b>	<b>I</b>	<b>I<sup>2</sup>C I/O, Nine Addresses</b>	<b>4×4 QFN-24/TSSOP-20</b>	<b>\$2.95</b>
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

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

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 High Frequency  
 Reference Material



# ADCs (ALL)

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

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 <sup>(1)</sup>
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
LTC2222-11	11		105M	65.6	0.8	1	37mV	2.5%	475	3.3	yes		yes	±0.5V to ±1V	yes	I		7×7 QFN-48	\$14.50
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
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	8	38K		1	0.5	0.5	1	5	4.5 to 10		SPI		0V to 10V	no	C <sup>(2)</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>(2)</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>(2)</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>(2)</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>(2)</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	I		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	I		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

Notes:  
 1. C.F. = Contact Factory  
 2. Specified for -40°C ≤ T<sub>A</sub> ≤ 85°C operation with C temperature code

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 <sup>(1)</sup>
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	C.F.
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	C.F.
LTC1407A	14	2*	3M	1	4	20	60	12	3	73.5		yes	yes	0V to 2.5V	yes	I	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
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	±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	±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	5×5 QFN-32	\$9.45
LTC1419A	14		800K	1	1.25	20	60	150	±5	81.5	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	±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	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
<b>LTC2366</b>	<b>12</b>		<b>3M</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>7.8</b>	<b>2.35 to 3.6</b>	<b>72</b>		<b>yes</b>	<b>yes</b>	<b>0V to 3.6V</b>	<b>yes</b>	<b>I, H</b>	<b>TSOT-6/TSOT-8</b>	<b>C.F.</b>
LTC1407	12	2*	3M	1	2	10	30	12	3	70.5		yes	yes	0V to 2.5V	yes	I	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	±2.5V	no	I	SSOP-28	\$9.95
LTC1403	12		2.8M	1	2	10	30	12	3	70.5		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	5×5 QFN-32	\$5.95
LTC1410	12		1.25M	1	1	6	15	160	±5	71	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	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	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
<b>LTC2365</b>	<b>12</b>		<b>1M</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>2.35 to 3.6</b>	<b>72</b>		<b>yes</b>	<b>yes</b>	<b>0V to 3.6V</b>	<b>yes</b>	<b>I, H</b>	<b>TSOT-6/TSOT-8</b>	<b>C.F.</b>
LTC1409	12		800K	1	1	6	15	80	±5	72.5	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	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
<b>LTC2362</b>	<b>12</b>		<b>500K</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>3.3</b>	<b>2.35 to 3.6</b>	<b>72</b>		<b>yes</b>	<b>yes</b>	<b>0V to 3.6V</b>	<b>yes</b>	<b>I, H</b>	<b>TSOT-6/TSOT-8</b>	<b>C.F.</b>

† Primary Sort Column  
‡ Secondary Sort Column

\* Simultaneous Sampling



Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 High Frequency  
 Reference Material

GENERAL PURPOSE ADCs

# GENERAL PURPOSE ADCs

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion  
GENERAL PURPOSE ADCs

Interface

High  
Frequency

Reference  
Material

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 <sup>(1)</sup>
<b>LTC2302</b>	<b>12</b>		<b>500K</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>9</b>	<b>15</b>	<b>5</b>	<b>73</b>	<b>yes</b>	<b>yes</b>		<b>0V to V<sub>REF</sub>, ±V<sub>REF</sub>/2</b>	<b>yes</b>	<b>I</b>	<b>3×3 DFN-10</b>	<b>\$2.10</b>
<b>LTC2306</b>	<b>12</b>	<b>2</b>	<b>500K</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>9</b>	<b>15</b>	<b>5</b>	<b>73</b>	<b>yes</b>	<b>yes</b>		<b>0V to V<sub>REF</sub>, ±V<sub>REF</sub>/2</b>	<b>yes</b>	<b>I</b>	<b>3×3 DFN-10</b>	<b>\$2.10</b>
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	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	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	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	0V to 5V, ±2.5V	no		DIP-24/SO(W)-24	\$12.35
LTC1275A	12		300K	0.75	0.5	3	15	75	±5	70	yes		yes	±2.5V	no		DIP-24/SO(W)-24	\$11.60
LTC1276A	12		300K	0.75	0.5	3	15	75	±5	70	yes		yes	±5V	no		DIP-24/SO(W)-24	\$11.60
LTC1860	12		250K	1	1	5mV	20mV	4.25	5	71		yes		0V to 5V	yes	I	MSOP-8/SO-8	\$2.30
<b>LTC2361</b>	<b>12</b>		<b>250K</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>2.2</b>	<b>2.35 to 3.6</b>	<b>72</b>		<b>yes</b>		<b>0V to 3.6V</b>	<b>yes</b>	<b>I, H</b>	<b>TSOT-6/TSOT-8</b>	<b>C.F.</b>
LTC1861	12	2	250K	1	1	5mV	20mV	4.25	5	71		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	0V to 5V	no		DIP-24/SO(W)-24	\$10.85
LTC1401	12		200K	1	1	6	15	15	3	65		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		0V to 3V	yes	I	MSOP-8/SO-8	\$2.75
LTC1861L	12	2	150K	1	1	5mV	20mV	1.22	3	72		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	0V to 2.5V, ±1.25V	no		DIP-24/SO(W)-24	\$13.80
LTC1272-8	12		110K	1	0.5	3	10	75	5	72			yes	0V to 5V	no		DIP-24/SO(W)-24	\$7.90
<b>LTC2360</b>	<b>12</b>		<b>100K</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>1.5</b>	<b>2.35 to 3.6</b>	<b>72</b>		<b>yes</b>		<b>0V to 3.6V</b>	<b>yes</b>	<b>I, H</b>	<b>TSOT-6/TSOT-8</b>	<b>C.F.</b>
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
<b>LTC2301</b>	<b>12</b>	<b>1</b>	<b>14K</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>9</b>	<b>TBD</b>	<b>5</b>	<b>73</b>	<b>yes</b>	<b>I<sup>2</sup>C</b>	<b>yes</b>	<b>0V to V<sub>REF</sub>, ±V<sub>REF</sub>/2</b>	<b>yes</b>	<b>I</b>	<b>4×3 DFN-12</b>	<b>C.F.</b>
<b>LTC2305</b>	<b>12</b>	<b>2</b>	<b>14K</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>9</b>	<b>TBD</b>	<b>5</b>	<b>73</b>	<b>yes</b>	<b>I<sup>2</sup>C</b>	<b>yes</b>	<b>0V to V<sub>REF</sub>, ±V<sub>REF</sub>/2</b>	<b>yes</b>	<b>I</b>	<b>4×3 DFN-12</b>	<b>C.F.</b>
<b>LTC2309</b>	<b>12</b>	<b>8</b>	<b>14K</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>9</b>	<b>11.5</b>	<b>5</b>	<b>73</b>	<b>yes</b>	<b>I<sup>2</sup>C</b>	<b>yes</b>	<b>0V to V<sub>REF</sub>, ±V<sub>REF</sub>/2</b>	<b>yes</b>	<b>I</b>	<b>4×4 QFN-24/TSSOP-20</b>	<b>\$2.95</b>
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

† Primary Sort Column  
‡ Secondary Sort Column

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 <sup>(1)</sup>
LTC1092	10		38K	1	0.5	0.5	1	5	4.5 to 10			yes		0V to 10V	no	C <sup>(2)</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>(2)</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>(2)</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>(2)</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>(2)</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

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

Amps, Refs, Filters, Comps

Power Management

Data Conversion GEN PRPs, HI SPD ADCs

Interface

High Frequency

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
<b>LTC2209#3BC</b>	<b>16</b>			<b>180</b>	<b>76.5</b>	<b>96</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>15mV</b>	<b>2.0%</b>	<b>1700</b>	<b>3.3</b>	<b>yes</b>	<b>7</b>	<b>yes</b>	<b>±0.75V to ±1.125V</b>	<b>yes</b>	<b>I</b>	<b>LVDS or CMOS Outputs</b>	<b>9x9 QFN-64</b>	<b>C.F.</b>	
LTC2209	16			160	77.1	100	1	5	10mV	2%	1450	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I	LVDS or CMOS Outputs	9x9 QFN-64	\$72.50		
LTC2208	16			130	77.7	100	1	4.5	8.5mV	1.5%	1250	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I	LVDS Outputs	9x9 QFN-64	\$65.00		
<b>LTC2217</b>	<b>16</b>			<b>105</b>	<b>81.2</b>	<b>100</b>	<b>1</b>	<b>4</b>	<b>6mV</b>	<b>1.0%</b>	<b>1190</b>	<b>3.3</b>	<b>yes</b>	<b>7</b>	<b>yes</b>	<b>±1.375V</b>	<b>yes</b>	<b>I</b>	<b>Low Noise</b>	<b>9x9 QFN-64</b>	<b>\$68.00</b>		
<b>LTC2274</b>	<b>16</b>			<b>105</b>	<b>77.5</b>	<b>100</b>	<b>1</b>	<b>4.5</b>	<b>8.5mV</b>	<b>1.5%</b>	<b>1300</b>	<b>3.3</b>	<b>yes</b>	<b>yes</b>	<b>9</b>	<b>yes</b>	<b>±0.75V to ±1.125V</b>	<b>yes</b>	<b>I</b>	<b>High Speed Serial Outputs</b>	<b>6x6 QFN-40</b>	<b>\$68.00</b>	
LTC2207	16			105	77.9	100	1	4.5	8.5mV	1.5%	900	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I		7x7 QFN-48	\$56.67		
<b>LTC2216</b>	<b>16</b>			<b>80</b>	<b>81.3</b>	<b>100</b>	<b>1</b>	<b>3.5</b>	<b>6mV</b>	<b>1.0%</b>	<b>970</b>	<b>3.3</b>	<b>yes</b>	<b>7</b>	<b>yes</b>	<b>±1.375V</b>	<b>yes</b>	<b>I</b>	<b>Low Noise</b>	<b>9x9 QFN-64</b>	<b>\$58.00</b>		
LTC2206	16			80	77.9	100	1	4.5	8.5mV	1.5%	725	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I		7x7 QFN-48	\$48.33		
<b>LTC2215</b>	<b>16</b>			<b>65</b>	<b>81.5</b>	<b>100</b>	<b>1</b>	<b>3.5</b>	<b>6mV</b>	<b>1.0%</b>	<b>700</b>	<b>3.3</b>	<b>yes</b>	<b>7</b>	<b>yes</b>	<b>±1.375V</b>	<b>yes</b>	<b>I</b>	<b>Low Noise</b>	<b>9x9 QFN-64</b>	<b>\$52.00</b>		
LTC2205	16			65	79	100	1	4.5	8.5mV	1.9%	610	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I		7x7 QFN-48	\$43.33		
LTC2204	16			40	79.1	100	1	4.5	8.5mV	1.9%	480	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I		7x7 QFN-48	\$35.00		
LTC2203	16			25	81.6	100	1	4.5	10mV	1.5%	220	3.3	yes	7	yes	±0.834V to ±1.25V	yes	I	Single Ended Clock	7x7 QFN-48	\$30.00		
LTC2202	16			10	81.6	100	1	4.5	10mV	1.5%	140	3.3	yes	7	yes	±0.834V to ±1.25V	yes	I	Single Ended Clock	7x7 QFN-48	\$25.00		
LTC2208-14	14			130	77.0	98	0.5	1.5	11mV	2.3%	1320	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I		9x9 QFN-64	\$55.00		
LTC2285	14	2		125	72.2	88	0.6	1.5	12mV	2.5%	790	3	yes	5	yes	±0.5V to ±1V	yes	I	Dual ADC	9x9 QFN-64	\$73.50		
LTC2255	14			125	72.2	88	1	5	12mV	2.5%	395	3	yes	5	yes	±0.5V to ±1V	yes	I		5x5 QFN-32	\$49.00		
LTC2207-14	14			105	77	100	1	1.5	10.3mV	2.3%	947	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I		7x7 QFN-48	\$45.00		
LTC2254	14			105	72.4	88	1	5.5	12mV	2.5%	320	3	yes	5	yes	±0.5V to ±1V	yes	I		5x5 QFN-32	\$41.00		
LTC2284	14	2		105	72.2	88	0.6	1.5	12mV	2.5%	540	3	yes	5	yes	±0.5V to ±1V	yes	I	Dual ADC	9x9 QFN-64	\$61.50		
LTC2206-14	14			80	77	100	1	1.5	10.3mV	2.3%	762	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I		7x7 QFN-48	\$33.00		
LTC2249	14			80	72.9	90	1	4	12mV	2.5%	222	3	yes	5	yes	±0.5V to ±1V	yes	I		5x5 QFN-32	\$25.00		
LTC1748	14			80	76.3	90	90	1.5	3		1.4W	5	yes	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	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	5	yes	±0.5V to ±1V	yes	I	Dual ADC	9x9 QFN-64	\$37.50		
LTC2205-14	14			65	78.2	98	1	1.5	8.5mV	1.9%	597	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I		9x9 QFN-64	\$28.00		
LTC2248	14			65	74.3	90	1	4	12mV	2.5%	205	3	yes	5	yes	±0.5V to ±1V	yes	I		5x5 QFN-32	\$23.35		
LTC1742	14			65	76.5	90	90	1	3		1.275W	5	yes	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	5	yes	±0.5V to ±1V	yes	I	Dual ADC	9x9 QFN-64	\$35.03		
LTC1744	14			50	77	87	90	1.5	4	20	3	1.5W	5	yes	5	yes	±1V to ±1.6V		I		TSSOP-48	\$25.00	

† Primary Sort Column  
 †† Secondary Sort Column



# HIGH SPEED ADCs

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion  
**HIGH SPEED**

Interface

High  
Frequency

Reference  
Material

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
LTC2247	14			40	74.4	90		1	4	12mV	2.5%	120	3	yes		5	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$15.85
LTC2297	14	2		40	74.4	90		1	5	12mV	2.5%	235	3	yes		5	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		5	yes	±0.5V to ±1V	yes	I, H		5×5 QFN-32/ 7×7 LQFP-48	\$12.50
LTC1746	14			25	77.5	96	92	1	3			465	5	yes		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		5	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		5	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$10.83
LTC2295	14	2		10	74.4	90		1	5	12mV	2.5%	120	3	yes		5	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		3	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	2	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	2	yes	±1.25V	yes	I	Simultaneous Sampling	MSOP-10	\$7.00
LTC1403A	14			2.8	73.5	90	90	1	4			12	3		yes	2	yes	0V to 2.5V	yes	I, H		MSOP-10	\$7.00
LTC1403A-1	14			2.8	73.5	90	90	1	4			12	3	yes	yes	2	yes	±1.25V	yes	I		MSOP-10	\$7.00
LTC1411	14			2.5	80		88	1	1	24	60	195	5	yes		1	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		1	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		5	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		5	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		5	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		5	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		5	yes	±0.5V to ±1V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$39.55
LTC2221	12			135	67.6	84		1	1	35mV	2.5%	660	3.3	yes		5	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		5	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		5	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		5	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$27.50
LTC2252	12			105	70.1	88		0.7	1.5	12mV	2.5%	320	3	yes		5	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$23.00
LTC2222	12			105	68.4	84		1	1.3	30mV	2.5%	475	3.3	yes		5	yes	±0.5V to ±1V	yes	I		7×7 QFN-48	\$29.92
LTC2282	12	2		105	70	88		0.9	1.5	12mV	2.5%	540	3	yes		5	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		5	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		5	yes	±0.5V to ±1V	yes	I		5×5 QFN-32	\$16.70
LTC1747	12			80	72	87	85	0.8	1			1.4W	5	yes		5	yes	±1V to ±1.6V		I		TSSOP-48	\$19.55
LTC1749	12			80	71.8	87	87	0.8	1			1.4W	5	yes		5	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		5	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		5	yes	±0.5V to ±1V	yes	I	14-Bit Upgrade Path	5×5 QFN-32	\$12.08
LTC1741	12			65	72	87	85	0.8	1			1.275W	5	yes		5	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		5	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		5	yes	±1V to ±1.6V		I		TSSOP	\$9.30
LTC2227	12			40	71.4	90		0.7	1	12mV	2.5%	120	3	yes		5	yes	±0.5V to ±1V	yes	I	14-Bit Upgrade Path	5×5 QFN-32	\$7.92
LTC2292	12	2		40	71.4	90		0.8	1.4	12mV	2.5%	235	3	yes		5	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		5	yes	±0.5V to ±1V	yes	I, H	14-Bit Upgrade Path	5×5 QFN-32/ 7×7 LQFP-48	\$7.50
LTC1745	12			25	72.5	96	92	0.75	1			455	5	yes		5	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		5	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		5	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		3	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		5	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		3	yes	±2V, ±1V, ±0.5V		I		SSOP-28	\$5.95
LTC1407	12		2	3	70.5	87	87	1	2			12	3		yes	2	yes	0V to 2.5V	yes	I	Simultaneous Sampling	MSOP-10	\$4.00
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

† Primary Sort Column  
‡‡ Secondary Sort Column

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





# No Latency $\Delta\Sigma$ ™ ADCs

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  $\Delta\Sigma$  ADCs  
 Interface  
 High Frequency  
 Reference Material

Part Number	† Bits	MUX	Output Rate with Internal Clock (Hz)	Output Rate Max (Hz)	†† Noise ( $\mu$ V <sub>RMS</sub> )	DNL (LSB)	INL (ppm)	Offset	Full-Scale (ppm)	Int Osc	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
LTC2414	24	4/8	7.5	100	1	1	14	10 $\mu$ V	12	yes	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 $\mu$ V	12	yes	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	yes	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	yes	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 $\mu$ V	12	yes	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 $\mu$ V	12	yes	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	yes	130		1	2.7 to 5.5		0 to V <sub>REF</sub> $\pm$ 12%	SPI			I	SO-8	\$5.50
LTC2404	24	4	7.5	15	1.5	1	10	2ppm	10	yes	130		1	2.7 to 5.5		0 to V <sub>REF</sub> $\pm$ 12%	SPI			I	SSOP-28	\$6.00
LTC2408	24	8	7.5	15	1.5	1	10	2ppm	10	yes	130		1	2.7 to 5.5		0 to V <sub>REF</sub> $\pm$ 12%	SPI			I	SSOP-28	\$6.25
LTC2401	24		7.5	15	3	1	10	2ppm	10	yes	130		1	2.7 to 5.5		0 to V <sub>REF</sub> $\pm$ 12%	SPI			I	MSOP-10	\$5.30
LTC2402	24	2	7.5	15	3	1	10	2ppm	10	yes	130		1	2.7 to 5.5		0 to V <sub>REF</sub> $\pm$ 12%	SPI			I	MSOP-10	\$5.60
LTC2430	20		7.5	100	2.8	1	20	1ppm	20	yes	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	yes	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	yes	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	yes	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	yes	130		1	2.7 to 5.5		0 to V <sub>REF</sub> $\pm$ 12%	SPI			I	SO-8	\$4.25
LTC2424	20	4	7.5	100	6	1	10	10ppm	10	yes	130		1	2.7 to 5.5		0 to V <sub>REF</sub> $\pm$ 12%	SPI			I	SSOP-28	\$4.75
LTC2428	20	8	7.5	100	6	1	10	10ppm	10	yes	130		1	2.7 to 5.5		0 to V <sub>REF</sub> $\pm$ 12%	SPI			I	SSOP-28	\$5.25
LTC2421	20		7.5	15	6	1	10	10ppm	10	yes	130		1	2.7 to 5.5		0 to V <sub>REF</sub> $\pm$ 12%	SPI			I	MSOP-10	\$4.35
LTC2422	20	2	7.5	15	6	1	10	10ppm	10	yes	130		1	2.7 to 5.5		0 to V <sub>REF</sub> $\pm$ 12%	SPI			I	MSOP-10	\$4.50
LTC2480	16		15	195	0.6	1	10	2.5 $\mu$ V	25	yes	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	DFN-10	\$1.85
LTC2481	16		15	195	0.6	1	10	2.5 $\mu$ V	25	yes	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	DFN-10	\$1.85
LTC2486	16	2/4	15	195	0.6	1	20	5 $\mu$ V	32	yes	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	DFN-14	\$2.35
LTC2487	16	2/4	15	195	0.6	1	20	5 $\mu$ V	32	yes	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	DFN-14	\$2.35
LTC2494	16	8/16	15	195	0.6	1	20	5 $\mu$ V	32	yes	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	QFN-38	\$2.85
LTC2495	16	8/16	15	195	0.6	1	20	5 $\mu$ V	32	yes	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	QFN-38	\$2.85
LTC2482	16		7.5	100	0.6	1	20	5 $\mu$ V	32	yes	110	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	DFN-10	\$1.65
LTC2483	16		7.5	100	0.6	1	10	2.5 $\mu$ V	25	yes	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	DFN-10	\$1.65
LTC2488	16	2/4	7.5	100	0.6	1	20	5 $\mu$ V	32	yes	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	DFN-14	\$2.15
LTC2489	16	2/4	7.5	100	0.6	1	20	5 $\mu$ V	32	yes	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	DFN-14	\$2.15
LTC2496	16	8/16	7.5	100	0.6	1	20	5 $\mu$ V	32	yes	120	yes	0.48	2.7 to 5.5	yes	-V <sub>REF/2</sub> to V <sub>REF/2</sub>	SPI			I	QFN-38	\$2.65
LTC2497	16	8/16	7.5	100	0.6	1	20	5 $\mu$ V	32	yes	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	QFN-38	\$2.65
LTC2436-1	16	2	6.8	100	0.8	1	3LSB	1LSB	3LSB	yes	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 $\mu$ V	1.25LSB	yes	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	8LSB	0.02%	yes			1.05	2.7 to 5.5		0 to V <sub>CC</sub>	SPI			I	DFN-6	\$1.15
LTC2450-1	16		60	60	1.4	1	10LSB	2mV	0.02%	yes			1.05	2.7 to 5.5		0 to V <sub>CC</sub>	SPI			I	DFN-6	\$1.15
<b>LTC2451</b>	<b>16</b>		<b>60</b>	<b>60</b>	<b>1.4</b>	<b>1</b>	<b>10LSB</b>	<b>0.76mV</b>	<b>0.02%</b>	<b>yes</b>			<b>1.05</b>	<b>2.7 to 5.5</b>		<b>0 to V<sub>CC</sub></b>	<b>I<sup>2</sup>C</b>			<b>I</b>	<b>3<math>\times</math>2 DFN-8/ TSOT-8</b>	<b>\$1.15</b>
<b>LTC2452</b>	<b>16</b>		<b>60</b>	<b>60</b>	<b>1.4</b>	<b>1</b>	<b>10LSB</b>	<b>2mV</b>	<b>0.02%</b>	<b>yes</b>			<b>1.05</b>	<b>2.7 to 5.5</b>	<b>yes</b>	<b><math>\pm</math>V<sub>CC</sub></b>	<b>SPI</b>			<b>I</b>	<b>3<math>\times</math>2 DFN-8/ TSOT-8</b>	<b>\$1.25</b>
<b>LTC2453</b>	<b>16</b>		<b>60</b>	<b>60</b>	<b>1.4</b>	<b>1</b>	<b>10LSB</b>	<b>2mV</b>	<b>0.02%</b>	<b>yes</b>			<b>1.05</b>	<b>2.7 to 5.5</b>	<b>yes</b>	<b><math>\pm</math>V<sub>CC</sub></b>	<b>I<sup>2</sup>C</b>			<b>I</b>	<b>3<math>\times</math>2 DFN-8/ TSOT-8</b>	<b>\$1.25</b>
LTC2433-1	16		6.8	100	1.45	1	1.25LSB	20 $\mu$ V	1.25LSB	yes	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

† Primary Sort Column  
 †† Secondary Sort Column  
 Note:  
 1. One cycle latency



# DACs (ALL)

Part Number	†	# 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 <sup>(1)</sup>
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		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		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>		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>		SSOP-24/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		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		DIP-8/SO-8	\$7.95
LTC1650	16	1	±0.5	±8	4	Serial SPI	Ext	Voltage	±5V	±5	50	Ultralow Noise, Deglitched		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		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 Midscale		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 Midscale, 8143 Pinout		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		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		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		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 Midscale		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		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 Midscale		3×3 DFN-10	\$2.84
LTC2641-16	16	1	±1	±2	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		3×3 DFN-8/MSOP-8	\$6.25
LTC2642-16	16	1	±1	±2	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		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		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		7×7 QFN-48	\$11.90
<b>LTC2755-16</b>	<b>16</b>	<b>4</b>	<b>±1</b>	<b>±1</b>	<b>2</b>	<b>Parallel</b>	<b>Ext</b>	<b>Current</b>	<b>0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V</b>	<b>2.7 to 5.5</b>	<b>2.5µW</b>	<b>Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse</b>	<b> </b>	<b>9×9 QFN-64</b>	<b>\$17.85</b>
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		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		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 Midscale		3×4 DFN-12	\$5.23
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		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		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 Midscale		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		SSOP-44	\$29.95
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		SSOP-16/4x5 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		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 Midscale		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		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		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 Midscale, LTC1597 Pinout		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		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		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 Midscale		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		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 Midscale		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		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		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		5×7 QFN-38	\$6.50
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		7×7 QFN-48	\$9.10
<b>LTC2755-14</b>	<b>14</b>	<b>4</b>	<b>±1</b>	<b>±1</b>	<b>2</b>	<b>Parallel</b>	<b>Ext</b>	<b>Current</b>	<b>0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V</b>	<b>2.7 to 5.5</b>	<b>2.5µW</b>	<b>Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse</b>	<b> </b>	<b>9×9 QFN-64</b>	<b>\$12.68</b>
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		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		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		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 Midscale		3×4 DFN-12	\$3.80

† 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  
 High Frequency  
 Reference Material

# DACs (ALL)

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

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 <sup>(1)</sup>
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 Midscale	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	\$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 Midscale	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 Midscale	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 Midscale	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
<b>LTC2640A-12</b>	<b>12</b>	<b>1</b>	<b>±1</b>	<b>±1</b>	<b>4.5</b>	<b>Serial SPI</b>	<b>Int</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>TBD</b>	<b>Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Midscale Options, H-Grade</b>	<b>I, H</b>	<b>TSOT-8</b>	<b>C.F.</b>
<b>LTC2631A-12</b>	<b>12</b>	<b>1</b>	<b>±1</b>	<b>±1</b>	<b>4.5</b>	<b>I<sup>2</sup>C</b>	<b>Int</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>0.54</b>	<b>Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Midscale Options, H-Grade</b>	<b>I, H</b>	<b>TSOT-8</b>	<b>C.F.</b>
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
<b>LTC2755-12</b>	<b>12</b>	<b>4</b>	<b>±1</b>	<b>±1</b>	<b>2</b>	<b>Parallel</b>	<b>Ext</b>	<b>Current</b>	<b>0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, -2.5V to 7.5V</b>	<b>2.7 to 5.5</b>	<b>2.5μW</b>	<b>Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse</b>	<b>I</b>	<b>9×9 QFN-64</b>	<b>\$7.15</b>
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
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 Midscale	I	DFN-12	\$3.08
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
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 Midscale	I	SSOP-16	\$5.25

† Primary 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 <sup>(1)</sup>
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
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	\$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 Midscale	I	SSOP-16	\$8.14
LTC2630-10	10	1	±1	±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, Reset to Zero-Scale or Mid-Scale Options, H Grade	I, H	SC70-6	\$1.24
<b>LTC2640-10</b>	<b>10</b>	<b>1</b>	<b>±1</b>	<b>±1</b>	<b>4</b>	<b>Serial SPI</b>	<b>Int</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>TBD</b>	<b>Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Midscale Options, H-Grade</b>	<b>I, H</b>	<b>TSOT-8</b>	<b>C.F.</b>
<b>LTC2631-10</b>	<b>10</b>	<b>1</b>	<b>±1</b>	<b>±1</b>	<b>4</b>	<b>I<sup>2</sup>C</b>	<b>Int</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>0.54</b>	<b>Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Midscale Options, H-Grade</b>	<b>I, H</b>	<b>TSOT-8</b>	<b>C.F.</b>
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		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
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		SSOP-16/DIP-16	\$5.35
LTC2630-8	8	1	±1	±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
<b>LTC2640-8</b>	<b>8</b>	<b>1</b>	<b>±1</b>	<b>±0.5</b>	<b>3.5</b>	<b>Serial SPI</b>	<b>Int</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>TBD</b>	<b>Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Midscale Options, H-Grade</b>	<b>I, H</b>	<b>TSOT-8</b>	<b>C.F.</b>
<b>LTC2631-8</b>	<b>8</b>	<b>1</b>	<b>±1</b>	<b>±0.5</b>	<b>3.5</b>	<b>I<sup>2</sup>C</b>	<b>Int</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>0.54</b>	<b>Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Midscale Options, H-Grade</b>	<b>I, H</b>	<b>TSOT-8</b>	<b>C.F.</b>
LTC1428-50	8	1	±0.9				Ext	Current	50μA sinking	3 to 6.5	0.39	Ideal for Digital Voltage Adjustment on DC/DC Converters		SO-8	\$2.55
LTC1329-50	8	1	±0.9				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				Ext	Current	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	±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		SSOP-16	\$2.75
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

† Primary Sort Column

Note:

1. C.F. - Contact Factory

## HIGH SPEED DACs

Part Number	† Bits	Speed Msp/s	DNL (LSB)	INL (LSB)	Settling 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)	Settling Time (μs)	I/O	Int Ref	Output Range	Supply (V)	Power (mW)	Comments	Ext. Temp.	Package-Pins	Price 1K Qty <sup>(1)</sup>
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 Midscale	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 Midscale	I	3×3 DFN-10	\$2.84

† Primary Sort Column



Amps, Refs, Filters, Comps

Power, Management

Data Conversion, DACs (ALL), HI SPEED, VOUT

Interface

High Frequency

Reference Material

# V<sub>OUT</sub> DACs

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

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 <sup>(1)</sup>
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	±2	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	±2	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 Midscale	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 Midscale	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
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 Midscale	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 Midscale	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 Midscale	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 Midscale	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 Midscale	I	SSOP-16	\$7.35
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	\$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 Midscale	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	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 Midscale	I	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	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 Midscale	I	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
<b>LTC2640A-12</b>	<b>12</b>	<b>1</b>	<b>±1</b>	<b>±1</b>	<b>4.5</b>	<b>Serial SPI</b>	<b>Int</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>0.54</b>	<b>Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Midscale Options, H-Grade</b>	<b>I, H</b>	<b>TSOT-8</b>	<b>C.F.</b>
<b>LTC2631A-12</b>	<b>12</b>	<b>1</b>	<b>±1</b>	<b>±1</b>	<b>4.5</b>	<b>I<sup>2</sup>C</b>	<b>Int</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>0.54</b>	<b>Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Midscale Options, H-Grade</b>	<b>I, H</b>	<b>TSOT-8</b>	<b>C.F.</b>
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

† 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 <sup>(1)</sup>
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	3×3 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	3×3 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	3×4 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 Midscale	I	3×4 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 Midscale	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
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
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	\$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 Midscale	I	SSOP-16	\$8.14
LTC2630-10	10	1	±1	±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 Midscale Options, H-Grade	I, H	SC70-6	\$1.24
LTC2640-10	10	1	±1	±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 Midscale Options, H-Grade	I, H	TSOT-8	C.F.
LTC2631-10	10	1	±1	±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 Midscale Options, H-Grade	I, H	TSOT-8	C.F.
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
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
LTC2630-8	8	1	±1	±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 Midscale Options, H-Grade	I, H	SC70-6	\$0.98
LTC2640-8	8	1	±1	±0.5	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 Midscale Options, H-Grade	I, H	TSOT-8	C.F.
LTC2631-8	8	1	±1	±0.5	3.5	I <sup>2</sup> C	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 Midscale Options, H-Grade	I, H	TSOT-8	C.F.
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

† Primary Sort Column

Note: 1. C.F. = Contact Factory

Amps, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

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
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 Midscale	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 Midscale, 8143 Pinout	I	DIP-16/SO(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	<b>Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse</b>	I	<b>9×9 QFN-64</b>	<b>\$17.85</b>
LTC1591	14	1	±1	±1	1	Parallel	Ext	0V to 10V, 0V to -10V, ±10V	5	55	On-Chip Resistors, LTC1591-1 Resets to Midscale, 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	<b>Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse</b>	I	<b>9×9 QFN-64</b>	<b>\$12.65</b>
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
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
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	<b>Extremely Low Power, SoftSpan, Data and Span Readback, Low 1nV-s Glitch Impulse</b>	I	<b>9×9 QFN-64</b>	<b>\$7.15</b>
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
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
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

† 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



Part Number	Description	Integrated Components					Gain Options (dB)	Output	Supply Voltage (V)	Power (Typ) (W)	Package	Price 1K Qty
		ADC	ADC Driver	Passive Filter	IF Range							
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	11.25x11.25x2.32 LGA	\$82.00	

MUXes AND SWITCHES

Part Number	† # Channels	R <sub>ON</sub> (ohms)	Turn-On-Time (ns)	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	S0-16/SSOP-16	\$2.95
LTC1390	8	45	260	3 to ±5	Serial, Bidirectional	Precision Low Power, Break-Before-Make, Bidirectional Serial Interface	I	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

Amps, Refs, Filters, Comps

Power Management

Data Conversion  
MODULES, MUXes

Interface

High Frequency

Reference Material

- Amps, Refs, Filters, Comps
- Power Management
- Data Conversion
- Interface**
- High Frequency
- Reference Material

# Interface

RS232/RS562  
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SIM Interface  
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Multiprotocol  
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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

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	I	SO(W)/DIP	18, 16	\$2.70
LTC1327	3	5	3	250		1.5	yes			10	4 × 0.1μF		RS562	I	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	I	SSOP/SO(W)/DIP	28	\$4.60
LTC1347	3	5	5	250		1.5	yes	5		10	4 × 0.1μF		RS232	I	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	I	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	I	SSOP/SO(W)/DIP	28	\$3.90
LT1342	3	5	5	250	3V	60	yes			10	6 × 0.1μF		RS232	I	SSOP/SO(W)/DIP	28	\$3.75
LT1537	3	5	5	250		60	yes		yes	2	6 × 0.1μF		RS232	I	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	I	SO(W)/DIP	24	\$3.20
LT1331	3	5	3	250	3V	42	yes	1	yes	10	6 × 0.1μF		RS562/ RS232	I	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	I	SO(W)/DIP	24	\$3.90
LT1136A	4	5	5	250		125	yes		yes	10	6 × 0.1μF		RS232	I	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	I	SO(W)/DIP	20	\$3.70
LT1140A	5	3	5	250	±12V	195	yes		yes	10	none		RS232	I	SO(W)/DIP	24	\$3.20
LT1131A	5	4	5	250		125	yes		yes	10	6 × 0.1μF		RS232	I	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

Amps, Refs,  
Filters, CompPower  
ManagementData  
ConversionRS232/RS562  
InterfaceHigh  
FrequencyReference  
Material

Amps, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

Reference Material

RS422/RS485

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		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	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 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)</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



Part Number	V <sub>IN</sub> (V)	V <sub>OUT</sub> (V)	Max I <sub>OUT</sub> (mA)	Ext. Temp.	Package	Comment	Price 1K Qty
LTC1555/6	2.7 to 10	5	20	I	SSOP-16/20	I <sub>0</sub> =60μA, 650kHz, SIM Power Supply and Level Translator	\$2.00
LTC1555L	2.6 to 6.6	3/5	20	E	SSOP-16	I <sub>0</sub> =40μA, SIM Power Supply and Level Translator	\$2.00
LTC1555L-1.8	2.6 to 6.6	1.8/3/5	20	E	SSOP-16	I <sub>0</sub> =32μA, SIM Power Supply and Level Translator	\$2.00
LTC1556	2.7 to 10	5	20	I	SSOP-20	I <sub>0</sub> =60μA, 650kHz, SIM Power Supply and Level Translator, Aux 4.3V LDO	\$3.35
LTC1755	2.7 to 6	3/5	60	E	SSOP-24	I <sub>0</sub> =60μA, Dual Smart Card Interface, Additional Cards Can Be Paralleled	\$2.55
LTC1756	2.7 to 6	3/5	60	E	SSOP-16	I <sub>0</sub> =60μA, Single Smart Card Interface, Additional Cards Can Be Paralleled	\$2.30
LTC1955	2.7 to 5.5	1.8/3.0/5.0	50	E	5x5 QFN-32	I <sub>0</sub> =250μA, Dual Smart Card Interface with Serial Control	\$2.45
LTC4555	3.0 to 6.0	1.8/3.0	50	E	3x3 QFN-16	I <sub>0</sub> =20μA, SIM Power Supply and Level Translator	\$1.75
LTC4556	2.7 to 5.5	1.8/3.0/5.0	60	E	4x4 QFN-24	I <sub>0</sub> =250μA, Smart Card Interface with Serial Control	\$1.85
LTC4557	2.7 to 5.5	1.8/3.0	50	E	3x3 QFN-16	I <sub>0</sub> =100μA, Dual Smart Card Interface with Serial Control	\$2.75
LTC4558	2.7 to 5.5	1.8/3.0	50	E	3x3 QFN-20	Dual Smart Card Interface, Independent Channel Select and Separate Enables, I <sub>0</sub> = 65μA	\$2.75

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						4kV	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	QFN-38	\$10.90

Amps, Refs, Filters, Comp

Power Management


















Data Conversion

SIMMULTIPROTOCOL  
Interface

High Frequency

Reference Material

# MULTIPROTOCOL KITS

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	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 <sup>(2)</sup>
LTC4311	yes					yes				400kHz	I	1.6V to 5.5V Supply Voltage, Low Power	SC70/2x2 DFN-6	\$1.55
LTC1694	yes									100kHz	I		ThinSOT	\$1.30
LTC1694-1	yes									100kHz	I	No DC Current Source for Parallel Devices	ThinSOT	\$1.30
LTC4300A-1	yes	yes		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	3.3 to 5	V <sub>CC</sub> Pins						400kHz	I		MSOP-8	\$1.75
LTC4300A-3	yes	yes	3.3 to 5	V <sub>CC</sub> Pins		yes				400kHz	I		MSOP-8/3x3 DFN-8	\$1.75
LTC4301	yes	yes	3.3 to 5	Auto		yes	yes			400kHz	I		MSOP-8/3x3 DFN-8	\$1.95
LTC4301L	yes	yes	1 to 5	Auto		yes	yes			400kHz	I	Level Translates from 1V	MSOP-8/3x3 DFN-8	\$2.05
LTC4302-1	yes	yes		Auto, V <sub>PULL-UP</sub> ≥ V <sub>CC</sub>		yes		yes	yes	400kHz	I		MSOP-10	\$2.50
LTC4302-2	yes <sup>(1)</sup>	yes	3.3 to 5	Auto, V <sub>PULL-UP</sub> ≥ V <sub>CC</sub> (-2)		yes		yes	yes	400kHz	I		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 QFN-24	\$3.50
LTC4307	yes	yes		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			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	2.3 to 5.5	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	\$2.15

- Notes:  
 1. Rise time accelerator circuitry can be disabled  
 2. C.F. = Contact Factory

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

MULTI-KITS/ I<sup>2</sup>C and SMBus

## High Frequency

RF Power  
Detectors

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VCSEL Laser  
Diode Driver

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# RF POWER DETECTORS

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)			
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
<b>LT5570</b>	<b>Fast, Accurate RMS Detector</b>	<b>40</b>	<b>2700</b>	<b>-52</b>	<b>+13</b>	<b>62</b>	<b>±0.3</b>		<b>4.75</b>	<b>5.25</b>	<b>26.5</b>	<b>3×3 DFN-10</b>	<b>\$5.75</b>
LT5534	High Accuracy Log Detector	50	3000	-63	+2	60	0.5	30	2.7	5.25	7	2×2 SC70	\$4.50
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, w/ 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 w/ Gain + V <sub>OS</sub> Adj	300	7000	-32	+10	42	—	2	2.7	6	0.5	ThinSOT	\$1.50
LTC5532EDC	12 GHz, w/ 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 w/ 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 w/ 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)			
<b>LT5579</b>	<b>Ultra-Linear with Integrated Transformer</b>	<b>1500</b>	<b>3800</b>	<b>+29</b>	<b>9.2</b>	<b>1.8</b>	<b>-1</b>	<b>-35</b>	<b>3.15</b>	<b>3.6</b>	<b>226</b>	<b>5×5 QFN-24</b>	<b>\$5.50</b>
LT5521	Highest Linearity	10	3700	+24.2	12.5	-0.5	-5	37	3.15	5.25	82	4×4 QFN-16	\$4.95
LT5519	Integrated Transformer	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 Transformer	1300	2300	+15.9	15	-1	-5	36	4.5	5.25	60	4×4 QFN-16	\$4.15
LT5560	Very Low Power	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
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
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)			
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 <sub>0</sub> Gain Mismatch (dB)	I <sub>0</sub> 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 PIN (dBm)	Max PIN (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
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

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



Amps, Refs, Filters, Comp

Power Management

Data Conversion

Interface

High Frequency I/O MOD/DEM/OD

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>Singles</b>														
LTC6401-8	Fixed 8dB Gain, Low Noise/Distortion, 140MHz IF Differential ADC Driver	DC	2220	50 @ 70MHz	-100 @ 70MHz	-87 @ 70MHz	12.2	8	8	2.85	3.5	60	3×3 QFN-16	\$2.95
<b>LTC6401-14</b>	<b>Fixed 14dB Gain, Low Noise/Distortion 300MHz IF ADC Driver</b>	<b>DC</b>	<b>1950</b>	<b>49.3 @ 70MHz</b>	<b>-87 @ 70MHz</b>	<b>-82 @ 70MHz</b>	<b>7.3</b>	<b>14</b>	<b>14</b>	<b>2.85</b>	<b>3.5</b>	<b>60</b>	<b>3×3 QFN-16</b>	<b>C.F.</b>
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
LTC6400-20	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 Differential ADC Driver	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	DC	1250	51 @ 70MHz	-95 @ 70MHz	-88 @ 70MHz	6.1	20	20	2.85	3.5	62	3×3 QFN-16	\$2.95
<b>LT5554</b>	<b>Digitally Prog. Gain, 0.125dB Steps</b>	<b>10</b>	<b>1000</b>	<b>46 @ 200MHz</b>	<b>-73 @ 100MHz</b>	<b>-62 @ 100MHz</b>	<b>10.5</b>	<b>2.13</b>	<b>17.6</b>	<b>4.75</b>	<b>5.25</b>	<b>190</b>	<b>5×5 QFN-32</b>	<b>C.F.</b>
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 Step	10	850	47 @ 50MHz	-82 @ 50MHz	-72 @ 50MHz	7.4	10.5	33	4.75	5.25	174	TSSOP-20	\$5.20
LTC6406	3GHz GBP, Low Noise/Distortion, Differential	DC	800	37 @ 50MHz	-85 @ 50MHz	-72 @ 50MHz	14.1	0	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 I/O ADC Driver	DC	600	50 @ 10MHz	-102 @ 10MHz	-91 @ 10MHz	13.4	0	0	2.7	5.25	35.5	3×3 QFN-16	\$3.44
<b>LTC6404-2</b>	<b>A<sub>v</sub>≥6dB 700V/μs Slew Rate, 1.5nV/√Hz Noise Density</b>	<b>DC</b>	<b>600</b>	<b>53 @ 10MHz</b>	<b>-98 @ 10MHz</b>	<b>-99 @ 10MHz</b>	<b>10</b>	<b>6</b>	<b>2.7</b>	<b>5.25</b>	<b>39</b>	<b>3×3 QFN-16</b>	<b>\$3.44</b>	
LT5524	Low Power, Digitally Prog. Gain, 1.5dB Step	10	540	40 @ 50MHz	-76 @ 50MHz	-72 @ 50MHz	8.6	4.5	27	4.75	5.25	91	TSSOP-20	\$4.40
<b>LTC6404-4</b>	<b>A<sub>v</sub>≥12dB, 1200V/μs Slew Rate, 1.5nV/√Hz Noise Density</b>	<b>DC</b>	<b>530</b>	<b>54@10MHz</b>	<b>-100@10MHz</b>	<b>-101@10MHz</b>	<b>8</b>	<b>12</b>	<b>2.7</b>	<b>5.25</b>	<b>39</b>	<b>3×3 QFN-16</b>	<b>\$3.44</b>	
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
<b>LTC6403-1</b>	<b>Low Noise, Low Power Differential Op Amp/Driver</b>	<b>DC</b>	<b>200</b>	<b>48 @ 3MHz</b>	<b>-106 @ 3MHz</b>	<b>-94 @ 3MHz</b>	<b>10.8</b>	<b>0</b>	<b>2.7</b>	<b>5.25</b>	<b>11.8</b>	<b>3×3 QFN-16</b>	<b>\$1.79</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 Dual Matched Differential ADC Drivers		1800	46 @ 100MHz	-80 @ 100MHz	-88 @ 100MHz	6.2	20	20	2.85	3.5	95	3×4 QFN-20	C.F.
LTC6421-20	Fixed 20dB Gain, 1.3GHz Dual Matched Differential ADC Drivers		1300	42 @ 100MHz	-74 @ 100MHz	-78 @ 100MHz	6.2	20	20	2.85	3.5	50	3×4 QFN-20	C.F.

† Primary Sort Column

# VCSSEL LASER DIODE DRIVER

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

Amps, Refs,  
Filters, Comp

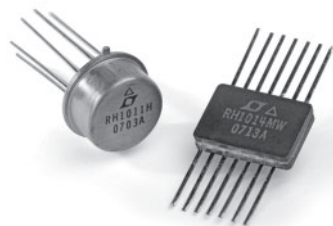
Power  
Management

Data  
Conversion

Interface

High  
Frequency  
NOTES

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)**

### Selected Radiation Hardened Products Amplifiers and Comparators

Device	Description	Symbol	10Krad		20Krad		50Krad		80Krad		100Krad		200Krad		Units	Packages
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		
RH07	Precision Op Amp	$V_{OS}$ $I_{OS}$		90 2.8		150 4		200 8				250 12		300 20	$\mu$ V nA	TO-5, DIP-8, FLATPAK-10
RH27C	Precision Op Amp	$V_{OS}$ $I_{OS}$		100 75		130 75		180 90				280 120		400 180	$\mu$ V nA	TO-5, DIP-8, FLATPAK-10
RH37C	Precision Op Amp	$V_{OS}$ $I_{OS}$		100 75		130 75		180 90				280 120		400 180	$\mu$ V nA	TO-5, DIP-8, FLATPAK-10
RH101A	General Purpose Op Amp	$V_{OS}$ $I_{OS}$		2 10		2 10		2 10				2 10		3 20	mV nA	TO-5, DIP-8, FLATPAK-10
RH108A	General Purpose Op Amp	$V_{OS}$ $I_{OS}$		0.5 0.3		0.5 0.3		0.5 0.3		1.0 0.3					mV nA	TO-5, DIP-8, FLATPAK-10
RH118	Precision High Speed OP Amp	$V_{OS}$ SR		4 50		4 50		4 50				4 50		10	mV V/ $\mu$ s	TO-5, DIP-8, FLATPAK-10
RH119	High Performance Dual Comparator	$V_{OS}$ $I_{OS}$		4 75		4 100		4 150				4 300		8 500	mV nA	TO-5, DIP-14, FLATPAK-10
RH1011	Precision Voltage Comparator	$V_{OS}$ $I_{OS}$		1.5 4		1.5 4		1.5 4				2.5 20		4 50	mV nA	TO-5, DIP-8, FLATPAK-10
RH1013	Dual Precision Op Amp	$V_{OS}$ $I_{OS}$		450 10		450 10		600 15				750 20		900 25	$\mu$ V nA	TO-5, DIP-8, FLATPAK-10
RH1014	Quad Precision Op Amp	$V_{OS}$ $I_{OS}$		450 10		450 10		600 15				750 20		900 25	$\mu$ V nA	DIP-14, FLATPAK-14
RH1056A	Precision High Speed JFET Input Op Amp	$V_{OS}$ $I_{OS}$		300 $\pm 10$		300 $\pm 50$		370 $\pm 150$				570 $\pm 250$		870 $\pm 250$	$\mu$ V pA	TO-5, FLATPAK-10
RH1078	Micropower Dual Single Supply Precision Op Amp	$V_{OS}$ $I_{OS}$		350 2		500 8		650 13	75k 75k	800 18		1000 23			$\mu$ V nA	TO-5, DIP-8, FLATPAK-10
RH1498	10MHz 6V/ $\mu$ s Dual Rail-to-Rail I/O Precision C-Load Op Amp	$V_{OS}$ SR		950 3		950 3		950 3				950 3		950 3	$\mu$ V V/ $\mu$ s	FLATPAK-10
RH1499	10MHz 6V/ $\mu$ s Quad Rail-to-Rail I/O Precision C-Load Op Amp	$V_{OS}$ SR		950 3		950 3		950 3				950 3		950 3	$\mu$ V V/ $\mu$ s	FLATPAK-14
RH1814	Quad 3mA 100MHz 750V/ $\mu$ s Op Amp	$V_{OS}$ $I_{OS}$		2 500		2 500		2.5 750				3 1000		4 1500	mV nA	FLATPAK-14

### Regulators

RH117	Positive Adjustable Regulator	$V_{REF}$	1.20	1.30	1.20	1.30	1.20	1.30			1.20	1.30			V	TO-39, TO-3
RH137	Negative Adjustable Regulator	$V_{REF}$	-1.2	-1.3	-1.2	-1.3	-1.2	-1.3			-1.2	-1.3	-1.2	-1.3	V	TO-39, TO-3
RH1084	5A Low Dropout Positive Adjustable Regulators	$V_{REF}$ Dropout V	1.210	1.275	1.219	1.275	1.215	1.275			1.210	1.275	1.203	1.275	V V	TO-3
RH1085	3A Low Dropout Positive Adjustable Regulators	$V_{REF}$ Dropout V	1.220	1.275	1.219	1.275	1.215	1.275			1.210	1.275	1.20	1.275	V V	TO-3
RH1086	0.5A and 1.5A Low Dropout Positive Adjustable Regulators	$V_{REF}$ Dropout V	1.220	1.275	1.219	1.275	1.215	1.275			1.210	1.275	1.20	1.275	V V	TO-3, TO-39

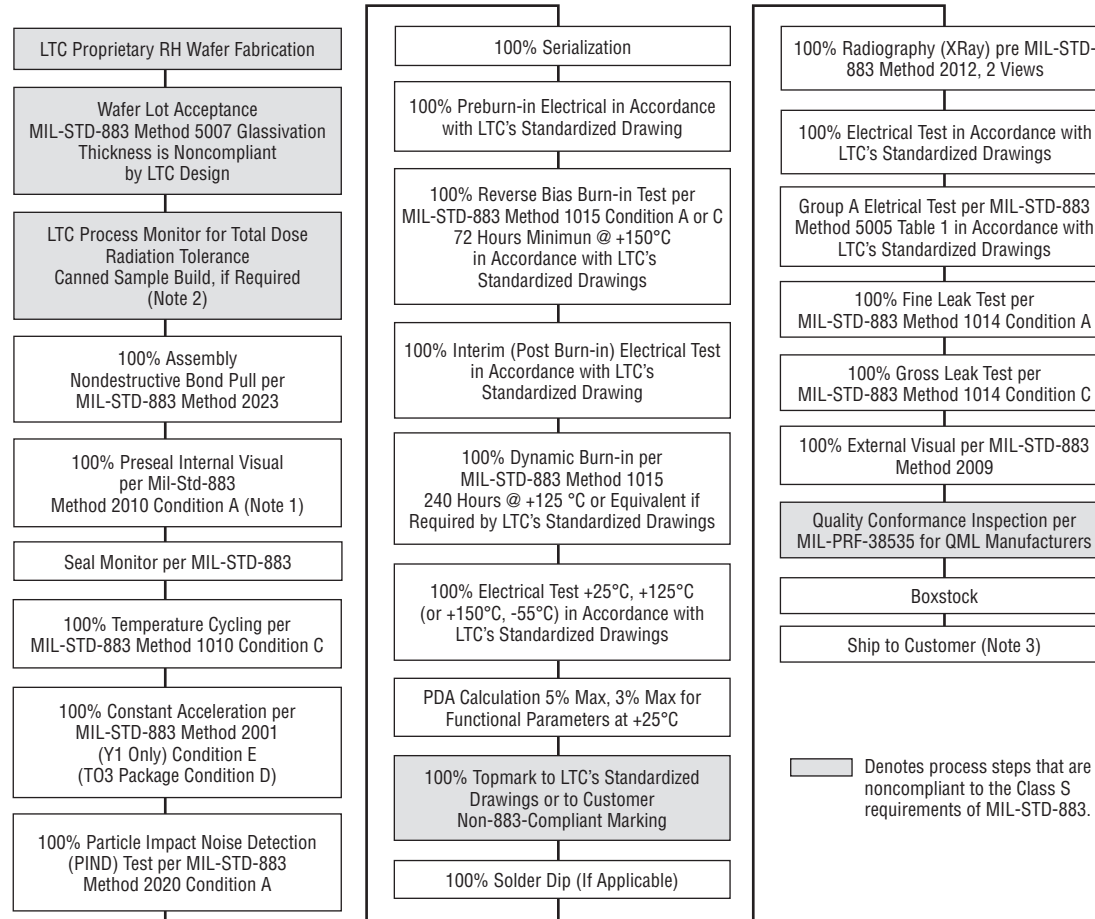
### References

RH1009	Precision 2.5V Reference	$V_Z$ $\Delta V_Z/\Delta I_Z$	2.496	2.506	2.496	2.505	2.496	2.506			2.496	2.506	2.496	2.506	V mV	TO-46, FLATPAK-10
RH1021-5	Precision 5V Reference	$V_{OUT}$ TCV <sub>OUT</sub>	4.95	5.05	4.945	5.055	4.942	5.058			4.94	5.06	4.936	5.066	V ppm/ °C	TO-5, FLATPAK-10
RH1021-7	Precision 7V Reference	$V_{OUT}$ TCV <sub>OUT</sub>	6.95	7.05	6.96	7.05	6.95	7.05			6.94	7.06	6.93	7.07	V ppm/ °C	TO-5
RH1021-10	Precision 10V Reference	$V_{OUT}$ TCV <sub>OUT</sub>	9.96	10.05	9.945	10.065	9.942	10.06			9.938	10.06	9.935	10.065	V ppm/ °C	TO-5, FLATPAK-10

## 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 Per-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	
	K/S	H/B		Method	Condition
1	X		SEM	2018	N/A
2	X	X	Element Electrical (Wafer Sort @ 25°C)		
3	X	X	Element Visual (2nd OP)	2010	A
4	x	X	Internal Visual (3rd OP)	2010	A
	X		Die Shear Monitor	2019	
	X		Bond Pull Monitor	2011	
5	X		Stabilization Bake	1008	C
	X		PIND	2020	A (one pass)
	X		Fine Leak	1014	A
	X		Gross Leak	1014	C
6	X		First Room Electrical – Read & Record (Replace Any Assembly-Related Rejects)		
	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
7	X	X	Post Op-Life Electrical (R & R 25°C, +125°C or +150°C, -55°C)		
	X	X	Wire Bond Evaluation	2011	

- NOTES:
1. LTC is not qualified to process to MIL-PRF-38534. LTC's RH Element Evaluation follows MIL-STD-993 test methods. Note the quantity and accept number from a Sample Size Series of 15% (accept on 3) applies to Subgroup 6 only.
  2. Tests within Subgroup 5 may be performed in any sequence.
  3. LTC's radiation-tolerant (RH) die has a topside glassivation thickness of 4KA 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.

Amps, Refs, Filters, Comp  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

# Reference Material

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**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:**

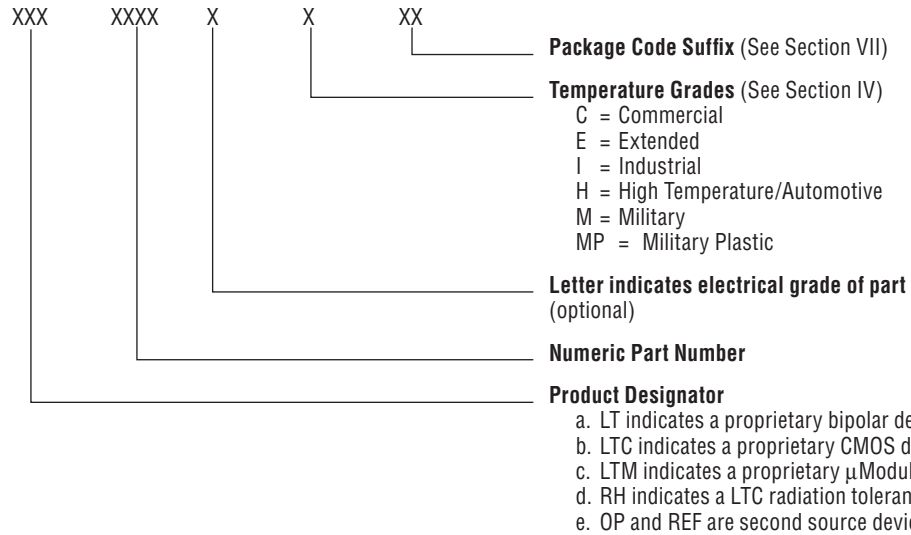
Ordering a part in tape and reel with a Lead (Pb) Free lead finish:

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 “z” 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%	Assured by Design	Sample
I – Industrial	–40°C to 85°C	100%	Sample, Zero Rejects	Sample, Zero Rejects
H – High Temperature/Automotive	–40°C up to 140°C	100%	Sample, Zero Rejects	Sample, Zero Rejects
M – Military	–55°C to 125°C	100%	Contact Factory	Contact Factory
MP – Military Plastic	–55°C to 125°C	100%	100%	100%

**V. RELIABILITY PROGRAMS**

Linear Technology Corporation currently offers the following reliability programs:

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

**VI. TAPE and REEL**

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

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 (pages 149 and 150) 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
DC	DFN	3, 4, 6 or 8	2mm × 2mm
DCB	DFN	6 or 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
DH	DFN	16	5mm × 5mm
DHC	DFN	16	5mm × 3mm
DHD	DFN	16	5mm × 4mm
DJC	DFN	22	6mm × 3mm
DKD	DFN	32	7mm × 4mm
F	TSSOP	14	4.9mm × 4.4mm
F	TSSOP	20	6.4mm × 4.4mm
FW	TSSOP	48	12.4mm × 6.1mm
FW	TSSOP	56	13.9mm × 6.1mm
FE	TSSOP, Exposed Pad	16	4.9mm × 4.4mm
FE	TSSOP, Exposed Pad	20	6.4mm × 4.4mm
FE	TSSOP, Exposed Pad	28	9.6mm × 4.4mm
G	SSOP	16, 20	5.9mm × 5.3mm
G	SSOP	24	7.9mm × 5.3mm
G	SSOP	28	9.9mm × 5.3mm
G	SSOP	36 or 44	12.5mm × 5.3mm
GN	SSOP	16	4.8mm × 3.8mm (150 mils)
GN	SSOP	20, 24	8.6mm × 3.8mm
GN	SSOP	28	9.8mm × 3.8mm
GW	SSOP	36	15.3mm × 7.6mm (300mils)
GW	SSOP	48	17.7mm × 7.6mm
H	TO-52, TO-39 or TO-46 Metal Can	2, 3 or 4	
H	TO-5 Metal Can	8 or 10	
KC	DFN	8	2mm × 2mm
KD	DFN	10	3mm × 3mm
KE	DFN	14	4mm × 3mm
L	LLC (Leadless Chip Carrier)	20	7.1mm × 10.7mm
LS	LLC (Leadless Chip Carrier)	20	8.9mm × 8.9mm
LGA	Land Grid Array	104	15mm × 15mm
M	DD Pak	3	
MS	MSOP	8 or 10	3mm × 5mm
MSE	MSOP, Exposed Pad	8 or 10	3mm × 5mm
N	DIP	20	26.9mm × 7.6mm
N8	DIP	8	10.2mm × 7.6mm (300mils)
N	DIP	14, 16	19.6mm × 7.6mm
N	DIP	18	23.4mm × 7.6mm

Suffix Designator	Package Name	Number of Leads	Package Dimensions
N	DIP	24	32.5mm × 7.6mm
NW	DIP	36	37mm × 15.2mm (600mils)
P	TO-3P	3	Similar to TO-247
PD	QFN	16	3mm × 3mm
PDC	QFN	20	3mm × 4mm
PF	QFN	24 or 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 or 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*
S4	SOT-23	4	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 or 20	3mm × 3mm
UDC	QFN	20 or 24	3mm × 4mm
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 or 38	4mm × 6mm
UFF	QFN	34 or 44	4mm × 7mm
UH	QFN	20, 24, 32 or 40	5mm × 5mm
UHE	QFN	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	48	7mm × 7mm
UKG	QFN	52	7mm × 8mm
UKH	QFN	64	7mm × 9mm
UP	QFN	64	9mm × 9mm
V	LGA	Various <sup>(1)</sup>	Various <sup>(1)</sup>
Z	TO-92	3	

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

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Reference  
Material  
GENERAL INFO



## 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 overdriven 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 100µV 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 <100µV 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.

**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
AN36G	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 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.

**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  $\Delta\Sigma^m$  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™ 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  $\Delta\Sigma^m$  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-and-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-and-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 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.

#### 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 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 $\rightarrow$ 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 → 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***  
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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  $0.4\text{pF} \pm 0.05\text{pF}$  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.

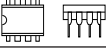

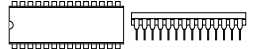
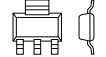

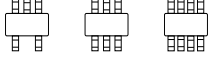



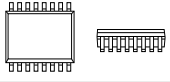


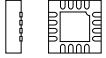


<b>DN1</b>	New Data Acquisition Systems Communicate with Microprocessors over Four Wires	<b>DN45</b>	Signal Conditioning for Platinum Temperature Transducers	<b>DN86</b>	Ultralow Power, High Efficiency DC/DC Converter Operates Outside the Audio Band
<b>DN2</b>	Sampling of Signals for Digital Filtering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

Amps, Refs, Filters, Comps	<b>DN127</b>	3V and 5V 12-Bit Rail-to-Rail Micropower DACs Combine Flexibility and Performance	<b>DN166</b>	“LCD Bias” and “Backup Supply” Applications for the LT1316 Micropower DC/DC Converter	<b>DN204</b>	UL Isolated Self-Powered Sensing
	<b>DN128</b>	LT1307 Single-Cell Micropower Fixed-Frequency DC/DC Converter Needs No Electrolytic Capacitors	<b>DN167</b>	The LTC1590: Applications Versatility of Dual 12-Bit DAC	<b>DN205</b>	Tiny RGB Video Multiplexer Switches Pixels at 100MHz
	<b>DN129</b>	Precision Receiver Delay Improves Data Transmission	<b>DN168</b>	RS485 Transceivers Operate at 52Mbps Over 100 Feet of Unshielded Twisted Pair	<b>DN206</b>	LTC1702/LTC1703 Switching Regulator Controllers Set a New Standard for Transient Response
	<b>DN130</b>	Power Supplies for Subscriber Line Interface Circuits	<b>DN169</b>	LTC1560-1 Tiny 1MHz Lowpass Filter Uses No Inductors	<b>DN207</b>	LTC2400 High Accuracy Differential to Single-Ended Converter for $\pm 5V$ Supplies
	<b>DN131</b>	The LTC1446/LTC1446L: World’s First Dual 12-Bit DACs in SO-8	<b>DN170</b>	Battery Backup Regulator is Glitch-Free and Low Dropout	<b>DN208</b>	Low Dropout 550kHz DC/DC Controller Operates from Inputs as Low as 2V
	<b>DN132</b>	Fast Current Feedback Amplifiers Tame Low Impedance Loads	<b>DN171</b>	Maximize Dynamic Range with the LT1466L Micropower Rail-to-Rail Op Amp	<b>DN209</b>	2-Step Voltage Regulation Improves Performance and Decreases CPU Temperature in Portable Computers
	<b>DN133</b>	Low Input Voltage CCFL Power Supply	<b>DN172</b>	High Efficiency Linear and Switching Solutions for Splitting a Digital Supply	<b>DN210</b>	2-Phase, Dual Switching Regulator Fits in Tight Places
	<b>DN134</b>	Telephone Ring-Tone Generation	<b>DN173</b>	New 16-Bit SO-8 DAC Has 1LSB (Max) INL and DNL Over Industrial Temperature Range	<b>DN211</b>	Low Cost, High Efficiency 30A Low Profile PolyPhase Converter
	<b>DN135</b>	Efficient Processor Power System Needs no Heat Sink	<b>DN174</b>	10Mbps Multiple Protocol Serial Chip Set: Net1 and Net2 Compliance by Design	<b>DN212</b>	LT1777 High Voltage, Low Noise Buck Switching Regulator
	<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>DN175</b>	Off-Line Power Supply Does Not Require Filtering to Meet FCC Emission Requirements	<b>DN213</b>	LT1399/LT1399HV Triple 300MHz Current Feedback Amplifiers Drive Component Video and LCD Displays
Power Management	<b>DN137</b>	New Comparators Feature Micropower Operation Under All Conditions	<b>DN176</b>	LTC1387: 5V RS232/RS485 Multiprotocol Transceiver	<b>DN214</b>	Selecting Op Amps for Precision 16-Bit DACs
	<b>DN138</b>	Micropower ADC and DAC in SO-8 Give PCs a 12-Bit Analog Interface	<b>DN177</b>	16-Bit, 333ksps ADC Achieves 90dB SINAD, $-100\text{dB}$ THD and No Missing Codes	<b>DN215</b>	Low Cost Surface Mount DC/DC Converter Delivers 100A
	<b>DN139</b>	Safe Hot Swapping Using the LTC1421	<b>DN178</b>	LT1534 Ultralow Noise Switching Regulator Controls EMI	<b>DN216</b>	PolyPhase Surface Mount Power Supply Meets AMD Athlon™ Processor Requirements with no Heat Sink
	<b>DN140</b>	Updated Operational Amplifier Selection Guide for Optimum Noise Performance	<b>DN179</b>	Micropower 600kHz Step-Up DC/DC Converter Delivers 5V at 1A from a Li-Ion Cell	<b>DN217</b>	LTC1645 Dual Channel Hot Swap Controller/Power Sequencer Allows Insertion Into a Live Backplane
	<b>DN141</b>	LTC1436-PLL Low Noise Switching Regulator Helps Control EMI	<b>DN180</b>	16mW, Serial/Parallel 14-Bit ADC Samples at 200ksps	<b>DN218</b>	High Current Dual DC/DC Converter Operates from 3.3V Input
	<b>DN142</b>	Ultralow Quiescent Current DC/DC Converters for Light Load Applications	<b>DN181</b>	A High Efficiency 500kHz, 4.5A Step-Down Converter in an SO-8 Package	<b>DN219</b>	24-Bit ADC Measures from DC to Daylight
	<b>DN143</b>	Single IC, Power Factor Corrected, Off-Line Supply	<b>DN182</b>	The LT1167: Single Resistor Sets the Gain of the Best Instrumentation Amplifier	<b>DN220</b>	Lowest Noise SOT-23 LDOs have 20 $\mu\text{A}$ Quiescent Current, 20 $\mu\text{V}_{\text{RMS}}$ Noise
	<b>DN144</b>	LT1511 Low Dropout, Constant-Current/Constant-Voltage 3A Battery Charger	<b>DN183</b>	The LT1370: A 500kHz, 6A Monolithic Boost Converter	<b>DN221</b>	SOT-23 Micropower, Rail-to-Rail Op Amps Operate with Inputs Above the Positive Supply
	<b>DN145</b>	New Voltage References Are Smaller and More Precise	<b>DN184</b>	Micropower MSOP 10-Bit ADC Samples at 500ksps	<b>DN222</b>	High Efficiency PolyPhase Converter Uses Two Inputs for Single Output
	<b>DN146</b>	LTC1415: 1.25Msps, 12-Bit ADC Conserves Power and Signal Integrity on a Single 5V Supply	<b>DN185</b>	A Seven Nanosecond Comparator for Single-Supply Operation	<b>DN223</b>	SOT-23 DC/DC Converters Generate Up to $\pm 35V$ Outputs and Consume only 20 $\mu\text{A}$ of Quiescent Current
Data Conversion	<b>DN147</b>	LTC1069-X: A New Family of 8th Order Monolithic Filters in an SO-8 Package	<b>DN186</b>	Optimized DC/DC Converter Loop Compensation Minimizes Number of Large Output Capacitors	<b>DN224</b>	Active Voltage Positioning Reduces Output Capacitors
	<b>DN148</b>	Low Power, Fast Op Amps Have Low Distortion	<b>DN187</b>	A New Low Power, High Output Current Dual CFA Makes xDSL Line Driving Clean and Easy	<b>DN225</b>	Low Cost, High Efficiency 42A DC/DC Converter
	<b>DN149</b>	LTC1392 Monitors System Temperature and Multiple Supply Voltages and Currents	<b>DN188</b>	Inexpensive Circuit Charges Lithium-Ion Cells	<b>DN226</b>	A 24V/48V Hot Swap™ Controller
	<b>DN150</b>	Single IC, Five Output Switching Power Supply System for Portable Electronics	<b>DN189</b>	Step-Up/Step-Down DC/DC Conversion Without Inductors	<b>DN227</b>	Sense Milliamps to Kiloamps and Digitize to 12 Bits
	<b>DN151</b>	The LT1500/LT1501 Low Noise Micropower DC/DC Converters	<b>DN190</b>	Op Amp, Comparator and Reference IC Provides Micropower Monitoring Capability	<b>DN228</b>	Isolated RS485 Transceiver Breaks Ground Loops
	<b>DN152</b>	The LT1328: A Low Cost 4Mbps IrDA Receiver in MS8 and SO-8 Packages	<b>DN191</b>	The LT1776 Provides Power for the IEEE1394 “Fire Wire”	<b>DN229</b>	Don’t be Fooled by Voltage Reference Long-Term Drift and Hysteresis
	<b>DN153</b>	Micropower 4- and 8-Channel, 12-Bit ADCs Save Power and Space	<b>DN192</b>	12-Bit 3Msps SAR ADC Solves Pipeline Problems	<b>DN230</b>	Rail-to-Rail Amplifiers Operate on 2.7V with 20 $\mu\text{V}$ Offset
	<b>DN154</b>	Short-Circuit Protection for Boost Regulators	<b>DN193</b>	SMBus Accelerator Improves Data Integrity	<b>DN231</b>	Tiny Regulators Drive White LED Backlights
	<b>DN155</b>	Hot Swapping the PCI Bus	<b>DN194</b>	New Charger Topology Maximizes Battery Charging Speed	<b>DN232</b>	SOT-23 Switching Regulator with Integrated 1A Switch Delivers High Current Outputs in a Small Footprint
	<b>DN156</b>	High Power Synchronous Buck Converter Delivers Up to 50A	<b>DN195</b>	Get 100dB Stopband Attenuation with the LTC1562 Universal Filter Family	<b>DN233</b>	Unique High Efficiency 12V Converter Operates with Inputs from 6V to 28V
Interface	<b>DN157</b>	UltraFast Linear Regulator Eliminates All Bulk Tantalum and Electrolytic Output Capacitors	<b>DN196</b>	LTC1626: Step-Down Converter Operates from Single Li-Ion Cell	<b>DN234</b>	Low Cost PolyPhase DC/DC Converter Delivers High Current
	<b>DN158</b>	Isolated DC/DC Conversion with the LT1425	<b>DN197</b>	Power Solutions for the Device Bay	<b>DN235</b>	10 $\mu\text{A}$ Quiescent Current Step-Down Regulators Extend Standby Time in Handheld Products
	<b>DN159</b>	New 14-Bit, 800ksps ADC Upgrades 12-Bit Systems with 81.5dB SINAD, 95dB SFDR	<b>DN198</b>	Optimizing a DC/DC Converter’s Output Capacitors with the LTC1435A	<b>DN236</b>	1- and 2-Channel No Latency $\Delta\Sigma$ , 24-Bit ADCs Easily Digitize a Variety of Sensors, Part 1
	<b>DN160</b>	Dual PowerPath™ Controller Simplifies Power Management	<b>DN199</b>	LTC1735 Provides Low Cost, Efficient Mobile CPU Power	<b>DN237</b>	1- and 2-Channel No Latency $\Delta\Sigma$ , 24-Bit ADCs Easily Digitize a Variety of Sensors, Part 2
	<b>DN161</b>	The “Smart Rock”: A Micropower Transponder	<b>DN200</b>	Hot Swapping the CompactPCI Bus	<b>DN238</b>	SOT-23 SMBus Fan Speed Controller Extends Battery Life and Reduces Noise
	<b>DN162</b>	LTC1474/LTC1475 High Efficiency Switching Regulators Draw Only 10 $\mu\text{A}$ Supply Current	<b>DN201</b>	A New, High Efficiency, Monolithic Synchronous Step-Down Regulator Works with Single or Dual Li-Ion Batteries	<b>DN239</b>	A Miniature, Low Dropout Battery Charger for Lithium-Ion Batteries
	<b>DN163</b>	1 $\mu\text{A}$ Op Amp Permits Precision Portable Circuitry	<b>DN202</b>	60V, High Efficiency Buck Switching Regulators in SO-8		
	<b>DN164</b>	High Power CCFL Backlight Inverter for Desktop LCD Displays	<b>DN203</b>	RS485 Transceivers Sustain $\pm 60V$ Faults		
	<b>DN165</b>	New 16-Bit, 100ksps A/D Converter Runs on 5V Supply				
	High Frequency					
Reference Material						

<b>DN240</b>	ADSL Modems That Use the LT1886 as a Line Driver Yield Long Reach and Fast Data Rates	<b>DN275</b>	Single Inductor, Tiny Buck-Boost Converter Provides 95% Efficiency in Lithium-Ion to 3.3V Applications	<b>DN306</b>	High Performance Op Amps Deliver Precision Waveform Synthesis
<b>DN241</b>	Fast Op Amps Operate Rail-to-Rail on 2.7V	<b>DN276</b>	LTC1564: A Digitally Tuned Antialiasing/Reconstruction Filter Simplifies High Performance DSP Design	<b>DN307</b>	Supply 2A Pulses for GSM Transmission From 500mA USB or PCMCIA Ports
<b>DN242</b>	Li-Ion Charge Termination IC Interfaces with PWM Switchers	<b>DN277</b>	Dual Battery Power Manager Increases Run Time by 12% and Cuts Charge Time in Half	<b>DN308</b>	100MHz Op Amp Features Low Noise Rail-to-Rail Performance While Consuming only 2.5mA
<b>DN243</b>	New Charge Pumps Offer Low Input and Output Noise	<b>DN278</b>	Efficient DC/DC Converter Provides Two 15A Outputs From a 3.3V Backplane	<b>DN309</b>	3A, 2MHz Monolithic Synchronous Step-Down Regulator Provides a Compact Solution for DDR Memory Termination
<b>DN244</b>	Simple Li-Ion Charge Termination Using the LT1505	<b>DN279</b>	Microprocessor Core Supply Voltage Set by I <sup>2</sup> C™ Bus Without VID Lines	<b>DN310</b>	New Step-Down Charge Pumps are Tiny, Efficient and Very Low Noise
<b>DN245</b>	Free FilterCAD 3.0 Software Designs Filters Quickly and Easily	<b>DN280</b>	Tiny and Efficient Boost Converter Generates 5V at 3A from 3.3V Bus	<b>DN311</b>	Dual Output Supply Powers FPGAs from 3.3V and 5V Inputs
<b>DN246</b>	3MHz Micropower Synchronous Boost Converters Deliver 3W From Two Cells in a Tiny MSOP Package	<b>DN281</b>	Wide Input Range, High Efficiency DDR Termination Power Supply Achieves Fast Transient Response	<b>DN312</b>	High Performance 3-Phase Power Supply Delivers 65A and High Efficiency Over the Entire Load Range
<b>DN247</b>	Dual-Phase High Efficiency Mobile CPU Power Supply Minimizes Size and Thermal Stress	<b>DN282</b>	Reduce Component Count and Improve Efficiency in SLIC and RF Power Supplies	<b>DN313</b>	High Frequency Active Antialiasing Filters
<b>DN248</b>	Rail-to-Rail I/O and 2.4V Operation Allow Ultrafast Comparators to be Used on Low Voltage Supplies	<b>DN283</b>	Li-Ion Linear Charger Allows Fast, Full Current Charging While Limiting PC Board Temperature to 85°C	<b>DN314</b>	80V Linear Regulator is Micropower
<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>DN315</b>	White LED Driver in Tiny SC70 Package Delivers High Efficiency and Uniform LED Brightness
<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>DN316</b>	Ultralow Noise Switching Power Supplies Simplify EMI Compliance
<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>DN317</b>	Boost Regulator Makes Low Profile SEPIC with Both Step-Up and Step-Down Capability
<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>DN318</b>	Efficient Dual Polarity Output Converter Fits into Tight Spaces
<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>DN319</b>	Low Voltage Hot Swap Controller Ignores Backplane Noise and Surges
<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>DN320</b>	New ICs Simplify Battery Charging from the USB
<b>DN255</b>	LT1619: Tiny Boost Controller Provides Efficient Solutions for Low Voltage Inputs	<b>DN290</b>	Monitor Network Compliant –48V Power Supplies	<b>DN321</b>	Dual Micropower Comparator with Integrated 400mV Reference Simplifies Monitor and Control Functions
<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>DN322</b>	High Current Step-Down Controller Regulates to 0.6V Output from 3V Input
<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>DN323</b>	New Instrumentation Amplifiers Maximize Output Swing on Low Voltage Supplies
<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>DN324</b>	A Precision Active Filter Block with Repeatable Performance to 10MHz
<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>DN325</b>	High Efficiency ThinSOT White LED Driver Features Internal Switch and Schottky Diode
<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>DN326</b>	3-Phase LTC3733 Provides High Performance Power Solutions for AMD Opteron and Athlon 64 Processors
<b>DN261</b>	Chip Set Offers Low Cost Alternative to 48V Telecom Modules	<b>DN296</b>	LTC1871 No R <sub>SENSE</sub> Controller is Small and Efficient in Boost, Flyback and SEPIC Applications	<b>DN327</b>	Video Signal Distribution using Low Supply Voltage Amplifiers
<b>DN262</b>	SOT-23 1kHz to 30MHz Oscillator with Single Resistor Frequency Set	<b>DN297</b>	16-Channel, 24-Bit $\Delta\Sigma$ ADC Provides Small, Flexible and Accurate Solutions for Data Acquisition	<b>DN328</b>	Monolithic Synchronous Regulator Drives 4A Loads with Few External Components
<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>DN329</b>	Addressable I <sup>2</sup> C Bus Buffer Provides Capacitance Buffering, Live Insertion and Nested Addressing in 2-Wire Bus Systems
<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>DN330A</b>	High Input Voltage Monolithic Switcher Steps Up and Down Using a Single Inductor
<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>DN331</b>	Dual 25µV Micropower Op Amp Fits in 3mm × 3mm Package
<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>DN332</b>	4-Phase Monolithic Synchronous Boost Converter Delivers 2.5A with Output Disconnect in a 5mm × 5mm QFN Package
<b>DN267</b>	High Efficiency White LED Driver Guarantees Matching LED Brightness	<b>DN302</b>	Ultraprecise Instrumentation Amplifier Makes Robust Thermocouple Interface	<b>DN333</b>	Easy-to-Use Differential Amplifiers Simplify Balanced Signal Designs
<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>DN334</b>	2-Phase DC/DC Controller Makes Fast, Efficient and Compact Power Supplies
<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>DN335</b>	Wideband RF ICs for Power Detection and Control
<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>DN336</b>	Advanced Topology USB Battery Charger Optimizes Power Utilization for Faster Charging
<b>DN271</b>	Tiny Step-Up/Step-Down Power Supply Delivers 3.3V at 1.3A in Battery-Powered Devices			<b>DN337</b>	Multiple Output Range 16-Bit DAC Design Made Simple
<b>DN272</b>	Multiple Power Supplies Track During Power Up			<b>DN338</b>	Power over Ethernet Isolated Power Supply Delivers 11.5W at 90% Efficiency
<b>DN273</b>	Fiber Optic Communication Systems Benefit from Tiny, Low Noise Avalanche Photodiode Bias Supply			<b>DN339</b>	An Autoranging True RMS Converter
<b>DN274</b>	12-Bit ADC with Sequencer Simplifies Multiple-Input Applications			<b>DN340</b>	DC/DC Converter Drives Lumileds White LEDs From a Variety of Power Sources

- DN341** 16-Bit ADC Simplifies Current Measurements
- DN342** Dual Smart Battery Charger Simplifies Battery Backup for Servers
- DN343** Video Difference Amplifier Brings Versatility to Low Voltage Applications
- DN344** Flyback Controller Improves Cross Regulation for Multiple Output Applications
- DN345** Basic Flashlamp Illumination Circuitry for Cellular Telephones/Cameras
- DN346** PCI Express Power and Mini Card Solutions
- DN347** Simple Circuit Replaces and Improves on Power Modules at Less than Half the Price
- DN348** Precise Gain without External Resistors
- DN349** Quad Output Switching Converter Provides Power for Large TFT LCD Panels
- DN350** Fully Autonomous IEEE 802.3af Power over Ethernet Midspan PSE Requires No Microcontroller
- DN351** Versatile Micropower Voltage Reference Provides Resistor Programmable Output From 0.4V to 18V
- DN352** 60V, 3A Step-Down DC/DC Converter Has Low Dropout and 100 $\mu$ A Quiescent Current
- DN353** AdvancedTCA Hot Swap Controller Eases Power Distribution
- DN354** 2-Phase Boost Converter Delivers 10W from a 3mm  $\times$  3mm DFN Package
- DN355** Op Amp Selection Guide for Optimum Noise Performance
- DN356** Dual Monolithic Ideal Diode Manages Multiple Power Inputs
- DN357** Tiny, Highly Flexible, Dual Boost/Inverter Tracks Supplies
- DN358** Compact Step-Up Converter Conserves Battery Power
- DN359** Dual DC/DC Converter with Integrated Schottkys Generates  $\pm$ 40V Outputs and Consumes only 40 $\mu$ A Quiescent Current
- DN360** Protecting and Monitoring Hot Swappable Cards in High Availability Systems
- DN361** Simple Battery Circuit Extends Power over Ethernet (PoE) Peak Current
- DN362** Precision LVDT Signal Conditioning using Direct RMS to DC Conversion
- DN363** Replace ORing Diodes with MOSFETs to Reduce Heat and Save Space
- DN364** High Accuracy Synchronous Step-Down Controller Provides Output Tracking and Programmable Margining
- DN365** ThinSOT Switching Regulator Controls Inrush Current
- DN366** Low Distortion, Low Noise Differential Amplifier Drives High Speed ADCs in Demanding Communications Transceivers
- DN367** Tiny Versatile Buck Regulators Operate from 3.6V to 36V Input
- DN368** "Easy Drive" Delta-Sigma Analog-to-Digital Converters Cancel Input Current Errors
- DN369** Industry's First 4-Switch Buck-Boost Controller Achieves Highest Efficiency Using a Single Inductor
- DN370** Buck or Boost: Rugged, Fast 60V Synchronous Controller Does Both
- DN371** High Efficiency 2-Phase Boost Converter Minimizes Input and Output Current Ripple
- DN372** Power Supply Tracker Can Also Margin Supplies
- DN373** ThinSOT Micropower Buck Regulator Has Low Output Ripple
- DN374** Monitor and Protect Automotive Systems with Integrated Current Sensing
- DN375** LT5528 WCDMA ACPR and AltCPR Measurements
- DN376** Monolithic Converter Drives High Power LEDs
- DN377** Isolated Converters have Buck Simplicity and Performance
- DN378** Monolithic Step-Down Regulator Withstands the Rigors of Automotive Environments and Consumes Only 100 $\mu$ A of Quiescent Current
- DN379** Easy Drive™ ADCs Simplify Measurement of High Impedance Sensors
- DN380** Fast, High Efficiency, Standalone NiMH/NiCd Battery Charging
- DN381** Baseband Circuits for an RFID Receiver
- DN382** Low EMI Synchronous DC/DC Step-Down Controllers Offer Programmable Output Tracking
- DN383** High Voltage Current Mode Step-Down Converter with Low Power Standby Capability
- DN384** Accurate Power Supply Sequencing Prevents System Damage
- DN385** 10A High Performance Point-of-Load DC/DC  $\mu$ Module
- DN386** Ideal Diode Controller Eliminates Energy Wasting Diodes in Power OR-ing Applications
- DN387** Cascadable 7A Point-of-Load Monolithic Buck Converter
- DN388** Wide Input Range 1A LED Driver Powers High Brightness LEDs with Automotive and 12VAC Supplies
- DN389** Tracking and Sequencing Made Simple with Tiny Point-of-Load Circuit
- DN390** Tiny Monolithic Step-Down Regulators Operate with Wide Input Range
- DN391** Pushbutton On/Off Controller Simplifies System Design
- DN392** High Voltage Buck Converters Drive High Power LEDs
- DN393** Handheld High Power Battery Charger
- DN394** Pass HDMI Compliance Tests with Ease
- DN395** Universal Li-Ion Battery Charger Operates from USB and 6V to 36V Input in Just 2cm<sup>2</sup>
- DN396** High Resolution Video Solutions Using Single 5V Power
- DN397** AdvancedTCA Hot Swap Controller Monitors Power Distribution
- DN399** Low Noise Amplifiers for Small and Large Area Photodiodes
- DN400** True Rail-to-Rail, High Input Impedance ADC Simplifies Precision Measurements
- DN401** Power Supply Sequencing Made Simple
- DN402** Electronic Circuit Breaker in Small DFN Package Eliminates Sense Resistor
- DN403** A Compact Dual Step-Down Converter with  $V_{OUT}$  Tracking and Sequencing
- DN404** Dual Monolithic Step-Down Switching Regulator Provides 1.6A Outputs with Reduced EMI and  $V_{OUT}$  as Low as 0.8V
- DN405** Versatile Current Source Safely and Quickly Charges Everything from Large Capacitors to Batteries
- DN406** Versatile High Power LED Driver Controller Simplifies Design
- DN407** Dual Current-Sense Amplifiers Simplify H-Bridge Load Monitoring
- DN408** Versatile Voltage Monitors Simplify Detection of Overvoltage and Undervoltage Faults
- DN409** Triple Output 3-Phase Controller Saves Space and Improves Performance in High Density Power Converters
- DN410** Flyback Controller Simplifies Design of Low Input Voltage DC/DC Converters
- DN411** Simple and Compact 4-Output Point-of-Load DC/DC  $\mu$ Module System
- DN412** 36V 2A Buck Regulator Integrates Power Schottky
- DN413** Wide Input Voltage Range Buck-Boost Converter Simplifies Design of Variable Input Supplies
- DN414** Micropower Op Amps Work Down to 1.8V Total Supply, Guaranteed over Temperature
- DN415** Switching USB Power Manager with PowerPath Control Offers Fastest Charge Time with Lowest Heat
- DN417** Drive Large TFT-LCD Displays with a Space-Saving Triple-Output Regulator
- DN418** High Linearity Components Simplify Direct Conversion Receiver Designs
- DN419** One IC Generates Three Sub-2V Power Rails from a Li-Ion Cell
- DN420** USB Power Solution Includes Switching Power Manager, Battery Charger, Three Synchronous Buck Regulators and LDO
- DN421** An Easy Way to Add Auxiliary Control Functions to Hot Swap Cards
- DN422** Tiny Universal LED Driver Can Gradate, Blink or Turn On Nine Individual LEDs with Minimal External Control
- DN423** Ultraprecise Current Sense Amplifier Dramatically Enhances Efficiency and Dynamic Range
- DN424** Buck-Boost Controller Simplifies Design of DC/DC Converters for Handheld Products
- DN425** High Power PoE PD Interface with Integrated Flyback Controller
- DN426** 6-Channel SAR ADCs for Industrial Monitoring and Portable Instruments
- DN427** Pushbutton On/Off Controller with Failsafe Voltage Monitoring
- DN428** Tiny Synchronous Step-Up Converter Starts Up at 700mV
- DN429** Tiny Amplifiers Drive Heavy Capacitive Loads at Speed
- DN430** 8A Low Voltage, Low Profile DC/DC  $\mu$ Module Regulator in 9mm  $\times$  15mm Package Weighs Only 1g
- DN431** Highly Integrated Quad 16-Bit, SoftSpan™, Voltage Output DAC for Industrial and Control Applications
- DN433** A Positive-to-Negative Voltage Converter Can Be Used for Stable Outputs Even with a Widely Varying Input
- DN434** Multiphase DC/DC Controller Pushes Accuracy and Bandwidth Limits
- DN435** Single Resistor Sets Positive or Negative Output for DC/DC Converter

	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- and 24-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	—	—	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		8-, 10- and 12-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	MS8E, MSE	—	—	—	UA, UB
QFN Quad Flat No Lead		16- and 20-Lead QFN (3mm × 3mm)	UD	—	CP**	RGT	UD
		20- and 24-Lead QFN (3mm × 4mm)	UDC	—	—	—	—
		16-, 20-, 24- and 28-Lead QFN (4mm × 4mm)	UF	LQA	CP**	RGT, RGF	TE, TG
		20-, 24- and 28-Lead QFN (4mm × 5mm)	UFD	LQA, SQA	—	—	—
		38-Lead QFN (4mm × 6mm)	UFE	—	—	—	—
		24-, 32- and 40-Lead QFN (5mm × 5mm)	UH	LQA	—	RGW, RHB, RTM**	TJ
		36-Lead QFN (5mm × 6mm)	UHE	—	—	—	—
		38-Lead QFN (5mm × 7mm)	UHF	—	—	RGF	—
		52-Lead QFN (5mm × 8mm)	UHG	—	—	—	—
		56-Lead QFN (5mm × 9mm)	UHH	—	—	—	—
		40-Lead QFN (6mm × 6mm)	UJ	LQA, SQA	CP**	RTA, RTB	—
		48-Lead QFN (7mm × 7mm)	UK	SQA	CP**	RTC, RGN, RGZ**	TM
		52-Lead QFN (7mm × 8mm)	UKG	—	—	—	—
		64-Lead QFN (7mm × 9mm)	UKH	—	—	—	—
64-Lead QFN (9mm × 9mm)	UP	—	CP**	RGC, RTD**	—		

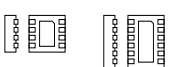
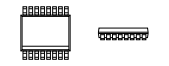
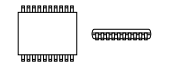
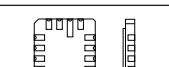
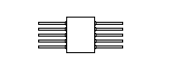
\*Package Outlines Not to Scale  
\*\*Closest Package, Comparable Footprint

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

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material  
 PKG CROSS REF

# PACKAGE CROSS REFERENCE




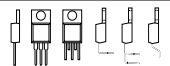
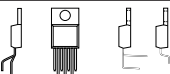

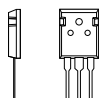
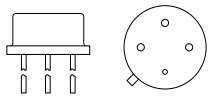
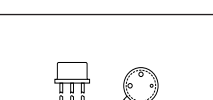
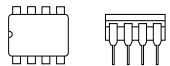
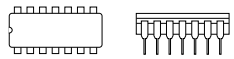
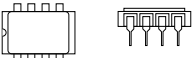
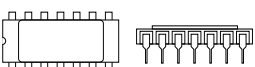
Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material  
**PKG CROSS REF**

	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, ADCMP, ADM, ADR, ADL, ADP, ADT	TL, TLC, TLV, THS, INA, OPA, ADS, DAC	MAX, DS
DFN Dual Flat No Lead		3-, 4-, 6- and 8-Lead DFN (2mm x 2mm)	DC	—	—	—	TA
		6- and 8-Lead DFN (2mm x 3mm)	DCB	—	—	—	—
		8-, 10- and 12-Lead DFN (3mm x 3mm)	DD	—	CP**	DRB, DRC	TA
		8-, 10- and 12-Lead DFN (3mm x 2mm)	DDB	—	CP**	—	—
		12-, 14 and 16-Lead DFN (4mm x 3mm)	DE	—	—	—	—
		12-Lead DFN (4mm x 3mm)	UE	—	—	—	—
		16-Lead DFN (5mm x 5mm)	DH	—	—	—	—
		16-Lead DFN (5mm x 3mm)	DHC	—	—	—	—
		16-Lead DFN (5mm x 4mm)	DHD	—	—	—	—
		22-Lead DFN (6mm x 3mm)	DJC	—	—	—	—
		32-Lead DFN (7mm x 4mm)	DKD	—	—	—	—
SSOP Shrink Small Outline		16-, 20-, 24- and 28-Lead SSOP (Narrow 0.150)	GN	MQ	RS	DBQ	—
		16-, 20-, 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 Thin Shrink Small Outline		14-, 20- and 28-Lead TSSOP (4.4mm)	F	MT	U	DL, PW	UP, UG, UI
		48- and 56-Lead TSSOP (6.1mm)	FW	MT	—	DGG	UM
		16-, 20- and 28-Lead TSSOP (4.4mm) Exposed Die Pad	FE	MH, MT	—	PWP	UP
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

\*Package Outlines Not to Scale

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

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, ADCMP, ADM, ADR, ADL, ADP, ADT	TL, TLC, TLV, THS, INA, OPA, ADS, DAC	MAX, DS
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	—	LP	ZR
TO-3P (TO-247)		3-Lead TO-3P (Similar to TO-247)	P	—	—	—	K
METAL CANS		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
CERDIP Ceramic Dual-In-Line		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
SIDE BRAZED		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
	*Package Outlines Not to Scale	Proprietary Device Prefixes	LT, LTC, LTM	LF, LP, LH, MF, LM, LMH, LMV, ADC, DAC	AD, OP, REF, ADCMP, ADM, ADR, ADL, ADP, ADT	TL, TLC, TLV, THS, INA, OPA, ADS, DAC	MAX, DS

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Amps, Refs, Filters, Comps  
Power Management  
Data Conversion  
Interface  
High Frequency  
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# TOP MARKINGS (TOP MARK TO PART NUMBER)

The following list (sorted by top mark and part number) contains surface mount parts with abbreviated top mark codes due to the limited space available for marking on the package. Lead free parts include an additional “e3” or “<” symbol. For more information, visit [www.linear.com/leadfree](http://www.linear.com/leadfree). The designator “LT” may be either the stylized LT logo or block sans serif type depending on the marking method used.

TOP MARK	FULL PART NUMBER													
019A25	LT1019ACS8-2.5	106750	LTC1067-50CGN	11185	LT1118CS8-5	1173	LT1173CS8	12221	LT1222IS8	13045	LT1304CS8-5	1375	LT1375CS8	
019A15	LT1019AIS8-5	106751	LTC1067-50IGN	11185	LT1118CST-5	117312	LT1173CS8-12	1223	LT1223CS8	1305	LT1305CS8	13755	LT1375CS8-5	
0412	LT1004CS8-1.2	10691	LTC1067IGN	1120	LT1120CS8	11735	LT1173CS8-5	1224	LT1224CS8	1306	LT1306ES8	1375HV	LT1375HVCS8	
0425	LT1004CS8-2.5	10691	LTC1069-1CS8	120A	LT1120ACS8	1174	LTC1174CS8	1225	LT1225CS8	1307	LT1307CS8	13751	LT1375IS8	
0425I	LT1004IS8-2.5	106911	LTC1069-1IS8	120AI	LT1120AIS8	117433	LTC1174CS8-3.3	1226	LT1226CS8	1307B	LT1307BCS8	137515	LT1375IS8-5	
04AI33	LTC1504AIS8-3.3	10696	LTC1069-6CS8	120I	LT1120IS8	117450	LTC1174CS8-5	1227	LT1227CS8	1307BI	LT1307BIS8	1376	LT1376CS8	
050HVH	LTC2050HVHS8	106961	LTC1069-6IS8	121	LT1121CS8	1174H	LTC1174HVCS8-5	1228	LT1228CS8	1307I	LT1307IS8	13765	LT1376CS8-5	
050HVI	LTC2050HVHS8	10697	LTC1069-7CS8	1213	LT1121CS8-3.3	1174H3	LTC1174HVCS8-3.3	1228I	LT1228IS8	1308	LT1308CS8	1376HV	LT1376HVCS8	
051HVH	LTC2051HVHS8	106971	LTC1069-7IS8	1213	LT1121CST-3.3	1174H5	LTC1174HVCS8-5	1229	LT1229CS8	1308A	LT1308ACS8	1376I	LT1376IS8	
051HVI	LTC2051HVHS8	1072	LT1072CS8	1215	LT1121CS8-5	1174HI	LTC1174HVIS8	1232	LTC1232CS8	1308AI	LT1308AIS8	137615	LT1376IS8-5	
052HVH	LTC2052HVHGN	1073	LT1073CS8	1215	LT1121CST-5	1174I	LTC1174IS8	1232I	LTC1232IS8	1308B	LT1308BCS8	1377	LT1377CS8	
052HVI	LTC2052HVIGN	10731	LT1073CS8-12	121A	LT1121ACS8	1175	LT1175CS8	1234	LT1234CS8	1308BI	LT1308BIS8	1377I	LT1377IS8	
1001	LT1001CS8	10735	LT1073CS8-5	121A3	LT1121ACS8-3.3	11755	LT1175CS8-5	1241	LT1241CS8	1308I	LT1308IS8	1380	LTC1380CGN	
1006	LT1006S8	1077	LT1077S8	121A5	LT1121ACS8-5	11755	LT1175CST-5	1241I	LT1241IS8	1309	LT1309CS8	1380I	LTC1380IGN	
1007	LT1007CS8	10771	LT1077IS8	121HV	LT1121HVCS8	1175I	LT1175IS8	1242	LT1242CS8	1312	LT1312CS8	1389B4	LT1389B4CS8-4.096	
1007I	LT1007IS8	1078	LT1078S8	121I	LT1121IS8	1175I5	LT1175IS8-5	1242I	LT1242IS8	1316	LT1316CS8	1389B5	LT1389B5CS8-5	
1008	LT1008S8	10781	LT1078IS8	121I5	LT1121IS8-5	1175I5	LT1175IS8-5	1243	LT1243CS8	1316I	LT1316IS8	1391	LTC1391CGN	
1009	LT1009S8	10905	LT1109CS8-5	122C	LT1122CS8	1178	LT1178S8	1243I	LT1243IS8	1317	LT1317CS8	1391I	LTC1391IGN	
1009I	LT1009IS8	10912	LT1109CS8-12	122D	LT1122DS8	1187	LT1187CS8	1244	LT1244CS8	1317B	LT1317BIS8	1392	LTC1392CS8	
1011	LT1011CS8	1096	LTC1096CS8	123	LT1123CST	1189	LT1189CS8	1244I	LT1244IS8	1317BI	LT1317BIS8	1392I	LTC1392IS8	
1011AI	LT1011AIS8	1096A	LTC1096ACS8	1232	LT1123CS8-2.85	1190	LT1190CS8	1245	LT1245CS8	1317I	LT1317IS8	1393	LTC1393CGN	
1011I	LT1011IS8	1096AI	LTC1096AIS8	124	LT1124CS8	1191	LT1191CS8	1245I	LT1245IS8	1326	LTC1326CS8	1393I	LTC1393IGN	
1012	LT1012S8	1096I	LTC1096IS8	124AI	LT1124AIS8	1192	LT1192CS8	1246	LT1246CS8	132625	LTC1326CS8-2.5	1394	LT1394CS8	
1012A	LT1012ACS8	1096L	LTC1096LCS8	124I	LT1124IS8	1193	LT1193CS8	1247	LT1247CS8	1326I	LTC1326IS8	1394I	LT1394IS8	
1012AI	LT1012AIS8	1096LI	LTC1096LIS8	126	LT1126CS8	1193I	LT1193IS8	1249	LT1249CS8	1328	LT1328CS8	1395	LT1395CS8	
1012I	LT1012IS8	1097	LT1097S8	128	LT1128CS8	1194	LT1194CS8	1249I	LT1249IS8	1328I	LT1328IS8	1395I	LT1395IS8	
1013	LT1013DS8	1098	LTC1098CS8	129	LT1129CS8	1195	LT1195CS8	1250	LTC1250CS8	13291	LTC1329CS8-10	1396	LT1396CS8	
1013I	LT1013IS8	1098A	LTC1098ACS8	1293	LT1129CS8-3.3	11961A	LTC1196-1ACS8	1252	LT1252CS8	13295	LTC1329CS8-50	1397	LT1397CDE	
1016	LT1016CS8	1098AI	LTC1098AIS8	1293	LT1129CST-3.3	11961B	LTC1196-1BCS8-5	1253	LT1253CS8	1329A5	LTC1329ACS8-50	1397	LT1397HDE	
1016I	LT1016IS8	1098I	LTC1098IS8	1295	LT1129CS8-5	11962A	LTC1196-2ACS8	1255	LTC1255CS8	1329I5	LTC1329IS8-50	1397	LT1397CGN	
1017	LT1017CS8	1098L	LTC1098LCS8	1295	LT1129CST-5	11962B	LTC1196-2BCS8	1255I	LTC1255IS8	1340	LTC1340CS8	1397I	LT1397IGN	
1017I	LT1017IS8	1098LI	LTC1098LIS8	129I	LT1129IS8	1197	LT1197CS8	1257	LT1257CS8	1351	LT1351CS8	1399	LT1399CGN	
1018	LT1018CS8	11012	LT1110CS8-12	129I3	LT1129IS8-3.3	1197I	LTC1197IS8	1257I	LTC1257IS8	1352	LT1352CS8	1399I	LT1399IGN	
1018I	LT1018IS8	1107	LT1107CS8	129I5	LT1129IS8-5	1197L	LTC1197LCS8	1258	LT1258CS8	1352I	LT1352IS8	1400	LTC1400CS8	
1019A5	LT1019ACS8-5	1107I2	LT1107CS8-12	1144	LTC1144CS8	1197LI	LTC1197LIS8	12582	LTC1258CS8-2.5	1354	LT1354CS8	1400I	LTC1400IS8	
1025	LT1025CS8	11075	LT1107CS8-5	1144I	LTC1144IS8	11981A	LTC1198-1ACS8	12583	LTC1258CS8-3	1354I	LT1354IS8	1401	LTC1401CS8	
1026	LT1026CS8	1107I	LT1107IS8	11473	LTC1147CS8-3.3	11981B	LTC1198-1BCS8	12584I	LTC1258CS8-4.1	1355	LT1355CS8	1401I	LTC1401IS8	
1026I	LT1026IS8	1108	LT1108CS8	11475	LTC1147CS8-5	11982A	LTC1198-2ACS8	12585	LT1258CS8-5	1357	LT1357CS8	1402	LTC1402CGN	
1027C5	LT1027CS8-5	11081	LT1108CS8-12	1147H3	LTC1147HVCS8-3.3	11982B	LTC1198-2BCS8	1261	LTC1261CS8	1358	LTC1358CS8	1402I	LTC1402IGN	
1027D5	LT1027DCS8-5	11085	LT1108CS8-5	1147I3	LTC1147IS8-3.3	1199	LTC1199CS8	12614	LTC1261CS8-4.5	1358I	LT1358IS8	1404	LTC1404CS8	
1027E5	LT1027ECS8-5	1109	LT1109CS8	1147I5	LTC1147IS8-5	1199I	LTC1199IS8	126145	LTC1261CS8-8	1360	LT1360CS8	1404I	LTC1404IS8	
1028	LT1028CS8	1109A	LT1109ACS8	1147L	LTC1147LCS8	1199L	LTC1199LCS8	12616	LT12616CS8	1361	LT1361CS8	1408	LTC1408CUH	
1034I12	LT1034IS8-1.2	1109A1	LT1109ACS8-12	1147L3	LTC1147LCS8-3.3	1199LI	LTC1199LIS8	1261L	LTC1261LCS8	1363	LT1363CS8	1408	LTC1408IUH	
1037	LT1037CS8	1109A5	LT1109ACS8-5	1147LI	LTC1147LIS8	1203	LTC1203CS8	1261L4	LTC1261LCS8-4	1364	LTC1364CS8	1408I2	LTC1408CUH-12	
1037I	LT1037IS8	1110	LT1110CS8	1150	LTC1150CS8	1206	LT1206CS8	1262	LTC1262CS8	1366	LT1366CS8	1408I2	LTC1408IUH-12	
1041	LTC1041CS8	11105	LT1110CS8-5	1152	LTC1152CS8	1208	LT1208CS8	1262I	LTC1262IS8	1366I	LT1366IS8	1413	LT1413S8	
1044	LTC1044CS8	1111	LT1111CS8	1152I	LTC1152IS8	1211	LT1211CS8	1263	LTC1263CS8	1368	LT1368CS8	1417	LTC1417CGN	
1044/R	LTC1044CS8/R	11111	LT1111CS8-12	1153	LTC1153CS8	1211A	LT1211ACS8	1263I	LT1263IS8	1372	LT1372CGN	1417A	LTC1417ACGN	
1044A	LTC1044ACS8	11115	LT1111CS8-5	1153I	LTC1153IS8	1211AI	LT1211AIS8	1263I	LTC1263IS8	1372	LT1372CS8	1417AI	LTC1417AIGN	
1044AI	LTC1044AIS8	1111I	LT1111IS8	1154	LTC1154CS8	1211I	LT1211IS8	1285I	LTC1285IS8	1372H	LT1372HVCN	1417I	LTC1417IGN	
1046	LTC1046CS8	1112	LT1112CS8	1154H	LTC1154HS8	1213	LT1213CS8	1286	LTC1286CS8	1372HI	LT1372HVCS8	1422	LTC1422CS8	
1046I	LTC1046IS8	1112I	LT1112IS8	1155	LTC1155CS8	1215	LT1215CS8	1286I	LTC1286IS8	1372HI	LT1372HVIGN	1422I	LTC1422IS8	
1049	LTC1049CS8	1121	LT1112MPS8	1155I	LTC1155IS8	1217	LT1217CS8	1288	LTC1288CS8	1372HI	LT1372HVIS8	14245	LT1424CS8-5	
1050	LTC1050CS8	1112MP	LT1112MPS8	1157	LTC1157CS8	1218	LT1218CS8	1288I	LTC1288IS8	1372I	LT1372IGN	14249	LT1424CS8-9	
1050H	LTC1050HS8	1113	LT1113CS8	1163	LTC1163CS8	1218L	LT1218LCS8	1298	LTC1298CS8	1372I	LT1372IS8	142415	LT1424IS8-5	
1054	LT1054CS8	1116	LT1116CS8	1165	LTC1165CS8	1219	LT1219CS8	1298I	LT1298IS8	1373	LT1373CS8	142419	LT1424IS8-9	
1054A	LT1054ACS8	1117	LT1117CST	1166	LTC1166CS8	1219L	LT1219LCS8	1298I	LT1298IS8	1373H	LT1373HVCS8	1426	LTC1426CS8	
1054I	LT1054IS8	1117I2	LT1117CST-2.85	1167	LT1167CS8	121AHV	LT1121AHVCS8	12915	LT1129IS8T-3.3	1373HI	LT1373HVIS8	1426I	LTC1426IS8	
1054L	LT1054LCS8	11173	LT1117CST-3.3	1167A	LT1167ACS8	121AI	LT1121AIS8	1300	LT1300CS8	1373I	LT1373IS8	142750	LT1427CS8-50	
1055	LT1055S8	11175	LT1117CST-5	1167AI	LT1167AIS8	121AI3	LT1121AIS8-3.3	1301	LT1301CS8	1374	LT1374CS8	142850	LTC1428CS8-50	
1056	LT1056S8	1117I	LT1117IST	1167I	LT1167IS8	121AI5	LT1121AIS8-5	1301I	LT1301IS8	13745	LT1374CS8-5	14294	LTC1429CS8-4	
1057	LT1057S8	1117I2	LT1117IST-2.85	1168	LT1168CS8	121HVI	LT1121HVCS8	1302	LT1302CS8	1374CFE	LT1374CFE	1430	LTC1430CS8	
1057I	LT1057IS8	1117I3	LT1117IST-3.3	1168A	LT1168ACS8	121I3	LT1121IS8-3.3	13025	LT1302CS8-5	1374HV	LT1374HVCS8	1430A	LTC1430ACGN	
1067	LTC1067CGN	1117I5	LT1117IST-5	1168AI	LT1168AIS8	121I3	LT1121IST-3.3	1303	LT1303CS8	1374HVCFE	LT1374HVCFE	1430A	LTC1430ACS8	
		1118	LT1118CS8	1168I	LT1168IS8	121I5	LT1121IS8-5	13035	LT1303CS8-5	1374HVIFE	LT1374HVIFE	1430AI	LTC1430AIGN	
		111825	LT1118CS8-2.5	1169	LT1169CS8	1220	LT1220CS8	1303I	LT1303IS8	1374I	LT1374IS8	1430I	LTC1430IS8	
		111825	LT1118CST-2.5	1172	LT1172CS8	1221	LT1221CS8	1303I5	LT1303IS8-5	1374I5	LT1374IS8-5	1431	LT1431CS8	
		111828	LT1118CST-2.85	1172HI	LT1172HVIS8	1222	LT1222CS8	1304	LT1304CS8	1374IFE	LT1374IFE	1431I	LT1431IS8	
		111828	LT1118CST-2.85	1172I	LT1172IS8	1222H	LT1222HS8	130433	LT1304CS8-3.3	1374SN	LT1374CS8-SYNC	1432	LT1432CS8	



14323	LT1432CS8-3.3	1480	LTC1480CS8	1521	LT1521CS8	157515	LT1575CS8-1.5	1636H	LT1636HS8	16771	LT1677IS8	1739	LT1739CUE
1433	LTC1433CGN	1480I	LTC1480IS8	15213	LT1521CS8-3	157528	LT1575CS8-2.8	1636I	LT1636IS8	1678	LT1678CS8	1739I	LT1739IUE
1433I	LTC1433IGN	1481	LTC1481CS8	15213	LT1521CST-3	157533	LT1575CS8-3.3	1637	LT1637CS8	1678I	LT1678IS8	1756	LTC1756EGN
1440	LTC1440CS8	1481I	LTC1481IS8	152133	LT1521CS8-3.3	157535	LT1575CS8-3.5	1637H	LT1637HS8	1682	LTC1682CS8	1756I	LTC1756IGN
1440I	LTC1440IS8	1482	LTC1482CS8	152133	LT1521CST-3.3	157555	LT1575CS8-5	1637I	LT1637IS8	168233	LTC1682CS8-3.3	1763	LT1763CDE
1441	LTC1441CS8	1482I	LTC1482IS8	15215	LT1521CS8-5	1576	LT1576CS8	1637MP	LT1637MPS8	16825	LTC1682CS8-5	1763	LT1763CS8
1441I	LTC1441IS8	1483	LTC1483CS8	15215	LT1521CST-5	15765	LT1576CS8-5	1638	LT1638CS8	1682I	LTC1682IS8	176315	LT1763CS8-1.5
1442	LTC1442CS8	1483I	LTC1483IS8	1521I	LT1521IS8	1576I	LT1576IS8	1638H	LT1638HS8	1682I5	LTC1682IS8-5	176318	LT1763CS8-1.8
1442I	LTC1442IS8	1484	LTC1484CS8	152113	LT1521IS8-3	1576I5	LT1576IS8-5	1638I	LT1638IS8	1685	LTC1685CS8	176325	LT1763CS8-2.5
1443	LTC1443CDHD	1484I	LTC1484IS8	152113	LT1521IST-3	1576SN	LT1576CS8-SYNC	1640I	LT1640-1CS8	1685I	LTC1685IS8	17633	LT1763CDE-3
1443	LTC1443IDHD	1485	LTC1485CS8	1521133	LT1521IS8-3.3	1578	LT1578CS8	16402	LT1640-2CS8	1686	LTC1686CS8	17633	LT1763CS8-3
1444	LTC1444CDHD	1485I	LTC1485IS8	1521133	LT1521IST-3.3	157825	LT1578CS8-2.5	1640AH	LT1640AHCS8	1686I	LTC1686IS8	176333	LT1763CS8-3.3
1444	LTC1444IDHD	1487	LTC1487CS8	152115	LT1521IS8-5	1578I	LT1578IS8	1640AL	LT1640ALCS8	1690	LTC1690CS8	17635	LT1763CDE-5
1445	LTC1445CDHD	1487I	LTC1487IS8	152115	LT1521IST-5	1579	LT1579CGN	1640H	LT1640HCS8	1690I	LT1690IS8	17635	LT1763CS8-5
1445	LTC1445IDHD	1490	LT1490CS8	1522	LTC1522CS8	1579	LT1579CS8	1640HI	LT1640HIS8	16931	LTC1693-1CS8	1763MP	LT1763MPS8
1446	LTC1446CS8	1490A	LT1490ACS8	1522I	LTC1522IS8	15793	LT1579CGN-3	1640HV	LT1640HVCS8	16931I	LTC1693-1IS8	1764AEFE	LT1764AEFE
1446I	LTC1446IS8	1490AH	LT1490AHS8	1530	LTC1530CS8	15793	LT1579CS8-3	1640L	LT1640LCS8	16932	LTC1693-2CS8	1764AEFE15	LT1764AEFE-1.5
1446L	LTC1446LCS8	1490AI	LT1490AIS8	153019	LTC1530CS8-1.9	157933	LT1579CGN-3.3	1640LI	LT1640LIS8	16932I	LTC1693-2IS8	1764AEFE18	LT1764AEFE-1.8
1446LI	LTC1446LIS8	1490I	LT1490IS8	153025	LTC1530CS8-2.5	157933	LT1579CS8-3.3	1640LV	LT1640LVCS8	1698	LTC1698EGN	1764AEFE25	LT1764AEFE-2.5
1448	LTC1448CS8	1491A	LT1491ACDCHC	153028	LTC1530CS8-2.8	15795	LT1579CGN-5	1641	LT1641CS8	1698I	LTC1698IGN	1764AEFE33	LT1764AEFE-3.3
1448I	LTC1448IS8	1491A	LT1491AIDHC	153033	LTC1530CS8-3.3	15795	LT1579CS8-5	1641I	LT1641-1CS8	169980	LTC1699EGN-80	1764EFE	LT1764EFE
1451	LTC1451CS8	1492	LT1492CS8	1530I	LTC1530IS8	1579I	LT1579IGN	16411I	LT1641-1IS8	169981	LTC1699EGN-81	1764EFE15	LT1764EFE-1.5
1451I	LTC1451IS8	1494	LT1494CS8	1536	LTC1536CS8	1579I3	LT1579IGN-3	16412	LT1641-2CS8	169982	LTC1699EGN-82	1764EFE18	LT1764EFE-1.8
1452	LTC1452CS8	1494H	LT1494HS8	1536I	LTC1536IS8	1579I5	LT1579IGN-5	16412I	LT1641-2IS8	1701	LT1701CS8	1764EFE25	LT1764EFE-2.5
1452I	LTC1452IS8	1494I	LT1494IS8	1540	LTC1540CS8	1595A	LTC1595ACS8	1641I	LT1641IS8	1704	LTC1704EGN	1764EFE33	LT1764EFE-3.3
1453	LTC1453CS8	1495	LT1495CS8	1540I	LTC1540IS8	1595AI	LTC1595AIS8	1642	LTC1642CGN	1704B	LTC1704BEGN	1765	LT1765ES8
1453I	LTC1453IS8	1495H	LT1495HS8	1541	LTC1541CS8	1595B	LTC1595BIS8	1642A	LTC1642ACGN	170619	LTC1706CS8-19	1765EFE	LT1765EFE
1456	LTC1456CS8	1495I	LT1495IS8	1541I	LTC1541IS8	1595BI	LTC1595BIS8	1642AI	LTC1642AIGN	1707	LTC1707CS8	1765EFE18	LT1765EFE-1.8
1456I	LTC1456IS8	1497	LT1497CS8	1542	LTC1542CS8	1595C	LTC1595CIS8	1642I	LT1642IGN	1707I	LT1707IS8	1765EFE25	LT1765EFE-2.5
1457	LT1457S8	1498	LT1498CS8	1542I	LTC1542IS8	1595CI	LTC1595CIS8	1643AH	LTC1643AHCGN	1710	LTC1710CS8	1765EFE33	LT1765EFE-3.3
1460A1	LT1460ACS8-10	1498I	LT1498IS8	1550	LTC1550CGN	1595CI35	LTC1595CI35/5	1643AL	LTC1643ALCGN	1710I	LTC1710IS8	1765EFE5	LT1765EFE-5
1460A2	LT1460ACS8-2.5	1501	LT1501CS8	155041	LTC1550CS8-4.1	1600	LTC1600CS8	1643H	LTC1643HCGN	1712	LT1712CGN	1766	LT1766EGN
1460A5	LT1460ACS8-5	150133	LT1501CS8-3.3	1550I	LTC1550IGN	1600I	LTC1600IS8	1643HI	LTC1643HIGN	1712I	LT1712IGN	1766	LT1766CS8
1460D1	LT1460DCS8-10	15015	LT1501CS8-5	1550L	LTC1550LCGN	1610	LT1610CS8	1643L	LT1643LCGN	1714	LT1714CGN	17665	LT1766EGN-5
1460D2	LT1460DCS8-2.5	1501I	LT1501IS8	1550L	LTC1550LCGS8	1610I	LT1610IS8	1643LI	LTC1643LICGN	1714I	LT1714IGN	1766EFE	LT1766EFE
1460D5	LT1460DCS8-5	150113	LT1501IS8-3.3	1550L2	LTC1550LCS8-2	1612	LT1612CS8	1643LI	LTC1643LIGN	1719	LT1719CS8	1766EFE-5	LT1766EFE-5
1461A3	LT1461ACS8-3	150115	LT1501IS8-5	1550LI	LTC1550LIGN	1614	LT1614CS8	1645	LTC1645CS8	1719I	LT1719IS8	1766HFE	LT1766HFE
1461A4	LT1461ACS8-4	150233	LTC1502CS8-3.3	15514I	LTC1551CS8-4.1	1614I	LT1614IS8	1645I	LTC1645IS8	1720	LT1720CS8	1766HFE-5	LT1766HFE-5
1461A5	LT1461ACS8-5	150318	LTC1503CS8-1.8	1551L	LTC1551LCS8	1618	LT1618CS8	1646	LTC1646CGN	1720I	LT1720IS8	1766I	LT1766IGN
1461B3	LT1461BCS8-3	15032	LTC1503CS8-2	1551L2	LTC1551LCS8-2	1619	LT1619CS8	1646I	LTC1646IGN	1721	LT1721CGN	1766I	LT1766IS8
1461B4	LT1461BCS8-4	150312	LTC1503IS8-2	1555	LTC1555CGN	1619I	LT1619IS8	1647I	LTC1647-1CS8	1721I	LT1721IGN	1766I5	LT1766IGN-5
1461B5	LT1461BCS8-5	1504	LTC1504CS8	1555I	LTC1555IGN	1620	LTC1620CGN	16471I	LTC1647-1IS8	1722	LT1722CS8	1766IFE	LT1766IFE
1461C3	LT1461CCS8-3	150433	LTC1504CS8-3.3	1555L	LTC1555LEGN	1620	LTC1620CS8	16472	LTC1647-2CS8	1722I	LT1722IS8	1766IFE-5	LT1766IFE-5
1461C4	LT1461CCS8-4	1504A	LTC1504ACS8	155833	LTC1558CGN-3.3	1620I	LTC1620IGN	16472I	LTC1647-2IS8	1723	LT1723CS8	1766SN	LTC1766CS8-SYNC
1461C5	LT1461CCS8-5	1504AI	LTC1504AIS8	155833	LTC1558CS8-3.3	1620I	LTC1620IS8	16473	LTC1647-3CGN	1723I	LT1723IS8	1767	LT1767ES8
1462	LT1462CS8	1504I	LTC1504IS8	15585	LTC1558CGN-5	1621	LTC1621CGN	16473I	LTC1647-3IGN	1725	LT1725CGN	1768	LT1768CGN
1462A	LT1462ACS8	1504I3	LTC1504IS8-3.3	15585	LTC1558CS8-5	1621I	LTC1621IGN	1654	LTC1654CGN	1725I	LT1725IGN	1768I	LT1768IGN
1464	LT1464CS8	1506	LT1506CS8	155933	LTC1559CGN-3.3	1622	LTC1622CS8	1654I	LTC1654IGN	172625	LTC1726ES8-2.5	1770	LTC1770CS8
1464A	LT1464ACS8	150633	LT1506CS8-3.3	155933	LTC1559CS8-3.3	1622I	LTC1622IS8	1655	LTC1655CS8	17265	LTC1726ES8-5	1770I	LTC1770IS8
1466L	LT1466LCS8	1506I	LT1506IS8	15595	LTC1559CGN-5	1623	LTC1623CS8	1655I	LTC1655IS8	1726I5	LTC1726IS8-5	1771	LTC1771ES8
1468	LT1468CS8	1507	LT1507CS8	15595	LTC1559CS8-5	1623I	LTC1623IS8	1655L	LTC1655LCS8	172725	LTC1727ES8-2.5	1771I	LTC1771IS8
1468I	LT1468IS8	15073	LT1507CS8-3.3	15601	LTC1560-1CS8	1624	LTC1624CS8	1655LI	LTC1655LIS8	17275	LTC1727ES8-5	1772	LTC1772CS8
1469	LT1469CDF	1507I	LT1507IS8	15601I	LTC1560-1IS8	1624I	LTC1624IS8	1658	LTC1658CS8	17275I	LTC1727IS8-5	1775	LTC1775CGN
1469	LT1469IDF	1507I3	LT1507IS8-3.3	15632	LTC1563-2CGN	1625	LTC1625CGN	1658I	LTC1658IS8	172941	LTC1729CS8-4.1	1775I	LTC1775IGN
1469	LT1469CS8	1510	LT1510CGN	15632I	LTC1563-2IGN	1625I	LTC1625IGN	1659	LTC1659CS8	172942	LTC1729CS8-4.2	1776	LT1776CS8
1469I	LT1469IS8	1510	LT1510CS8	15633	LTC1563-3CGN	1627	LTC1627CS8	1659I	LTC1659IS8	172982	LTC1729CS8-8.2	1776I	LT1776IS8
1470	LTC1470CS8	15105	LT1510-5CGN	15633I	LTC1563-3IGN	1627I	LTC1627IS8	1660	LTC1660CGN	172984	LTC1729CS8-8.4	1777	LT1777CGN
1470B	LTC1470BCS8	15105I	LT1510-5IGN	15633I	LTC1563-3ICGS8	1628	LTC1628CUH	1660I	LTC1660IGN	17304	LTC1730E8-4.1	1778	LTC1778EGN
1470BE	LTC1470BES8	1510I	LT1510IGN	156573	LTC1565-7CS8S	1628I	LTC1628IUH	1664	LTC1664CGN	17304I	LTC1730E8-4.1	1778I	LTC1778EGN-1
1470E	LTC1470ES8	1510I	LT1510IS8	15661	LTC1566-1CS8	1630	LT1630CS8	1664I	LTC1664IGN	173042	LTC1730E8-4.2	1778A	LTC1778AEGN
1473	LTC1473CGN	1512	LT1512CGN	15661I	LTC1566-1IS8	1630I	LT1630IS8	1665	LTC1665CGN	173082	LTC1730E8-8.2	1778A	LTC1778AIGN
1473I	LTC1473IGN	1512	LT1512CS8	1568	LTC1568CGN	1632	LT1632CS8	1665I	LTC1665IGN	173084	LTC1730E8-8.4	1778H	LTC1778HIGN
1473L	LTC1473LIGN	1512I	LT1512IGN	1568I	LTC1568IGN	1632I	LT1632IS8	1671	LT1671CS8	173141	LTC1731E8-4.1	1778I	LTC1778IGN
1473LI	LTC1473LIGN	1512I	LT1512IS8	15696	LTC1569CS8-6	1634A1	LT1634ACS8-1.25	1671I	LT1671IS8	173142	LTC1731E8-4.2	1779	LTC1779ES8
1474	LTC1474CS8	15143	LTC1514CS8-3	15697	LTC1569CS8-7	1634A2	LT1634ACS8-2.5	1672	LT1672CS8	173184	LTC1731E8-8.4	1785	LT1785CS8
147433	LTC1474CS8-3.3	1514333	LTC1514CS8-3.3	156916	LTC1569IS8-6	1634A4	LT1634ACS8-4.096	1672I	LT1672IS8	1733	LTC1733CS8	1785A	LT1785ACS8
14745	LTC1474CS8-5	15145	LTC1514CS8-5	156917	LTC1569IS8-7	1634A5	LT1634ACS8-5	1673	LT1673CS8	1733I	LTC1733IS8	1785AI	LT1785AIS8
1474I	LTC1474IS8	1514I3	LTC1514IS8-3	15715	LT1571E8N-5	1634B1	LT1634BCS8-1.25	1673I	LT1673IS8	1735	LTC1735CGN	1785I	LT1785IS8
1474I5	LTC1474IS8-5	1514I5	LTC1514IS8-5	1573	LT1573CS8	1634B2	LT1634BCS8-2.5	1675	LTC1675CGN	1735I	LTC1735CGN-1	1787	LT1787CS8
1475	LTC1475CS8	1515	LTC1515CS8	157325	LT1573CS8-2.5	1634BA	LT1634BCS8-4.096	1675I	LT1675CS8-1	1735E	LTC1735EIGN	1787H	LT1787HS8
147533	LTC1475CS8-3.3	1515335	LTC1515CS8-3.3/5	157328	LT1573CS8-2.8	1634B5	LT1634BCS8-5	1675I1	LT1675IS8-1	1735I	LTC1735IGN	1787HV	LT1787HVCS8
14755	LTC1475CS8-5	1515I	LTC1515IS8	157333	LT1573CS8-3.3	1635	LT1635CS8	1676	LT1676CS8	1735I1	LTC1735IGN-1	1787I	LT1787IS8
1475I	LTC1475IS8	1516	LTC1516CS8	1573I	LT1573IS8	1635I	LT1635IS8	1676I	LT1676IS8	1737	LT1737CGN	1789I	LT1789CGN-1
1477	LTC1477CS8	1516I	LTC1516IS8	1575	LT1575CS8	1636	LT1636CS8	1677	LT1677CS8	1737I	LT1737IGN	1789I	

# TOP MARKINGS (TOP MARK TO PART NUMBER)

Amps, Refs, Filters, Comps	Power Management	Data Conversion	Interface	High Frequency	<b>TOP MARKINGS</b>
					Reference Material

178910	LT1789CS8-10	1861LI	LTC1861LIS8	1956IFE	LT1956IFE	2178I	LT2178IS8	236CC1	LT1236CCS8-10	2600	LTC2600CGN	275118	LTC2751AIUHF-18
1789H1	LT1789HS8-1	1863	LTC1863CGN	1956IFE-5	LT1956IFE-5	21AHVI	LT1121AHVIS8	236CC5	LT1236CCS8-5	2600	LTC2600CUFD	275118	LTC2751BCUHF-18
1789I1	LT1789IGN-1	1863I	LTC1863IGN	1959	LT1959CS8	2201T	LTC3220EFP-1	236C1	LT1236CIS8-10	2600	LTC2600IUF	275118	LTC2751BIUHF-18
178911	LT1789IS8-1	1863L	LTC1863LCGN	1959I	LT1959IS8	2225	LTC2225CUH	236C15	LT1236CIS8-5	2600I	LTC2600IGN	2801	LTC2801CDE
1792	LT1792CS8	1863LI	LTC1863LIGN	1960	LTC1960CUHF	2225	LTC2225IUH	2400	LTC2400CS8	2604	LTC2604CGN	2801	LTC2801IDE
1792A	LT1792ACS8	1864	LTC1864CS8	1961	LT1961ES8	2226	LTC2226CUH	2400I	LTC2400IS8	2604I	LTC2604CGN-1	2802	LTC2802CDE
1792AI	LT1792AIS8	1864A	LTC1864ACS8	1963	LT1963ES8	2226	LTC2226IUH	240HVI	LTC6240HVHS8	2604I	LTC2604IGN	2802	LTC2802IDE
1792I	LT1792IS8	1864AI	LTC1864AIS8	1963	LT1963EST	2227	LTC2227CUH	240HVI	LTC6240HVHS8	2604I1	LTC2604IGN-1	2803	LTC2803CDHC
1793	LT1793CS8	1864I	LTC1864IS8	196315	LT1963ES8-1.5	2227	LTC2227IUH	2410	LTC2410CGN	2605	LTC2605CGN	2803	LTC2803DHC
1793A	LT1793ACS8	1864L	LTC1864LCS8	196315	LT1963EST-1.5	2228	LTC2228CUH	2410I	LTC2410IGN	2605I	LTC2605CGN-1	2803I	LTC2803CGN-1
1793AI	LT1793AIS8	1864LA	LTC1864LACS8	196318	LT1963ES8-1.8	2228	LTC2228IUH	2412	LTC2412CGN	2605I	LTC2605IGN-1	2803I1	LTC2803IGN-1
1793I	LT1793IS8	1864LI	LTC1864LIS8	196318	LT1963EST-1.8	2229	LTC2229CUH	2412I	LTC2412IGN	2605I1	LTC2605IGN-1	2804	LTC2804CDHC
1794	LT1794CS8	1865	LTC1865CS8	196325	LT1963ES8-2.5	2229	LTC2229IUH	2413	LTC2413CGN	2607	LTC2607CDE	2804	LTC2804IDHC
1794A	LT1794ACS8	1865A	LTC1865ACS8	196325	LT1963EST-2.5	222911	LTC2229CUH-11	2413I	LTC2413IGN	2607	LTC2607IDE	2804I	LTC2804CGN-1
1796	LT1796CS8	1865AI	LTC1865AIS8	196333	LT1963ES8-3.3	2236	LTC2236CUH	2415	LTC2415CGN	2607I	LTC2607CDE-1	2804I1	LTC2804IGN-1
1796I	LT1796IS8	1865I	LTC1865IS8	196333	LT1963EST-3.3	2236	LTC2236IUH	2415I	LTC2415-1CGN	2607I	LTC2607IDE-1	2845	LTC2845CUHF
1798	LTC1798CS8	1865L	LTC1865LCS8	1963A	LT1963AES8	2237	LTC2237CUH	2415I1	LTC2415-1IGN	2609	LTC2609CGN	2845I	LTC2845IUHF
179825	LTC1798CS8-2.5	1865LA	LTC1865LACS8	1963AEFE	LT1963AEFE	2237	LTC2237IUH	2415I	LTC2415IGN	2609I	LTC2609CGN-1	2847	LTC2847CUHF
17983	LTC1798CS8-3	1865LI	LTC1865LIS8	1963AEFE15	LT1963AEFE-1.5	2238	LTC2238CUH	241HVI	LTC6241HVHS8	2609I	LTC2609IGN	2847I	LTC2847IUHF
179841	LTC1798CS8-4.1	1867	LTC1867ACGN	1963AEFE18	LT1963AEFE-1.8	2238	LTC2238IUH	241HVI	LTC6241HVHS8	2609I1	LTC2609IGN-1	2850	LTC2850CS8
17985	LTC1798CS8-5	1867	LTC1867AIGN	1963AEFE25	LT1963AEFE-2.5	2239	LTC2239CUH	2420	LTC2420CS8	2610	LTC2610CGN	2850H	LTC2850HS8
1798I	LTC1798IS8	1867	LTC1867CGN	1963AEFE33	LT1963AEFE-3.3	2239	LTC2239IUH	2420I	LTC2420IS8	2610	LTC2610CUFD	2850I	LTC2850IS8
1798I3	LTC1798IS8-3	1867	LTC1867IGN	1963EAFE	LT1963EAFE	2245	LTC2245CUH	242HVI	LTC6242HVHGN	2610	LTC2610IUF	2851	LTC2851CS8
1798I5	LTC1798IS8-5	1867L	LTC1867LACGN	1963EAFE15	LT1963EAFE-1.5	2245	LTC2245IUH	242HVI	LTC6242HVHGN	2610I	LTC2610IGN	2851H	LTC2851HS8
1800	LT1800CS8	1867L	LTC1867LIGN	1963EAFE18	LT1963EAFE-1.8	2246	LTC2246CUH	2430	LTC2430CGN	2614	LTC2614CGN	2851I	LTC2851SDE
1800I	LT1800IS8	1867L	LTC1867LCGN	1963EAFE25	LT1963EAFE-2.5	2246	LTC2246IUH	2430I	LTC2430IGN	2614I	LTC2614CGN-1	2855	LTC2855CDE
1801	LT1801CS8	1867L	LTC1867LIGN	1963EAFE33	LT1963EAFE-3.3	2247	LTC2247CUH	2435	LTC2435CGN	2614I	LTC2614IGN	2855	LTC2855HDE
1801I	LT1801IS8	1874	LTC1874EGN	1963I	LT1963IS8	2247	LTC2247IUH	2435I	LTC2435-1CGN	2614I1	LTC2614IGN-1	2855	LTC2855IDE
1803	LT1803CS8	1875	LTC1875EGN	1973	LT1973CS8	2248	LTC2248CUH	2435I1	LTC2435-1IGN	2615	LTC2615CGN	2855	LTC2855CGN
1803I	LT1803IS8	1879	LTC1879EGN	1973I	LT1973IS8	2248	LTC2248IUH	2435I	LTC2435IGN	2615I	LTC2615CGN-1	2855H	LTC2855HGN
1804	LT1804CS8	1881	LTC1881CS8	1976BEFE	LT1976BEFE	2249	LTC2249CUH	2436I	LTC2436-1CGN	2615I	LTC2615IGN	2855I	LTC2855IGN
1804I	LT1804IS8	1881A	LTC1881ACS8	1976BIFE	LT1976BIFE	2249	LTC2249IUH	2436I1	LTC2436-1IGN	2615I1	LTC2615IGN-1	2860	LTC2860CDE
1806	LT1806CS8	1881AI	LTC1881AIS8	1976EFE	LT1976EFE	2250	LTC2250CUH	2440	LTC2440CGN	2617	LTC2617CDE	2860	LTC2860IDE
1806I	LT1806IS8	1881I	LTC1881IS8	1976HFE	LT1976HFE	2250	LTC2250IUH	2440I	LTC2440IGN	2617I	LTC2617IDE	2860I	LTC2860CGN
1807	LT1807CS8	1884	LTC1884CS8	1976IFE	LT1976IFE	2251	LTC2251CUH	2444	LTC2444CUHF	2617I	LTC2617CDE-1	2860I	LTC2860IGN
1807H	LT1807HS8	1884A	LTC1884ACS8	1977BEFE	LT1977BEFE	2251	LTC2251IUH	2444	LTC2444IUHF	2617I	LTC2617IDE-1	2861	LTC2861CDE
1807I	LT1807IS8	1884AI	LTC1884AIS8	1977BIFE	LT1977BIFE	2252	LTC2252CUH	2445	LTC2445CUHF	2619	LTC2619CGN	2861	LTC2861IDE
1809	LT1809CS8	1884I	LTC1884IS8	1977EFE	LT1977EFE	2252	LTC2252IUH	2445	LTC2445IUHF	2619I	LTC2619CGN-1	2861	LTC2861CGN
1809I	LT1809IS8	1886	LTC1886CS8	1977IFE	LT1977IFE	2253	LTC2253CUH	2446	LTC2446CUHF	2619I	LTC2619IGN	2861I	LTC2861IGN
1810	LT1810CS8	1886I	LTC1886IS8	1990	LT1990CS8	2253	LTC2253IUH	2446	LTC2446IUHF	2619I1	LTC2619IGN-1	2901I	LTC2901-1CGN
1810I	LT1810IS8	1905	LTC1905CS8-5	1990I0	LT1990CS8-10	2254	LTC2254CUH	2447	LTC2447CUHF	261L45	LTC261L45CS8-4.5	2901I1	LTC2901-1IGN
1812	LT1812CS8	1910	LTC1910CS8-10	1990A	LT1990ACS8	2254	LTC2254IUH	2447	LTC2447IUHF	2620	LTC2620CGN	29012	LTC2901-2CGN
1812I	LT1812IS8	1910E	LTC1910ES8	1990AH	LT1990AHS8	2255	LTC2255CUH	2448	LTC2448CUHF	2620	LTC2620CUFD	29012I	LTC2901-2IGN
1813	LT1813CS8	191118	LTC1911ES8-1.8	1990AI	LT1990AIS8	2255	LTC2255IUH	2448	LTC2448IUHF	2620	LTC2620IUF	29013	LTC2901-3CGN
1813D	LT1813DS8	1920	LTC1920CS8	1990H	LT1990HS8	2301	LTC2301CDE	2449	LTC2449CUHF	2620I	LTC2620IGN	29013I	LTC2901-3IGN
1813HV	LT1813HVC8S	1920I	LTC1920IS8	1990I	LT1990IS8	2301	LTC2301IDE	2449	LTC2449IUHF	2624	LTC2624CGN	29014	LTC2901-4CGN
1813I	LT1813IS8	1921	LTC1921CS8	1994	LT1994CS8	2301	LTC2301CMS	2486	LTC2486CDE	2624I	LTC2624CGN-1	29014I	LTC2901-4IGN
1814	LT1814CGN	1921I	LTC1921IS8	1994I	LT1994IS8	2301	LTC2301IMS	2486	LTC2486IDE	2624I	LTC2624IGN	2902I	LTC2902-1CGN
1814I	LT1814IGN	1923	LTC1923EUH	19AI25	LT1019AIS8-2.5	2305	LTC2305CDE	2487	LTC2487CDE	2624I1	LTC2624IGN-1	2902I1	LTC2902-1IGN
1815	LT1815CS8	1925	LTC1925CS8-2.5	19105	LT1019IS8-5	2305	LTC2305IDE	2487	LTC2487IDE	2625	LTC2625CGN	29022	LTC2902-2CGN
1815I	LT1815IS8	1928	LTC1928CS8	19125	LT1019IS8-2.5	2305	LTC2305CMS	2488	LTC2488CDE	2625I	LTC2625CGN-1	29022I	LTC2902-2IGN
1816	LT1816CS8	1932	LTC1932ES8	200110	LT6200IS8-10	2305	LTC2305IMS	2488	LTC2488IDE	2625I	LTC2625IGN	2910	LTC2910CDHC
1816I	LT1816IS8	1933	LTC1933CS8	2050	LTC2050CS8	2306	LTC2306CUF	2489	LTC2489CDE	2625I1	LTC2625IGN-1	2910	LTC2910HDHC
1817	LT1817CGN	1940EFE	LT1940EFE	2050H	LTC2050HS8	2306	LTC2306IUF	2489	LTC2489IDE	2627	LTC2627CDE	2910	LTC2910IDHC
1817I	LT1817IGN	1940LEFE	LT1940LEFE	2050HV	LTC2050HVC8S	2308	LTC2308CUF	2490	LTC2490CS8	2627	LTC2627IDE	2910	LTC2910CGN
1818	LT1818CS8	1942	LTC1942EUH	2050I	LTC2050IS8	2308	LTC2308IUF	2490I	LTC2490IS8	2627I	LTC2627CDE-1	2910H	LTC2910HGN
1818I	LT1818IS8	1945	LTC1945CS8-4.5	2051	LTC2051CS8	2309	LTC2309CUF	2492	LTC2492CDE	2627I	LTC2627IDE-1	2910I	LTC2910IGN
1819	LT1819CS8	1946	LTC1946EUF	2051H	LTC2051HS8	2309	LTC2309IUF	2492	LTC2492IDE	2629	LTC2629CGN	2914I	LTC2914CDHC-1
1819I	LT1819IS8	1946A	LTC1946AEUF	2051HV	LTC2051HVC8S	2318	LTC2318CUF	2493	LTC2493CDE	2629I	LTC2629CGN-1	2914I1	LTC2914HDHC-1
1840	LTC1840CGN	1949	LTC1949ES8	2051I	LTC2051IS8	2318	LTC2318IUF	2493	LTC2493IDE	2629I	LTC2629IGN	2914I	LTC2914DHC-1
1840I	LTC1840IGN	1949I	LTC1949IS8	2052	LTC2052CGN	2328	LTC2328CUF	2494	LTC2494CUHF	2629I1	LTC2629IGN-1	2914I1	LTC2914CGN-1
1841	LTC1841CS8	1950	LTC1950EIGN	2052H	LTC2052HGN	2328	LTC2328IUF	2494	LTC2494IUHF	264116	LTC2641CS8-16	29142	LTC2914CDHC-2
1841I	LTC1841IS8	1950I	LTC1950IGN	2052HV	LTC2052HVC8S	235112	LTC2351CUH-12	2495	LTC2495CUHF	264116	LTC2641IS8-16	29142	LTC2914HDHC-2
1842	LTC1842CS8	1952	LTC1952EIGN	2052I	LTC2052IGN	235112	LTC2351IHU-12	2495	LTC2495IUHF	275112	LTC2751CUHF-12	29142	LTC2914IDHC-2
1842I	LTC1842IS8	1952I	LTC1952EIGN-1	2078	LT2078CS8	235114	LTC2351CUH-14	2496	LTC2496CUHF	275112	LTC2751IUHF-12	29142	LTC2914CGN-2
1843	LTC1843CS8	1952I	LTC1952IGN	2078A	LT2078ACS8	235114	LTC2351IHU-14	2496	LTC2496IUHF	275114	LTC2751CUHF-14	2914H1	LTC2914HGN-1
1843I	LTC1843IS8	1952I1	LTC1952IGN-1	2078AI	LT2078AIS8	236AC1	LT1236ACS8-10	2497	LTC2497CUHF	275114	LTC2751IUHF-14	2914H2	LTC2914HGN-2
1860	LTC1860CS8	1955	LTC1955EUH	2078I	LT2078IS8	236AC5	LT1236ACS8-5	2497	LTC2497IUHF	275116	LTC2751ACUHF-16	2914I1	LTC2914IGN-1
1860I	LTC1860IS8	1956	LTC1956EIGN	2105	LT1021DCS8-5	236AI1	LT1236AIS8-10	2498	LTC2498CUHF</				

TOP MARKINGS (TOP MARK TO PART NUMBER)

292211	LTC2922-1IGN	3252	LTC3252EDE	3478FE-1	LT3478IFE-1	3573	LT3573EMSE	376HVI	LT1376HVIS8	3844IFE	LT3844IFE	4216	LTC4216CDE
2923	LTC2923CDE	326125	LTC13261S8-2.5	3479	LT3479EDE	3573	LT3573IMSE	3770	LTC3770UEH	3845FE	LT3845EFE	4216	LTC4216IDE
2923	LTC2923IDE	3401	LT1034CS8-1.2	3479EFE	LT3479EFE	3576	LTC3576UEUF	3773	LTC3773CUHF	3845FE	LT3845IFE	4217	LTC4217CDHC
2924	LTC2924CGN	3402	LT1034CS8-2.5	3486	LT3486EDHC	3576	LT3576UIEUF	3773E	LTC3773UEHF	3850	LTC3850EUF	4217	LTC4217IDHC
29241	LTC2924IGN	3412	LTC3412EUF	3486EFE	LT3486EFE	3586	LTC3586EUF	37731	LTC3773UIHF	3850	LTC3850EUF	421712	LTC4217CDHC-12
2925	LTC2925CUF	3412A	LTC3412AEUF	3486IFE	LT3486IFE	3595	LT3595EUHF	3776	LTC3776EUF	3850	LTC3850EUH	421712	LTC4217IDHC-12
2925	LTC2925IUF	3412A	LTC3412AIUF	3490	LTC3490ES8	3602	LTC3602EUF	3777	LTC3777EUF	3850	LTC3850IUF	4218	LTC4218CGN
2926	LTC2926CUF	3412AEFE	LTC3412AEFE	3492	LT3492EUF	3602	LTC3602IUF	3780	LTC3780EUH	3850	LTC3850IUF	421812	LTC4218CDHC-12
2926	LTC2926CUFD	3412AIFE	LTC3412AIFE	3492	LT3492IUF	36021	LTC3602EUF-1	37801	LTC3780IUF	389A12	LT1389AC8S-1.25	421812	LTC4218IDHC-12
2926	LTC2926IUF	3412EFE	LTC3412EFE	3493ES	LT3493AES8	36022	LTC3602EUF-2	3782	LT3782EUF	389B12	LT1389BC8S-1.25	42181	LTC4218IGN
2926	LTC2926IUF	3412IFE	LTC3412IFE	3496	LTC3496EUF	3602EFE1	LTC3602EFE-1	3782	LTC3782IUF	389B25	LT1389BC8S-2.5	4220	LT4220CGN
2928	LTC2928CUHF	3413EFE	LTC3413EFE	3496	LT3496IUF	3602EFE2	LTC3602EFE-2	3782H	LT3782HUF	3900	LTC3900ES8	42201	LT4220IGN
2928	LTC2928IUF	3413IFE	LTC3413IFE	34102	LT1034IS8-2.5	3602FE	LTC3602EFE	3783	LTC3783EDHD	3901	LTC3901EGN	4221	LTC4221CGN
2933	LTC2933CDHC	3415	LTC3415EUHF	3500	LT3500EMSE	3602FE	LTC3602IFE	3783	LTC3783IDHD	3901EFE	LTC3901EFE	42211	LTC4221IGN
2933	LTC2933IDHC	3417	LTC3417EDHC	3500	LT3500IMSE	3681	LTC3681EDE	3783EFE	LTC3783EFE	4001	LTC4001EUF	4222	LTC4222CUH
2933	LTC2933CGN	3417A	LTC3417AEDHC	3500H	LT3500HMSE	3701	LTC3701EGN	3783IFE	LTC3783IFE	40011	LTC4001EUF-1	4222	LTC4222IUF
29331	LTC2933IGN	3417A1	LTC3417AEDHC-1	3504	LT3504EUF	3703	LTC3703EGN	3785	LTC3785EUF	400242	LTC4002ES8-4.2	42231	LTC4223CDHD-1
2952	LTC2952CUF	3417A1	LTC3417AIDHC-1	3504	LT3504IUF	37035	LTC3703EGN-5	3800EFE	LTC3800EFE	400284	LTC4002ES8-8.4	42231	LTC4223IDHD-1
2952	LTC2952IUF	3417A2	LTC3417AEDHC-2	3506	LT3506EDHD	3703H	LTC3703HGN	3800IFE	LTC3800IFE	40062	LTC4006EGN-2	42231	LTC4223CGN-1
29532	LTC2953IMS-2	3417A2	LTC3417AIDHC-2	3506	LT3506IDHD	37031	LTC3703IGN	3802	LTC3802EUF	40064	LTC4006EGN-4	42232	LTC4223CDHD-2
2970	LTC2970CUFD	3417AL	LTC3417ALEDHC	3506A	LT3506AEDHD	370315	LTC3703IGN-5	3806	LTC3806EUE	40066	LTC4006EGN-6	42232	LTC4223IDHD-2
2970	LTC2970IUF	3417AL	LTC3417ALIDHC	3506A	LT3506AIDHD	3705	LTC3705EGN	3806	LTC3806EGN	4007	LTC4007EUF	42232	LTC4223CGN-2
29701	LTC2970CUFD-1	3417S	LTC3417SEDHC	3506AEFE	LT3506AEFE	37051	LTC3705IGN	3807	LTC3807EUF	40071	LTC4007EUF-1	42231	LTC4223IGN-1
29701	LTC2970IUF-1	3418	LTC3418EUHF	3506AIFE	LT3506AIFE	3708	LTC3708EUH	38071	LTC3807EGN-1	4008	LTC4008EUF	422312	LTC4223IGN-2
3011	LT3011EMSE	3421	LTC3421EUF	3506EFE	LT3506EFE	3709	LTC3709EUH	38072	LTC3807EGN-2	4009	LTC4009EUF	4242	LTC4242CUHF
3011H	LT3011HMSE	3425	LTC3425EUH	3506IFE	LT3506IFE	3710EFE	LTC3710EFE	3808	LTC3808EDE	40091	LTC4009EUF-1	4242	LTC4242IUF
3012	LT3012EDE	3430EFE	LTC3430EFE	3506L	LT3506LEDHD	3717	LTC3717EGN	3808	LTC3808EGN	40092	LTC4009EUF-2	4245	LTC4245CUHF
3012B	LT3012BEDE	3430EFE-1	LT3430EFE-1	3506LEFE	LT3506LEFE	37171	LTC3717EUF-1	3810	LTC3810EGN	40093	LTC4009EUF-3	4245	LTC4245IUF
3012BEFE	LT3012BEFE	3430IFE	LTC3430IFE	3507	LT3507EUHF	37211	LTC3721EGN-1	3810	LTC3810EUH	4010CFE	LTC4010CFE	4250H	LT4250HCS8
3012EFE	LT3012EFE	3430IFE-1	LTC3430IFE-1	3507	LT3507IUF	37211	LTC3721EUF-1	38105	LTC3810EUF-5	4010EFE	LTC4010EFE	4250H1	LT4250HIS8
3012HFE	LT3012HFE	3431EFE	LTC3431EFE	3507H	LT3507HUHF	37231	LTC3723EGN-1	38105	LTC3810IUF-5	4012	LTC4012EUF	4250L	LT4250LCS8
3012I	LT3012IDE	3431IFE	LTC3431IFE	3508	LT3508EUF	37232	LTC3723EGN-2	3811	LTC3811EUF	40121	LTC4012EUF-1	4250LI	LT4250LIS8
3012IFE	LT3012IFE	3433	LTC3433EGN	3508	LT3508IUF	3724EFE	LTC3724EFE	3811	LTC3811EUF-5	40122	LTC4012EUF-2	4251	LTC4251CS8
3013	LT3013EDE	3433EFE	LTC3433EFE	3508FE	LT3508EFE	3724IFE	LTC3724IFE	3812EFE-5	LTC3812EFE-5	4051	LTC4051EGN	4251	LTC4251S8
3013B	LT3013BEDE	34331	LTC3433IGN	3508FE	LT3508IFE	3726	LTC3726EGN	3813	LTC3813EUF	4055	LTC4055EUF	42521	LTC4252-1CS8
3013BEFE	LT3013BEFE	3433IFE	LTC3433IFE	3508H	LT3508HUF	37261	LTC3726IGN	3813	LTC3813IUF	40551	LTC4055EUF-1	42522	LTC4252-2CS8
3013FE	LT3013FE	3434EFE	LTC3434EFE	3508HFE	LT3508HFE	37271	LTC3727EUF-1	38135	LTC3813EUF-5	4060	LTC4060EDHC	4253	LTC4253CGN
3013HFE	LT3013HFE	3434IFE	LTC3434IFE	3509	LT3509EDE	3728	LTC3728EUF	3814EFE-5	LTC3814EFE-5	4060EFE	LTC4060EFE	4253A	LTC4253ACGN
3013I	LT3013IDE	3435EFE	LTC3435EFE	3509	LT3509IDE	3728L	LTC3728LCUH	3814IFE-5	LTC3814IFE-5	4066	LTC4066EUF	4253AI	LTC4253AIGN
3013IFE	LT3013IFE	3435IFE	LTC3435IFE	3509H	LT3509HDE	3728L1	LTC3728LCUH-1	3821	LTC3821EUF	40661	LTC4066EUF-1	42531	LTC4253IGN
3021	LT3021EDH	3436EFE	LTC3436EFE	3517	LTC3517EUF	3728L1	LTC3728LIUH-1	3821EFE	LTC3821EFE	4066T	LTC4066EUF	4253J	LTC4253CUF-ADJ
3021	LT3021ES8	3437EFE	LTC3437EFE	3517	LT3517IUF	3728LE	LTC3728LEUH	38221	LTC3822EGN-1	4067	LTC4067EUF	4253J	LTC4253IUF-ADJ
302112	LT3021EDH-1.2	3437HFE	LTC3437HFE	3517FE	LT3517FE	3728LI	LTC3728LIUH	3823	LTC3823EUF	4085	LTC4085EUF	4254	LT4254CGN
302112	LT3021ES8-1.2	3437IFE	LTC3437IFE	3517FE	LT3517IFE	3728LX	LTC3728LXCUH	3825EFE	LTC3825EFE	4085	LTC4085EGN	42541	LT4254-1CGN
302115	LT3021EDH-1.5	3439EFE	LTC3439EFE	3517HFE	LT3517HFE	3728ZE	LTC3728ZEUF	3826	LTC3826EUF	40851	LTC4085EUF-1	425411	LT4254-1IGN
302115	LT3021ES8-1.5	3441	LTC3441EDE	3518	LT3518EUF	3729	LTC3729EUF	4088	LTC4088EUF	4088	LTC4088EDE	42542	LT4254-2CGN
302118	LT3021EDH-1.8	3442	LTC3442EDE	3518	LT3518IUF	37296	LTC3729EUF-6	3827	LTC3827EUF	40881	LTC4088EDE-1	425421	LT4254-2IGN
302118	LT3021ES8-1.8	3443	LTC3443EDE	3518FE	LT3518FE	3729L6	LTC3729LEUH-6	3827	LTC3827IUF	40882	LTC4088EDE-2	42541	LT4254IGN
3022	LT3022EDHC	3445	LTC3445EUF	3518FE	LT3518FE	3731	LTC3731CUH	3827H	LTC3827HUF	4089	LTC4089EUF	42561	LT4256-1CS8
3022EFE	LT3022EFE	3446	LTC3446EDE	3518HFE	LT3518HFE	37311	LTC3731IUF	3828	LTC3828EUF	40891	LTC4089EUF	425611	LT4256-1IS8
3024	LT3024EDE	3446	LTC3446IDE	3520	LTC3520EUF	3732	LTC3732CUHF	3830	LTC3830EGN	40895	LTC4089EUF-5	42562	LT4256-2CS8
3024	LT3024IDE	3451	LTC3451EUF	3524	LTC3524EUF	37331	LTC3733CUHF-1	3830	LTC3830ES8	4090	LTC4090EUF	425621	LT4256-2IS8
3024EFE	LT3024EFE	3452	LTC3452EUF	352533	LTC3525ES8-3.3	3734	LTC3734EUF	38301	LTC3830-1ES8	40905	LTC4090EUF-5	42563	LT4256-3CGN
3024IFE	LT3024IFE	3453	LTC3453EUF	3533	LTC3533EDE	3735	LTC3735EUF	38308	LTC3830EGN-8	417A1	LTC3417ALEDHC-1	425631	LT4256-3IGN
3028	LTC3028EDHC	3455	LTC3455EUF	3534	LTC3534EGN	3736	LTC3736EUF	3831	LTC3831IGN	417A11	LTC3417ALIDHC-1	4257	LTC4257CS8
3028FE	LT3028FE	3456	LTC3456EUF	3534	LTC3534EUF	37361	LTC3736IUF	3831	LTC3831IGN	4210	LTC4210CS8	42571	LTC4257CS8-1
3028I	LT3028IDHC	3458	LTC3458EDE	3550	LTC3550EDHC	37362	LTC3736EUF-2	38311	LTC3831EGN-1	42101	LTC4210-1CS8	42571	LTC4257IS8
3028IFE	LT3028IFE	3458EFE	LTC3458EFE	35501	LTC3550EDHC-1	3737	LTC3737EUF	3832	LTC3832EGN	421011	LTC4210-1IS8	425711	LTC4257IS8-1
3035	LTC3035ES8	3458L	LTC3458LEDE	3552	LTC3552EUF	3738	LTC3738CUHF	38321	LTC3832-1ES8	42102	LTC4210-2CS8	4260	LTC4260CUH
3080	LT3080EST	3458LEFE	LTC3458LEFE	35521	LTC3552EDHC-1	3740	LTC3740EDHC	3834	LTC3834EUF	421021	LTC4210-2IS8	4260	LTC4260IUF
3080EFE	LT3080EFE	3459	LTC3459ES8	3555	LTC3555EUF	3742	LTC3742EUF	3834	LTC3834IUF	42103	LTC4210-3CS8	4261	LTC4261CUFD
3150	LT3150CGN	3466EFE	LTC3466EFE	35551	LTC3555EUF-1	37421	LTC3742EUF-1	38341	LTC3834EDHC-1	421031	LTC4210-3IS8	4261	LTC4261IUF
3205	LTC3205EUF	3469	LTC3469ES8	35551	LTC3555IUF-1	3745SN	LT1374CS8-5 SYNC	38341	LTC3834IDHC-1	42104	LTC4210-4CS8	42612	LTC4261CUFD-2
3205X	LTC3205XEUF	3473A	LTC3473AEDE	35553	LTC3555EUF-3	374HVI	LT1374HVIS8	38341	LTC3834EGN-1	421041	LTC4210-4IS8	42612	LTC4261IUF-2
3206	LTC3206EUF	3474EFE	LTC3474EFE	35553	LTC3555IUF-3	374ISN	LT1374IS8-SYNC	38341	LTC3834IGN-1	4211	LTC4211CS8	4263	LTC4263CDE
3207	LTC3207EUF	3474EFE-1	LTC3474EFE-1	35551	LTC3555IUF	3755	LTC3755EMSE	3835	LTC3835EUF	42111	LTC4211IS8	4263	LTC4263IUF
32071	LTC3207EUF-1	3474IFE	LTC3474IFE	3556	LTC3556EUF	3755	LTC3755IMSE	3835	LTC3835IUF	4213	LTC4213CS8	42631	LTC4263CDE-1
3208	LTC3208EUF	3474IFE-1	LTC3474IFE-1	3557	LTC3557EUF	37551	LT3755EMSE-1	38351	LTC3835EDHC-1	42131	LTC4213IS8	42631	LTC4263IDE-1
32091	LTC3209EUF-1	3476	LTC3476EUHF	35571	LTC3557EUF-1	37551	LTC3755IMSE-1	38351	LTC3835IDHC-1	4215	LTC4215CGN	4264	LTC4264CDE
32092	LTC3209EUF-2	3477	LTC3477IUF	3566	LTC3566EUF	3756	LTC3756EMSE	38351	LTC3835EGN-1	4215	LTC4215CUFD	4264	LTC4264IDE
3216	LTC3216EDE	3477	LTC3477IUF	3566	LTC3566IUF	3756	LTC3756IMSE	38351	LTC3835IGN-1	4215	LTC4215IUF	4265	LTC4265CDE
3220	LTC3220EUF	3478FE	LTC3478FE	3567	LTC3567EUF	37561	LTC3756EMSE-1	3836	LTC3836EUF	42151	LTC4215CUFD-1	4265	LTC4265IDE
32201	LTC3220EUF-1	3478FE	LTC3478FE	3572	LTC3572EUF	37561	LTC3756IMSE-1	3837EFE	LTC3837EFE	42151	LTC4215IUF-1	4267	LTC4267CDHC
3220T	LTC3220EPF	3478FE-1	LTC3478FE-1	3572	LT3572IUF	375HV1	LT1375HVIS8	3844EFE	LTC3844EFE	42151	LTC4215IGN	4267	LTC4267IDHC

Amps, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

Reference Material

TOP MARKINGS

TOP MARKINGS (TOP MARK TO PART NUMBER)

- Amps, Refs,
- Filters, Comps
- Power Management
- Data Conversion
- Interface
- High Frequency
- Reference Material
- TOP MARKINGS**

4267	LTC4267CGN	461B13	LT1461B1S8-3	5765SN	LT1576CS8-5SYNC	61DH25	LT1461DHS8-2.5	6556	LT6556IUF	813HVD	LT1813HVD58	LADG	LT6201IDD
42671	LTC4267CGN-1	461B14	LT1461B1S8-4	5761SN	LT1576IS8-SYNC	61DH33	LT1461DHS8-3.3	6557	LT6557CDHC	813HVI	LT1813HVI58	LADJ	LT1804CDD
42673	LTC4267CDHC-3	461B15	LT1461B1S8-5	578125	LT1578IS8-2.5	6200	LT6200CS8	6557	LT6557IDHC	864LAI	LTC1864LAIS8	LADJ	LT1804IDD
42673	LTC4267IDHC-3	461C25	LT1461C2S8-2.5	579133	LT1579IGN-3.3	620010	LT6200CS8-10	6557	LT6557CGN	865LAI	LTC1865LAIS8	LADN	LTC4054EED-4.2
42673	LTC4267CGN-3	461C33	LT1461C3S8-3.3	60010	LT6600CDF-10	62005	LT6200CS8-5	65571	LT6557IGN	921I25	LTC2921IGN-2.5	LADR	LT6552CDD
42671	LTC4267IGN	461C13	LT1461C1S8-3	60010	LT6600IDF-10	62001	LT6200IS8	6558	LT6558CDHC	921I33	LTC2921IGN-3.3	LADR	LT6552IDD
426711	LTC4267IGN-1	461C14	LT1461C1S8-4	6002	LT6002CDHC	620015	LT6200IS8-5	6558	LT6558IDHC	963A15	LT1963AES8-1.5	LADT	LTC3411EED
426713	LTC4267IGN-3	461C15	LT1461C1S8-5	6002	LT6002IDHC	6201	LT6201CS8	6558	LT6558CGN	963A15	LT1963AEST-1.5	LADT	LTC3411IDD
42681	LTC4268CDK-1	461DH3	LT1461DHS8-3	6002	LT6002CGN	62011	LT6201IS8	65581	LT6558IGN	963A18	LT1963AES8-1.8	LADU	LT6010ACDD
42681	LTC4268IDKD-1	461DH4	LT1461DHS8-4	60025	LT6600CDF-2.5	6202	LT6202CS8	660	LT6600CS8	963A18	LT1963AEST-1.8	LADU	LT6010AIDD
42691	LTC4269CDK-1	461DH5	LT1461DHS8-5	60025	LT6600IDF-2.5	62021	LT6202IS8	660010	LT6600CS8-10	963A25	LT1963AES8-2.5	LADU	LT6010CDD
42691	LTC4269IDKD-1	474I33	LTC1474IS8-3.3	60021	LT6002IGN	6203	LT6203CS8	660015	LT6600CS8-15	963A25	LT1963AEST-2.5	LADU	LT6010IDD
42692	LTC4269CDK-2	485	LTC485CS8	6005	LT6005CDHC	62031	LT6203IS8	660020	LT6600CS8-20	963A33	LT1963AES8-3.3	LADZ	LT6221CDD
4305	LTC4305CDHD	4851	LTC485IS8	6005	LT6005HDHC	6204	LT6204CGN	660025	LT6600CS8-2.5	963A33	LT1963AEST-3.3	LADZ	LT6221IDD
4305	LTC4305IDHD	490	LTC490CS8	6005	LT6005IDHC	62041	LT6204IGN	66005	LT6600CS8-5	963118	LT1963IS8-1.8	LAEA	LTC3408EED
4305	LTC4305CGN	4901	LTC490IS8	6005	LT6005CGN	6207	LT6207CGN	660015	LT6600IS8-5	963125	LT1963IS8-2.5	LAEL	LT62051HVDCDD
43051	LTC4305IGN	502I33	LTC1502IS8-3.3	6005H	LT6005HGN	62071	LT6207IGN	682133	LTC1682IS8-3.3	963133	LT1963IS8-3.3	LAEL	LTC2051HVIDD
4306	LTC4306CUDF	503I18	LTC1503IS8-1.8	6005I	LT6005IGN	6220	LT6220CS8	690	LT690CS8	990110	LT1990IS8-10	LAEP	LTC6800HDD
4306	LTC4306IUDF	504A33	LTC1504ACS8-3.3	600110	LT6600IS8-10	62201	LT6220IS8	6901	LT690IS8	CXVT	LTC3548EKD-1	LAEQ	LTC2053CDD
4309	LTC4309CDE	506I33	LT1506IS8-3.3	600115	LT6600IS8-15	6221	LT6221CS8	69121	LTC6912CDE-1	DBCT	LT3502AEK3-3	LAEQ	LTC2053HDD
4309	LTC4309IEU	5100	LTC5100EUF	600120	LT6600IS8-20	62211	LT6221IS8	69121	LT6912HDE-1	DDVT	LTC4098EPC	LAEQ	LTC2053IDD
4309	LTC4309CGN	514I33	LTC1514IS8-3.3	600125	LT6600IS8-2.5	6222	LT6222CGN	69121	LTC6912IDE-1	DQKT	LTC4099EPC	LAET	LT6234CDD
43091	LTC4309IGN	515335	LTC1515CS8-3.3/5	6010	LT6010CS8	62221	LT6222IGN	69121	LTC6912CGN-1	DSZT	LTC4098EPC-1	LAET	LT6234IDD
4350	LTC4350CGN	515I35	LTC1515IS8-3/5	6010A	LT6010ACS8	6231	LT6231CS8	69122	LT69012CDE-2	LAAA	LT69012CDE-2	LAEU	LT6221CDD
43501	LTC4350IGN	530I19	LTC1530IS8-1.9	6010AI	LT6010AIS8	62311	LT6231IS8	69122	LTC6912HDE-2	LAAB	LT1937ESC6	LAEU	LT6231IDD
4351	LT4351CS8	530I25	LTC1530IS8-2.5	6010I	LT6010IS8	6232	LT6232CGN	69122	LTC6912IDE-2	LAAC	LTC3450EUD	LAEV	LTC4058EED-4.2
43511	LT4351IS8	530I28	LTC1530IS8-2.8	6011	LT6011CS8	62321	LT6232IGN	69122	LTC6912CGN-2	LAAD	LTC5508ESC6	LAEX	LT3020EED
4353	LTC4353CGN	530I33	LTC1530IS8-3.3	6011A	LT6011ACS8	6234	LT6234CS8	6912H1	LTC6912HGN-1	LAAE	LT1937BESC6	LAFC	LT3463EED
43531	LT4353IGN	5506	LT5506EUF	6011AI	LT6011AIS8	62341	LT6234IS8	6912H2	LTC6912HGN-2	LAAF	LT3460ESC6	LAFQ	LT1618EED
4354	LTC4354CS8	5506A	LT5506AEUF	60111	LT6011IS8	6235	LT6235CGN	691211	LTC6912IGN-1	LAAG	LTC5507ESC6	LAFR	LTC5532ECC
43541	LTC4354CS8-1	550L25	LTC1550LCS8-2.5	6012	LT6012CGN	62351	LT6235IGN	691212	LTC6912IGN-2	LAAH	LT1490ACDD	LAFU	LTC4059ECC
43542	LTC4354CS8-2	550L41	LTC1550LCS8-4.1	6012A	LT6012ACGN	6240	LTC6240CS8	6915	LTC6915CDE	LAAH	LT1490AIDD	LAGG	LTC4002EED-4.2
43541	LTC4354IS8	5511EFE	LT5511EFE	6012AI	LT6012AIGN	6240H	LTC6240HS8	6915	LTC6915CGN	LAAJ	LT1636CDD	LAGK	LTC3407EED
4355	LTC4355CDE	5512	LT5512EUF	60121	LT6012IGN	6240HV	LTC6240HVCS8	6915H	LTC6915HGN	LAAJ	LT1636IDD	LAGT	LTC2601CDD
4355	LTC4355IDE	5515	LT5515EUF	6013	LT6013CS8	62401	LTC6240IS8	69151	LTC6915IDE	LAAK	LT1637CDD	LAGT	LTC2601IDD
4355	LT4355EMS	5516	LT5516EUF	6013A	LT6013ACS8	6241	LTC6241CS8	6915I	LTC6915IGN	LAAK	LT1637IDD	LAHE	LTC3459ESC6
4356	LT4356CDE	5517	LT5517EUF	6013AI	LT6013AIS8	6241H	LTC6241HS8	692	LTC692CS8	LAAL	LT1638CDD	LAHF	LTC3459IS6
4356	LT4356HDE	5518	LT5518EUF	60131	LT6013IS8	6241HV	LTC6241HVCS8	6921	LTC692IS8	LAAL	LT1638IDD	LAHP	LTC4557EUD
4356	LT4356IDE	55182	LT5518EUF-2	6014	LT6014CS8	6241I	LTC6241IS8	694	LTC694CS8	LAAM	LT1801CDD	LAJA	LT3023EED
43561	LT4356CDE-1	5519	LT5519EUF	6014A	LT6014ACS8	6242	LTC6242CDHC	6943	LTC694CS8-3.3	LAAM	LT1801IDD	LAJA	LT3023IDD
43561	LT4356HDE-1	551L25	LTC1551LCS8-2.5	6014AI	LT6014AIS8	6242	LTC6242IDHC	6943C	LTC6943CGN	LAAN	LTC2051CDD	LAFJ	LTC2905CDDDB
43561	LT4356IDE-1	551L41	LTC1551LCS8-4.1	6014I	LT6014IS8	6242	LTC6242CGN	6943H	LTC6943HGN	LAAN	LTC2051IDD	LAFJ	LTC3411AEDD
43562	LT4356CDE-2	5520	LT5520EUF	6079	LTC6079ACDHC	6242H	LTC6242HGN	6943I	LTC6943IGN	LAAP	LT6203CDD	LAFJ	LTC3411AIDD
43562	LT4356HDE-2	5521	LT5521EUF	6079	LTC6079AIDHC	6242HV	LTC6242HVCDHC	6941	LTC6941IS8	LAAP	LT6203IDD	LAFJ	LTC3465ESC6
43562	LT4356IDE-2	5521A	LT5521AEUF	6079	LTC6079CDHC	6242HV	LTC6242HVCDHC	69413	LTC6941IS8-3.3	LAQA	LT1813CDD	LAFV	LT1937CESC6
435611	LTC4356IGN-1	5522	LT5522EUF	6079	LTC6079IDHC	6242HV	LTC6242HVCGN	699	LTC699CS8	LAQA	LT1813DDD	LAFW	LTC2606CDD-1
4358CFE	LTC4358CFE	5522T	LT5522TLNEUF	6079	LTC6079CGN	6242I	LTC6242IGN	6991	LTC699IS8	LAQA	LT1813IDD	LAFW	LTC2606IDD-1
4358IFE	LTC4358IFE	5525	LT5525EUF	6079A	LTC6079ACGN	6300	LT6300CGN	706119	LTC7061IS8-19	LAAR	LT1816CDD	LAFJ	LTC2606CDD
43AL11	LTC1643AL-11GN	5526	LT5526EUF	6079AH	LTC6079AHGN	63001	LT6300IGN	726125	LTC7261IS8-2.5	LAAR	LT1816IDD	LAFJ	LTC2606IDD
44001	LTC4400-1ES8	5527	LT5527EUF	6079AI	LTC6079AIGN	634A11	LT1634AIS8-1.25	727125	LTC7271IS8-2.5	LAAS	LTC1540CDD	LAFJ	LT3465AES6
4412	LTC4412CS8	5528A	LT5528EUF	6079H	LTC6079HGN	634A12	LT1634AIS8-2.5	727LX1	LTC3727LXEUH-1	LAAS	LTC1540IDD	LBBB	LTC6078ACDD
4412E	LTC4412ES8	5529	LT5529EUF	6079I	LTC6079IGN	634A14	LT1634AIS8-4.096	728L1	LTC3728LXEUH-1	LAAT	LTC1541CDD	LBBB	LTC6078AIDD
4440	LTC4440ES8	5533	LTC5533EDE	6082	LTC6082CDHC	634A15	LT1634AIS8-5	728LX1	LTC3728LXCUH-1	LAAT	LTC1541IDD	LBBB	LTC6078CDD
4441	LTC4441ES8	5535	LTC5535EUF	6082	LTC6082IDHC	634B11	LT1634BIS8-1.25	728LX1	LTC3728LXIUH	LAAU	LTC1542CDD	LBBB	LTC6078IDD
44411	LTC4441ES8-1	5536	LTC5536EUF	6082	LTC6082CGN	634B12	LT1634BIS8-2.5	728LZE	LTC3728LZEUH	LAAU	LTC1542IDD	LBD	LTC4304CDD
44411	LT4441IS8	5537	LT5537EUF	6082H	LTC6082HGN	634B14	LT1634BIS8-4.096	731E82	LTC71731ES8-8.2	LAAV	LT1720CDD	LBD	LTC4304IDD
444111	LT44411IS8-1	5538	LTC5538EDE	6082I	LTC6082IGN	634B15	LT1634BIS8-5	7415SN	LT17415IS8-5 SYNC	LAAV	LT1720IDD	LBBG	LTC3428EED
4556	LTC4556EUF	5546	LT5546EUF	6085	LTC6085CDHC	640AH	LT1640AHIS8	7510	LTC7510IUF	LAAX	LTC3403EED	LBBH	LT3466EED
460B1	LT1460BIS8-10	5553	LT5553EUF	6085	LTC6085HDHC	640AL1	LT1640ALIS8	75101	LTC7510IEUH-1	LAAY	LTC3403IDD	LBBJ	LTC4150CDD
460B12	LT1460BIS8-2.5	5554	LT5554IUF	6085	LTC6085CGN	641A16	LTC2641ACS8-16	7510UD	LTC7510DEUH	LABB	LTC3202EED	LBBK	LTC4354CDDB
460B15	LT1460BIS8-5	5557	LT5557EUF	6085	LTC6085HGN	641A16	LTC2641AIS8-16	76315	LT1763CDE-1.5	LABD	LTC1396CDD	LBBR	LTC5531EDC
460E11	LT1460EIS8-10	5558	LT5558EUF	6088	LTC6088CDHC	643AHI	LTC1643AHIGN	76318	LT1763CDE-1.8	LABD	LTC1396IDD	LBSB	LTC2411CDD
460E12	LT1460EIS8-2.5	555L18	LTC1555LEGN-1.8	6088	LTC6088HDHC	643AL1	LTC1643AL-1CGN	76325	LT1763CDE-2.5	LABU	LTC2900-1CDD	LBBT	LTC2411IDD
460E15	LT1460EIS8-5	5568	LT5568EUF	6088	LTC6088CGN	643AL1	LTC1643ALIGN	76333	LT1763CDE-3.3	LABV	LTC2900-1IDD	LBBY	LTC4301CDD
460LH5	LT1460LHS8-5	55682	LT5568-2EUF	6088H	LTC6088HGN	643L11	LTC1643L-1IGN	763MP5	LT1763MPS8-5	LABW	LTC2900-2CDD	LBBY	LTC4301IDD
460MH5	LT1460MHS8-5	5571	LT5571EUF	60LH25	LT1460LHS8-2.5	6552	LT6552CS8	6552	LT6552CS8	7661SN	LTC2900-2IDD	LBCB	LTC6014ACDD
461A10	LT1461ACS8-10	5572	LT5572EUF	60MH25	LT1460MHS8-2.5	65521	LT6552IS8	7615SN	LT1576IS8-5SYNC	LACD	LT6011ACDD	LBCB	LT6014AIDD
461A25	LT1461ACS8-2.5	5575	LT5575EUF	61A10	LT1461AIS8-10	6553	LT6553CGN	787HVH	LT1787HVHS8	LACD	LT6011AIDD	LBCB	LT6014CDD
461A33	LT1461ACS8-3.3	5578	LT5578IUF	61A125	LT1461AIS8-2.5	65531	LT6553IGN	787HVI	LT1787HVI58	LACD	LT6011CDD	LBCB	LT6014IDD
461A13	LT1461AIS8-3	5579											

## TOP MARKINGS (TOP MARK TO PART NUMBER)

LBCX	LTC2055HVCD	LBJY	LTC2480CDD	LBQM	LT1994CDD	LBJW	LTC3531IDD-3.3	LBZX	LTC4069EDC	LCFR	LTC3542IDC	LCKF	LT6003HDC
LBCX	LTC2055HVHDD	LBJY	LTC2480IDD	LBQM	LT1994IDD	LBJW	LTC37728EDDB	LBZY	LTC3410BESC6	LCFS	LTC3542ES6	LCKF	LT6003IDC
LBCX	LTC2055HVIDD	LBKZ	LT1947EDD	LBQP	LTC3221EDC-3.3	LBWQ	LTC3251EDC	LBZZ	LT6402CUD-6	LCFS	LTC3542IS6	LCKH	LT66102CDD
LBCY	LTC2905IDDB	LBKB	LTC3447EDD	LBQX	LTC3454EDD	LBWQ	LTC3251EDD-1.2	LBZZ	LT6402IUD-6	LCFV	LTC2908CDDDB-C1	LCKH	LT66102HDD
LBCZ	LTC2904CDDB	LBKC	LT3020EDD-1.2	LBOY	LTC3809EDD	LBWS	LTC3251EDD-1.5	LCCB	LT6402CUD-12	LCFV	LTC2908IDDB-C1	LCKH	LT66102IDD
LBDB	LTC2904IDDB	LBKD	LT3020EDD-1.5	LBQZ	LTC3809EDD-1	LBWT	LTC3525ESC6-5	LCCB	LT6402IUD-12	LCFX	LT3585EDDB-3	LCKN	LTC2913CDD-1
LBDC	LTC2906CDDB	LBKF	LT3020EDD-1.8	LBRB	LTC3499EDD	LBWV	LTC3448EDD-1.5	LCCB	LT6402CUD-20	LCFZ	LT1934EDCB	LCKN	LTC2913HDD-1
LBDD	LTC2906IDDB	LBKM	LT3027EDD	LBRD	LTC4061EDD-4.4	LBWV	LTC3448EDD-1.8	LCCB	LT6402IUD-20	LCFZ	LT1934IDCB	LCKN	LTC2913IDD-1
LBDF	LTC2907CDDB	LBKP	LTC2950CDDB-1	LBRH	LT3485EDD-0	LBWZ	LT1010CDD	LCCB	LT64065JEDC	LCCG	LTC4065JEDC	LCKP	LTC2913CDD-2
LBDG	LTC2907IDDB	LBKP	LTC2950IDDB-1	LBRK	LT4075XEDD	LBWZ	LT1010IDD	LCCF	LTC3822EDD	LCGD	LT66244HVCD	LCKP	LTC2913HDD-2
LBHD	LTC4058XEDD-4.2	LBKT	LTC3440EDD	LBRM	LTC3035EDDB	LBBX	LT3487EDD	LCCB	LT6402EDD	LCGD	LT66244HVHDD	LCKP	LTC2913IDD-2
LBDJ	LT3437EDD	LBKY	LT3484ESC6-0	LBRN	LTC3422EDD	LBDX	LTC4080EDD	LCCB	LT3080EDD	LCGD	LT66244HVIDD	LCKQ	LTC4069EDC-4
LBDK	LT3437IDD	LBKZ	LT3484EDD	LBRQ	LTC3490EDD	LBDX	LTC2909CDDB-2.5	LCCB	LTC3240EDC-2.5	LCCG	LTC3493EDCB	LCKR	LTC4065EDC-4
LBD5	LT55536ES6	LBM5	LTC4354IDDB	LBRR	LT66241HVCD	LBDX	LTC2909HDDB-2.5	LCCB	LTC3541EDC	LCGH	LT3493IDCB	LCKS	LTC4065LXEDC
LBDT	LTC5536EDC	LBM6	LT3027IDD	LBR7	LT66241HVIDD	LBDX	LTC2909IDDB-2.5	LCCB	LTC3210EUD-1	LCGJ	LTC3493EDCB-3	LCLG	LTC4095EDC
LBDV	LT6650C55	LBM7	LT3014EDD	LBR7	LT3014HVDD	LBXH	LTC3210EUD	LCCV	LTC3531EDD-3	LCGK	LT3493IDCB-3	LCLH	LTC3585EDDB-2
LBDV	LT6650HS5	LBM8	LT3014IDD	LBR7	LT3014HVIDD	LBXJ	LTC3240EDC-3.3	LCCV	LTC3531IDD-3	LCGM	LT1933IDCB	LCLJ	LT3585EDDB-1
LBDV	LT6650IS5	LBM9	LTC3448EDD	LBRW	LTC3203IDD	LBXN	LT6660HCDD-2.5	LCCV	LT5560EDD	LCGN	LT1933HDCB	LCLK	LT3585EDDB-0
LBDW	LT55530EDC	LBM0	LT1991ACDD	LBRX	LT3466EDD-1	LBXN	LT6660JCDD-2.5	LCCB	LT6004CDD	LCGP	LT6411CUD	LCLM	LTC4096XEDD
LBDX	LTC55530ES6	LBM1	LT1991AIDD	LBS0	LT40755EDD	LBXN	LT6660KCDD-2.5	LCCB	LT6004HDD	LCGP	LT6411IUD	LCLN	LTC3544BEUD
LBDY	LTC3025EDC	LBM2	LT1991CDD	LBS1	LTC3410ESC6	LBDX	LT16348CDD-2.5	LCCB	LT6004IDD	LCCR	LT6400AIDD	LCLT	LT3502AEDC
LBF5	LTC3407EDD-2	LBM3	LT1991HDD	LBS2	LTC3410ESC6-2	LBDX	LT16348IDD-2.5	LCCD	LT3494EDDB	LCCR	LTC2858CDD-1	LCLT	LT3502AIDC
LBF5	LTC3407IDD-2	LBM4	LT1991IDD	LBS3	LTC3410ESC6-3	LBDX	LT3491ESC8	LCCD	LT66244CDD	LCCR	LTC2858IDD-1	LCLV	LT3502EDC
LBFD	LTC2908CDDDB-A1	LBM5	LTC3407EDD-1	LBS4	LTC3410ESC6-4	LBRX	LTC3532EDD	LCCF	LTC6244IDD	LCCS	LT3493AIDCB	LCLV	LT3502IDC
LBFF	LTC2908IDDB-A1	LBM6	LT6100CDD	LBS5	LTC3410ESC6-5	LBRX	LT6700CDD-1	LCCG	LTC3543EDCB	LCCG	LT3497EDDB	LCLW	LTC6404CUD-1
LBF6	LTC2908CDDDB-B1	LBM7	LT6100HDD	LBS6	LTC3410ESC6-6	LBRX	LT6700HDCB-1	LCCN	LTC3221EDC-5	LCGV	LT3493EDCB-4	LCLW	LTC6404HDD-1
LBFH	LTC2908IDDB-B1	LBM8	LT6100IDD	LBS7	LTC3410ESC6-7	LBRX	LT6700IDCB-1	LCCP	LTC3221EDC	LCGW	LT3503EDCB	LCLW	LTC6404IUD-1
LBFQ	LTC2611CDD	LBM9	LTC2950CDDDB-2	LBS8	LTC3410ESC6-8	LBRX	LT6700CDD-2	LCCQ	LT6400CUD-8	LCGX	LTC3203BEDD	LCLX	LTC6404CUD-2
LBFQ	LTC2611IDD	LBN0	LTC2950IDDB-2	LBS9	LTC3410ESC6-9	LBRX	LT6700HDCB-2	LCCQ	LT6400IUD-8	LCGY	LT3203BEDD-1	LCLX	LTC6404HDD-2
LBFS	LTC2621CDD	LBN1	LTC3548EDD	LBSQ	LTC2482CDD	LBRX	LT6700IDCB-2	LCCR	LT6400CUD-14	LCHB	LT35055EDD	LCLX	LTC6404IUD-2
LBF5	LTC2621IDD	LBN2	LTC3548IDD	LBSQ	LT42482IDD	LBRX	LT6700CDD-3	LCCR	LT6400IUD-14	LCHC	LT35055IDD	LCLY	LTC6404CUD-4
LBFZ	LTC4257CDD-1	LBN3	LTC3204EDC-5	LBSR	LTC2483CDD	LBRX	LT6700HDCB-3	LCCS	LTC6400CUD-20	LCHD	LT3505EDCB	LCLY	LTC6404HDD-4
LBFZ	LTC4257IDD	LBN4	LTC3409EDD	LBSR	LTC2483IDD	LBRX	LT6700IDCB-3	LCCS	LT6400IUD-20	LCHF	LT3505IDCB	LCLY	LTC6404IUD-4
LBGG	LT3472EDD	LBN5	LTC3409IDD	LBS8	LTC2484CDD	LBRX	LT6700IDCB-3	LCCD	LT6400IUD-20A	LCHG	LT6400CUD-20A	LCLZ	LTC6404CUD-1M4
LBGD	LT5534ES6C	LBN6	LTC2053CDD-SYNC	LBS8	LTC2484IDD	LBRX	LT6700IDCB-1	LCCD	LT6400CUD-20E	LCHG	LT6659IUD	LCLZ	LTC6404IUD-1M4
LBGJ	LTC6701IDC-1	LBN7	LTC2053HDD-SYNC	LBS9	LTC2485CDD	LBYB	LTC6908CDD-2	LCCV	LT6400CUD-20F	LCHH	LTC659HVCD	LCLZ	LTC3559EUD
LBGJ	LTC6701IDC-1	LBN8	LTC2053IDD-SYNC	LBS9	LTC2485IDD	LBYB	LTC6908IDCB-2	LCCX	LTC6400CUD-26	LCHH	LT6559HVUD	LCMD	LTC2857CDD-1
LBGK	LTC6701IDC-2	LBN9	LTC3772EDDB	LBSY	LTC3427EDC	LBYG	LTC3489EDD	LCCX	LT6400IUD-26	LCHJ	LTC3491EDC	LCMD	LTC2857HDD-1
LBGK	LTC6701IDC-2	LBN0	LT1993CUD-4	LBSZ	LTC2951CDDB-1	LBYH	LT3020IDD	LCCY	LT66401IUD-8	LCHM	LT66401CUD-8	LCMD	LTC2857IDD-1
LBGM	LTC6701IDC-3	LBN1	LT1993IUD-4	LBTB	LTC2951IDDB-1	LBYJ	LT3020IDD-1.2	LCCY	LT66401IUD-8	LCHM	LT3014BIDD	LCMG	LTC2856CDD-1
LBGM	LTC6701IDC-3	LBN2	LT1993CUD-10	LBDT	LTC2951CDDB-2	LBYK	LT3020IDD-1.5	LCCZ	LT66401IUD-14	LCHP	LT3014BHVDD	LCMG	LTC2856HDD-1
LBGN	LT4413EDD	LBN3	LT1993IUD-10	LBDT	LTC2951IDDB-2	LBYM	LT3020IDD-1.8	LCCZ	LT66401IUD-14	LCHP	LT3014BHVDD	LCMG	LTC2856IDD-1
LBGY	LTC4002EDD-8.4	LBN4	LT3483ESC6	LBTG	LTC3525ESC6-3.3	LBY5	LT16348CDD-1.25	LCCB	LT66401CUD-20	LCHQ	LTC3541EDD-2	LCMJ	LTC2856CDD-2
LBGZ	LTC4354CDDB-1	LBNX	LTC2859CDD	LBTG	LT14400CDD	LBY5	LT16348IDD-1.25	LCCD	LT66401IUD-20	LCHR	LT3541EDD-3	LCMJ	LTC2856HDD-2
LBHB	LTC4354CDDB-2	LBNX	LTC2859IDD	LBTG	LT14400IDD	LBYT	LT6660HCDD-5	LCCD	LT6400CUD-20S	LCHS	LTC3218EDDB	LCMJ	LTC2856IDD-2
LBHC	LT6013ACDD	LBNY	LT3484ESC6-1	LBTG	LT3485EDD-3	LBYT	LT6660JCDD-5	LCCD	LT6401CUD-20E	LCHT	LTC3872EDDB	LCMM	LTC2857CDD-2
LBHC	LT6013AIDD	LBNZ	LT3484ESC6-2	LBTM	LT3484EDCB-0	LBYT	LT6660KCDD-5	LCCD	LT6401CUD-20F	LCHV	LTC3410ESC6-1.2	LCMM	LTC2857HDD-2
LBHC	LT6013CDD	LBP0	LT1996ACDD	LBTN	LT3484EDCB-1	LBYV	LT6660HCDD-3	LCCG	LT6401CUD-20G	LCHW	LTC3526EDC	LCMM	LTC2857IDD-2
LBHC	LT6013IDD	LBP0	LT1996AIDD	LBTQ	LT3484EDCB-2	LBYV	LT6660JCDD-3	LCCG	LT66401IUD-26	LCHX	LT3210EUD-2	LCMR	LTC2858CDD-2
LBHG	LTC4300A-3CDD	LBP1	LT1996CDD	LBTQ	LTC3217EUD	LBYV	LT6660KCDD-3	LCCD	LT6410CUD-15	LCHY	LTC3210EUD-3	LCMR	LTC2858HDD-2
LBHG	LTC4300A-3IDD	LBP2	LT1996IDD	LBTQ	LTC4308CDD	LBYW	LT6660HCDD-3.3	LCCD	LT6410IUD-15	LCHZ	LTC3410BESC6-1.875	LCMR	LTC2858IDD-2
LBJH	LTC5535EDC	LBP3	LTC6241CDD	LBTQ	LT4308IDD	LBYW	LT6660JCDD-3.3	LCCD	LTC3548EDD-2	LCHZ	LTC3410BESC6-1.875	LCMS	LTC3822EDD-1
LBJH	LTC5535ES6	LBP4	LT66241IDD	LBTW	LTC4307CDD	LBYW	LT6660KCDD-3.3	LCCD	LT6000CDD	LCHJ	LTC3407EDD-3	LCMV	LTC3502AEDDB
LBJH	LT3471EDD	LBP5	LTC4065EDC	LBTW	LTC4307IDD	LBYX	LT6660HCDD-10	LCCD	LT6000IDCB	LCHJ	LTC3407EDD-4	LCMV	LT3502AIDDB
LBHS	LTC4301LCDD	LBP6	LT3470EDDB	LBV8	LTC3531IDD	LBYX	LT6660JCDD-10	LCCD	LT66401IUD-8	LCJF	LTC3410ESC6-1.65	LCMW	LTC3502EDDB
LBHS	LTC4301LIDD	LBP7	LT3470IDDB	LBV8	LT3531EDD	LBYX	LT6660KCDD-10	LCCD	LT66401IUD-8	LCJG	LTC2954CDD-1	LCMW	LT3502IDDB
LBHV	LTC4213CDD	LBP8	LTC2616CDD	LBFV	LTC32048EDC-3.3	LBYZ	LT16348CDD-4.096	LCCD	LT66401IUD-8	LCJG	LTC2954IDDB-1	LCMX	LTC3410BESC6-1.2
LBHV	LTC4213IDD	LBP9	LTC2616IDD	LBGV	LTC32048EDC-5	LBYZ	LT16348IDD-5	LCCD	LT66401IUD-8	LCJH	LTC3561EDD	LCMY	LTC3410BESC6-1.5
LBHW	LTC3026EDD	LBP0	LTC2616CDD-1	LBVH	LT6001CDD	LBYZ	LT16348IDD-5	LCCD	LT66401IUD-26	LCJM	LTC3805EDD	LCMZ	LTC3410BESC6-1.8
LBHX	LTC4063EDD	LBP1	LTC2616IDD-1	LBVH	LT6001IDD	LBZB	LTC4067EDD	LCCD	LT6410CUD-15	LCJP	LTC6081CDD	LCNB	LTC3410ESC6-1.5
LBHZ	LTC4068EDD-4.2	LBP2	LTC2626CDD	LBVH	LTC4065AEDC	LBZC	LTC3548EDD-1	LCCD	LT6410IUD-15	LCJP	LTC6081IDD	LCNC	LTC3410ESC6-1.8
LBJF	LT1995CDD	LBP3	LTC2626IDD	LBVH	LT3485EDD-1	LBZH	LTC2601CDD-1	LCCD	LT6410IUD-15	LCJQ	LT5570IDD	LCND	LT3539EDD-1
LBJF	LT1995IDD	LBP4	LTC2626CDD-1	LBVN	LT3485EDD-2	LBZJ	LTC2601IDD-1	LCCD	LT6410IUD-15	LCJV	LTC3219EUD	LCNF	LTC4311CSC6
LBJG	LT1993CUD-2	LBP5	LTC2626IDD-1	LBVQ	LTC3214EDD	LBZJ	LT62611CDD-1	LCCD	LT6410IUD-15	LCJZ	LTC2912CDD-1	LCNF	LTC4311IS06
LBJG	LT1993IUD-2	LBP6	LTC2481CDD	LBVV	LTC2490CDD	LBZJ	LTC2611IDD-1	LCCD	LT6410IUD-15	LCJZ	LTC2912HDDB-1	LCOG	LTC4311IDC
LBJH	LTC4059AEDC	LBP7	LTC2481IDD	LBVR	LTC2490CDD	LBZK	LTC2621CDD-1	LCCD	LT6410IUD-15	LCJZ	LTC3499BEDD	LCOG	LTC4311HDD
LBJJ	LT3473EDD	LBP8	LTC3215EDD	LBVS	LT3481EDD	LBZK	LTC2621IDD-1	LCCD	LT6410IUD-15	LCJZ	LT3482EUD	LCOG	LTC2912CDD-2
LBJK	LT3463AEDD	LBP9	LTC4303CDD	LBVV	LT3481IDD	LBZK	LTC2621IDD-1	LCCD	LT6410IUD-15	LCJZ	LT3482EUD	LCOG	LTC2912CDD-2
LBJR	LT5537EDDB	LBP0	LTC4303IDD	LBVV	LT1460KCDDC-2.5	LBZS	LT1460KCDDC-2.5	LCCD	LT6410IUD-15	LCK8	LTC2912HDDB-2	LCNJ	LTC2954IDDB-2
LBS5	LTC4061EDD	LBP1	LTC4068XEDD-4.2	LBVZ	LTC3444EDD	LBZS	LTC2909HDDB-3.3	LCCD	LT6410IUD-15	LCK8	LTC2912HDDB-2	LCNM	LTC2954IDDB-2
LBJT	LTC4062EDD	LBP2	LTC4053EDD-4.2	LBWC	LT4076EDD	LBZS	LTC2909IDDB-3.3	LCFK	LT6410IUD-15	LCK9	LTC3872EDDB-1	LCNN	LTC3526BEDC-2
LBJV	LTC3204EDC-3.3	LBP3	LTC2927CDD	LBDW	LT4077EDD	LBZT	LTC2909CDD-5	LCFM	LTC3872EDDB-1	LCK9	LTC3872EDDB-1	LCNN	LTC3526BEDC-2
LBJV	LT3420EDD	LBP4	LTC2927IDD	LBDW	LT3493AEDCB	LBZT	LTC2909HDD-5	LCOG	LTC3872EDDB-2	LCK0	LTC3410ESC6-1.875	LCNR	LT3470HDD
LBJX	LT3420EDD-1	LBP5	LTC3203EDD	LBDW	LT3493AEDCB	LBZT	LTC2909HDD-5	LCOG	LTC3872EDDB-2	LCK0	LTC3410ESC6-1.875	LCNV	LTC2491CDD
		LBP6	LTC3203EDD	LBDW	LT3493AEDCB	LBZT	LTC2909HDD-5	LCOG	LTC3872EDDB-2	LCKF	LT6003CDD	LCNV	LTC2491IDC



# TOP MARKINGS (TOP MARK TO PART NUMBER)

LTAJ	LTAJN	LTAJN	LTC2903CS6-B1	LTBGS	LTC1403AIMSE-1	LTBNF	LTC2950ITS8-2	LTBSX	LTC6101HVAHMS8	LTBZU	LTC2909ITS8-5	LTCJN	LTC6081CMS8
LTAJ	LTAJQ	LTAJQ	LTC2903IS6-B1	LTBT	LTC1407CMSE-1	LTBNH	LTC3548EMSE	LTBSX	LTC6101HVAIMS8	LTC1	LT6550IMS	LTCJN	LTC6081HMS8
LTAJ	LTAJQ	LTAJQ	LTC2903CS6-C1	LTBTV	LTC1407AIMSE-1	LTBNH	LTC3548IMSE	LTBSZ	LTC6101HVACSS5	LTC2	LT6551CMS	LTCJN	LTC6081IMS8
LTAJ	LTAJR	LTAJR	LTC2903IS6-C1	LTBVG	LTC1407ACMSE-1	LTBNP	LTC2053CMS8-SYNC	LTBSZ	LTC6101HVAH55	LTC2216UP	LTC2216CUP	LTCJR	LTC3404IMS8
LTAJ	LTAJT	LTAJT	LTC3426ES6	LTBGX	LTC1407AIMSE-1	LTBNP	LTC2053HMS8-SYNC	LTBSZ	LTC6101HVAIS5	LTC2216UP	LTC2216IUP	LTCJS	LTC3803ES6-3
LTAJ	LTAJU	LTAJU	LT1937CES5	LTBHG	LT1394CMS8	LTBNP	LTC2053IMS8-SYNC	LTBSZ	LTC6101HVBCCS5	LTC2217UP	LTC2217CUP	LTCJT	LTC3803IS6-3
LTAJ	LTAJZ	LTAJZ	LTC6078ACMS8	LTBHD	LTC4300A-3CMS8	LTBNQ	LTC3772ETS8	LTBSZ	LTC6101HVBHS5	LTC2217UP	LTC2217IUP	LTCJW	LTC2912CTS8-1
LTAJ	LTAJZ	LTAJZ	LTC6078AHMS8	LTBHF	LTC4300A-3IMS8	LTBNN	LT1946EMS8E	LTBSZ	LTC6101HVBIS5	LTC3	LT6551IMS	LTCJW	LTC2912HTS8-1
LTAJ	LTAJZ	LTAJZ	LTC6078AIMS8	LTBHQ	LTC4301L1CMS8	LTBPP	LT1996ACMS	LTBSZ	LTC6101HVCCS5	LTC4	LTC3406ES5-1.8	LTCJW	LTC2912ITS8-1
LTAJ	LTAJZ	LTAJZ	LTC6078CMS8	LTBHQ	LTC4301L1MS8	LTBPP	LT1996AIMS	LTBSZ	LTC6101HVCCS5	LTC5	LTC4212CMS	LTCJX	LTC2912CTS8-2
LTAJ	LTAJZ	LTAJZ	LTC6078HMS8	LTBHR	LTC4412HVIS6	LTBPP	LT1996CMS	LTBSZ	LTC6101HVCS55	LTC6	LTC4212IMS	LTCJX	LTC2912HTS8-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBHT	LT1615IS5-1	LTBPP	LT1996IMS	LTBT	LT1351CMS8	LTC7	LTC1864LACMS8	LTCJX	LTC2912ITS8-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LT1394IMS8	LTBPP	LTC3803ES6-5	LTBTC	LTC2951CTS8-1	LTC7	LTC1864LAIMS8	LTCJX	LTC2912CTS8-3
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC3026EMSE	LTBPH	LTC6905CS5-80	LTBTC	LTC2951HTS8-1	LTC7	LTC1864LCMS8	LTCJY	LTC2912HTS8-3
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC6905ACS5	LTBPH	LTC6905HS5-80	LTBT	LTC2951CTS8-2	LTC7	LTC1864LCMS8	LTCJY	LTC2912ITS8-3
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC3251EMSE	LTBPH	LTC6905IS5-80	LTBT	LTC2951ITS8-2	LTC7	LTC1482CMS8	LTCB	LTC1659CMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC6905AIS5	LTBPH	LTC6905CS5-96	LTBTJ	LTC3485EMSE-3	LTC7	LTC3822EMSE	LTCB	LTC1659IMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC6905CS5	LTBPH	LTC6905HS5-96	LTBTJ	LTC1871IMS-7	LTCB	LTC3530EMS	LTCB	LTC6003CS5
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC6905HS5	LTBPH	LTC6905IS5-96	LTBTR	LTC4308CMS8	LTCB	LTC3531ES6-3	LTCB	LT6003HS5
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC6905IS5	LTBPK	LTC6905CS5-100	LTBTS	LTC4308IMS8	LTCB	LTC3080EMS8E	LTCB	LT6003IS5
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1772IS6	LTBPK	LTC6905HS5-100	LBTBV	LTC4307CMS8	LTCB	LTC3531IS6-3	LTCB	LTC6102CMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LT6550CMS	LTBPK	LTC6905IS5-100	LBTBV	LTC4307IMS8	LTCB	LTC6004CMS8	LTCB	LTC6102HMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1326CMS8	LTBPM	LTC6905CS5-133	LBTBX	LTC6907CS6	LTCB	LTC6004HMS8	LTCB	LTC6102IMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LT1490CMS8	LTBPM	LTC6905HS5-133	LBTBX	LTC6907HS6	LTCB	LTC6004HMS8	LTCB	LTC2913CMS-1
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC4304CMS	LTBPM	LTC6905IS5-133	LBTBX	LTC6907IS6	LTC	LTC1482IMS8	LTC	LTC2913HMS-1
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC4304IMS	LTBPW	LTC3470ITS8	LBTBY	LTC3531IS6	LTC	LTC4356CMS	LTC	LTC2913IMS-1
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC4354CTS8	LTBPY	LTC4303CMS8	LBTBT	LTC3531ES6	LTC	LTC4356HMS	LTC	LTC2913CMS-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LT6211CMS	LTBPY	LTC4303IMS8	LTBV	LTC1536CMS8	LTC	LTC4356IMS	LTC	LTC2913CMS-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LT6211IMS	LTBQ	LTC1426CMS8	LTBVD	LT6001CMS8	LTC	LTC3624CMS8	LTC	LTC2913IMS-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC5531ES6	LTBQ	LT3750EMS	LTBVD	LT6001IMS8	LTC	LTC6244HMS8	LTC	LTC1636CMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LT3462ES6	LTBQ	LTC4414EM8	LTBVK	LTC3485EMSE-1	LTC	LTC6244IMS8	LTCL	LTC1636IMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC4301CMS8	LTBQ	LTC4414IMS8	LTBVM	LTC3485EMSE-2	LTC	LT3163CMS8	LTC	LTC3010HMS8E
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC4301IMS8	LTBQ	LTC2927CTS8	LTBVT	LTC3481EMSE	LTC	LT6000CS6	LTC	LTC3010HMS8E-5
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LT1620CMS8	LTBQ	LTC2927CTS8	LTBVV	LTC3481IMS	LTC	LT6000IS6	LTC	LTC302ET8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC3467AES6	LTBQ	LT2950ITS8-1	LTBVX	LTC4412CMS8	LTC	LT1761ES5-1.2	LTC	LTC3502ITS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC6911HMS-1	LTBQ	LT1994CMS8	LTBVX	LTC1474CMS8	LTC	LTC2641ACMS8	LTC	LTC3502AETS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC6911HMS-2	LTBK	LT1994IMS8	LTBW	LTC1474IMS8	LTC	LTC2641AIMS8	LTC	LTC3502AITS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LT3468ES5-2	LTBK	LTC3803HS6	LTBW	LTC1936HMS8E	LTC	LTC2641BCMS8	LTC	LTC1199LCMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2904CTS8	LTBK	LTC4216CMS	LTBWB	LTC3493AES6	LTC	LTC2641BCMS8	LTC	LTC2857CMS8-1
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2904IMS8	LTBK	LTC6905CMS8	LTBW	LTC3531IS6-3.3	LTC	LTC2642ACMS	LTC	LTC2857HMS8-1
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2906CTS8	LTBK	LTC6905HMS8	LTBWM	LTC3531ES6-3.3	LTC	LTC2642AIMS8	LTC	LTC2857IMS8-1
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2906IMS8	LTBK	LTC6905IMS8	LTBWN	LTC3772BETS8	LTC	LTC2642BCMS	LTC	LTC2856CMS8-1
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2907CTS8	LTBK	LT3483ES6	LTBWX	LTC3448EMS8E-1.5	LTC	LTC2642BIMS	LTC	LTC2856HMS8-1
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2907IMS8	LTBK	LTC3483IS6	LTBWY	LTC3448EMS8E-1.8	LTC	LTC15400CMS8	LTC	LTC2856IMS8-1
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2055CMS8	LTL	LTC1197LCMS8	LTBX	LTC14400CMS8	LTC	LTC1258CMS8-2.5	LTC	LTC2856CMS8-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2055HMS8	LTL	LTC13400CMS8	LTBX	LTC14400IMS8	LTC	LTC3499BEMS8	LTC	LTC2856HMS8-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2055IMS8	LTL	LT3027IMS	LTBXC	LT3487EMSE	LTC	LT4416EMS	LTC	LTC2856IMS8-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2055HVCMS8	LTL	LT3014ES5	LTBXC	LTC2909CTS8-2.5	LTC	LT4416IMS	LTC	LTC2857CMS8-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2055HVMMS8	LTL	LT3014IS5	LTBXF	LTC2909HTS8-2.5	LTC	LT3003EMSE	LTC	LTC2857HMS8-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2055HVIMS8	LTL	LTC3803HS6-5	LTBXF	LTC2909HTS8-2.5	LTC	LTC3872ETS8-1	LTC	LTC2857IMS8-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LT3470ETS8	LTL	LTC3448EMS8E	LTBXF	LTC1772BHS6	LTC	LTC3872ETS8-2	LTC	LTC6103CMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1403CMSE	LTL	LTC3407EMSE-1	LTBX	LTC1706EMS-63	LTC	LTC2908CTS8-C1	LTC	LTC6103HMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1403HMS	LTL	LTC3406ES5-1.2	LTBX	LTC651BS6-5	LTC	LTC2908ITS8-C1	LTC	LTC6103IMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1403IMS	LTL	LTC3406ES5-1.2	LTBX	LTC661BS6-5	LTC	LTC6908CS6-1	LTC	LTC6104CMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1407CMSE	LTL	LTC3429BES6	LTBXC	LTC6908HS6-1	LTC	LTC3560ES6	LTC	LTC6104HMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1407IMS	LTL	LT1936EMS8E	LTBXC	LTC6908IS6-1	LTC	LTC1522CMS8	LTC	LTC6104IMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC3407EMSE-2	LTL	LT6100CMS8	LTBXD	LTC6908CS6-2	LTC	LT6011CMS8	LTC	LTC2858CMS-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LT6100HMS8	LTL	LT6100HMS8	LTBXD	LTC6908HS6-2	LTC	LT6011IMS8	LTC	LTC2858HMS-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1541CMS8	LTL	LTC3499EM8	LTBXD	LTC6908IS6-2	LTC	LTC6244HVCMS8	LTC	LTC2858IMS-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1871IMS	LTL	LTC2903CS6-D1	LTBXF	LTC3489EMS8E	LTC	LTC6244HVHMS8	LTC	LTC3561EMS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2908CTS8-A1	LTL	LTC2903IS6-D1	LTBXF	LTC3020IMS8	LTC	LTC6244HVIMS8	LTC	LTC2954CTS8-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2908ITS8-A1	LTL	LTC2903CS6-E1	LTBYP	LTC3020IMS8-1.5	LTC	LTC2858CMS-1	LTC	LTC2954ITS8-2
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2908CTS8-B1	LTL	LTC2903IS6-E1	LTBYP	LTC3020IMS8-1.2	LTC	LTC2858HMS-1	LTC	LTC3470HTS8
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2908ITS8-B1	LTL	LTC3803IS6	LTYB	LTC3020IMS8-1.8	LTC	LTC2858IMS-1	LTC	LT4356CMS-1
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2611CMS	LTL	LTC6101ACS5	LTYB	LTC3548EMSE-1	LTC	LTC3824IMS	LTC	LT4356HMS-1
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2611IMS	LTL	LTC6101AHS5	LTYB	LT1931IS5	LTC	LTC1931IS5	LTC	LT4356IMS-1
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2621CMS	LTL	LTC6101AIS5	LTYB	LT1931AIS5	LTC	LT1931AIS5	LTC	LT3505EMS8E
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC2621IMS	LTL	LTC6101BCS5	LTYB	LTC3824EMSE	LTC	LTC3600EMS-1	LTC	LT3505IMS8E
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LT4430ES6	LTL	LTC6101BHS5	LTYB	LTC6101ACMS8	LTC	LTC3600EMS-2	LTC	LT1475CMS8-3.3
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1328CMS8	LTL	LTC6101BIS5	LTYB	LTC6101AHS8	LTC	LTC2909CTS8-3.3	LTC	LTC4066ES6
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC6078HMS8	LTL	LTC6101CCS5	LTYB	LTC6101AIMS8	LTC	LTC2909HTS8-3.3	LTC	LTC4210-3CS6
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1403CMSE-1	LTL	LTC6101CHS5	LTYB	LTC3725EMSE	LTC	LTC2909ITS8-3.3	LTC	LTC4210-3IS6
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1403IMS-1	LTL	LTC6101CIS5	LTYB	LTC3725IMS	LTC	LTC2909CTS8-5	LTC	LTC4210-4CS6
LTAJ	LTAJZ	LTAJZ	LTC6078IMS8	LTBJ	LTC1403ACMSE-1	LTL	LTC2950CTS8-2	LTYB	LTC6101HVACMS8	LTC	LTC2909HTS8-5	LTC	LTC4210-4IS6

Amps, Refs., Filters, Comps  
Power Management  
Data Conversion  
Interface  
High Frequency  
Reference Material  
**TOP MARKINGS**



TOP MARKINGS (TOP MARK TO PART NUMBER)

Amps, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

Reference Material

TOP MARKINGS

LTCPS	LTC4416EMS-1	LTCVM	LTC6652AHMS8-3.3	LTD3	LTC1860LIMS8	LTDHF	LTC2631ACTS8-LM12	LTDHZ	LTC2640ITS8-LM10	LTDOP	LT3085EMS8E	LTGE	LT1761ES5-3
LTCPS	LTC4416IMS-1	LTCVM	LTC6652BHMS8-3.3	LTD4	LTC1861LCMS	LTDHF	LTC2631AHTS8-LM12	LTDJB	LTC2640CTS8-LZ10	LTDS	LT1720CMS8	LTGF	LT1761ES5-3.3
LTCQ	LTC1475CMS8-5	LTCVN	LTC6652AHMS8-4.096	LTD5	LTC1861LIMS	LTDHF	LTC2631AITS8-LM12	LTDJB	LTC2640HTS8-LZ10	LTDSX	LT3008ETS8	LTGG	LT1761ES5-5
LTCQD	LTC2850CMS8	LTCVN	LTC6652BHMS8-4.096	LTD6	LTC3406EBS5-1.5	LTDHF	LTC2631CTS8-LM12	LTDJC	LTC2640ITS8-LZ10	LTDSX	LT3008ITS8	LTGH	LT1761ES5-SD
LTCQD	LTC2850HMS8	LTCVP	LTC6652AHMS8-5	LTD7	LTC2920-1CS5	LTDHF	LTC2631HTS8-LM12	LTDJC	LTC2640CTS8-HM10	LTDT	LT1610CMS8	LTGJ	LT1754IS6-5
LTCQD	LTC2850IMS8	LTCVFP	LTC6652BHMS8-5	LTD8	LTC2920-1IS5	LTDHF	LTC2631HTS8-LM12	LTDJC	LTC2640HTS8-HM10	LTDU	LT1521CMS8-3.3	LTGK	LT1754ES6-3.3
LTCQH	LTC4080EMSE	LTCVQ	LTC2915CTS8-1	LTD9	LTC1690CMS8	LTDHG	LTC2631ACTS8-LZ12	LTDJC	LTC2640ITS8-HM10	LTDV	LTC1661CMS8	LTGL	LT1754IS6-3.3
LTCQK	LTC3419EMS	LTCVQ	LTC2915HTS8-1	LTD0	LTC1622CMS8	LTDHG	LTC2631AHTS8-LZ12	LTDJD	LTC2640CTS8-HZ10	LTDW	LTC1661IMS8	LTGM	LT1787CMS8
LTCQP	LTC2917CMS-B1	LTCVQ	LTC2915ITS8-1	LTD0B	LTC3406ABES5-2	LTDHG	LTC2631HTS8-LZ12	LTDJD	LTC2640HTS8-HZ10	LTDX	LTC1484CMS8	LTGN	LT1787IMS8
LTCQP	LTC2917HMS-B1	LTCVS	LT3684EMSE	LTD0F	LTC4444EMS8E	LTDHG	LTC2631CTS8-LZ12	LTDJD	LTC2640ITS8-HZ10	LTDY	LT1396CMS8	LTGP	LT5504CMS8
LTCQP	LTC2917IMS-B1	LTCVSB	LT3684IMSE	LTD0F	LTC4444IMS8	LTDHG	LTC2631HTS8-LZ12	LTDJF	LTC2640CTS8-LM8	LTDL	LT3085CTS8-LM8	LTGR	LTC1550LCMS8-2
LTCQV	LTC6652ACMS8-2.5	LTCVWB	LTC4080XEMSE	LTD0B	LT6653BCMS8-2.5	LTDHG	LTC2631ITS8-LZ12	LTDJF	LTC2640HTS8-LM8	LTDE	LTC3406BES5	LTGS	LT1610IMS8
LTCQV	LTC6652AHMS8-2.5	LTCVX	LTC2355CMSE-12	LTD0B	LT6653BIMS8-2.5	LTDHH	LTC2631ACTS8-HM12	LTDJF	LTC2640ITS8-LM8	LTDE	LTC3406BES5-1.5	LTGT	LTC1682CMS8-3.3
LTCQV	LTC6652BCMS8-2.5	LTCVX	LTC2355IMSE-12	LTD0B	LTC2355CMS8-1	LTDHH	LTC2355IMSE-12	LTDJG	LTC2640CTS8-LZ8	LTDF	LTC3406BES5-1.8	LTGU	LTC1682IMS8-3.3
LTCQV	LTC6652BHMS8-2.5	LTCVY	LTC2355CMSE-14	LTD0B	LTC4307IMS8-1	LTDHH	LTC2355IMSE-14	LTDJG	LTC2640HTS8-LZ8	LTDF	LT1819IMS8	LTGV	LTC1682CMS8-5
LTCR	LTC1474CMS8-3.3	LTCVY	LTC2355IMSE-14	LTD0S	LT3593ES6	LTDHH	LTC2631CTS8-HM12	LTDJG	LTC2640ITS8-LZ8	LTDF	LTC1734LES6-4.2	LTGW	LTC1682IMS8-5
LTCRC	LT6653AHS6-1.25	LTCW	LTC1658CMS8	LTD0S	LTC2362CTS8	LTDHH	LTC2631HTS8-HM12	LTDJH	LTC2640CTS8-HM8	LTDF	LT1819CMS8	LTGX	LT1675CMS8-1
LTCRC	LT6653BHS6-1.25	LTCWB	LTC2480CMS	LTD0S	LTC2362HTS8	LTDHH	LTC2631ITS8-HM12	LTDJH	LTC2640HTS8-HM8	LTDF	LTC1844ES5-SD	LTGY	LT1675IMS8-1
LTCRD	LT6653AHS6-2.048	LTCWB	LTC2480IMS	LTD0S	LTC2362ITS8	LTDHJ	LTC2631AHTS8-HZ12	LTDJH	LTC2640ITS8-HM8	LTDF	LTC1844ES5-BYP	LTGZ	LT1813DMS8
LTCRD	LT6653BHS6-2.048	LTCWF	LTC2851CMS8	LTD0S	LTC4081EMSE	LTDHJ	LTC2631AHTS8-HZ12	LTDJJ	LTC2640CTS8-HZ8	LTDF	LTC1693-3CMS8	LTH2	LT3465ES6
LTCRF	LT6653AHS6-2.5	LTCWF	LTC2851HMS8	LTD0S	LTC2365CTS8	LTDHJ	LTC2631AHTS8-HZ12	LTDJJ	LTC2640HTS8-HZ8	LTEC	LTC1502CMS8-3.3	LTH3	LT6206CMS8
LTCRF	LT6653BHS6-2.5	LTCWF	LTC2851IMS8	LTD0S	LTC2365HTS8	LTDHJ	LTC2631CTS8-HZ12	LTDJJ	LTC2640ITS8-HZ8	LTEC	LT1613CS5	LTH4	LT6206IMS8
LTCRG	LT6653AHS6-3	LTCWJ	LTC3406AES5	LTD0S	LTC2365ITS8	LTDHJ	LTC2631HTS8-HZ12	LTDJQ	LT1762MPMS8-5	LTEE	LTC1694CS5	LTH5	LTC3429ES6
LTCRG	LT6653BHS6-3	LTCWJ	LTC3406AIS5	LTD0S	LTC2365CS6	LTDHJ	LTC2365CMS-2	LTDJP	LTC2365CMS-2	LTEF	LT1517CS5-3.3	LTH6	LTC4257CMS8
LTCRH	LT6653AHS6-3.3	LTCWK	LT6106CS5	LTD0S	LTC2365H56	LTDHK	LTC2631CTS8-LM10	LTDJQ	LT4356IMS-2	LTGF	LTC1550LCMS8	LTH7	LTC4054ES5-4.2
LTCRH	LT6653BHS6-3.3	LTCWK	LT6106HS5	LTD0S	LTC2365IS6	LTDHK	LTC2631HTS8-LM10	LTDJQ	LTC4356IMS-2	LTEH	LT1550LCMS8-4.1	LTH8	LT1460HCS3-2.5
LTCRJ	LT6653AHS6-4.096	LTCWK	LT6106IS5	LTD0G	LTC2453CTS8	LTDHK	LTC2631ITS8-LM10	LTDJS	LT1912EMSE	LTEK	LTC1326CMS8-2.5	LTH8	LT1460JCS3-2.5
LTCRJ	LT6653BHS6-4.096	LTCWN	LTC2356CMSE-12	LTD0G	LTC2453ITS8	LTDHM	LTC2631CTS8-LZ10	LTDK	LT1634BCMS8-5	LTEL	LTC1258CMS8	LTH8	LT1460KCS3-2.5
LTCRK	LT6653AHS6-5	LTCWN	LTC2356IMSE-12	LTD0H	LT1761MPSS-1.8	LTDHM	LTC2631HTS8-LZ10	LTDKK	LT5581IMS8	LTEM	LTC1258CMS8-5	LTH9	LT1460HCS3-3
LTCRK	LT6653BHS6-5	LTCWX	LTC3419EMS-1	LTD0H	LTC3580EMS8E	LTDHM	LTC2631ITS8-LZ10	LTDKN	LTC6405CMS8E	LTEN	LTC1258CMS8-4.1	LTH9	LT1460JCS3-3
LTCRP	LT1807HMS8	LTCWY	LTC4151CMS	LTD0H	LT3580IMS8E	LTDHN	LTC2631CTS8-HM10	LTDKN	LTC6405IMS8E	LTEP	LTC1663CS5	LTH9	LT1460KCS3-3
LTCRR	LTC6240CS5	LTCWY	LTC4151IMS	LTD0C	LT3592EMSE	LTDHN	LTC2631HTS8-HM10	LTDKR	LTC2934CTS8-1	LTEP	LTC1663ES5	LTHA	LT1317CMS8
LTCRR	LTC6240HS5	LTCX	LT1517CS5-5	LTD0C	LT3592IMSE	LTDHN	LTC2631ITS8-HM10	LTDKR	LTC2934ITS8-1	LTEQ	LTC1663CMS8	LTHB	LT1317BCMS8
LTCRR	LT6240IS5	LTCXB	LTC4151CMS-1	LTD0T	LTC2918CMS-B1	LTDHP	LTC2631CTS8-HZ10	LTDKS	LTC2934CTS8-2	LTER	LTC1682CMS8	LTHC	LT1619EMS8
LTCRS	LTC6240HVCSS5	LTCXB	LTC4151IMS-1	LTD0T	LTC2918HMS-B1	LTDHP	LTC2631HTS8-HZ10	LTDKS	LTC2934ITS8-2	LTER	LT1611CS5	LTHD	LT1734ES6-4.1
LTCRS	LTC6240HVMS5	LTCXD	LTC4357CMS8	LTD0T	LTC2918IMS-B1	LTDHP	LTC2631HTS8-HZ10	LTDKX	LT1965EMS8E-1.5	LTES	LTC1258CMS8-3	LTHE	LT1619A-1CS5
LTCRS	LTC6240HVS5	LTCXD	LTC4357IMS8	LTD0W	LTC2916CTS8-1	LTDHQ	LTC2631CTS8-LM8	LTDKX	LT1965IMS8E-1.5	LTEZ	LT1521CMS8	LTHF	LT1762EMS8
LTCRX	LTC2852CMS	LTCXG	LTC3404MPMS8	LTD0W	LTC2916HTS8-1	LTDHQ	LTC2631HTS8-LM8	LTDKZ	LT1965EMS8E-1.8	LTFF	LT1611CMS8	LTHG	LT1762EMS8-2.5
LTCRX	LTC2852HMS	LTCXK	LTC2366CS6	LTD0W	LTC2916ITS8-1	LTDHQ	LTC2631HTS8-LM8	LTDKZ	LT1965IMS8E-1.8	LTFF	LTC1844ES5-1.8	LTHH	LT1762EMS8-3
LTCRX	LTC2852IMS	LTCXK	LTC2366H56	LTD0J	LTC3407AEMSE-2	LTDHR	LTC2631CTS8-LZ8	LTDMC	LT1965EMS8E-2.5	LTFF	LTC1844ES5-2.5	LTHJ	LT1762EMS8-3.3
LTCRZ	LTC3407AEMSE	LTCXK	LTC2366IS6	LTD0J	LTC3407AIMSE-2	LTDHR	LTC2631HTS8-LZ8	LTDMC	LT1965IMS8E-2.5	LTFF	LTC1844ES5-3.3	LTHK	LT1762EMS8-5
LTCS	LTC1474CMS8-5	LTCXR	LTC4442EMS8E-1	LTD0Q	LT1933HS6	LTDHS	LTC2631ITS8-LZ8	LTDMP	LT1965EMS8E-3.3	LTFF	LTC4210-1IS6	LTHL	LTC1502IMS8-3.3
LTCSN	LTC3873ETS8	LTCXR	LTC4442IMS8E-1	LTD0Q	LTC1542CMS8	LTDHS	LTC2631CTS8-HM8	LTDMP	LT1965IMS8E-3.3	LTFF	LTC4210-2IS6	LTHM	LTC1682IMS8
LTCSN	LTC3873ETS8-5	LTCXS	LT1871HMS	LTD0Q	LT1634BCMS8-2.5	LTDHS	LTC2631HTS8-HM8	LTDMP	LT1634BCMS8-2.5	LTFF	LT1818CS5	LTHN	LT1503CMS8-2
LTCT	LT1671CMS8	LTCXX	LT1965EMS8E	LTD0Q	LTC3693EMSE	LTDHS	LTC2631ITS8-HM8	LTDMP	LT16703HVS5-2	LTFF	LT1818IS5	LTHQ	LTC1864ACMS8
LTCTB	LTC6406CMS8E	LTCXX	LT1965IMSE	LTD0Q	LT3693IMSE	LTDHT	LTC2631CTS8-HM8	LTDMP	LT16703HVS5-2	LTFF	LT1934ES6-1	LTHQ	LTC1864AHMS8
LTCTB	LTC6406IMS8E	LTCXZ	LTC3406ABES5	LTD0Q	LTC2917CMS-A1	LTDHT	LTC2631HTS8-HZ8	LTDMP	LT16703HVS5-3	LTFF	LTC4440EMSE8E	LTHQ	LTC1864AIMS8
LTCTD	LT6105CMS8	LTCY	LT1638CMS8	LTD0Q	LTC2917HMS-A1	LTDHT	LTC2631ITS8-HZ8	LTDMP	LT16703HVS5-3	LTFF	LT1521CMS8-5	LTHQ	LTC1864CMS8
LTCTD	LT6105HMS8	LTCY	LT1638IMS8	LTD0Q	LT6105IMS8	LTDHV	LTC2640ACTS8-LM12	LTDMP	LT16703HVS5-3	LTFF	LT1521CMS8-3	LTHQ	LTC1864HMS8
LTCTD	LT6105IMS8	LTCYF	LT3685EMSE	LTD0Q	LTC2916IMS-A1	LTDHV	LTC2640HTS8-LM12	LTDMP	LTC2919CMS-3.3	LTFF	LT1494CMS8	LTHQ	LTC1864IMS8
LTCTJ	LTC4442EMS8E	LTCYF	LT3685IMSE	LTD0G	LTC2918HMS-A1	LTDHV	LTC2640AITS8-LM12	LTDMT	LTC2919HMS-3.3	LTFF	LT1494IMS8	LTHS	LTC1865ACMS
LTCTJ	LTC4442IMS8E	LTCYM	LT3680EMSE	LTD0G	LTC2918IMS-A1	LTDHV	LTC2640CTS8-LM12	LTDMT	LTC2919IMS-3.3	LTFF	LT1672CMS8	LTHS	LTC1865AIMS
LTCTK	LTC4442HMS8E	LTCYM	LT3680IMSE	LTD0G	LTC2360CTS8	LTDHV	LTC2640HTS8-LM12	LTDMT	LTC2919CMS-5	LTFF	LT1672IMS8	LTHS	LTC1865AIMS
LTCTM	LT3480EMSE	LTCYS	LTC3565EMSE	LTD0G	LTC2360HTS8	LTDHV	LTC2640ITS8-LM12	LTDMV	LTC2919CMS-5	LTFL	LTC1199CMS8	LTHS	LTC1865CMS
LTCTM	LT3480IMS	LTCYZ	LTC2366CTS8	LTD0G	LTC2360ITS8	LTDHW	LTC2640ACTS8-LZ12	LTDMV	LTC2919IMS-5	LTFL	LTC1261LCMS8	LTHS	LTC1865HMS
LTCTN	LT3480HMS	LTCYZ	LTC2366HTS8	LTD0G	LTC2366CS6	LTDHW	LTC2640ACTS8-LZ12	LTDMY	LTC4310CMS	LTFF	LTC1261LCMS8-4	LTHS	LTC1865IMS
LTCTV	LTC1871EMS-1	LTCYZ	LTC2366ITS8	LTD0G	LTC2366H56	LTDHW	LTC2640AITS8-LZ12	LTDMY	LTC4310IMS	LTFF	LTC1261LCMS8-4.5	LTHU	LTC1647-1CMS8
LTCTV	LTC1871IMS-1	LTCZQ	LTC2641CMS8-12	LTD0G	LTC2360IS6	LTDHW	LTC2640CTS8-LZ12	LTDN	LT1389BCMS8-1.25	LTFF	LTC1551LCMS8	LTHV	LTC1647-2CMS8
LTCTY	LTC6087CMS8	LTCZQ	LTC2641IMS8-12	LTD0G	LTC2361CTS8	LTDHW	LTC2640HTS8-LZ12	LTDNG	LTC6084CMS8	LTFR	LT1551LCMS8-2	LTHW	LT1719CS6
LTCTY	LTC6087HMS8	LTCZR	LTC2641CMS8-14	LTD0G	LTC2361HTS8	LTDHW	LTC2640ITS8-LZ12	LTDNG	LTC6084HMS8	LTFB	LTC1551LCMS8-2.5	LTHX	LTC1727EMS8-5
LTCU	LT1671IMS8	LTCZR	LTC2641IMS8-14	LTD0G	LTC2361IMS8	LTDHX	LTC2640ACTS8-HM12	LTDNS	LTC2451CTS8	LTFF	LTC2451CTS8	LTHY	LTC1727EMS8-2.5
LTCV	LT1634BCMS8-1.25	LTCZS	LTC2641ACMS8-16	LTD0G	LTC2361CS6	LTDHX	LTC2640AHTS8-HM12	LTDNS	LTC2451ITS8	LTFF	LTC2451ITS8	LTHZ	LTC1728ES5-5
LTCVB	LTC6102HVCMS8	LTCZS	LTC2641AIMS8-16	LTD0G	LTC2361HS6	LTDHX	LTC2640AHTS8-HM12	LTDNV	LTC4224CMS-1	LTFF	LTC4224CMS-1	LTHZ	LTC1728ES5-5
LTCVB	LTC6102HVMS8	LTCZS	LTC2641IMS8-16	LTD0G	LTC2361IS6	LTDHX	LTC2640CTS8-HM12	LTDNV	LTC4224IMS-1	LTFF	LTC4224IMS-1	LTHZ	LTC1728ES5-5
LTCVD	LTC2355CMSE	LTCZS	LTC2641IMS8-12	LTD0G	LTC2362CS6	LTDHY	LTC2640HTS8-HM12	LTDPK	LTC2452CTS8	LTFF	LTC1503IMS8-1.8	LTHZ	LTC1307CMS8
LTCVD	LTC2355IMSE	LTCZX	LTC2642CMS8-16	LTD0G	LTC2362H56	LTDHY	LTC2640ITS8-HM12	LTDPK	LTC2452ITS8	LTFF	LTC1503CMS8	LTHZ	LT1614CMS8
LTCVF	LTC2356CMSE-14	LTCZX	LTC2642IMS-12	LTD0G	LTC2362IS6	LTDHY	LTC2640ACTS8-HZ12	LTDPN	LTC3080EMS8E-1	LTGG	LT3464ETS8	LTHZ	LT1637CMS8
LTCVF	LTC2356IMSE-14	LTCZY	LTC2642CMS-14	LTD0S	LTC2919CMS-2.5	LTDHY	LTC2640AHTS8-HZ12	LTDPV	LTC3481HMSE	LTGG	LTC1871EMS-7	LTHZ	LT1637IMS8
LTCVH	LTC6652AHMS8-1.25	LTCZZ	LTC2642IMS-14	LTD0S	LTC2919HMS-2.5	LTDHY	LTC2640CTS8-HZ12	LTDPW	LTC2935CTS8-1	LTGG	LTC4056ETS8-4.2	LTHZ	LT1637CMS8
LTCVH	LTC6652BHMS8-1.25	LTCZZ	LTC2642CMS-16	LTD0S	LTC2919IMS-2.5	LTDHY	LTC2640HTS8-HZ12	LTDPW	LTC2935ITS8-1	LTGG	LT6202CS5	LTHZ	LT1757-2EMS
LTCVJ	LTC6652AHMS8-2.048	LTCZZ	LTC2642IMS-16	LTD0S	LTC3805EMSE-5	LTDHY	LTC2640AHTS8-HZ12	LTDPY	LTC4444EMS8E-5	LTGG	LT6202IS5	LTHZ	LT1503CMS8
LTCVK	LTC6652AHMS8-3	LTCZZ	LTC2642CMS-16	LTD0S	LT6107WS5	LTDHY	LTC2640CTS8-LZ12	LTDQB	LTC4444IMS8E-5	LTHZ	LT6202IS5	LTHZ	LTC1758CMS
LTCVK	LTC6652BHMS8-3	LTD2	LTC1860LCMS8	LTD0S	LT1634BCMS8-4.096	LTDHZ	LTC2640HTS8-LM10	LTDQB	LTC2935CTS8-2	LTGG	LT1761ES5-BYP	LTHZ	LTC1758CMS8
LTCVK	LTC6652BHMS8-3	LTD2	LTC1860LCMS8	LTD0S	LT1634BCMS8-4.096	LTDHZ	LTC2640HTS8-LM10	LTDQB	LTC2935ITS8-2	LTGG	LT1761ES5-2.5	LTHZ	LT1772CS6



TOP MARKINGS (TOP MARK TO PART NUMBER)

LTIM	LTC1772ES6	LTKW	LTC11971MS8	LTPL	LTC1757A-1EMS8	LTSB	LTC1663-2CS5	LTVS	LTC1983CS6-3	LTYD	LT1716HS5
LTIQ	LTC2050CMS8	LTKX	LTC1986ES6	LTPM	LTC1757A-2EMS	LTSO	LTC4211CMS8	LTVT	LTC2053CMS8	LTYD	LT1716IS5
LTIR	LTC2050IMS8	LTKY	LT1809CS6	LTPN	LT1990CMS8	LTSJ	LTC4211MS8	LTVU	LTC1772BES6	LTYF	LTC4302CMS-1
LTIIS	LT1782CS6	LTKZ	LTC1726EMS8-2.5	LTPP	LT1990IMS8	LTSK	LT1981ES5	LTVU	LTC1772BIS6	LTYG	LTC4302IMS-1
LTIIT	LT1782IS6	LTLLA	LTC1726EMS8-5	LTPQ	LT1962EMS8-3	LTSN	LTC1693-5CMS8	LTVV	LT1715IMS	LTYH	LT3420EMS
LTIU	LT1783CS6	LTLLB	LT1761ES5-2.8	LTPR	LT1962EMS8-5	LTSQ	LTC3200ES6-5	LTVW	LT1880IS5	LTYJ	LTC2900-1CMS
LTVI	LT1783IS6	LTLCD	LTC1700EMS	LTPS	LT1962EMS8-3.3	LTSR	LTC3402EMS	LTVX	LT1964ES5-SD	LTYK	LTC2900-1IMS
LTIW	LT1784CS6	LTLLD	LT1782CS5	LTPT	LT1962EMS8-2.5	LTSU	LTC1758-1EMS8	LTVX	LT1964IS5-SD	LTYL	LTC2900-2CMS
LTIX	LT1784IS6	LTLLS	LT1782IS5	LTPU	LT1490AIMS8	LTSV	LTC1758-2EMS	LTVY	LT1964ES5-BYP	LTYM	LTC2900-2IMS
LTJY	LTC1695CS5	LTLLF	LT1783CS5	LTPV	LTC1699EMS8-80	LTSX	LT1784IS5	LTVZ	LT1964IS5-BYP	LTYN	LT1937ES5
LTJZ	LT1615ES5	LTLLG	LT1783IS5	LTPW	LTC1699EMS8-81	LTSY	LT1931AES5	LTVZ	LT1964ES5-5	LTYO	LTC1728ES5-3.3
LTJ1	LT1460HCS3-3.3	LTLLH	LT1812CS5	LTPZ	LT1790ACS6-2.5	LTSZ	LT1930AES5	LTVZ	LT1964IS5-5	LTYQ	LTC1706EMS-85
LTJ1	LT1460JCS3-3.3	LTLLJ	LT1812IS5	LTPZ	LT1790AIS6-2.5	LTSZ	LT1932ES6	LTTWA	LT1816CMS8	LTYR	LT1801CMS8
LTJ1	LT1460KCS3-3.3	LTLLK	LT1812CS6	LTPZ	LT1790BCS6-2.5	LTSZ	LT1932ES6	LTTWB	LTC1199IMS8	LTVS	LT1801IMS8
LTJ2	LT1460HCS3-5	LTLLL	LT1812IS6	LTPZ	LT1790BIS6-2.5	LTSV	LTC4211IMS	LTTWC	LTC1199LIMS8	LTYT	LTC3704EMS
LTJ2	LT1460JCS3-5	LTLLM	LT1797CS5	LTOA	LT1790ACS6-3	LTSW	LTC1731EMS8-8.2	LTTWD	LT1767EMS8-2.5	LTYU	LTC1992CMS8
LTJ2	LT1460KCS3-5	LTLLN	LT1797CS6	LTOA	LT1790AIS6-3	LTSX	LTC1871EMS	LTTWE	LT1767EMS8-3.3	LTYV	LTC1992-2CMS8
LTJ3	LT1460HCS3-10	LTLPL	LTC1779ES6	LTOA	LT1790BCS6-3	LTSZ	LT1962EMS8-1.5	LTTWF	LT1767EMS8-5	LTYW	LTC4210-1CS6
LTJ3	LT1460JCS3-10	LTLRL	LTC1706EMS8-81	LTOA	LT1790BIS6-3	LTTA	LT1962EMS8-1.8	LTTWG	LT1767EMS8-1.8	LTYX	LTC4210-2CS6
LTJ3	LT1460KCS3-10	LTLRL	LT1767EMS8	LTOB	LT1790ACS6-4.096	LTTB	LTC1699EMS8-82	LTTWH	LT1567CMS8	LTYZ	LTC4052EMS8E-4.2
LTJ4	LTC1865LACMS	LTLTL	LTC1696ES6	LTOB	LT1790AIS6-4.096	LTTB	LT1711CMS8	LTTWH	LT1567IMS8	LTYZ	LT1946AEMS8E
LTJ4	LTC1865LAIMS	LTLVL	LTC1877EMS8	LTOB	LT1790BCS6-4.096	LTTD	LT1711IMS8	LTTWK	LTC3400ES6	LTTZA	LT1723IMS8
LTJ4	LTC1865LCMS	LTLVL	LTC1877IMS8	LTOB	LT1790BIS6-4.096	LTTD	LTC1517ES5-3.3	LTLWL	LTC3202EMS	LTTZB	LT1722CS5
LTJ4	LTC1865LIMS	LTLW	LTC1754ES6-5	LTOC	LT1790ACS6-5	LTFE	LT1790ACS6-5	LTLWM	LTC4252-1CMS8	LTTZB	LT1722IS5
LTJ8	LT1937BES5	LTLX	LTC1733EMSE	LTOC	LT1790AIS6-5	LTFE	LTC1966CMS8	LTLWN	LTC4252-1CMS	LTTZC	LTC1992IMS8
LTJ9	LTC6901CMS	LTLY	LTC1729CMS8-4.1	LTOC	LT1790BCS6-5	LTFH	LTC1966IMS8	LTLWN	LTC4252-2CMS8	LTTZD	LTC1992-2IMS8
LTJA	LTC1197LIMS8	LTLZ	LTC1729CMS8-8.2	LTOC	LT1790BIS6-5	LTTJ	LTC1967CMS8	LTLWQ	LTC4252-2CMS	LTTZE	LTC3250ES6-1.5
LTJB	LT1614IMS8	LTMMA	LT1395CS5	LTOQ	LT1991ACMS	LTTJ	LTC1967IMS8	LTLWR	LTC1860CMS8	LTTZF	LT3010EMS8E
LTJC	LT1949EMS8	LTMBA	LTC2401CMS	LTOQ	LT1991AIMS	LTLTL	LT1797IS5	LTLWS	LTC1860HMS8	LTTZG	LT1767EMS8E
LTJD	LT1784CS5	LTMCA	LTC2401IMS	LTOQ	LT1991CMS	LTLTM	LT1797IS6	LTLWS	LTC1860IMS8	LTTZH	LT1767EMS8E-1.8
LTJE	LT1761ES5-2	LTMDD	LTC2402CMS	LTOQ	LT1991HMS	LTLTN	LT1969CMS	LTLWT	LTC1861CMS	LTTZJ	LT1767EMS8E-2.5
LTJF	LT1719IS6	LTMDE	LTC2402IMS	LTOQ	LT1991IMS	LTLTP	LT1969IMS	LTLWU	LTC1861HMS	LTTZK	LT1767EMS8E-3.3
LTJG	LTC1729CMS8-8.4	LTMFF	LT1395CS6	LTOQ	LTC1844ES5-2.8	LTLTQ	LT1810IMS8	LTLWU	LTC1861IMS	LTTZL	LT1767EMS8E-5
LTJH	LTC1729CMS8-4.2	LTMJJ	LTC1706EMS8-82	LTOQ	LTC3423EMS	LTLTR	LT1944EMS	LTLVV	LTC2411-1CMS	LTTZM	LTC6900CS5
LTJJ	LTC1663IMS8	LTMKK	LTC1872ES6	LTON	LTC3424EMS	LTLTS	LT1945EMS	LTLVW	LTC1732EMS-8.4	LTTZM	LTC6900IS5
LTJK	LTC1731EMS8-4.1	LTMML	LT1962EMS8	LTOP	LTC4301-1CMS	LTLTT	LT1807CMS8	LTLWX	LTC1983CS6-5	LTTZP	LTC3405AES6-1.8
LTJM	LT1761ES5-1.8	LTMMM	LT1962IMS8	LTOP	LTC4301-1IMS	LTLTU	LT1944-1EMS	LTLWZ	LTC4400-1ES6	LTTZQ	LTC3405AES6-1.5
LTJY	LTC2053IMS8	LTMNN	LTC2051CMS8	LTOR	LTC2490CS6	LTLTV	LT1807IMS8	LTLXA	LTC4401-1ES6	LTTZR	LT1697EMS
LTJZ	LT6200CS6	LTMPP	LTC2051MS8	LTOQ	LTC2490IS6	LTLTW	LTC4050EMS-4.1	LTLXB	LTC4400-2EMS8	LTTZS	LTC4053EMSE-4.1
LTJZ	LT6200IS6	LTMQ	LTC2051CMS10	LTOT	LTC3411EMS	LTLTX	LTC4050EMS-4.2	LTLXC	LTC4401-2EMS8	LTTZT	LTC4053EMSE-4.2
LTK1	LTC6901IMS	LTMRR	LTC2051IMS10	LTTY	LTC3411IMS	LTLTY	LTC1998CS6	LTLXD	LTC2431CMS	LTTZU	LTC1921IMS8
LTK2	LTC6902CMS	LTMSS	LT1612EMS8	LTTY	LTC4251-1CS6	LTLTY	LTC1998IS6	LTLXE	LTC2431IMS	LTTZV	LTC1921CMS8
LTK3	LTC6902IMS	LTMST	LT1761ES5-1.5	LTVU	LTC4251-1IS6	LTLUA	LTC1732EMS-4.2	LTLXF	LTC4402-1EMS8	LTTZW	LTC3405AES6
LTK4	LT6201CMS8E	LTMU	LTC1536IMS8	LTVU	LTC4150CMS	LTLUB	LTC4300-1CMS8	LTLXG	LTC4403-1EMS8	LTTZX	LTC5507ES6
LTK5	LT6201IMS8E	LTMVV	LTC1773EMS	LTVU	LTC4150IMS	LTLUC	LTC4300-1IMS8	LTLXH	LTC4402-2EMS	LTTZY	LTC4440ES6
LTK6	LTC4251-2CS6	LTMW	LTC1911EMS8-1.5	LTOX	LT1949-1EMS8	LTLUD	LTC1701BES5	LTLXJ	LTC4403-2EMS	LTTZZ	LT4351CMS
LTK7	LT6700CS6-1	LTNB	LT1616ES6	LTOY	LT1961EMS8E	LTLUE	LT1947EMS	LTLXK	LT1782HS5	OP07	OP07CS8
LTK7	LT6700HS6-1	LTCNC	LT1616IS6	LTOY	LT1961IMS8E	LTLUF	LT1809IS6	LTLXL	LT1782HS6	OP27G	OP27GS8
LTK7	LT6700HVC6-1	LTND	LTC1799CS5	LTOZ	LT1009CMS8	LTLUG	LT1946EMS8	LTLXM	LTC1442IMS8	OP37G	OP37GS8
LTK7	LT6700HVS6-1	LTNE	LTC1799HS5	LTOZ	LT1009IMS8	LTLUH	LTC1326IMS8	LTLXN	LTC3700EMS		
LTK7	LT6700HVIS6-1	LTNE	LTC1799IS5	LTRA	LT1931ES5	LTLUJ	LTC1326IMS8-2.5	LTLXP	LT1934ES6		
LTK7	LT6700IS6-1	LTLNG	LT1490ACMS8	LTRB	LTC2051HVCMS10	LTLUK	LT1713IMS8	LTLXQ	LTC3405ES6		
LTK8	LTC4410ES6	LTLNH	LT1618EMS	LTRC	LTC2051HVIMS10	LTLUL	LT1815CS6	LTLXR	LT1783HS5		
LTK9	LTC1706EMS-61	LTLNJ	LTC1732EMS-4	LTRD	LT1713CMS8	LTLUM	LT1880CS5	LTLXS	LT1783HS6		
LTKA	LT1617ES5-1	LTLNK	LT1806CS6	LTRF	LT1810CMS8	LTLUN	LTC3400BES6	LTLXT	LT1790ACS6-1.25		
LTKB	LTC1662CMS8	LTLNL	LT1806IS6	LTRG	LTC1734ES6-4.2	LTLUP	LT1815CS5	LTLXT	LT1790AIS6-1.25		
LTKC	LTC1662IMS8	LTLNM	LTC1985ES5-1.8	LTRH	LTC1957-1EMS8	LTLUQ	LTC4251CS6	LTLXT	LT1790BCS6-1.25		
LTKD	LTC1771EMS8	LTLNN	LTC2411-1IMS	LTRJ	LTC1957-2EMS	LTLUR	LTC4251IS6	LTLXT	LT1790BIS6-1.25		
LTKE	LTC1771IMS8	LTLNP	LTC3440EMS	LTRK	LT1490AHMS8	LTLUS	LT4352CMS8	LTLXU	LT1790ACS6-2.048		
LTKF	LT1617ES5	LTLNQ	LT1816IMS8	LTRL	LT1946-2EMS8	LTLUT	LT4352IMS8	LTLXU	LT1790AIS6-2.048		
LTKG	LTC1701ES5	LTLNR	LT1948EMS8	LTRM	LT1946-2CMS8	LTLUU	LTC4352CMS	LTLXU	LT1790BCS6-2.048		
LTKH	LT1615ES5-1	LTLNS	LTC2411CMS	LTRN	LT1800CS5	LTLUU	LTC4352IMS	LTLXU	LT1790BIS6-2.048		
LTKJ	LT1787HVCMS8	LTLNT	LTC2411IMS	LTRP	LT1800IS5	LTLUX	LTC2421CMS	LTLXV	LTC5505-1ES5		
LTKK	LT1787HVIMS8	LTLNU	LTC1911EMS8-1.8	LTRQ	LTC4252-1IMS8	LTLUY	LTC2421IMS	LTLXW	LT1790ACS6-3.3		
LTKL	LTC1751EMS8	LTLNV	LTC3200EMS8	LTRR	LTC4252-2IMS8	LTLUZ	LTC2422CMS	LTLXW	LT1790AIS6-3.3		
LTKM	LTC1751EMS8-3	LTLNX	LTC1878EMS8	LTRS	LTC4252-1IMS	LTLVA	LTC2422IMS	LTLXW	LT1790BCS6-3.3		
LTKN	LTC1751EMS8-3.3	LTPC	LTC1983ES6-3	LTRT	LTC4252-2IMS	LTLVB	LTC3201EMS	LTLXW	LT1790BIS6-3.3		
LTKP	LTC1751EMS8-5	LTPD	LTC1983EMS8-3	LTRU	LT1973CMS8	LTLVC	LT1815IS5	LTLXX	LT1816AIMS		
LTKQ	LTC1731EMS8-4.2	LTPB	LTC1731EMS8-8.4	LTRV	LT1973IMS8	LTLVD	LT1815IS6	LTLXY	LTC1872BES6		
LTKR	LTC3404EMS8	LTPF	LT1982ES6	LTRW	LTC5505-2ES5	LTLV	LTC2051HMS8	LTLXZ	LT1615IS5		
LTKS	LT1930ES5	LTPG	LTC3401EMS	LTRX	LT1935ES5	LTLVH	LTC2051HVHMS8	LTLYA	LT1816ACMS		
LTKT	LTC1928ES6-5	LTPH	LTC1728ES5-1.8	LTRY	LT1936CS5	LTLVJ	LTC4300-2CMS8	LTLYB	LTC1983ES6-5		
LTKU	LTC1663IS5	LTPJ	LTC2051HVCMS8	LTRZ	LT1310EMSE	LTLVK	LTC4300-2IMS8	LTLYC	LT1723CMS8		
LTKV	LTC1197CMS8	LTPK	LTC2051HVIMS8	L TSA	LTC1663-1CS5	LTLVQ	LT1715CMS	LTYD	LT1716CS5		

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

TOP MARKINGS

# PACKAGE RAIL AND REEL COUNTS

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material  
**RAIL AND REEL**

PACKAGE TYPE	WIDTH mm (Inch)	THICKNESS mm (Inch)	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
Side Brazed	7.62 (0.300)	3.30 (0.130)	D	D8	35	Not Applicable
			D	D14	25	
			D	D16	25	
			D	D18	20	
			D	D20	20	
TO-52		3.43 (0.135)	E	E3	20/Tray; 500/Bag	Not Applicable
TSSOP (Suffix E = Exposed Pad)	4.4 (0.173)	1.0 (0.040)	F/FE	F16/FE16	95	2500
			F/FE	F20/FE20	74	2500
			F/FE	F24/FE24	TBD	2500
			F/FE	F28/FE28/FE38	50	2000
TSSOP	6.10 (0.240)	1.0 (0.040)	FW	FW48	39	1800
			FW	FW56	35	1800
SSOP	5.3 (0.209)	1.47 (0.058)	G	G16	77	2000
			G	G20	66	1800
			G	G24	59	1800
			G	G28	47	2000
			G	G36, G44	37	2000
	3.81 (0.150)	1.47 (0.058)	GN	GN16	100	2500
			GN	GN20	55	2500
			GN	GN24	55	2500
			GN	GN28	49	2500
	7.62 (0.300)	2.8 (0.110)	GW	GW36	32	1000
GW			GW44	27	1000	
TO-5	8.97 (0.353)	4.44 (0.175)	H	H8	20/Tray; 200/Bag	Not Applicable
			H	H10		
TO-39	9.14 (0.360)	4.44 (0.175)	H	H3		
			H	H4		
TO-46	5.44 (0.214)	2.41 (0.095)	H	H2		
			H	H3		
			H	H4		
TO-46 with Thermal Cap	10.59 (0.417)	5.93 (0.233)	H	H2		
			H	H3		
			H	H4		
LCC	6.35 (0.250)	1.96 (0.077)	L	L20	40	Not Applicable
	7.62 (0.300)	1.96 (0.077)	LS	LS20	40	Not Applicable
MSOP (Suffix E = Exposed Pad)	3.00 (0.118)	0.85 (0.034)	MS8	MS8	50	2500
			MS	MS10	50	2500
			MS	MSE12/MSE16	37	2500
			MS8E	MS8E	50	2500
			MSE	MSE10	50	2500
			MSE	MSE12/MSE16	37	2500
PDIP	7.62 (0.300)	3.30 (0.130)	N8	N8	50	Not Applicable
			N	N14	25	
			N	N16	25	
			N	N18	20	
			N	N20	18	
			N	N24	15	
	N	N28	47			
15.24 (0.600)	3.81 (0.150)	NW	NW28	14	Not Applicable	
TO-3P	16.00 (0.630)	5.00 (0.197)	P	P3	30	Not Applicable

PACKAGE RAIL AND REEL COUNTS

PACKAGE TYPE	WIDTH mm (Inch)	THICKNESS mm (Inch)	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
DD Pak	10.16 (0.400)	4.44 (0.175)	M	M3	50	750
			Q	Q5	50	750
			R	R7	50	750
SOIC	3.81 (0.150)	1.47 (0.058)	S8	S8	100	2500
			S	S14	55	2500
			S	S16	50	2500
	7.62 (0.300)	2.29 (0.090)	SW	SW16	47	1000
			SW	SW18	40	1000
			SW	SW20	38	1000
			SW	SW24	32	1000
			SW	SW28	27	1000
SOT 23	1.3 (0.051)	0.95mm (0.037)	S3	S3	1000 (Bulk)	2500*
SOT 23 (TSOT)	1.6 (0.063)	0.86 (0.034)	S5	S5	1000 (Bulk)	2500*
			S6	S6	1000 (Bulk)	2500*
			TS8	TS8	1000 (Bulk)	2500*
SC 70	1.25 (0.049)	0.90 (0.035)	SC6	SC6	1000 (Bulk)	2500*
			SC8	SC8	1000 (Bulk)	2500*
SOT 223	3.5 (0.138)	1.57 (0.062)	ST	ST3	78	2000
TO-220	10.16 (0.400)	4.44 (0.175)	T	T3	50	Not Applicable
			T	T5	50	
			T7	T7	50	
DFN / UTDFN DFN pkg. code prefix = D UTDFN pkg. code prefix = K	2 × 2	0.80 (0.0315)	DC	DC3 / DC4 (0.45) / DC6 / DC8 (0.45)	1000 (Bulk)	2500
		0.60 (0.0236)	KC	KC8 (0.45)	1000 (Bulk)	2500
	2 × 3	0.80 (0.0315)	DCB	DCB6 / DCB8 (0.45)	1000 (Bulk)	2500
		0.80 (0.0315)	DDB	DDB8 / DDB10 / DDB12 (0.45)	1000 (Bulk)	2500
	3 × 3	0.80 (0.0315)	DD	DD8 / DD10 / DD12 (0.45) / DD12MA (0.45)	121	2500
		0.60 (0.0236)	KD	KD10	121	2500
		0.80 (0.0315)	DE	DE12 / DE14 / DE14MA / DE16 (0.45) / DE16MA (0.45)	91	2500
	4 × 3	0.60 (0.0236)	KE	KE14	91	2500
		0.80 (0.0315)	UE	UE12	91	2500
	4 × 4	0.80 (0.0315)	DF	DF12	91	2500
	5 × 3	0.80 (0.0315)	DHC	DHC16	73	2500
	5 × 4	0.80 (0.0315)	DHD	DHD16	73	2500
	5 × 5	0.80 (0.0315)	DH	DH16	73	2500
	6 × 3	0.80 (0.0315)	DJC	DJC22	61	2500
	7 × 4	0.80 (0.0315)	DKD	DKD32 (0.40)	52	2500
QFN QFN pkg. code prefix = U UTQFN pkg. code prefix = P	3 × 3	0.80 (0.0315)	UD	UD16 / UD20 (0.45)	121	2500
		0.60 (0.0236)	PD	PD16	121	2500
	3 × 4	0.80 (0.0315)	UDC	UDC20 / UDC20MA / UDC24 (0.40)	91	2500
		0.60 (0.0236)	PDC	PDC20	91	2500
	4 × 4	0.80 (0.0315)	UF	UF16 (0.65) / UF20 / UF24 / UF28 (0.40)	91	2500
		0.60 (0.0236)	PF	PF24 / PF28	91	2500
	4 × 5	0.80 (0.0315)	UFD	UFD20 / UFD24 / UFD28	73	2500
	4 × 6	0.80 (0.0315)	UFE	UFE26 / UFE38 (0.40)	52	2500
	4 × 7	0.80 (0.0315)	UFF	UFF34 / UFF44 (0.40)	52	2500
	5 × 5	0.80 (0.0315)	UH	UH20 (0.65) / UH24 (0.65) / UH32 / UH40 (0.40)	73	2500
	5 × 6	0.80 (0.0315)	UHE	UHE36	52	2500
	5 × 7	0.80 (0.0315)	UHF	UHF38	52	2500
	5 × 8	0.80 (0.0315)	UHG	UHG52 (0.40)	45	2500
	5 × 9	0.80 (0.0315)	UHH	UHH56 (0.40)	60	2500
	6 × 9	0.80 (0.0315)	UJ	UJ40	52	2000
	7 × 7	0.80 (0.0315)	UK	UK48	52	2000
	7 × 8	0.80 (0.0315)	UKG	UKG52	45	2000
	7 × 9	0.80 (0.0315)	UKH	UKH64 (0.40)	40	2000
9 × 9	0.80 (0.0315)	UP	UP64	40	2000	

\*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.

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material  
 RAIL AND REEL

# 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
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)
		TO-220 3L	3	50	Pin 2
Plastic TO	T	TO-220 5L	3	50	Pin 3
		TO-220 7L	3	50	Pin 4
		DD Pak 3L	3	30	Pin 2
Plastic DD	Q	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
		S16, 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

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	—	270	Multilayer
	SC8	2 Pins Fused SC70, 8L, Cu	—	270	Multilayer
Plastic SOT TSOT	S3	SOT-23, 3L, A42	100	180	Pin 2
	S5	1 Pin Fused TSOT-23, 5L, Cu	50	215	Single Layer
	S6	1 Pin Fused TSOT-23, 6L, Cu	51	192	4 Layer
Plastic SOT	TS8	1 Pin Fused TSOT-23, 8L, Cu	47	195	Pin 2
	TS8	1 Pin Fused TSOT-23, 8L, Cu	47	195	Pin 4
Plastic SOT	ST	SOT-223	15	60 (est.)	Pin 2
Plastic MSOP 3.2	MS8	MS 8L, Cu	40	200	Single Layer
	MS8	MS 8L, A42	45	300	Single Layer
	MS10 MS8E	MS 10L, Cu MS 8L, Cu	45 5-10	120 35-40	4 Layer Multilayer
Plastic SO 150mil	S8	S8, Cu	39	150	Single Layer
		S8, A42	—	190	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	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
		SW18 SW20 SW24 SW28	27 25 23 20	85 80 75 70	Single Layer Single Layer Single Layer Single Layer
Plastic SSOP 150mil	GN	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	25	90	Single Layer
		G28	25	90	Single Layer
Plastic SSOP 300mil	GW	GW36	20	80	Single Layer
		GW44	17	70	Single 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, Exposed Die Pad	10	38	4 Layer
	FE	FE28, Exposed Die Pad	—	25	Exposed Pad Soldered to PCB
Plastic TSSOP 6.1	FW	FW48	—	110 (est.)	4 Layer
	FW	FW56	21 (est.)	95 (est.)	4 Layer
Plastic DFN (Exposed Pad)					
2 x 2	DC, KC	DC3, 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
3 x 3	DD, KD	DD8	7.5	43	4 Layer
		DD10, KD10	7.5	43	4 Layer
		DD12	7.5	43	4 Layer
4 x 3	DE, UE	DE12, UE12	5.0	43	4 Layer
4 x 3	DE, KE	DE14, KE14	5.0	43	4 Layer
4 x 3	DE	DE16	5.0	43	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
7 x 4	DKD	DKD32	3.0	34	4 Layer
Plastic QFN (Exposed Pad)					
3 x 3	UD, PD	UD16, PD16	7.5	68	4 Layer
3 x 4	UDC, PDC	UDC20, PDC20	5.0	43	4 Layer
		UDC24	5.0	43	4 Layer
4 x 4	UF, PF	UF16	4.3	37	4 Layer
		UF20	4.3	37	4 Layer
		UF24, PF24	4.3	37	4 Layer
		UF28, PF28	4.3	37	4 Layer
4 x 5	UFD	UFD20	3.2	34	4 Layer
		UFD24	3.2	34	4 Layer
		UFD28	3.2	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
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	UK48	1.0	29	4 Layer
7 x 8	UKG	UKG52	1.0	29	4 Layer
7 x 9	UKH	UKH52	1.0	29	4 Layer
9 x 9	UP	UP64	1.0	28	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.

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material  
**THERMAL RESISTANCE**

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	

Amps, Refs, Filters, Comps  
 Power Management  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material  
 DATA CONV. VALUES

PASSIVE COMPONENTS SUPPLIERS

		INDUCTORS and MAGNETIC CORES								TRANSISTORS			DIODES					CAPACITORS					RESISTORS			THERMAL COMPONENTS					
		Power	Transformer	Custom	Common Mode	Off-Line	Current Sense	Ferrite Beads	Powder Cores	Ferrite Cores	MOSFET	BJT	General Purpose	Schottky	Ultrafast	Zener	TV	Photodiodes	Optoisolators	Ceramic	Electrolytic	Tantalum	Film	OS-CON Polymer	General Purpose	Precision	Current Sense	Thermistors	Heatsink	Thermal Pads	EMI Shielding
COMPANY	PHONE NUMBER	WWW ADDRESS																													
Aavid	603-224-9988	www.aavid.com																													
AVX	843-448-9411	www.avxcorp.com																													
Bergquist	952-835-2322	www.bergquistcompany.com																													
BH Electronics	952-894-9590	www.bhelectronics.com																													
BI Technologies	714-447-2345	www.bitechnologies.com																													
Bourns	951-781-5500	www.bourns.com																													
Central Semiconductor	631-435-1110	www.centrasemi.com																													
Chomerics	781-935-4850	www.chomerics.com																													
Coilcraft	847-639-6400	www.coilcraft.com																													
Cooper (C.E.T.) Coiltronics	888-414-2645	www.cooperet.com																													
Cornell-Dubilier	508-996-8564	www.cornell-dubilier.com																													
CTS-IERC	818-842-7277	www.ctscorp.com																													
Diodes, Inc.	805-446-4800	www.diodes.com																													
Elpac Electronics Inc.	949-476-6070	www.elpac.com																													
Fairchild Semiconductor	207-775-8100	www.fairchildsemi.com																													
Fair-Rite Products	845-895-2055	www.fair-rite.com																													
General Instrument	215-323-1000	www.gi.com																													
Gowanda	610-954-9000	www.gow-mac.com																													
Halo Electronics, Inc.	650-903-3800	www.haloelectronics.com																													
Hurricane Electronics	435-635-2003	www.hurricaneelectronics.com																													
Infineon Technologies	888-782-8411	www.infineon.com																													
International Rectifier	310-322-3331	www.irf.com																													
IRC-TT Electronics	828-264-8861	www.irctt.com																													
ITW Paktron	434-239-6941	www.paktron.com																													
Kemet Electronics	864-963-6300	www.kemet.com																													
Magnetics Inc.	724-282-8282	www.mag-inc.com																													
Mallory Duracap	519-539-4891	www.duracap.com																													
Micro Metals	714-970-9400	www.micrometals.com																													
Microsemi Corporation	949-221-7100	www.microsemi.com																													
Midcom/Wuerth Electronik	605-886-4385	www.midcom-inc.com																													
Murata Electronics	770-436-1300	www.murata.com																													
Nichicon	847-843-7500	www.nichicon-us.com																													
NXP, formerly Philips		www.nxp.com																													
ON Semiconductor	1-800-282-9855	www.onsemi.com																													
Panasonic	714-373-7366	www.panasonic.com																													
Pulse Engineering	858-674-8100	www.pulseeng.com																													
Sanyo	619-661-6835	www.sanyo.com																													
Sumida		www.sumida.com																													
Taiyo Yuden (U.S.A.), Inc.	847-925-0888	www.t-yuden.com																													
TDK	562-596-1212	www.component.tdk.com																													
Tecate Industries	858-513-2300	www.tecategroup.com																													
Thermalloy	972-633-9371	www.thermalloy.com																													
Tokin America, Inc.	510-324-4110	www.nec.tokinamerica.com																													
Tyco Electronics Passive Components	800-500-5930	www.tycoelectronics.com																													
United Chemi-con	847-696-2000	www.chemi-con.com																													
VISHAY Dale	402-563-6506	www.vishay.com																													
VISHAY Siliconix		www.siliconix.com																													
VISHAY Sprague	207-324-4140	www.vishay.com																													
VISHAY Vitramon	203-268-6261	www.vishay.com																													
Wakefield Engineering	603-635-2800	www.wakefield.com																													
Wima Div. Of Inter-Technical Grp	914-347-2474	www.inter-technical.com																													
Wuerth Elektronik	201-785-8800	www.wuerth-elektronik.de																													
Zetex	631-360-2222	www.zetex.com																													

Amps, Refs,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Reference  
Material

PASSIVE SUPPLIERS

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202	Quad CMOS SPST Low Q Inject NO Switch, 127	1028	50MHz Ultralow Noise Op Amp, 4, 11, 18, 23, 35
203	Quad CMOS SPST Low Q Inject Switch, 127	1029	3 Term 5V Precision Bandgap Ref, 54, 55
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317	Improved LM317 Linear Regulator, 1% Tolerance, 64	1031	Precision 10V Ref, 5ppm/°C, 55, 56, 57
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487	Quad 10Mbps RS485 Driver, 2 Single-Ended Enables, 130	1039	15kV ESD Triple RS232 Dx/Rx, 129
488	Quad 10Mbps RS485 Receiver, Differential Enable, 130	1040	Dual 80µs µPower Comparator, 59
489	Quad 10Mbps RS485 Receiver, 2 Single-Ended Enables, 130	1041	Bang-Bang Controller, 59, 60
490	Full-Duplex 2.5Mbps RS485 Dx/Rx, 130	1042	80µs Window Comparator, 59, 60
491	Full-Duplex 2.5Mbps RS485 Dx/Rx, Driver/Receiver Enable Pins, 130	1043	Switched Cap Bldg Block
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693	µP Reset Circuit and WDT with RAM Protect, 4.4V Threshold, 107	1050	Chopper Stab OA with Internal Caps, 8, 10, 13, 14, 32, 39, 44
694	µP Reset Circuit and WDT, 200ms Reset, 107	1051	Dual Chopper Stabilized OA, 9, 11, 13, 15, 33, 40
695	µP Reset Circuit and WDT with RAM Protect, 200ms Reset, 107	1052	Low Noise Chopper Stabilized OA, 9, 10, 13, 14, 32, 39
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1006	0.5MHz 5V Precision Op Amp, 4, 11, 29, 32	1058	Quad 5MHz Precision JFET Op Amp, 4, 39, 41, 49
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