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# 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
Reference Material

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

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# Linear Technology High Performance Analog ICs

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Amps, Refs,  
Filters, Comps

Power  
Management

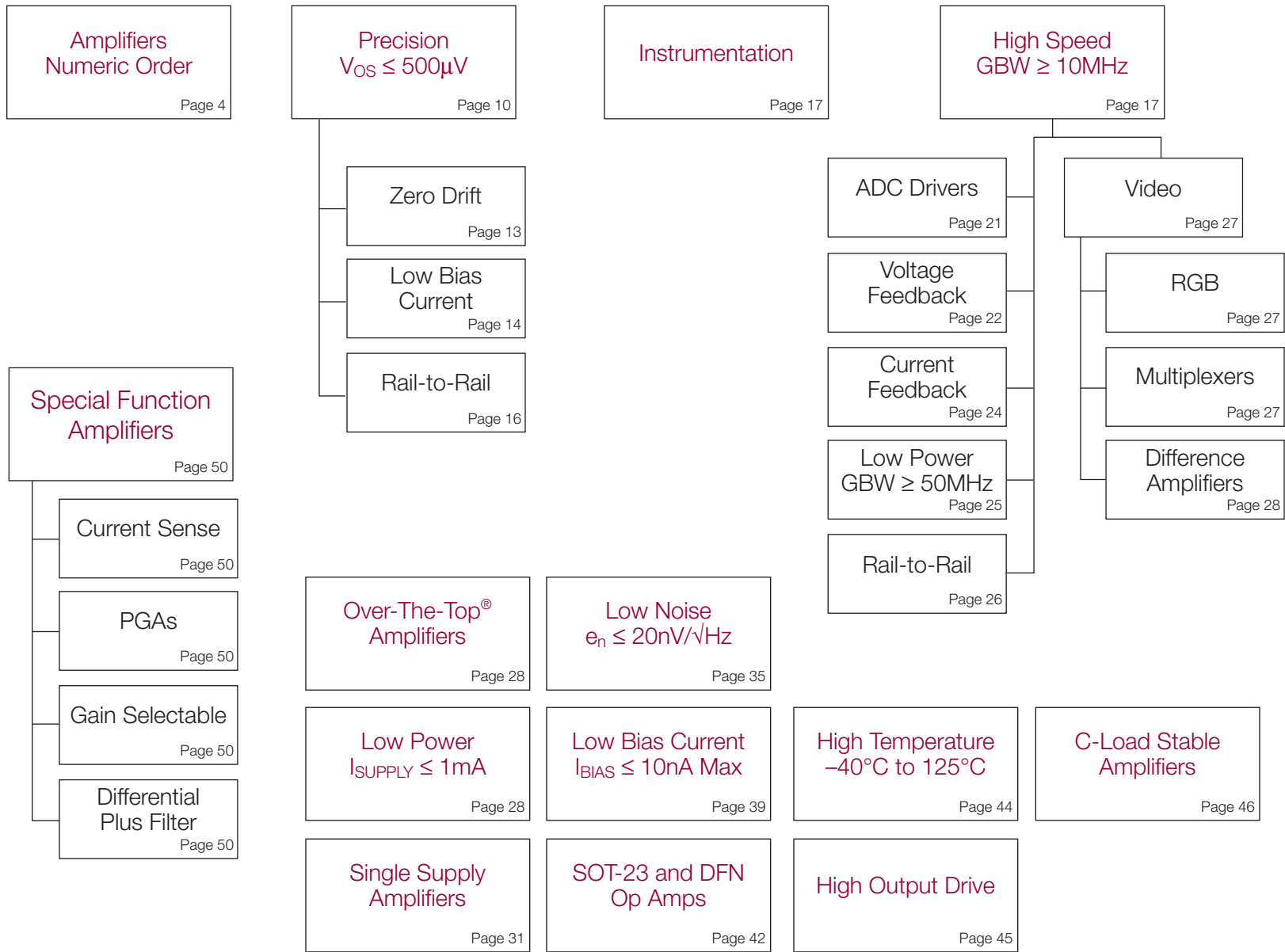
Data  
Conversion

Interface

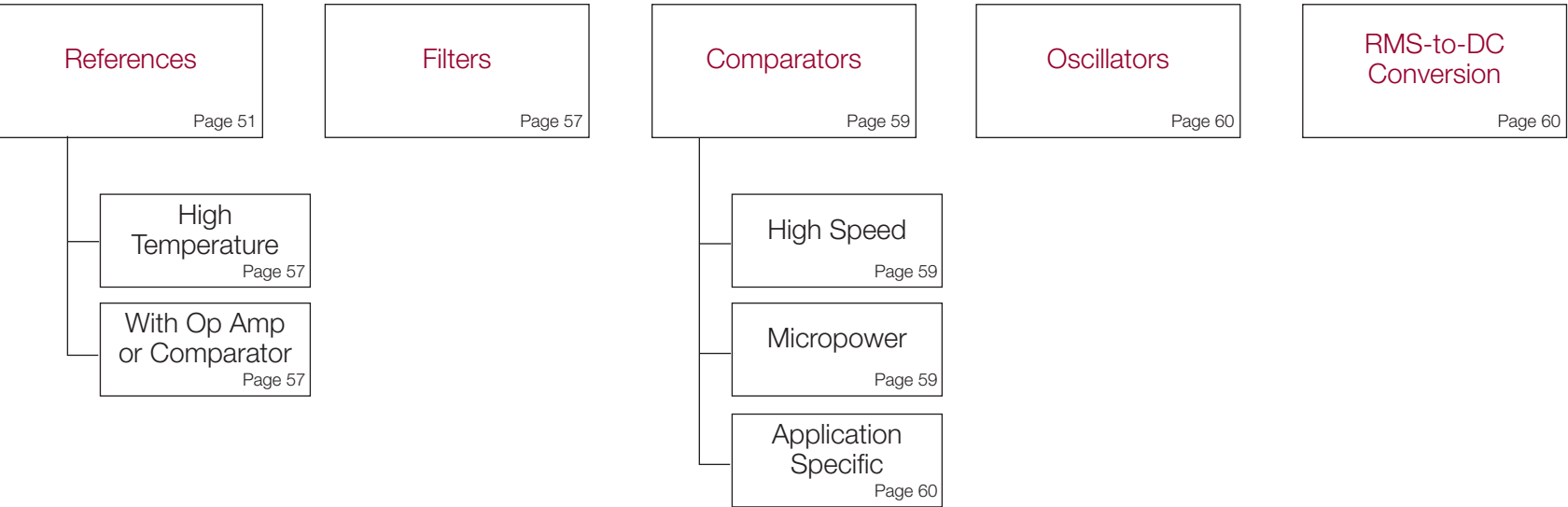
High  
Frequency

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>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
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

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 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>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
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
<b>LTC6404-2</b>	<b>1</b>	<b>2000</b>	<b>1 Typ</b>	<b>-2300</b>	<b>900</b>	<b>700</b>	<b>12</b>	<b>32</b>	<b>1.5</b>	<b>3</b>	<b>40</b>	<b>39</b>	<b>2.7</b>	<b>5.25</b>	<b>out</b>	<b>3×3 QFN-16</b>		<b>DIFF</b>	<b>2</b>	<b>\$3.44</b>
<b>LTC6404-4</b>	<b>1</b>	<b>2000</b>	<b>1 Typ</b>	<b>-2300</b>	<b>1700</b>	<b>1200</b>	<b>11</b>	<b>32</b>	<b>1.5</b>	<b>3</b>	<b>40</b>	<b>39</b>	<b>2.7</b>	<b>5.25</b>	<b>out</b>	<b>3×3 QFN-16</b>		<b>DIFF</b>	<b>4</b>	<b>\$3.44</b>
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>VOL</sub> Typ 25°C (V/mV)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/µs)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>NOISE</sub> Typ 25°C (pA/√Hz)	I <sub>SUPPLY</sub> 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)

† 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/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

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>VOL</sub> Typ 25°C (V/mV)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/μs)	E <sub>NOISE</sub> Typ 25°C (nV/√Hz)	I <sub>SUPPLY</sub> 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	SO-14/SSOP-16	Zero-Drift 3V/5V/±5V Operation	\$4.55
4	LTC1053	5	0.05	0.065	106	100000	2.5	4	70	2	4.75	16.5	out	DIP-14/SOW-18	Zero Drift No External Capacitors	\$7.50

† Primary Sort Column  
 †† Secondary Sort Column

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

# PRECISION 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>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)	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	SO-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	SO-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 RAIL-TO-RAIL INPUT/OUTPUT OP AMPS ( $V_{OS} \text{ MAX} \leq 1\text{mV}$ )

† Amplifiers Per Package	Part Number	†† $V_{OS}$ Max 25°C ( $\mu\text{V}$ )	TC of $V_{OS}$ Max ( $\mu\text{V}/^\circ\text{C}$ )	$I_{BIAS}$ Max 25°C (nA)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/ $\mu\text{s}$ )	CMRR Min 25°C (dB)	$A_{VOL}$ Typ 25°C (V/mV)	$E_{NOISE}$ Typ 25°C (nV/ $\sqrt{\text{Hz}}$ )	$I_{SUPPLY}$ Max 25°C (mA)	Shutdown	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	$V_{OH}^{(1)}$ Typ 25°C (V)	$V_{OL}^{(1)}$ 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/1 $\mu\text{A}$ 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/13 $\mu\text{A}$ 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:  
 1.  $V_{OH}$  = How close the output swings to the positive rail  
 $V_{OL}$  = How close the output swings to the negative rail  
 2. C.F. = Contact Factory

## INSTRUMENTATION AMPS

Part Number	† $V_{OS}$ Max 25°C ( $\mu\text{V}$ )	Av Min Stable Typ 25°C (V/V)	Av Max Typ 25°C (V/V)	Gain Error Max 25°C (%)	Gain Drift Max (ppm/ $^\circ\text{C}$ )	CMRR Min 25°C (dB)	TC of $V_{OS}$ Max ( $\mu\text{V}/^\circ\text{C}$ )	$I_{BIAS}$ Max 25°C (nA)	$E_{NOISE}$ Typ 25°C (nV/ $\sqrt{\text{Hz}}$ )	$I_{SUPPLY}$ Max 25°C (mA)	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ Max (V)	GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/ $\mu\text{s}$ )	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/ $A_V=0$ 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/ $A_V>10$	\$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/ $A_V=10$ 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 $\geq 10\text{MHz}$ )

† Amplifiers Per Package	Part Number	†† GBW Typ 25°C (MHz)	Slew Rate Typ 25°C (V/ $\mu\text{s}$ )	Settle Time to 0.1% Typ 25°C (ns)	$E_{NOISE}$ Typ 25°C (nV/ $\sqrt{\text{Hz}}$ )	$I_{NOISE}$ Typ 25°C (pA/ $\sqrt{\text{Hz}}$ )	$V_{OS}$ Max 25°C ( $\mu\text{V}$ )	$I_{BIAS}$ Max 25°C (nA)	$A_{VOL}$ Typ 25°C (V/mV)	$I_{OUT}$ Min 25°C (mA)	$I_{SUPPLY}$ Max 25°C (mA)	Shutdown	$V_{SUPPLY}$ Min (V)	$V_{SUPPLY}$ 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 $\times$ 3 QFN-16		1	DIFF	\$3.44
1	LTC6401-8	2200	3400	3	3.2		4000			10	60		2.85	3.5		3 $\times$ 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<math>\times</math>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 $\times$ 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 $\times$ 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)

†	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/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
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/μs)	Settle Time to 0.1% Typ 25°C (ns)	e <sub>NOISE</sub> Typ 25°C (nV/√Hz)	i <sub>NOISE</sub> Typ 25°C (pA/√Hz)	V <sub>OS</sub> Max 25°C (μV)	A <sub>VOL</sub> Typ 25°C (V/mV)	I <sub>OUT</sub> Min 25°C (mA)	I <sub>SUPPLY</sub> 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	LTC6400-20	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	LTC6400-26	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	LTC6401-8	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%		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
4	LT6207	5.6	no	100	600	25	9	4	4500	25	3	12.6	out	SSOPN-16	1000	VFB	3V 100MHz Single Supply Video Amp	\$1.55
4	LT1397	6.5	no	400	800	25	4.5	6	10000	80	3	12.6		DFN-14/SO-14/SSOPN-16	1000	CFA	Quad CFA/100MHz 0.1dB BW	\$2.75
4	LT1817	7	no	220	1500	15	6	1.3	1500	50	2.5	12.6		SO-14/SSOPN-16	10	VFB	High Slew Rate VFB	\$2.05
4	LT1365	7.2	no	70	1000	50	9	1	1500	50	3	36		DIP-14/SO-16	All	VFB	High Speed/Precision/C-Load	\$6.45

† Primary Sort Column  
 †† Secondary Sort Column

Notes:

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

## 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>VL</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>VL</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		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













# 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

† 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

Amplifiers,  
Filters, Comps

Power  
Management

Data  
Conversion

Interface

High  
Frequency

Reference  
Material









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

† Amplifiers Per Package	Part Number	††		$V_{OS}$ Max 25°C (μV)	TC of $V_{OS}$ Max (μV/°C)	$I_{BIAS}$ Max 25°C (nA)	†††	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
		$E_{NOISE}$ Typ 25°C (nV/√Hz)	LF $E_{NOISE}$ Typ 25°C (μVp-p)														
4	LT1814	8		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		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	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	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		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		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	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	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	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		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		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	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	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	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	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	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	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		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	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	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	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	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	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	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

Amps, Refs, Filters, Comps  
 Power, Management  
 Data, Conversion  
 Interface  
 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









Table with columns: Amplifiers Per Package, Part Number, C-Load Stable (pF), AVOL Typ 25°C (V/mV), Vos Max 25°C (µV), IBIAS Max 25°C (nA), GBW Typ 25°C (MHz), Stew Rate Typ 25°C (V/us), ENOISE Typ 25°C (nV/√Hz), IOUT Min 25°C (mA), ISUPPLY Max 25°C (mA), VSUPPLY Min (V), VSUPPLY Max (V), Rail-to-Rail I/O, Package, Type, Features, Price 1K Qty.

† 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

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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



# REFERENCES

Amps, Refs, Filters, Comps REFERENCES	†	Output Voltage (V)	Shunt/Series	‡‡	Temperature Range (°C)	Accuracy Max 25°C (%)	TC of V <sub>OUT</sub> Max (ppm/°C)	Output Current	Part Order Number	Package Type	I <sub>O</sub> Max or Shunt Current	Dropout Voltage	0.1 - 10Hz Typ Noise (μV <sub>P-P</sub> )	Comment	Price 1K Qty
			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
		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	LT1460FCS8-2.5	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	Precision, Low Noise, High Temperature Reference	\$3.36
		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



# 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>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
5	<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







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

# 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

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

Interface

High Frequency

Reference Material

## MICROPOWER COMPARATORS

Part Number	Number Per Pkg	Input Offset Max 25°C (mV)	Input Common Mode Range (V)	Prop Delay Typ 25°C (µs)	Comparator Hysteresis (mV)	Internal Voltage Reference	Reference Output (V)	Reference Accuracy Max 25°C (%)	Supply Current Max 25°C (µA)	Supply Voltage Range (V)	Package	Price 1K Qty
LTC1440	Single	10	V- to (V+ -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- to (V+ -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- to (V+ -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- to (V+ -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- to (V+ -1.3V)	8	None	no	n/a	n/a	5.7	2 to 11	SO-8/DIP-8	\$1.80
LTC1442	Dual	10	V- to (V+ -1.3V)	8	Adj	yes	1.182	1	5.7	2 to 11	SO-8/DIP-8	\$2.20
LTC1841	Dual	10	V- to (V+ -1.3V)	4	None	no	n/a	n/a	5.7	2 to 11	SO-8	\$1.15
LTC1842	Dual	10	V- to (V+ -1.3V)	4	Adj	yes	1.182	1	5.7	2.5 to 11	SO-8	\$1.40
LTC1843	Dual	10	V- to (V+ -1.3V)	4	Adj	yes	1.182	1	5.7	2.5 to 11	SO-8	\$1.40
LTC1040	Dual	0.75	V- to V+	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+	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+	80	None	no	n/a	n/a	3000	2.8 to 16	DIP-8	\$2.10
LT1017	Dual	1	V- to (V+ -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- to (V+ -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- to (V+ -1.3V)	4	None	yes	1.182	1	8.5	2 to 11	DIP-16/SO-16/DFN	\$2.25
LTC1444	Quad	10	V- to (V+ -1.3V)	4	Adj	yes	1.221	1	8.5	2 to 11	DIP-16/SO-16/DFN	\$2.25
LTC1445	Quad	10	V- to (V+ -1.3V)	4	Adj	yes	1.221	1	8.5	2 to 11	DIP-16/SO-16/DFN	\$2.25

C.F. = Contact Factory

# 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

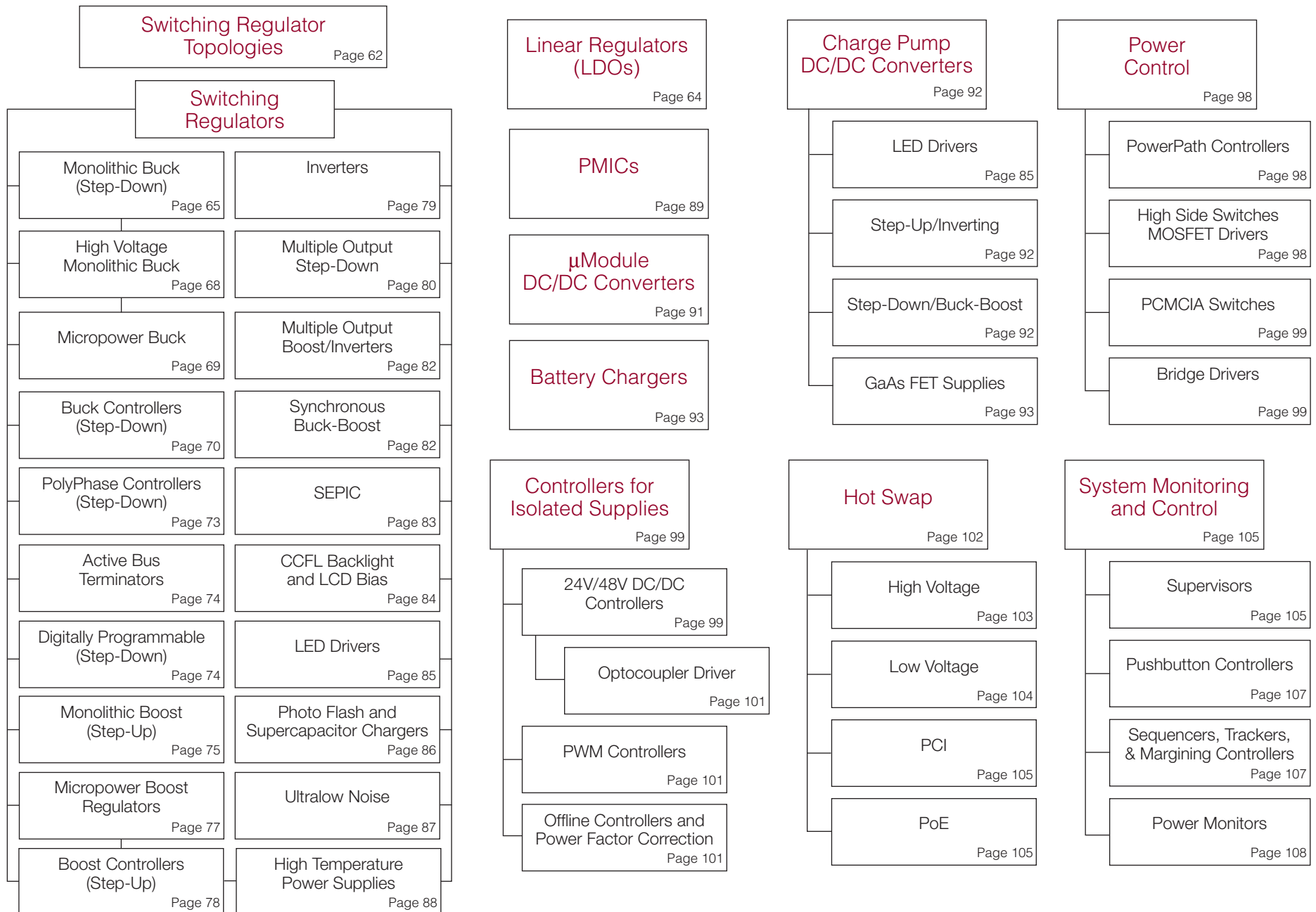
Part Number	Program Method	Frequency Range	Frequency Accuracy Max 25°C (%)	Frequency Temperature Drift (ppm/°C)	Duty Cycle	Timing Jitter (%)	Supply Voltage Min (V)	Supply Voltage Max (V)	Supply Current Max 25°C	Package	Comments	Price
LTC6906	Resistor	10kHz to 1MHz	0.5	50	50% ±5%	0.03	2.25	6	15µA@100kHz	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

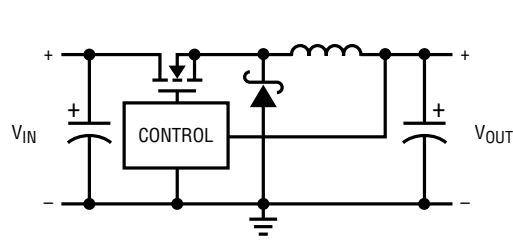
# RMS-TO-DC CONVERSION

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

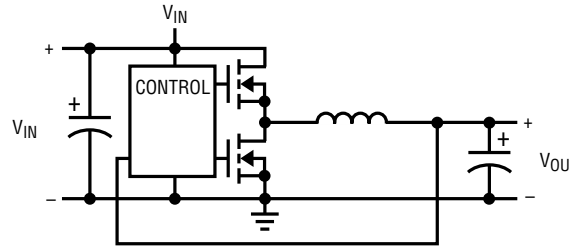


**Buck Regulator**



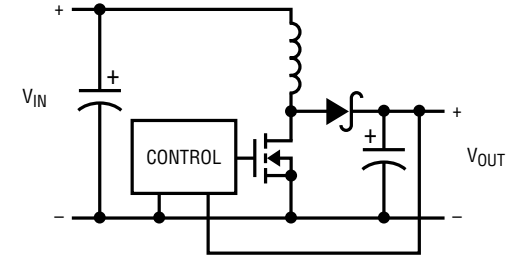
- $V_{OUT} < V_{IN}$
- $I_{OUT} \approx 0.8 \cdot I_{SW}$
- Switching Frequency 100kHz to 4MHz
- Monolithic and Controllers

**Synchronous Buck Regulator**



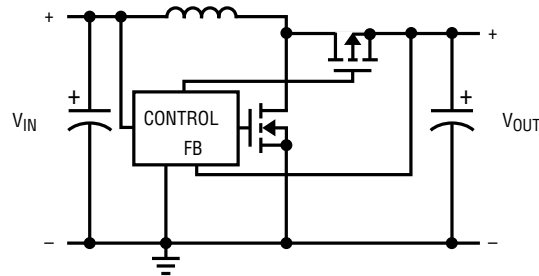
- Higher Efficiency than Standard Buck
- Switching Frequency up to 4MHz
- Combined for PolyPhase Operation from 60A to 240A

**Boost Regulator**



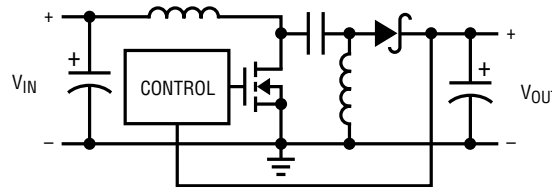
- $V_{OUT} > V_{IN}$
- $I_{OUT} \approx 0.64 \cdot \frac{V_{IN}}{V_{OUT}} \cdot I_{SW}$
- Monolithic and Controllers
- Switching Frequency up to 3MHz

**Synchronous Boost Regulator**



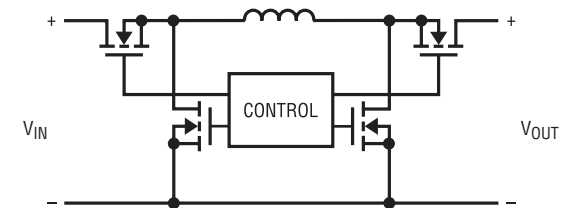
- Better Efficiency than Standard Boost
- Best for Low  $\frac{V_{OUT}}{V_{IN}}$  Ratios

**SEPIC**



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

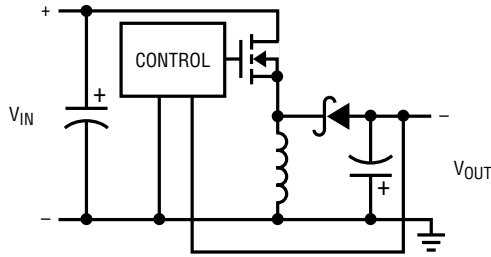
**Synchronous Buck-Boost**



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

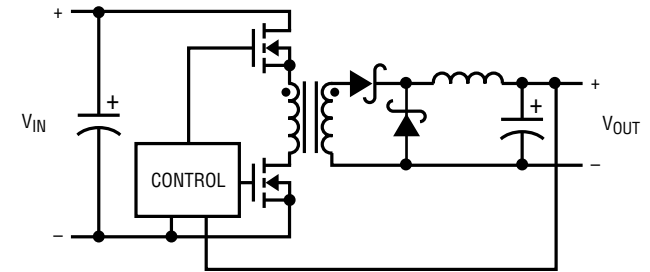


**Buck/Boost Inverter**



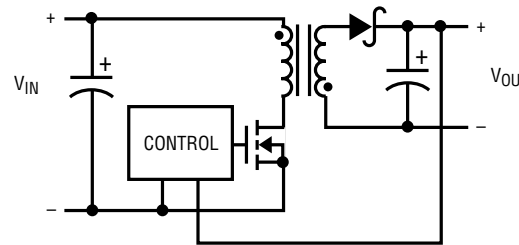
- $V_{IN} < |V_{OUT}|$
- Monolithic Solutions

**Dual Transistor forward Regulator**



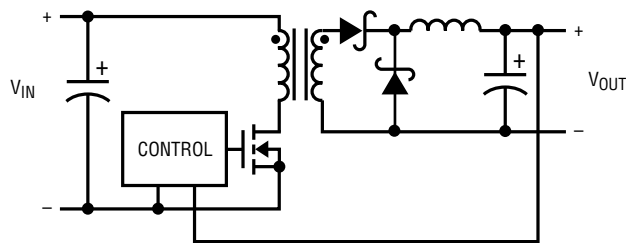
- Higher Output Power than Flyback
- Smaller Transformer than Flyback
- Higher Efficiency than Flyback
- Second Inductor Required

**Flyback Regulator**



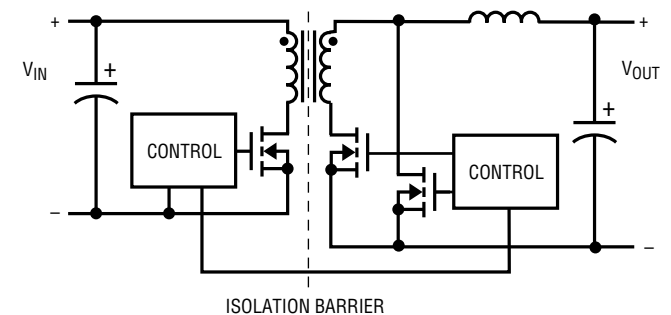
- Isolated and Nonisolated
- High  $\frac{V_{OUT}}{V_{IN}}$  Ratios
- 80% plus Efficiency
- Simple

**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  
LDOs

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 <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, 2×2 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>MSOP-12, 3×3 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, 4×3 DFN-12	E, H	Low Noise <100μV <sub>RMS</sub> , Stable with 3.3μF Ceramic Capacitors	\$2.05
LT3013/B	0.25	4.0	80	1.24	0.40	65	<1	Adj (1.24 to 60)	TSSOP-16, 4×3 DFN-12	E	Shutdown, PWRGD, <100μV <sub>RMS</sub> Noise, Stable with 3.3μF Ceramic Capacitors, "B" Version Does Not Have Shutdown	\$2.25
LTC3025	0.3	0.9	5.5	0.40	0.05	54	<1	Adj (0.4 to 3.6)	2×2 DFN-6	E	45mV Dropout Voltage, Minimum V <sub>IN</sub> of 0.9V, 2 × 2 DFN	\$1.65
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)	3×2 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, 4×3 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	5×5 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>2×2 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, 4×3 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, 5×3 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>3×3 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	3×3 DFN-8, MSOP-8, DD-Pak, TO-220	E, I	Low Noise <40μV <sub>RMS</sub> , Stable with 10μF Ceramic Capacitors	\$1.88
LTC3026	1.5	1.14	3.5/5.5	0.40	0.10	400	<1	Adj (0.4 to 2.6)	3×3 DFN-10, MSOP-10	E	Ideal for Low-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

Table with columns: Part Number, Output Current (A), VIN Min (V), VIN Max (V), Reference Voltage (V), Dropout Voltage (V @ IOUT), Iq (Supply) (µA), Shutdown Current (µA), Output Voltage (V), Package, Extended Temp Range, Comments, Price 1K Qty. Rows include LT1580, LT1083, LT1581, Negative Regulators, Discrete Pass Element Drivers and Regulators - Very Low Dropout.

† Primary Sort Column
Note:
1. Depends on selection of external MOSFET

MONOLITHIC BUCK (STEP-DOWN)

Table with columns: Part Number, VIN Min (V), VIN Max (V), VOUT Min (V), VOUT Max (V), Output Current (A), Max Switch Current (A), Synchronous, Ext SYNC (µA), Switching Frequency (kHz), Iq (SUPPLY) (µA), ISHDN (µA), Package, Extended Temp Range, Comments, Price 1K Qty. Rows include LT3470, LTC1779, LTC3549, LTC3410/B, LTC1474/75, LTC3544/B, LTC3547/B, LTC3405/A, LTC3437, LTC3522, LTC1174/HV, LTC1574/HV, LT1777, LT1676, LT1776, LT1612/B, LTC1433/34, LTC3502/A, LTC3542, LTC3541, LTC3563, LT1616, LTC1504/A, LTC1707, LTC3543, LTC3403, LTC3408, LTC3448, LTC3409.

† Primary Sort Column



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

# MONOLITHIC BUCK (STEP-DOWN)

Part Number	$V_{IN}$ Min (V)	$V_{IN}$ Max (V)	$V_{OUT}$ Min (V)	$V_{OUT}$ Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Max Switch Current (A)	Synchronous	Ext SYNC <sup>(3)</sup>	Switching Frequency <sup>(4)</sup>	$I_Q$ (SUPPLY) (µA)	$I_{SDON}$ (µA)	Package	Extended Temp Range	Comments	Price 1K Qty <sup>(6)</sup>
	Monolith. Buck	Power Management	Data Conversion	Interface	High Frequency	Reference Material									
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		Switching Frequency <sup>(3)</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>
	yes	yes	Ext SYNC <sup>(3)</sup>	Ext SYNC <sup>(3)</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	\$3.50
LT1076/HV	7.3	45/64	2.21	0.85V <sub>IN</sub>	1.6	2.0	-	-	100kHz	8.5mA	10	DD-5, 7, TO-220	I	HV Version V <sub>IN</sub> to 60V, Programmable Current Limit	\$3.40
LT3506/A	3.6	25	0.8	0.9V <sub>IN</sub>	1.6×2	2.0	-	-	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

# HIGH VOLTAGE MONOLITHIC BUCK

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Max Switch Current (A)	SYNC Pin	Switching Frequency <sup>(3)</sup>	I <sub>O</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty <sup>(4)</sup>
LT1934-1	3.2	34	1.25	0.85V <sub>IN</sub>	0.07	0.09	-	COT	12	<1	ThinSOT	E	90mA I <sub>sw</sub>	\$2.20
LT3470	4.0	40	1.25	16	0.25	0.3	-	Hysteretic	26	<1	ThinSOT, DFN	H	Integrated Schottky and Catch Diodes	\$2.30
LT1934	3.2	34	1.25	0.85V <sub>IN</sub>	0.30	0.35	-	COT	12	<1	ThinSOT	E	350mA I <sub>sw</sub>	\$2.20
LT3437	3.3	80	1.25	0.9V <sub>IN</sub>	0.40	0.5	yes	200kHz	75	<1	3×3 DFN-10, TSSOP-16E	H	80V, Burst Mode Device	\$2.25
LT3433	4.0	60	3.3	20	0.40	0.5	-	200kHz	100	<1	TSSOP-16E	I	True Buck-Boost Topology, 400mA in Buck Mode, 200mA in Boost Mode	\$3.25
LT1777	7.0	48	1.24	0.85V <sub>IN</sub>	0.44	0.55	yes	100kHz	620	12	SO-16	I	Programmable di/dt Limit for Low Noise Applications	\$2.65
LT1676	7.4	60	1.24	0.85V <sub>IN</sub>	0.44	0.55	yes	100kHz	3.2mA	2.5	SO-8	I	Wide Input Range	\$2.60
<b>LT3502/A</b>	<b>3.4</b>	<b>40</b>	<b>0.8</b>	<b>0.9V<sub>IN</sub></b>	<b>0.5</b>	<b>0.7</b>	-	<b>1.1MHz/2.2MHz</b>	<b>1.5mA</b>	<b>&lt;1</b>	<b>2×2 DFN-8</b>	<b>I</b>	<b>40V, 500mA From a 2×2 DFN</b>	<b>\$1.95</b>
LT1616	3.6	25	1.25	0.8V <sub>IN</sub>	0.5	0.63	-	1.4MHz	1.9mA	<1	ThinSOT	E	Circuit Footprint ≤ 50mm <sup>2</sup>	\$1.95
LT1776	7.4	40	1.24	0.85V <sub>IN</sub>	0.56	0.7	yes	200kHz	3.2mA	30	DIP-8, SO-8	I	Transients to 60V	\$2.45
LT1933	3.6	36	1.2	0.88V <sub>IN</sub>	0.6	0.75	-	500kHz	1.6mA	<1	ThinSOT	E	Integrated Soft-Start	\$2.20
<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>
LT1107	2.0	30	1.25	0.64V <sub>IN</sub>	0.8	1.0	-	63kHz	320	n/a	DIP-8, SO-8	I	Step-Up or Step Down, Fixed V <sub>OUT</sub> 5V, 12V or Adjustable Output	\$2.25
LT1173	2.0	30	1.25	0.43V <sub>IN</sub>	0.8	1.0	-	23kHz	110	n/a	DIP-8, SO-8	I	Step-Up or Step Down, Fixed V <sub>OUT</sub> 5V, 12V or Adjustable Output	\$2.30
LT1108	2.0	30	1.25	0.63V <sub>IN</sub>	0.8	1.0	-	20kHz	110	n/a	DIP-8, SO-8	I	Step-Up or Step Down, Fixed V <sub>OUT</sub> 5V, 12V or Adjustable Output	\$2.45
LT1111	2.0	30	1.25	0.24V <sub>IN</sub>	0.8	1.0	-	72kHz	300	n/a	DIP-8, SO-8	I	Step-Up or Step Down, Fixed V <sub>OUT</sub> 5V, 12V or Adjustable Output	\$2.30
LT1176	7.3	35	2.2	0.85V <sub>IN</sub>	0.96	1.2	-	100kHz	8mA	10	DIP-8, SO-20	I	Fixed 5V or Adjustable Output	\$3.10
LT3493	3.6	36	0.78	0.87V <sub>IN</sub>	1.2	1.4	-	750kHz	1.9mA	2	2×3 DFN-6	I	1.2A Output Current from Tiny 2×3 DFN	\$2.65
LT3505	3.6	36	0.78	0.87V <sub>IN</sub>	1.2	1.4	-	200kHz to 2.8MHz	1.9mA	2	3×3 DFN-6	I	1.2A Output Current from Tiny 3×3 DFN	\$2.40
LT1767	3.0	25	1.2	0.8V <sub>IN</sub>	1.2	1.5	yes	1.25MHz	1mA	6	MSOP-8E	E	Fixed Outputs of 1.8V, 2.5V, 3.3V, 5V Available	\$2.95
LT1375/76/HV	5.0	25/30	2.42	0.86V <sub>IN</sub>	1.2	1.5	yes	500kHz	2.5mA	20	DIP-8, SO-8, SO-16	I	HV Version V <sub>IN</sub> to 30V, Inductor Size Reduced to 5μH	\$3.26
LT1956	5.5	60	1.2	0.75V <sub>IN</sub>	1.2	1.5	yes	500kHz	2.5mA	25	TSSOP-16E	I	Thermally Enhanced Package Fixed Output of 5V Available	\$3.65
LT1766	5.5	60	1.2	0.9V <sub>IN</sub>	1.2	1.5	yes	200kHz	2.5mA	25	TSSOP-16E	H	Fixed Output of 5V Available	\$3.65
LT1976	3.3	60	1.2	0.9V <sub>IN</sub>	1.2	1.5	yes	200kHz	100	<1	TSSOP-16E	H	Micropower Operation	\$4.00
LT1977	3.3	60	1.2	0.9V <sub>IN</sub>	1.2	1.5	yes	500kHz	100	<1	TSSOP-16E	I	Micropower Operation	\$4.00
LT1936	3.6	36	1.2	0.87V <sub>IN</sub>	1.4	1.9	-	500kHz	1.9mA	<1	MSOP-8E	H	36V Input, 1.9A Switch	\$2.75
LT3508	3.7	36	0.8	0.9V <sub>IN</sub>	1.4×2	2.0	yes	250kHz to 2.5MHz	4.6mA	<1	4×4 QFN-24, TSSOP-16E	I	Dual 2A, 36V Switcher in TSSOP-16E	\$3.35
LT1940	3.6	25	1.25	0.78V <sub>IN</sub>	1.4×2	1.8	-	1.1MHz	3.8mA	30	TSSOP-16E	E	Dual Output, Thermally Enhanced Package	\$3.70
LT1076/HV	7.3	45/64	2.21	0.85V <sub>IN</sub>	1.6	2.0	-	100kHz	8.5mA	10	DD-5/7, TO-220	I	HV Version V <sub>IN</sub> to 60V, Programmable Current Limit	\$3.40
LT3506/A	3.6	25	0.8	0.9V <sub>IN</sub>	1.6	2.0	-	750kHz/1.1MHz	3.8mA	<30	TSSOP-16E, 5×4 DFN-16	E	Dual Switches in TSSOP-16E or DFN	\$2.95
LT3510	3.3	25	0.8	0.9V <sub>IN</sub>	2.0	2.5	yes	250kHz to 1.5MHz	3.5mA	<10	TSSOP-20E	E	Dual 2.5A Switches in TSSOP-20E	\$3.25
LT3434	3.3	60	1.2	0.9V <sub>IN</sub>	2.4	3.0	-	200kHz	100	<1	TSSOP-16E	I	60V Input and I <sub>O</sub> =100μA	\$5.25
LT3435	3.3	60	1.2	0.9V <sub>IN</sub>	2.4	3.0	-	500kHz	100	<1	TSSOP-16E	I	60V Input and I <sub>O</sub> =100μA	\$5.25
LT1765	3.0	25	1.2	0.8V <sub>IN</sub>	2.4	3.0	-	1.25MHz	1mA	15	SO-8, TSSOP-16E	E	Thermally Enhanced Package	\$4.67
LT3430/-1	5.5	60	1.2	0.9V <sub>IN</sub>	2.75	3.0	-	200kHz/100kHz	2.5mA	30	TSSOP-16E	E	V <sub>IN</sub> to 60V, Thermally Enhanced Package. "-1" has 100kHz Switching	\$4.95
LT3431	5.5	60	1.2	0.8V <sub>IN</sub>	2.75	3.0	-	500kHz	2.5mA	30	TSSOP-16E	E	V <sub>IN</sub> to 60V, Thermally Enhanced Package	\$4.95
LT3480	3.6	38	0.79	0.9V <sub>IN</sub>	2.0	3.0	yes	260kHz to 2MHz	70	<1	3×3 DFN-10, MSOP-10E	I	Transient Protection to 60V, 2A Continuous Inductor Current Operation, Micropower	\$3.45
LT3685	3.6	38	0.79	0.9V <sub>IN</sub>	2.0	3.2	yes	260kHz to 2MHz	70	<1	3×3 DFN-10, MSOP-10E	I	Transient Protection to 60V, 2A Continuous Inductor Current Operation	\$3.05
<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>3.0</b>	-	<b>200kHz to 500kHz</b>	<b>0.8mA</b>	<b>&lt;1</b>	<b>3×3 DFN-10, MSOP-10E</b>	<b>I</b>	<b>2A, 36V Step-Down</b>	<b>\$2.95</b>
LT3481	3.5	34	1.265	0.9V <sub>IN</sub>	2.0	3.2	-	300kHz to 2.8MHz	50	<1	3×3 DFN-10, MSOP-10E	I	2A, Low Ripple (15mV) Burst Mode, I <sub>O</sub> <50μA, Synchronizable	\$3.25
LT3681	3.6	34	1.265	20	2.0	3.2	-	300kHz to 2.8MHz	50	<1	4×3 DFN-14	I	34V, 2A Micropower Part with Internal Schottky Diode	\$3.65
LT3684	3.5	34	1.265	0.9V <sub>IN</sub>	2.0	3.1	-	300kHz to 2.8MHz	0.85mA	<1	3×3 DFN-10, MSOP-10E	I	2A Continuous Inductor Current Operation,	\$2.95
LT1938	3.6	25	1.265	0.9V <sub>IN</sub>	2.0	3.1	-	300kHz to 2.8MHz	0.8mA	<1	3×3 DFN-10	I	2A, 25V Step-Down	\$2.75
LT3500	3.0	36	0.8	0.9V <sub>IN</sub>	2/2	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>3.0</b>	<b>25</b>	<b>0.8</b>	<b>0.9V<sub>IN</sub></b>	<b>2/2</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>
<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 and LDO Controller</b>	<b>\$4.25</b>
LT3501	3.3	25	0.8	0.9V <sub>IN</sub>	3.0×2	3.5	yes	250kHz to 1.5MHz	3.5mA	<10	TSSOP-20E	E	Dual 3.5A Switcher in TSSOP-20E	\$3.50
LT3680	3.6	36	0.79	30	3.5	4.6	yes	250kHz to 2.4MHz	75	<1	3×3 DFN-10, MSOP-10E	I	36V Operation and I <sub>O</sub> =75μA	\$4.15
LT3693	3.6	36	0.79	30	3.5	4.6	yes	250kHz to 2.4MHz	1.3mA	<1	3×3 DFN-10, MSOP-10E	I	36V Operation	\$3.85
<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>
LT1374/HV	5.0	25/32	2.42	0.86V <sub>IN</sub>	3.6	4.5	yes	500kHz	2.5mA	20	SO-8, DD, TO-220, TSSOP-16E	E	HV Version V <sub>IN</sub> to 32V, Inductor Size Reduced to 1.8μH, Thermally Enhanced Package	\$4.40
LT1074/HV	7.3	45/64	2.21	0.85V <sub>IN</sub>	4.4	5.5	-	100kHz	8.5mA	10	DD-5/7, TO-220	I	HV Version V <sub>IN</sub> to 60V, Programmable Current Limit	\$5.05

† 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

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

MICROPOWER MONOLITHIC BUCK

Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Max Switch Current (A)	Synchronous	Switching Frequency <sup>(3)</sup>	I <sub>o</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SHDN</sub> (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
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 Isw	\$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>1.0</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>o</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>o</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

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	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
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 CLOCKOUT 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 CLOCKOUT Pins	\$3.40
LTC3773	3.3	36	0.6	5	20×3	yes	yes	160kHz to 700kHz		2.8mA	5×7 DFN-38, SSOP-36	E	Triple Output 3-Phase Controller with Tracking	\$3.95
LTC3732	4.5	36	0.8	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	VIN Min (V)	VIN Max (V)	VOUT Min (V)	VOUT 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>CC</sub>, 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>CC</sub> or CLOCKOUT Pins	\$3.40
LT3845	4	60	1.23	36	20	yes		100kHz to 500kHz		120	TSSOP-16	E, I	High Voltage, Low Quiescent Current	\$3.55
LTC3826	4	36	0.8	10	25	yes	yes	140kHz to 650kHz		50	5×5 QFN-32	E	Ultralow I <sub>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	VIN Min (V)	VIN Max (V)	VOUT Min (V)	VOUT 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>CC</sub>, 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



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

# 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>0</sub> (I <sub>SUPPLY</sub> ) (μA)	I <sub>SDRN</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	I	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	E	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
LTC3523/-2	1.8	5.5	5.5	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	yes	1.2/2.4MHz	45	<1	3x3 QFN-16	E	Synchronous Boost and Buck Converter, "-2" Has 2.4MHz Switching	\$2.95
LTC3537	0.7	5.25	5.5	0.39 * V <sub>IN</sub> /V <sub>OUT</sub>	0.6	yes	2.2MHz	30	<1	3x3 QFN-16	E	Synchronous Boost Converter and LDO	\$2.40
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
LT3495-1/B-1	2.3	16	40	0.42 * V <sub>IN</sub> /V <sub>OUT</sub>	0.65	-	APC	60	<1	3x2 DFN-10	E	Low Noise, /B Version Disables Burst Mode	TBD
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	I	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	I	Programmable Peak Current Limit, Low-Battery Detect	\$2.45
LTC3527	0.7	5.25	5.5	0.52 * V <sub>IN</sub> /V <sub>OUT</sub>	0.8/0.4	yes	1.2 or 2.2MHz	12	<1	3x3 QFN-16	E	Dual Synchronous Outputs, "-1" Quickly Discharges V <sub>OUT</sub> When Entering Shutdown	\$2.95
LT3572	2.7	10	40	0.58 * V <sub>IN</sub> /V <sub>OUT</sub>	0.9	yes	500kHz to 2.5MHz	3.4mA	<1	4x4 QFN-20	E	Dual Piezo Driver and Boost Regulator	\$2.75
LT3487	2.3	16	28	0.59 * V <sub>IN</sub> /V <sub>OUT</sub>	0.9/0.75	-	2MHz	3.7mA	<5.3	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	I	Can Use as Step-Up or Step-Down, Adj Current Limit, Low-Battery Detect	\$3.00
LT1173	1	30	50	0.65 * V <sub>IN</sub> /V <sub>OUT</sub>	1	-	23kHz	110	<1	DIP-8, SO-8	I	Can Use as Step-Up or Step-Down, 5V or 12V or Adj Output	\$2.30
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	I	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
LT3580	2.5	32	42	1.30 * V <sub>IN</sub> /V <sub>OUT</sub>	2	-	200kHz to 2.5MHz	1mA	<1	3x3 DFN-8, MSOP-8	I	42V, 2A Switch for Boost or Inverting	\$2.00

† 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

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	4x4 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, 4x3 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, 4x4 QFN-20	E	3A, 42V Internal Switch, Ideal for Buck-Boost or Buck-Boost Configuration of High Current LEDs	\$3.15
LT1371/HV	2.7	30	35/42	1.95 * V <sub>IN</sub> /V <sub>OUT</sub>	3	-	500kHz	4mA	<12	DD-7, TO-220, SO(W)-20	I	Regulates Positive or Negative Outputs, Synchronizable	\$5.15
LT1269/71	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	3x3 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	5x5 QFN-32	E	4-Phase Operation for Small Size, Low Ripple	\$4.38
LT1070/HV	3	40/60	40/60	3.25 * V <sub>IN</sub> /V <sub>OUT</sub>	5	-	40kHz	6mA	<50	TO-220	I	V <sub>IN</sub> : 3V to 60V, Operates in Nearly All Switching Topologies	\$4.25
LT1170/HV	3	40/60	40/60	3.25 * V <sub>IN</sub> /V <sub>OUT</sub>	5	-	100kHz	6mA	<50	DIP-8, SO-8, SO(W)-16, TO-220, DD-5	I	V <sub>IN</sub> : 3V to 60V, Operates in Nearly All Switching Topologies	\$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	3x2 DFN-6	E	Low Noise, Integrated Schottky Diode, Soft-Start, Output Disconnect	\$1.45
LT1944-1	1	15	36	0.12 * V <sub>IN</sub> /V <sub>OUT</sub>	0.18x2	-	COT	20	<1	MSOP-10	E	Dual 350mA and 150mA Boost Converters in Single Package	\$2.00
<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>3x2 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	3x2 DFN-6	E	Low Noise, Integrated Schottky Diode, Soft-Start, Output Disconnect	\$1.45
LT1944	1	15	36	0.23 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35x2	-	COT	20	<1	MSOP-10	E	Dual 350mA Boost Converters in Single Package	\$2.00
LT1945	1	15	±36	0.23 * V <sub>IN</sub> /V <sub>OUT</sub>	0.35x2	-	COT	20	<1	MSOP-10	E	Dual 350mA, @ +34V Boost Converters in Single Package	\$2.06
LTC3525-3.0/3.3/5	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	3x3 DFN-10	E	Dual 250mA/250mA (400mA for "A"), Internal Schottkys. Boost/Inverter Converters in Single Package—Ideal for CCD Biasing	\$1.95
LT1610	1	8	30	0.29 * V <sub>IN</sub> /V <sub>OUT</sub>	0.45	-	1.7MHz	30	<1	MSOP-8, SO-8	I	Operates with V <sub>IN</sub> to 1V, V <sub>OUT</sub> to 30V	\$1.65

† Primary Sort Column



# MICROPOWER BOOST REGULATORS

Part Number	VIN Min (V)	VIN Max (V)	VOUT 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	VIN Min (V)	† VIN Max (V)	VOUT <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 (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> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	†† Output Current (A)	Synchronous	PolyPhase	Switching Frequency	Package	Extended Temp Range	Comments	Price 1K Qty
					V <sub>IN</sub>	V <sub>IN</sub>	V <sub>OUT</sub>	V <sub>IN</sub>								
<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

# 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	
<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> (I <sub>SUPPLY</sub> ) (μA)	Shutdown Current (μA)	Package	Extended Temp Range	Comments	Price 1K Qty
LTC3450	1.4	4.6	±15	0.07 * V <sub>IN</sub> /V <sub>OUT</sub>	0.09	Internal	550kHz	75	<2	3×3 DFN-16	E	Triple Output for TFT-LCD Applications	\$2.50
LT1942	2.6	16	36/45	0.10 * V <sub>IN</sub> /V <sub>OUT</sub>	0.15	Internal	1MHz	7	<1	4×4 QFN-24	E	Quad; Dual Boost Plus Inverter for TFT LCD, Boost for LED Driver	\$2.75
LT1944-1	1.2	15	34	0.15 * V <sub>IN</sub> /V <sub>OUT</sub>	0.18/0.18	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> (I <sub>SUPPLY</sub> ) (μA)	Shutdown Current (μA)	Synchronous	Package	Extended Temp Range	Comments	Price 1K Qty
<b>Monolithics</b>														
LTC3531	1.8	5.5	2.0	5	0.2	0.5	600kHz	16	<1	yes	3×3 DFN-8, ThinSOT	E	Adjustable or Fixed 3V or 3.3V Output	\$1.95
LT3433	4.0	60	3.3	20	0.4 or 0.2	0.5	200kHz	100	<1	-	TSSOP-16E	E	True Buck-Boost, V <sub>IN</sub> : 4V-60V, V <sub>OUT</sub> : 3.3V-20V	\$3.25
LTC3444	2.7	5.5	0.5	5	0.4	0.6	1.5MHz	700	<1	yes	3×3 DFN-8	E	Ideal for WCDMA PA Applications	\$2.40
LTC3522	2.4	5.5	0.6	5.5	0.4/0.2	0.8	1MHz	25	<1	yes	3×3 QFN-10	E	Dual Output-Synchronous 400mA Buck-Boost and a 200mA Buck	\$2.50
LTC3452	2.7	5.5	2.4	4.5	0.43	1.0	1MHz	600	7	yes	4×4 QFN-20	E	True Buck-Boost Topology, 2 Camera /5 Main LEDs	\$1.80
LTC3532	2.4	5.5	2.5	5.25	0.5	0.9	2MHz	35	<1	yes	MSOP-10, 3×3 DFN-10	E	True Buck-Boost Topology, Ideal for Single Cell Li-Ion to 3.3V <sub>OUT</sub> Applications	\$2.35
LTC3440	2.5	5.5	2.5	5.5	0.6	1.0	300kHz to 2MHz	25	<1	yes	MSOP-10, 3×3 DFN-10	E	True Buck-Boost Topology, Ideal for Single Cell Li-Ion to 3.3V <sub>OUT</sub> Applications	\$2.74
LTC3530	1.8	5.5	1.8	5.25	0.6	1.0	300kHz to 2MHz	40	<1	yes	MSOP-10, 3×3 DFN-10	E	True Buck-Boost Topology, Ideal for Single Cell Li-Ion and Dual Alkaline to 3.3V <sub>OUT</sub> Applications	\$2.75
LTC3538	2.4	5.5	1.5	5.25	0.8	1.4	1MHz	35	<1	yes	2×3 DFN-8	E	True Buck-Boost Topology, Ideal for Single Cell Li-Ion to 3.3V <sub>OUT</sub> Applications	\$2.55
LTC3520	2.2	5.5	0.6	5.5	1.0/0.6	1.4	100kHz to 2MHz	55	<1	yes	4×4 QFN-24	E	Dual Output-Synchronous 1A Buck-Boost and a 600mA Buck	\$3.50
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.,  $0.06 \times V_{IN} / V_{OUT}$ . 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>(2)</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:

1. Output voltage and current depend on the choice of external components.
2. 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

BOOST REG. CHARGE PUMP LED

# 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>



# 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 $140^\circ\text{C}$ )

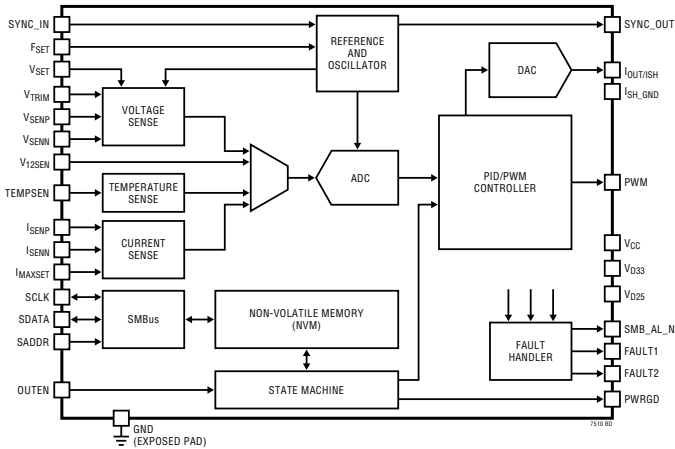
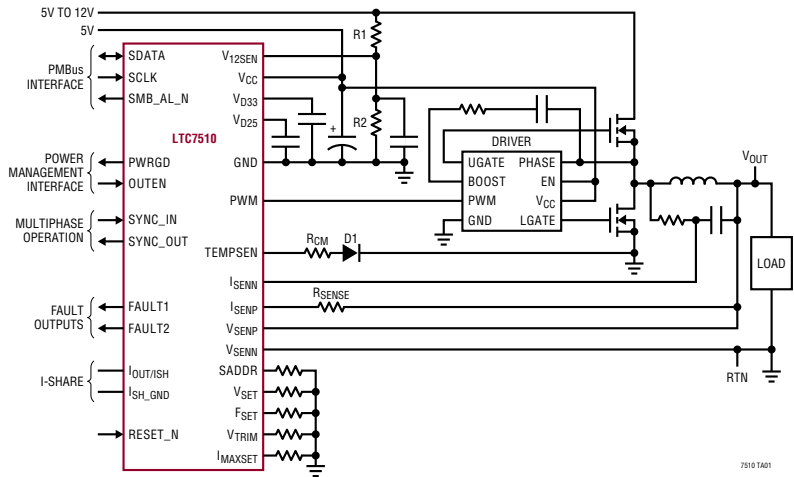
Part Number	$V_{\text{IN}}$ Min (V)	$V_{\text{IN}}$ Max (V)	$V_{\text{OUT}}$ Min (V)	$V_{\text{OUT}}$ Max <sup>(1)</sup> (V)	† Output Current <sup>(2)</sup> (A)	Switch Current (A)	Switch Configuration	Switching Frequency	$I_{\text{O}}$ ( $I_{\text{SUPPLY}}$ ) ( $\mu\text{A}$ )	$I_{\text{SHDN}}$ ( $\mu\text{A}$ )	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

Amps, Refs, Filters, Comps  
 Power Management  
 ULTRALOW NOISE, HI TEMP PWM  
 Data Conversion  
 Interface  
 High Frequency  
 Reference Material

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:

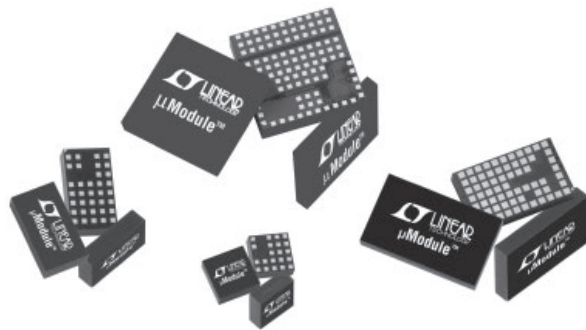
1. Excludes the linear regulator of the battery charger
2. The DC-DC converter can provide charge current and system power but the total cannot exceed the max charge current
3. May be increased to 1A with additional components
4. C.F. = Contact Factory
5. Switching PowerPath means a switcher is on the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

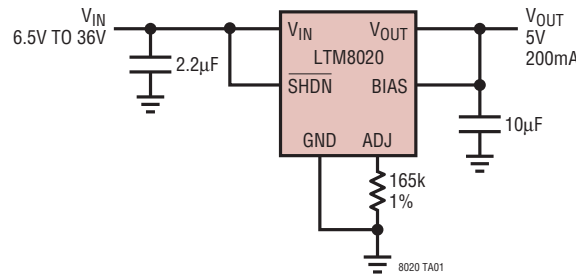
Part Number	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (V)	V <sub>OUT</sub> Max (V)	† Continuous Output Current (A)	PLL	Track Margin	Remote Sense	Max. ICs Parallel for Current Share	External Components	LGA Package (mm)	Maximum Junction Temperature	Comments	Price 1K Qty <sup>(1)</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

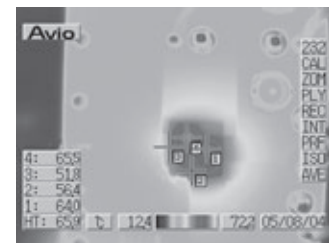
LGA (Land Grid Array) Package



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 µModule™ 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>Q</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

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

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, Hpwr 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, Hpwr 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

Data Conversion

Interface

High Frequency

Reference Material

BATTERY CHARGERS

## 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 Buck. "-1" has Fixed Output Buck (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:

- Excludes the regulator of the battery charger
- The DC-DC converter can provide charge current and system power but the total cannot exceed the max charge current
- 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

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

# 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

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



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

24V/48V OPTOCPLR, PWM OFFLINE

# HOT SWAP

Amps, Refs,  
Filters, Comps

Power  
Management  
HOT SWAP

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	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  
High Frequency

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 (V)	Reset Pulse Width	Supply Current (μA)	Watchdog Timer	Power Fail Warning	Comments	Ext. Temp.	Package	Price 1K Qty
			Adjustable Inputs	OV Monitor												
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				0.5	200ms	26			5%	I	TSOT-8, DFN-8	\$2.50
LTC2908-C1	6	2.5	5	0.5				0.5	200ms	26			5%	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>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

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, 2×2 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	3×3 DFN-12	\$2.30
LTC2954	2.7 to 26	6	Adj	Adj	512			I	Interrupt Logic for Menu Driven Applications. Active High Enable output (LTC2954-1), Active Low Enable Output (LTC2954-2)	TSOT-8, 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	DC/DC										
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, 3×2 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	4×5 QFN-24	\$3.99

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

# 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

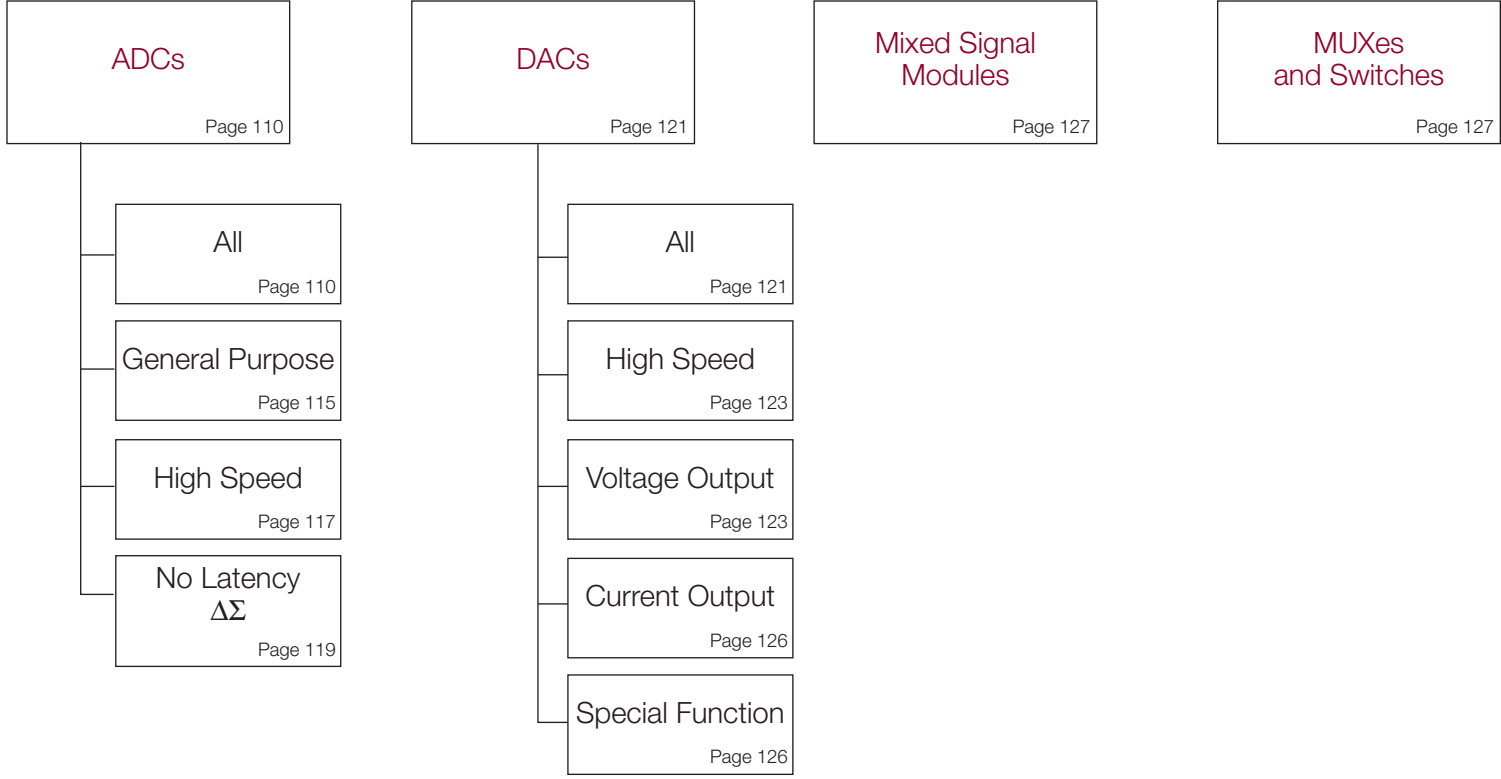
Notes:

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



# ADCs (ALL)

Amps, Refs, Filters, Comps  
Power Management  
Data Conversion  
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>
LTC2442	24	2/4	8K	1	10ppm	5µV	50ppm	50	50	4.5 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	no	I	Integrated Amplifier	SSOP-36	\$7.45
LTC2444	24	4/8	8K	1	15ppm	5µV	50ppm	40	40	4.5 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		5×7 QFN-38	\$6.45
LTC2445	24	4/8	8K	1	15ppm	5µV	50ppm	40	40	4.5 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		5×7 QFN-38	\$6.45
LTC2446	24	4/8	8K	1	15ppm	5µV	50ppm	40	40	4.5 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I	Multiple Reference Inputs	5×7 QFN-38	\$7.15
LTC2447	24	4/8	8K	1	15ppm	5µV	50ppm	40	40	4.5 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I	Multiple Reference Inputs	5×7 QFN-38	\$7.15
LTC2448	24	8/16	8K	1	15ppm	5µV	50ppm	40	40	4.5 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		5×7 QFN-38	\$7.15
LTC2449	24	8/16	8K	1	15ppm	5µV	50ppm	40	40	4.5 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		5×7 QFN-38	\$7.15
LTC2440	24		4K	1	15ppm	5µV	30ppm	40	40	4.5 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		SSOP-16	\$5.75
LTC2415	24		15	1	14ppm	2mV	12ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		SSOP-16	\$5.50
LTC2415-1	24		13.75	1	14ppm	2mV	12ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		SSOP-16	\$5.50
LTC2484	24		15	1	10ppm	2.5µV	25ppm	0.48	0.48	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I	Easy Drive™, Temp Sensor	3×3 DFN-10	\$2.45
LTC2485	24		15	1	10ppm	2.5µV	25ppm	0.48	0.48	2.7 to 5.5	yes	ℓ°C		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I	Easy Drive, Temp Sensor	3×3 DFN-10	\$2.45
LTC2492	24	2/4	15	1	10ppm	2.5µV	25ppm	0.48	0.48	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I	Easy Drive, Temp Sensor	4×3 DFN-14	\$2.95
LTC2493	24	2/4	15	1	10ppm	2.5µV	25ppm	0.48	0.48	2.7 to 5.5	yes	ℓ°C		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I	Easy Drive, Temp Sensor	4×3 DFN-14	\$2.95
LTC2498	24	8/16	15	1	10ppm	2.5µV	25ppm	0.48	0.48	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I	Easy Drive, Temp Sensor	5×7 QFN-38	\$3.45
LTC2499	24	8/16	15	1	10ppm	2.5µV	25ppm	0.48	0.48	2.7 to 5.5	yes	ℓ°C		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I	Easy Drive, Temp Sensor	5×7 QFN-38	\$3.45
LTC2400	24		7.5	1	10ppm	2ppm	10ppm	1	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes	I		SO-8	\$5.50
LTC2401	24		7.5	1	10ppm	2ppm	10ppm	1	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes	I		MSOP-10	\$5.30
LTC2402	24	2	7.5	1	10ppm	2ppm	10ppm	1	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes	I		MSOP-10	\$5.60
LTC2404	24	4	7.5	1	10ppm	2ppm	10ppm	1	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes	I		SSOP-28	\$6.00
LTC2408	24	8	7.5	1	10ppm	2ppm	10ppm	1	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes	I		SSOP-28	\$6.25
LTC2410	24		7.5	1	14ppm	2.5mV	12ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		SSOP-16	\$5.50
LTC2411	24		7.5	1	14ppm	2.5mV	12ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		MSOP-10	\$5.50
LTC2411-1	24		7.5	1	14ppm	20mV	12ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		MSOP-10	\$5.50
LTC2413	24		7.5	1	14ppm	2.5mV	12ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		SSOP-16	\$5.50
LTC2412	24	2	7.5	1	14ppm	2.5µV	12ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		SSOP-16	\$4.75
LTC2414	24	4/8	7.5	1	14ppm	10mV	12ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		SSOP-28	\$6.25
LTC2418	24	8/16	7.5	1	14ppm	10mV	12ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		SSOP-28	\$6.95
LTC2435	20		15	1	20ppm	5mV	25ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		SSOP-16	\$3.55
LTC2435-1	20		13.75	1	20ppm	5mV	25ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		SSOP-16	\$3.55
LTC2420	20		7.5	1	10ppm	10ppm	10ppm	1	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes	I		SO-8	\$4.25
LTC2421	20		7.5	1	10ppm	10ppm	10ppm	1	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes	I		MSOP-10	\$4.35
LTC2422	20	2	7.5	1	10ppm	10ppm	10ppm	1	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes	I		MSOP-10	\$4.50
LTC2424	20	4	7.5	1	10ppm	10ppm	15ppm	1	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes	I		SSOP-28	\$4.75
LTC2428	20	8	7.5	1	10ppm	10ppm	15ppm	1	1	2.7 to 5.5		SPI		0 to V <sub>REF</sub> ±12%	yes	I		SSOP-28	\$5.25
LTC2430	20		7.5	1	20ppm	20mV	20ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		SSOP-16	\$3.55
LTC2431	20		7.5	1	20ppm	20mV	20ppm	1	1	2.7 to 5.5	yes	SPI		-V <sub>REF</sub> /2 to V <sub>REF</sub> /2	yes	I		MSOP-10	\$3.70
<b>LTC2209#3BC</b>	<b>16</b>	<b>180M</b>	<b>76.5</b>	<b>1</b>	<b>2.5</b>	<b>16mV</b>	<b>2%</b>	<b>1700</b>	<b>3.3</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>±0.75V to ±1.125V</b>	<b>yes</b>	<b>I</b>	<b>LVDS or CMOS Outputs</b>	<b>9×9 QFN-64</b>	<b>C.F.</b>
LTC2209	16	160M	77.1	1	5	10mV	2%	1450	3.3	yes	yes	yes	yes	±0.75V to ±1.125V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$72.50
LTC2208	16	130M	77.7	1	4.5	8.5mV	1.5%	1250	3.3	yes	yes	yes	yes	±0.75V to ±1.125V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$65.00
<b>LTC2217</b>	<b>16</b>	<b>105M</b>	<b>81.2</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>yes</b>	<b>yes</b>	<b>yes</b>	<b>±1.375V</b>	<b>yes</b>	<b>I</b>	<b>Low Noise</b>	<b>9×9 QFN-64</b>	<b>\$68.00</b>
<b>LTC2274</b>	<b>16</b>	<b>105M</b>	<b>77.5</b>	<b>1</b>	<b>4.5</b>	<b>8.5mV</b>	<b>1.50%</b>	<b>1300</b>	<b>3.3</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>±0.75V to ±1.125V</b>	<b>yes</b>	<b>I</b>	<b>High Speed Current Mode Logic Serial Outputs</b>	<b>6×6 QFN-40</b>	<b>\$68.00</b>
LTC2207	16	105M	77.9	1	4.5	8.5mV	1.5%	900	3.3	yes	yes	yes	yes	±0.75V to ±1.125V	yes	I		7×7 QFN-48	\$56.67
<b>LTC2216</b>	<b>16</b>	<b>80M</b>	<b>81.3</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>yes</b>	<b>yes</b>	<b>yes</b>	<b>±1.375V</b>	<b>yes</b>	<b>I</b>	<b>Low Noise</b>	<b>9×9 QFN-64</b>	<b>\$58.00</b>
LTC2206	16	80M	77.9	1	4.5	8.5mV	1.5%	725	3.3	yes	yes	yes	yes	±0.75V to ±1.125V	yes	I		7×7 QFN-48	\$48.33
<b>LTC2215</b>	<b>16</b>	<b>65M</b>	<b>81.5</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>yes</b>	<b>yes</b>	<b>yes</b>	<b>±1.375V</b>	<b>yes</b>	<b>I</b>	<b>Low Noise</b>	<b>9×9 QFN-64</b>	<b>\$52.00</b>
LTC2205	16	65M	79	1	4.5	8.5mV	1.9%	610	3.3	yes	yes	yes	yes	±0.75V to ±1.125V	yes	I		7×7 QFN-48	\$43.33
LTC2204	16	40M	79.1	1	4.5	8.5mV	1.9%	480	3.3	yes	yes	yes	yes	±0.75V to ±1.125V	yes	I		7×7 QFN-48	\$35.00
LTC2203	16	25M	81.5	1	4.5	10mV	1.5%	220	3.3	yes	yes	yes	yes	±0.834V to ±1.25V	yes	I	Single Ended Clock	7×7 QFN-48	\$30.00
LTC2202	16	10M	81.5	1	4.5	10mV	1.5%	140	3.3	yes	yes	yes	yes	±0.834V to ±1.25V	yes	I	Single Ended Clock	7×7 QFN-48	\$25.00
LTC1608A	16	500K	90	1	2	0.13%	0.25%	270	±5	yes	yes	yes	yes	±2.5V	yes	I		SSOP-36	\$16.50
LTC1604A	16	333K	90	1	2	0.13%	0.25%	220	±5	yes	yes	yes	yes	±2.5V	yes	I		SSOP-36	\$20.50
LTC1603	16	250K	90	1	3	0.13%	0.25%	220	±5	yes	yes	yes	yes	±2.5V	yes	I		SSOP-36	\$9.95
LTC1864A	16	250K	83	2	6	5mV	20mV	4.25	5			SPI		0V to 5V	yes	I		MSOP-8/SO-8	\$5.95
LTC1865A	16	2	250K	83	2	6	5mV	20mV	4.25	5		SPI		0V to 5V	yes	I		MSOP-8/SO-8	\$6.45

† Primary Sort Column  
‡ Secondary Sort Column

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





ADCs (ALL)

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 (1)
LTC1606A	16		250K	90	1	2	10mV	0.25%	75	5	yes		yes	±10V	no	l		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	l		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	l		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	l		SSOP-16	\$7.75
LTC1864LA	16		150K	82	2	6	5mV	20mV	1.22	3		SPI		0V to 3V	yes	l		MSOP-8/SO-8	\$5.95
LTC1865LA	16	2	150K	82	2	6	5mV	20mV	1.22	3		SPI		0V to 3V	yes	l		MSOP-8/SO-8	\$6.45
LTC1605A	16		100K	87	1	2	10mV	0.25%	55	5	yes		yes	±10V	no	l		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	l		DIP-28/SSOP-28	\$17.00
LTC1605-2	16		100K	87	2	3	10mV	0.50%	55	5	yes		yes	±4V	no	l		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	l	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	l	±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 VCC	yes	l	Ultra Tiny ΔΣ ADC	2×2 DFN-6	\$1.15
LTC2451	16		60		1	10	2mV	0.02%	1.05	2.7 to 5.5		I <sup>2</sup> C		0V to VCC	yes	l	Ultra Tiny ΔΣ ADC, 60Hz Output	3×2 DFN-8/TSOT-8	\$1.15
LTC2452	16		60		1	10	2mV	0.02%	1.05	2.7 to 5.5		SPI		0V to VCC	yes	l	Ultra Tiny ΔΣ ADC, Differential Input	3×2 DFN-8/TSOT-8	\$1.25
LTC2453	16		60		1	10	2mV	0.02%	1.05	2.7 to 5.5		I <sup>2</sup> C		0V to VCC	yes	l	Ultra Tiny ΔΣ ADC, Differential Input	3×2 DFN-8/TSOT-8	\$1.25
LTC2450	16		30		1	10	2mV	0.02%	1.05	2.7 to 5.5		SPI		0V to VCC	yes	l	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		-VREF/2 to VREF/2	yes	l	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		-VREF/2 to VREF/2	yes	l	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		-VREF/2 to VREF/2	yes	l	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		-VREF/2 to VREF/2	yes	l	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		-VREF/2 to VREF/2	yes	l	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		-VREF/2 to VREF/2	yes	l	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		-VREF/2 to VREF/2	yes	l	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		-VREF/2 to VREF/2	yes	l	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		-VREF/2 to VREF/2	yes	l	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		-VREF/2 to VREF/2	yes	l	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		-VREF/2 to VREF/2	yes	l	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		-VREF/2 to VREF/2	yes	l	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		-VREF/2 to VREF/2	yes	l		MSOP-10	\$1.95
LTC2436-1	16	2	6.8		1	3	1	3	1	2.7 to 5.5	yes	SPI		-VREF/2 to VREF/2	yes	l		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		-VREF/2 to VREF/2	yes	l		SSOP-28	\$3.75
LTC2285	14		125M			0.6	1.5	12mV	2.5%	790	3	yes	yes	±0.5V to ±1V	yes	l		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	l		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	l	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	l		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	l		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	l	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	l		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	l	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	l		TSSOP-48	\$24.65
LTC2248	14		65M	74.3	1	4	12mV	2.5%	205	3	yes	yes	yes	±0.5V to ±1V	yes	l		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	l	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	l		TSSOP-48	\$25.00
LTC2247	14		40M	74.4	1	4	12mV	2.5%	120	3	yes	yes	yes	±0.5V to ±1V	yes	l		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	l	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	l		TSSOP-48	\$12.75
LTC2246	14		25M	74.5	1	4	12mV	2.5%	75	3	yes	yes	yes	±0.5V to ±1V	yes	l, 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	l	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	l		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	l	Dual ADC	9×9 QFN-64	\$17.00

† 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 (1)
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

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

ADCs (ALL)

Part Number	† Bits	MUX	†† Speed (SPS)	SINAD (dB)	DNL (LSB)	INL (LSB)	Offset (LSB)	Full-Scale (LSB)	Power (mW)	Supply (V)	Bipolar Input	Serial I/O	Internal Reference	Input Span	Shutdown	Ext. Temp.	Comments	Package-Pins	Price 1K Q <sup>(1)</sup>
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  
ADCs (ALL)

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>
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>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>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>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  
 GENERAL PURPOSE ADCs  
 Interface  
 High Frequency  
 Reference Material



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>
LTC2302	12		500K	1	1	6	9	15	5	73	yes	yes		0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	3×3 DFN-10	\$2.10
LTC2306	12	2	500K	1	1	6	9	15	5	73	yes	yes		0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	3×3 DFN-10	\$2.10
LTC2308	12	8	500K	1	1	6	9	17.5	5	73	yes	yes	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	4×4 QFN-24	\$2.95
LTC1278-5	12		500K	1	1	4	15	75	5, ±5	70	yes		yes	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
LTC2361	12		250K	1	1	3	4	2.2	2.35 to 3.6	72		yes		0V to 3.6V	yes	I, H	TSOT-6/TSOT-8	C.F.
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
LTC2360	12		100K	1	1	3	4	1.5	2.35 to 3.6	72		yes		0V to 3.6V	yes	I, H	TSOT-6/TSOT-8	C.F.
LTC1274	12		100K	1	1	6	20	10	5, ±5	72.5	yes		yes	0V to 4V, ±2V	yes	I	SO(W)-24	\$7.60
LTC1277	12		100K	1	1	6	20	10	5, ±5	72.5	yes		yes	0V to 4V, ±2V	yes	I	SO(W)-24	\$8.00
LTC1857	12	8	100K	1	1	6	0.45%	40	5	74	yes	yes	yes	0V to 5V, 0V to 10V, ±5V, ±10V	yes	I	SSOP-28	\$8.95
LTC1854	12	8	100K	1	1	5	0.45%	40	5	74	yes	yes	yes	±10V	yes	I	SSOP-28	\$5.60
LTC1292	12		60K	1	0.5	3	0.5	30	5			yes		0V to 5V	no	I	DIP-8	\$14.80
LTC1291	12	2	54K	1	0.5	3	1	30	5			yes		0V to 5V	yes		DIP-8	\$9.40
LTC1290B	12	8	50K	1	0.5	1.5	0.5	30	5, ±5		yes	yes		0V to 5V, ±5V	yes	I	DIP-20/SO(W)-20	\$6.60
LTC1297	12		50K	1	0.5	3	0.5	30	5			yes		0V to 5V	yes		DIP-8	\$17.75
LTC1293	12	6	46K	1	0.5	3	0.5	30	5, ±5		yes	yes		0V to 5V, ±5V	yes		DIP-16/SO(W)-16	\$9.40
LTC1294B	12	8	46K	1	0.5	3	0.5	30	5, ±5		yes	yes		0V to 5V, ±5V	yes		DIP-20/SO(W)-20	\$9.40
LTC1296B	12	8	46K	1	0.5	3	0.5	30	5, ±5		yes	yes		0V to 5V, ±5V	yes	I	DIP-20/SO(W)-20	\$8.35
LTC1287	12		30K	1	0.5	3	0.5	4.5	3			yes		0V to 3V	no		DIP-8	\$17.05
LTC1289B	12	8	25K	1	0.5	1.5	0.5	4.5	3, ±3		yes	yes		0V to 3V, ±3V	yes		DIP-20/SO(W)-20	\$18.15
LTC2301	12	1	14K	1	1	6	9	TBD	5	73	yes	I <sup>2</sup> C	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	4×3 DFN-12	C.F.
LTC2305	12	2	14K	1	1	6	9	TBD	5	73	yes	I <sup>2</sup> C	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	4×3 DFN-12	C.F.
LTC2309	12	8	14K	1	1	6	9	11.5	5	73	yes	I <sup>2</sup> C	yes	0V to V <sub>REF</sub> , ±V <sub>REF</sub> /2	yes	I	4×4 QFN-24/TSSOP-20	\$2.95
LTC1594	12	4	16.8K	0.75	3	3	8	1.6	5	71		yes		0V to 5V	yes	I	SO-16	\$5.65
LTC1598	12	8	16.8K	0.75	3	3	8	1.6	5	71		yes		0V to 5V	yes	I	SSOP-24	\$5.80
LTC1286	12		12.5K	0.75	2	3	8	1.25	4.5 to 9	68		yes		0V to 5V	yes	I	DIP-8/SO-8	\$5.20
LTC1298	12	2	11.1K	0.75	2	3	8	1.7	5	68		yes		0V to 5V	yes	I	DIP-8/SO-8	\$5.20
LTC1594L	12	4	10.5K	0.75	3	3	8	0.48	3	68		yes		0V to 3V	yes	I	SO-16	\$5.65
LTC1598L	12	8	10.5K	0.75	3	3	8	0.48	3	68		yes		0V to 3V	yes	I	SSOP-24	\$5.80
LTC1285	12		7.5K	0.75	2	3	8	0.48	2.7 to 6	67		yes		0V to 3V	yes	I	DIP-8/SO-8	\$6.35
LTC1288	12	2	6.6K	0.75	2	3	8	0.63	2.7 to 6	67		yes		0V to 3V	yes	I	DIP-8/SO-8	\$6.35
LTC1850	10	8	1.25M	0.5	0.5	2	2	50	5		yes		yes	0V to V <sub>REF</sub> , 0V to V <sub>REF</sub> /2, ±V <sub>REF</sub> /2, ±V <sub>REF</sub> /4	yes	I	TSSOP-48	\$5.95
LTC1197	10		500K	1	1	2	4	22.5	4 to 9	60		yes		0V to 6V	yes	I	MSOP-8/SO-8	\$2.45
LTC1199	10	2	450K	1	1	2	4	25	4 to 6	60		yes		0V to 6V	yes	I	MSOP-8/SO-8	\$2.45
LTC1852	10	8	400K	1	1	2	2	2.25	2.7 to 5.5	72.5	yes		yes	0V to V <sub>REF</sub> , 0V to V <sub>REF</sub> /2, ±V <sub>REF</sub> /2, ±V <sub>REF</sub> /4	yes	I	TSSOP-48	\$5.95
LTC1197L	10		250K	1	1	2	4	2.2	2.7 to 4	58		yes		0V to 3V	yes	I	MSOP-8/SO-8	\$2.45
LTC1199L	10	2	210K	1	1	2	4	2.2	2.7 to 4	58		yes		0V to 3V	yes	I	MSOP-8/SO-8	\$2.45

† 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
LTC2209#3BC	16			180	76.5	96	1	1	5	15mV	2.0%	1700	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	C.F.	
LTC2209	16			160	77.1	100	1	1	5	10mV	2%	1450	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I	LVDS or CMOS Outputs	9×9 QFN-64	\$72.50	
LTC2208	16			130	77.7	100	1	4.5	8.5mV	1.5%	1250	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I	LVDS Outputs	9×9 QFN-64	\$65.00		
LTC2217	16			105	81.2	100	1	4	6mV	1.0%	1190	3.3	yes	7	yes	±1.375V	yes	I	Low Noise	9×9 QFN-64	\$68.00		
LTC2274	16			105	77.5	100	1	4.5	8.5mV	1.5%	1300	3.3	yes	yes	9	yes	±0.75V to ±1.125V	yes	I	High Speed Serial Outputs	6×6 QFN-40	\$68.00	
LTC2207	16			105	77.9	100	1	4.5	8.5mV	1.5%	900	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I		7×7 QFN-48	\$56.67		
LTC2216	16			80	81.3	100	1	3.5	6mV	1.0%	970	3.3	yes	7	yes	±1.375V	yes	I	Low Noise	9×9 QFN-64	\$58.00		
LTC2206	16			80	77.9	100	1	4.5	8.5mV	1.5%	725	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I		7×7 QFN-48	\$48.33		
LTC2215	16			65	81.5	100	1	3.5	6mV	1.0%	700	3.3	yes	7	yes	±1.375V	yes	I	Low Noise	9×9 QFN-64	\$52.00		
LTC2205	16			65	79	100	1	4.5	8.5mV	1.9%	610	3.3	yes	7	yes	±0.75V to ±1.125V	yes	I		7×7 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		7×7 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	7×7 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	7×7 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		9×9 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	9×9 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		5×5 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		7×7 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		5×5 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	9×9 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		7×7 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		5×5 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	9×9 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		9×9 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		5×5 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	9×9 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



Part Number	†	ADC	MUX	††	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
	Bits			Speed (MSPS)																			
LTC1851	12		8	1.25				1	1	7	6	50	5	yes				0V to $V_{REF}$ , 0V to $V_{REF}/2$ $\pm V_{REF}/2$ , $\pm V_{REF}/4$	yes	I		SSOP-48	\$6.95
LTC2222-11	11			105	65.6	84		0.8	1	37mV	2.5%	475	3.3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I		7x7 QFN-48	\$14.50
LTC2242-10	10			250	60.4	78		0.7	1	17mV	3.5%	740	2.5	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	LVDS or CMOS Outputs	9x9 QFN-64	\$39.00
LTC2241-10	10			210	60.5	78		0.6	0.8	15mV	3.5%	585	2.5	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	LVDS or CMOS Outputs	9x9 QFN-64	\$32.00
LTC2240-10	10			170	60.5	80		0.6	0.8	15mV	3.8%	445	2.5	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	LVDS or CMOS Outputs	9x9 QFN-64	\$25.00
LTC2230	10			170	61.2	80		0.6	0.8	35mV	2.5%	890	3.3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	LVDS or CMOS Outputs	9x9 QFN-64	\$29.20
LTC2231	10			135	61.2	80		0.6	0.8	35mV	2.5%	660	3.3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	LVDS or CMOS Outputs	9x9 QFN-64	\$20.00
LTC2234	10			135	61.2	80		0.6	0.8	37mV	2.5%	630	3.3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	CMOS Outputs	7x7 QFN-48	\$20.00
LTC2281	10	2		125	61.6	85		0.6	0.6	12mV	2.5%	790	3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	Dual ADC	9x9 QFN-64	\$18.00
LTC2251	10			125	61.5	85		0.6	0.6	12mV	2.5%	395	3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I		5x5 QFN-32	\$12.00
LTC2250	10			105	61.6	85		0.6	0.6	12mV	2.5%	320	3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	Single-Ended Clock, 640MHz FPBW T/H	5x5 QFN-32	\$7.50
LTC2232	10			105	61.3	80		0.6	0.8	37mV	2.5%	475	3.3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	Differential Clock, 775MHz FPBW T/H	7x7 QFN-48	\$8.35
LTC2280	10	2		105	61.6	85		0.6	0.6	12mV	2.5%	540	3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	Dual ADC	9x9 QFN-64	\$11.25
LTC2233	10			80	61.3	80		0.6	0.8	37mV	2.5%	366	3.3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I		7x7 QFN-48	\$6.70
LTC2289	10	2		80	61.6	85		0.5	0.6	12mV	2.5%	422	3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	Dual ADC	9x9 QFN-64	\$10.05
LTC2238	10			65	61.8	85		0.5	0.5	12mV	2.5%	205	3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I		5x5 QFN-32	\$5.00
LTC2288	10	2		65	61.8	85		0.5	0.6	12mV	2.5%	400	3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	Dual ADC	9x9 QFN-64	\$7.50
LTC2237	10			40	61.8	85		0.5	0.5	12mV	2.5%	120	3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I		5x5 QFN-32	\$4.80
LTC2287	10	2		40	61.8	85		0.5	0.6	12mV	2.5%	235	3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	Dual ADC	9x9 QFN-64	\$7.20
LTC2236	10			25	61.8	85		0.5	0.5	12mV	2.5%	75	3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I		5x5 QFN-32	\$3.50
LTC2286	10	2		25	61.8	85		0.5	0.6	12mV	2.5%	150	3	yes				$\pm 0.5V$ to $\pm 1V$	yes	I	Dual ADC	9x9 QFN-64	\$5.25
LTC1850	10		8	1.25				0.5	0.5	2	2	50	5	yes				0V to $V_{REF}$ , 0V to $V_{REF}/2$ $\pm V_{REF}/2$ , $\pm V_{REF}/4$	yes	I		SSOP-48	\$5.95
LTC1406	8			20	47.5	60	59	1	1	8	5	150	5	yes				0V to 2V, $\pm 1V$	yes	I		SSOP-24	\$3.20
LTC1196	8			1	47	93	49	1	0.5	0.5	0.5	4.5	5	yes	yes			0V to 5V	yes			S0-8	\$2.40

† Primary Sort Column  
†† Secondary Sort Column

Amps, Refs,  
Filters, Comps  
Power  
Management  
Data  
Conversion  
HI SPEED /  $\Delta\Sigma$  ADCs

No Latency  $\Delta\Sigma$  ADCs

Part Number	†	MUX	Output Rate with Internal Clock (Hz)	Output Rate Max (Hz)	††	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
	Bits				Noise ( $\mu V_{RMS}$ )																	
LTC2440	24		3.5k	4k	0.2	1	15	5 $\mu V$	30	yes	120	yes	40	4.5 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI				SSOP-16	\$5.75
LTC2445	24	4/8	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.2	1	15	5 $\mu V$	50	yes	120	yes	40	4.5 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI				QFN-38	\$6.45
LTC2447	24	4/8	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.2	1	15	5 $\mu V$	50	yes	120	yes	40	4.5 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI				QFN-38	\$7.15
LTC2449	24	8/16	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.2	1	15	5 $\mu V$	50	yes	120	yes	40	4.5 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI				QFN-38	\$7.15
LTC2442	24	2/4	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.22	1	10	5 $\mu V$	50	yes	120	yes	50	4.5 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI				SSOP-36	\$7.45
LTC2444	24	4/8	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.28	1	15	5 $\mu V$	50	yes	120	yes	40	4.5 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI				QFN-38	\$6.45
LTC2446	24	4/8	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.28	1	15	5 $\mu V$	50	yes	120	yes	40	4.5 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI				QFN-38	\$7.15
LTC2448	24	8/16	3.5k, 7k <sup>(1)</sup>	4k, 8k <sup>(1)</sup>	0.28	1	15	5 $\mu V$	50	yes	120	yes	40	4.5 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI				QFN-38	\$7.15
LTC2484	24		6.8	15	0.6	1	10	2.5 $\mu V$	25	yes	110	yes	0.48	2.7 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI	yes			DFN-10	\$2.45
LTC2485	24		6.8	15	0.6	1	10	2.5 $\mu V$	25	yes	110	yes	0.48	2.7 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	I <sup>2</sup> C	yes			DFN-10	\$2.45
LTC2492	24	2/4	15	100	0.6	1	10	2.5 $\mu V$	25	yes	120	yes	0.48	2.7 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI	yes			DFN-14	\$2.95
LTC2493	24	2/4	15	195	0.6	1	10	2.5 $\mu V$	25	yes	120	yes	0.48	2.7 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	I <sup>2</sup> C	yes			DFN-14	\$2.95
LTC2498	24	8/16	15	100	0.6	1	10	2.5 $\mu V$	25	yes	120	yes	0.48	2.7 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI	yes			QFN-38	\$3.45
LTC2499	24	8/16	15	100	0.6	1	10	2.5 $\mu V$	25	yes	120	yes	0.48	2.7 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	I <sup>2</sup> C	yes			QFN-38	\$3.45
LTC2410	24		7.5	100	0.8	1	14	2.5 $\mu V$	12	yes	140		1	2.7 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI				SSOP-16	\$5.50
LTC2413	24		6.8	100	0.8	1	14	2.5 $\mu V$	12	yes	87	yes	1	2.7 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI				SSOP-16	\$5.50
LTC2412	24	2	7.5	100	0.8	1	14	2.5 $\mu V$	12	yes	140		1	2.7 to 5.5	yes	$-V_{REF}/2$ to $V_{REF}/2$	SPI				SSOP-16	\$4.75

† Primary Sort Column  
†† Secondary Sort Column

Interface  
High  
Frequency  
Reference  
Material



# No Latency $\Delta\Sigma$ ™ ADCs

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

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



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

# DACs (ALL)

Amps, Refs, Filters, Comps

Power Management

Data Conversion  
**DACs (ALL)**

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
LTC2640-10	10	1	±1	±1	4	Serial SPI	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	TBD	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	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Midscale Options, H-Grade	I, H	TSOT-8	C.F.
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
LTC2640-8	8	1	±1	±0.5	3.5	Serial SPI	Int	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	TBD	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	Voltage	0V to 2.5V, 0V to 4.096V, 0V to V <sub>REF</sub>	2.7 to 5.5	0.54	Internal 2.5V or 4.096V References Bonded Out, Reset to Zero-Scale or Midscale Options, H-Grade	I, H	TSOT-8	C.F.
LTC1428-50	8	1	±0.9			Pulse Mode	Ext	Current	50μA sinking	3 to 6.5	0.39	Ideal for Digital Voltage Adjustment on DC/DC Converters		SO-8	\$2.55
LTC1329-50	8	1	±0.9			Pulse Mode	Ext	Current	50μA sourcing	2.7 to 6.5	0.84	Ideal for Digital Voltage Adjustment on DC/DC Converters	I	SO-8	\$2.55
LTC1329-10	8	1	±0.9			Pulse Mode	Ext	Current	10μA sourcing	2.7 to 6.5	0.14	Ideal for Digital Voltage Adjustment on DC/DC Converters		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

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
LTC2640A-12	12	1	±1	±1	4.5	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.
LTC2631A-12	12	1	±1	±1	4.5	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.
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  
V<sub>OUT</sub> DACs

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
<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>0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V</b>	<b>2.7 to 5.5</b>	<b>2.5</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>\$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
<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>0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V</b>	<b>2.7 to 5.5</b>	<b>2.5</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>\$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
<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>0V to 5V, 0V to 10V, ±5V, ±10V, ±2.5V, 2.5V to 7.5V</b>	<b>2.7 to 5.5</b>	<b>2.5</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>
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					Output	Supply Voltage (V)	Power (Typ) (W)	Package	Price 1K Qty
		ADC	ADC Driver	Passive Filter	IF Range	Gain Options (dB)					
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**
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# Interface

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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

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/DRVR 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

Interface  
SIMMULTIPROTOCOL

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 (2)
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

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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/DEMOM

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

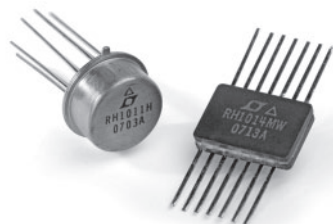
Power  
Management

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

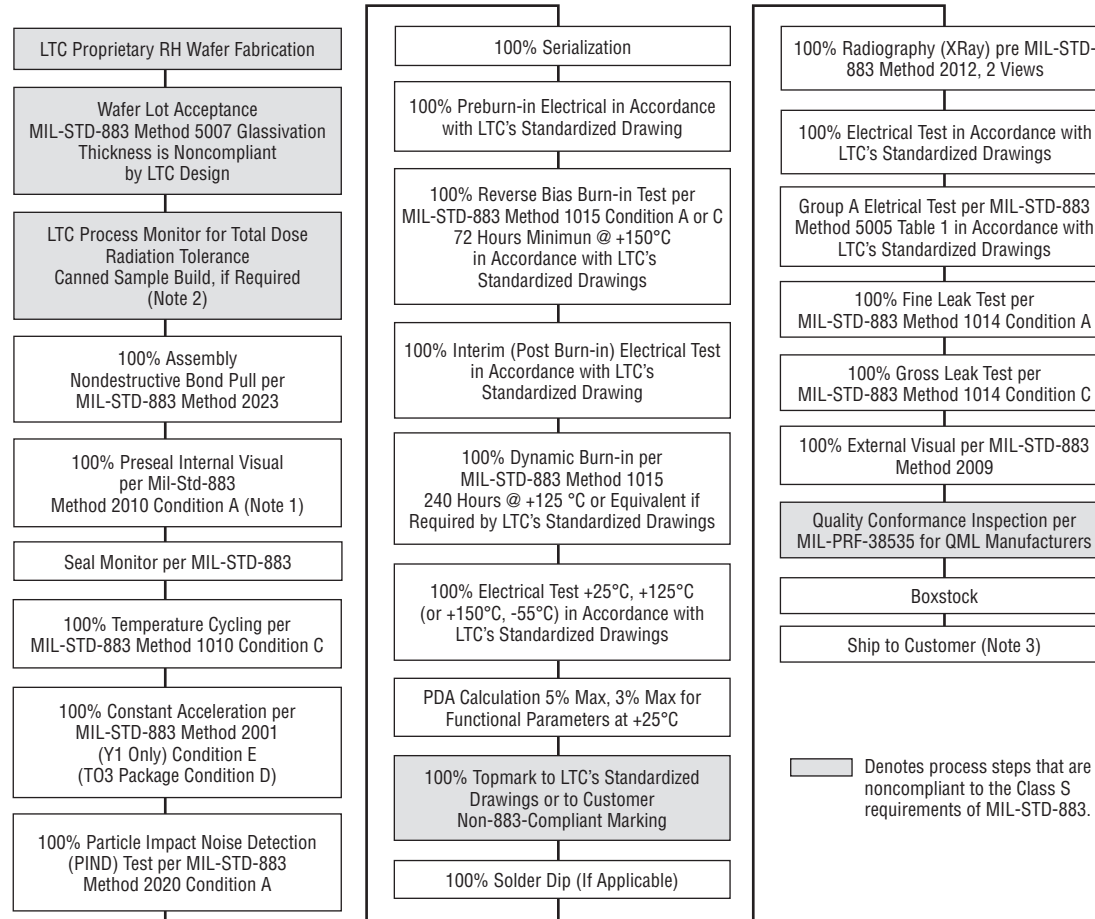
## References

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/ $^{\circ}$ 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/ $^{\circ}$ 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/ $^{\circ}$ 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  
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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:**

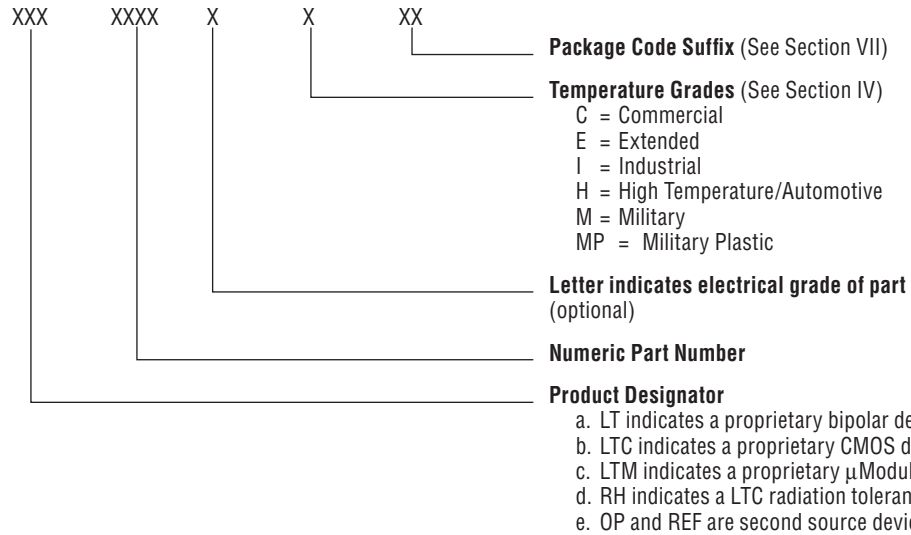
Ordering a part in tape and reel with a Lead (Pb) Free lead finish:

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  $\Delta\Sigma^{\text{TM}}$  24-bit ADC. These circuits offer the customer a number of choices for conditioning differential input signals as low as 5mV to as high as  $\pm 2.5V$ , as well as operation on a single 5V or  $\pm 5V$  supplies. Each circuit description also covers circuit design and implementation techniques that can help preserve the LTC2400's inherently high effective resolution. AN78 concludes with two circuits for digitizing temperature when using an RTD or Type S thermocouple.

**AN80 How to Use the World's Smallest 24-Bit No Latency Delta-Sigma<sup>TM</sup> ADC to its Fullest Potential**

Linear Technology's LTC2400 is the world's first 24-bit ADC in an SO-8 package. An innovative new delta-sigma architecture has been developed. The result is a small, highly accurate, simple-to-use delta-sigma ADC. This Application Note was created to educate users on several topics associated with delta-sigma converters and to dispel confusion associated with this new one-shot, or No Latency  $\Delta\Sigma^{\text{TM}}$  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/ $^{\circ}C$  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 $^{\circ}C$ , 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 used 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***  
Application Note 67 is a collection of circuits for data conversion, interface and signal processing from the first five years of *Linear Technology*. This application note includes circuits such as fast video multiplexers for high speed video, an ultraselective bandpass filter circuit with adjustable gain, and a fully differential, 8-channel, 12-bit A/D system. The categories included in this app note are data conversion, interface, filters, instrumentation, video/op amps and miscellaneous circuits.

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**High Frequency Application Notes****AN91 Low Cost Coupling Methods for RF Power Detectors Replace Directional Couplers**

AN91 describes an RF feedback coupling method which eliminates the directional coupler. Instead, a  $0.4\text{pF} \pm 0.05\text{pF}$  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**	—

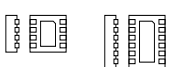
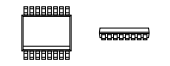
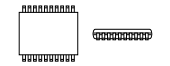
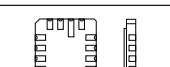
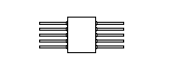
\*Package Outlines Not to Scale  
 \*\*Closest Package, Comparable Footprint

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

# PACKAGE CROSS REFERENCE




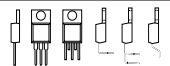
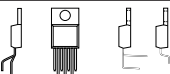

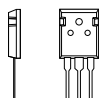
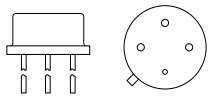
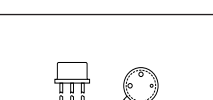
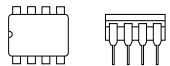
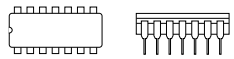
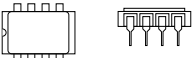
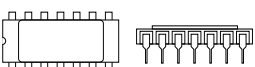


Amps, Refs, Filters, Comps  
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 Data Conversion  
 Interface  
 High Frequency  
 Reference Material  
**PKG CROSS REF**

	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 × 2mm)	DC	—	—	—	TA
		6- and 8-Lead DFN (2mm × 3mm)	DCB	—	—	—	—
		8-, 10- and 12-Lead DFN (3mm × 3mm)	DD	—	CP**	DRB, DRC	TA
		8-, 10- and 12-Lead DFN (3mm × 2mm)	DDB	—	CP**	—	—
		12-, 14 and 16-Lead DFN (4mm × 3mm)	DE	—	—	—	—
		12-Lead DFN (4mm × 3mm)	UE	—	—	—	—
		16-Lead DFN (5mm × 5mm)	DH	—	—	—	—
		16-Lead DFN (5mm × 3mm)	DHC	—	—	—	—
		16-Lead DFN (5mm × 4mm)	DHD	—	—	—	—
		22-Lead DFN (6mm × 3mm)	DJC	—	—	—	—
		32-Lead DFN (7mm × 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

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	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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# 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	LT1306ECS8	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	1120I	LT1120IS8	117450	LTC1174CS8-5	1227	LT1227CS8	1307BI	LT1307BIS8	1376	LT1376CS8	
050HVH	LTC2050HVHS8	106961	LTC1069-6IS8	1121	LT1121CS8	1174H	LTC1174HVCS8-5	1228	LT1228CS8	1307I	LT1307IS8	13765	LT1376CS8-5	
050HVI	LTC2050HVHS8	10697	LTC1069-7CS8	11213	LT1121CS8-3.3	1174H3	LTC1174HVCS8-3.3	1228I	LT1228IS8	1308	LT1308CS8	1376HV	LT1376HVCS8	
051HVH	LTC2051HVHS8	106971	LTC1069-7IS8	11213	LT1121CST-3.3	1174H5	LTC1174HVCS8-5	1229	LT1229CS8	1308A	LT1308ACS8	13761	LT1376IS8	
051HVI	LTC2051HVHS8	1072	LT1072CS8	11215	LT1121CS8-5	1174HI	LTC1174HVIS8	1232	LTC1232CS8	1308AI	LT1308AIS8	137615	LT1376IS8-5	
052HVH	LTC2052HVHGN	1073	LT1073CS8	11215	LT1121CST-5	1174I	LTC1174IS8	1232I	LTC1232IS8	1308B	LT1308BCS8	1377	LT1377CS8	
052HVI	LTC2052HVIGN	10731	LT1073CS8-12	1121A	LT1121ACS8	1175	LT1175CS8	1234	LT1234CS8	1308B1	LT1308BIS8	13771	LT1377IS8	
1001	LT1001CS8	10735	LT1073CS8-5	1121A3	LT1121ACS8-3.3	11755	LT1175CS8-5	1241	LT1241CS8	1308I	LT1308IS8	1380	LTC1380CGN	
1006	LT1006S8	1077	LT1077S8	1121A5	LT1121ACS8-5	11755	LT1175CST-5	1241I	LT1241IS8	1309	LT1309CS8	13801	LTC1380IGN	
1007	LT1007CS8	10771	LT1077IS8	1121HV	LT1121HVCS8	1175I	LT1175IS8	1242	LT1242CS8	1312	LT1312CS8	1389B4	LT1389BCS8-4.096	
1007I	LT1007IS8	1078	LT1078S8	1121I	LT1121IS8	1175I5	LT1175IS8-5	1242I	LT1242IS8	1316	LT1316CS8	1389B5	LT1389BCS8-5	
1008	LT1008S8	10781	LT1078IS8	112115	LT1121IS8T-5	1175I5	LT1175IS8T-5	1243	LT1243CS8	1316I	LT1316IS8	1391	LTC1391CGN	
1009	LT1009S8	10905	LT1109CS8-5	1122C	LT1122CS8	1178	LT1178S8	1243I	LT1243IS8	1317	LT1317CS8	1391I	LTC1391IGN	
1009I	LT1009IS8	10912	LT1109CS8-12	1122D	LT1122DS8	1187	LT1187CS8	1244	LT1244CS8	1317B	LT1317BCS8	1392	LTC1392CS8	
1011	LT1011CS8	1096	LTC1096CS8	1123	LT1123CST	1189	LT1189CS8	1244I	LT1244IS8	1317BI	LT1317BIS8	1392I	LTC1392IS8	
1011AI	LT1011AIS8	1096A	LTC1096ACS8	11232	LT1123CS8-2.85	1190	LT1190CS8	1245	LT1245CS8	1317I	LT1317IS8	1393	LTC1393CGN	
1011I	LT1011IS8	1096AI	LTC1096AIS8	1124	LT1124CS8	1191	LT1191CS8	1245I	LT1245IS8	1326	LTC1326CS8	1393I	LTC1393IGN	
1012	LT1012S8	1096I	LTC1096IS8	1124AI	LT1124AIS8	1192	LT1192CS8	1246	LT1246CS8	132625	LTC1326CS8-2.5	1394	LT1394CS8	
1012A	LT1012ACS8	1096L	LTC1096LCS8	1124I	LT1124IS8	1193	LT1193CS8	1247	LT1247CS8	1326I	LTC1326IS8	1394I	LT1394IS8	
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1012I	LT1012IS8	1097	LT1097S8	1128	LT1128CS8	1194	LT1194CS8	1249I	LT1249IS8	1328I	LT1328IS8	1395I	LT1395IS8	
1013	LT1013DS8	1098	LTC1098CS8	1129	LT1129CS8	1195	LT1195CS8	1250	LTC1250CS8	13291	LTC1329CS8-10	1396	LT1396CS8	
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1016	LT1016CS8	1098AI	LTC1098AIS8	11293	LT1129CST-3.3	11961B	LTC1196-1BCS8	1253	LT1253CS8	1329A5	LTC1329ACS8-50	1397	LT1397HDE	
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1017	LT1017CS8	1098L	LTC1098LCS8	11295	LT1129CST-5	11962B	LTC1196-2BCS8	1255I	LTC1255IS8	1340	LTC1340CS8	1397I	LT1397IGN	
1017I	LT1017IS8	1098LI	LTC1098LIS8	1129I	LT1129IS8	1197	LT1197CS8	1257	LT1257CS8	1351	LT1351CS8	1399	LT1399CGN	
1018	LT1018CS8	11012	LT1110CS8-12	1129I3	LT1129IS8-3.3	1197I	LTC1197IS8	1257I	LTC1257IS8	1352	LT1352CS8	1399I	LT1399IGN	
1018I	LT1018IS8	1107	LT1107CS8	1129I5	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	LTC1258CS8-5	1357	LT1357CS8	1402	LTC1402CGN	
1027C5	LT1027CS8-5	11081	LT1108CS8-12	1147H3	LTC1147HVCS8-3.3	11982B	LTC1198-2BCS8	1261	LTC1261CS8	1358	LT1358CS8	1402I	LTC1402IGN	
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1027E5	LT1027ECS8-5	1109	LT1109CS8	1147I5	LTC1147IS8-5	1199I	LTC1199IS8	126145	LTC1261CS8-4.5	1360	LT1360CS8	1404I	LTC1404IS8	
1028	LT1028CS8	1109A	LT1109ACS8	1147L	LTC1147LCS8	1199L	LTC1199LCS8	12615	LT12615S8	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	LT1364CS8	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	LTC1263IS8	1372	LT1372CGN	1417A	LTC1417ACGN	
1044A	LTC1044ACS8	11115	LT1111CS8-5	1153I	LTC1153IS8	1211AI	LT1211AIS8	1285	LTC1285CS8	1372	LT1372CS8	1417AI	LTC1417AIGN	
1044AI	LTC1044AIS8	1111I	LT1111IS8	1154	LTC1154CS8	1211I	LT1211IS8	1285I	LTC1285IS8	1372H	LT1372HVCGN	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	LT1286IS8	1372HI	LT1372HVIGN	1422I	LTC1422IS8	
1049	LTC1049CS8	1112I	LT1112IS8	1155I	LTC1155IS8	1217	LT1217CS8	1288	LTC1288CS8	1372HI	LT1372HVIS8	14245	LT1424CS8-5	
1050	LTC1050CS8	1112MP	LT1112MPS8	1157	LTC1157CS8	1218	LT1218CS8	1288I	LTC1288IS8	1372I	LT1372I8S8	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	LTC1298IS8	1373	LT1373CS8	142419	LT1424IS8-9	
1054A	LT1054ACS8	1117	LT1117CST	1166	LTC1166CS8	1219L	LT1219LCS8	1298I	LT1298IS8T-3.3	1373H	LT1373HVCS8	1426	LTC1426CS8	
1054I	LT1054IS8	11172	LT1117CST-2.85	1167	LT1167CS8	121AHV	LT1121AHVCS8	12915	LT1129IS8T-5	1373HI	LT1373HVIS8	14261	LTC1426IS8	
1054L	LT1054LCS8	11173	LT1117CST-3.3	1167A	LT1167ACS8	121AI	LT1121AIS8	1300	LT1300CS8	1373I	LT1373IS8	142750	LTC1427CS8-50	
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	LT1121HVIS8	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	
1057I	LT1057IS8	1117I5	LT1117IST-5	1168AI	LT1168AIS8	121I3	LT1121IST-3.3	1303	LT1303CS8	1374HVCFE	LT1374HVCFE	1430AI	LTC1430AIGN	
1067	LTC1067CGN	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	LT1118CS8-2.85	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	



TOP MARKINGS (TOP MARK TO PART NUMBER)

14323	LT1432CS8-3.3	1480	LTC1480CS8	1521	LT1521CS8	157515	LT1575CS8-1.5	1636H	LT1636HS8	16771	LT1677IS8	1739	LT1739CUE
1433	LTC1433CGN	14801	LTC1480IS8	15213	LT1521CS8-3	157528	LT1575CS8-2.8	1636I	LT1636IS8	1678	LT1678CS8	17391	LT1739UIE
14331	LTC1433IGN	1481	LTC1481CS8	15213	LT1521CST-3	157533	LT1575CS8-3.3	1637	LT1637CS8	16781	LT1678IS8	1756	LTC1756EGN
1440	LTC1440CS8	14811	LTC1481IS8	152133	LT1521CS8-3.3	157535	LT1575CS8-3.5	1637H	LT1637HS8	1682	LTC1682CS8	17561	LTC1756IGN
14401	LTC1440IS8	1482	LTC1482CS8	152133	LT1521CST-3.3	157555	LT1575CS8-5	1637I	LT1637IS8	168233	LTC1682CS8-3.3	1763	LT1763CDE
1441	LTC1441CS8	14821	LTC1482IS8	15215	LT1521CS8-5	1576	LT1576CS8	1637MP	LT1637MPS8	16825	LTC1682CS8-5	1763	LT1763CS8
14411	LTC1441IS8	1483	LTC1483CS8	15215	LT1521CST-5	15765	LT1576CS8-5	1638	LT1638CS8	16821	LTC1682IS8	176315	LT1763CS8-1.5
1442	LTC1442CS8	14831	LTC1483IS8	15211	LT1521IS8	15761	LT1576IS8	1638H	LT1638HS8	168215	LTC1682IS8-5	176318	LT1763CS8-1.8
14421	LTC1442IS8	1484	LTC1484CS8	152113	LT1521IS8-3	157615	LT1576IS8-5	1638I	LT1638IS8	1685	LTC1685CS8	176325	LT1763CS8-2.5
1443	LTC1443CDHD	14841	LTC1484IS8	152113	LT1521IST-3	15765N	LT1576CS8-SYNC	16401	LT1640-1CS8	16851	LTC1685IS8	17633	LT1763CDE-3
1443	LTC1443IDHD	1485	LTC1485CS8	152133	LT1521CS8-3.3	1578	LT1578CS8	16402	LT1640-2CS8	1686	LTC1686CS8	17633	LT1763CS8-3
1444	LTC1444CDHD	14851	LTC1485IS8	152133	LT1521IST-3.3	157825	LT1578CS8-2.5	1640AH	LT1640AHC8	16861	LTC1686IS8	176333	LT1763CS8-3.3
1444	LTC1444IDHD	1487	LTC1487CS8	152115	LT1521IS8-5	15781	LT1578IS8	1640AL	LT1640ALCS8	1690	LTC1690CS8	17635	LT1763CDE-5
1445	LTC1445CDHD	14871	LTC1487IS8	152115	LT1521IST-5	1579	LT1579CGN	1640H	LT1640HC8	16901	LT1690IS8	17635	LT1763CS8-5
1445	LTC1445IDHD	1490	LT1490CS8	1522	LTC1522CS8	1579	LT1579CS8	1640HI	LT1640HIS8	16931	LTC1693-1CS8	1763MP	LT1763MPS8
1446	LTC1446CS8	1490A	LT1490AHC8	15221	LTC1522IS8	15793	LT1579CGN-3	1640HV	LT1640HVC8	169311	LTC1693-1IS8	1764AEFE	LT1764AEFE
14461	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	169321	LTC1693-2IS8	1764AEFE18	LT1764AEFE-1.8
1446LI	LTC1446LIS8	14901	LT1490IS8	153025	LTC1530CS8-2.5	157933	LT1579CS8-3.3	1640LV	LT1640LVC8	1698	LTC1698EGN	1764AEFE25	LT1764AEFE-2.5
1448	LTC1448CS8	1491A	LT1491ACDHC	153028	LTC1530CS8-2.8	15795	LT1579CGN-5	1641	LT1641CS8	16981	LTC1698IGN	1764AEFE33	LT1764AEFE-3.3
14481	LTC1448IS8	1491A	LT1491AIDHC	153033	LTC1530CS8-3.3	15795	LT1579CS8-5	16411	LT1641-1CS8	169980	LTC1699EGN-80	1764EFE	LT1764EFE
1451	LTC1451CS8	1492	LT1492CS8	15301	LTC1530IS8	15791	LT1579IGN	164111	LT1641-1IS8	169981	LTC1699EGN-81	1764EFE15	LT1764EFE-1.5
14511	LTC1451IS8	1494	LT1494CS8	1536	LTC1536CS8	157913	LT1579IGN-3	16412	LT1641-2CS8	169982	LTC1699EGN-82	1764EFE18	LT1764EFE-1.8
1452	LTC1452CS8	1494H	LT1494HS8	15361	LTC1536IS8	157915	LT1579IGN-5	16412I	LT1641-2IS8	1701	LT1701CS8	1764EFE25	LT1764EFE-2.5
14521	LTC1452IS8	14941	LT1494IS8	1540	LTC1540CS8	1595A	LTC1595ACS8	1641I	LT1641IS8	1704	LTC1704EGN	1764EFE33	LT1764EFE-3.3
1453	LTC1453CS8	1495	LT1495CS8	15401	LTC1540IS8	1595AI	LTC1595AIS8	1642	LTC1642CGN	1704B	LTC1704BEGN	1765	LT1765ES8
14531	LTC1453IS8	1495H	LT1495HS8	1541	LTC1541CS8	1595B	LTC1595BIS8	1642A	LTC1642ACGN	170619	LTC1706CS8-19	1765EFE	LT1765EFE
1456	LTC1456CS8	14951	LT1495IS8	15411	LTC1541IS8	1595BI	LTC1595BIS8	1642AI	LTC1642AIGN	1707	LTC1707CS8	1765EFE18	LT1765EFE-1.8
14561	LTC1456IS8	1497	LT1497CS8	1542	LTC1542CS8	1595C	LTC1595CS8	1642I	LT1642IGN	17071	LT1707IS8	1765EFE25	LT1765EFE-2.5
1457	LT1457S8	1498	LT1498CS8	15421	LTC1542IS8	1595CI	LTC1595CIS8	1643AH	LTC1643AHC8	1710	LTC1710CS8	1765EFE33	LT1765EFE-3.3
1460A1	LT1460ACS8-10	14981	LT1498IS8	1550	LTC1550CGN	1595CI35	LTC1595CI35/5	1643AL	LTC1643ALCGN	17101	LTC1710IS8	1765EFE-5	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	15501	LTC1550IGN	16001	LTC1600IS8	1643HI	LTC1643HIGN	17121	LT1712IGN	1766	LT1766CS8
1460D1	LT1460DCS8-10	15015	LT1501CS8-5	1550L	LTC1550LCGN	1610	LT1610CS8	1643L	LT1643LCS8	1714	LT1714CGN	17665	LT1766EGN-5
1460D2	LT1460DCS8-2.5	15011	LT1501IS8	1550L	LTC1550LCS8	16101	LT1610IS8	1643LI	LTC1643LICGN	17141	LT1714IGN	1766EFE	LT1766EFE
1460D5	LT1460DCS8-5	150113	LT1501IS8-3.3	1550L2	LTC1550LCS8-2	1612	LT1612CS8	1643LI1	LTC1643LI1CGN	1719	LT1719CS8	1766EFE-5	LT1766EFE-5
1461A3	LT1461ACS8-3	150115	LT1501IS8-5	1550LI	LTC1550LIGN	1614	LT1614CS8	1645	LTC1645CS8	17191	LT1719IS8	1766HFE	LT1766HFE
1461A4	LT1461ACS8-4	150233	LTC1502CS8-3.3	155141	LTC1551CS8-4.1	16141	LT1614IS8	1645I	LTC1645IS8	1720	LT1720CS8	1766HFE-5	LT1766HFE-5
1461A5	LT1461ACS8-5	150318	LTC1503CS8-1.8	1551L	LTC1551LCS8	1618	LT1618CS8	1646	LTC1646CGN	17201	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	16191	LT1619IS8	16471	LTC1647-1CS8	17211	LT1721IGN	1766I5	LT1766IGN-5
1461B5	LT1461BCS8-5	1504	LTC1504CS8	15551	LTC1555IGN	1620	LTC1620CGN	164711	LTC1647-1IS8	1722	LT1722CS8	1766IFE	LT1766IFE
1461C3	LT1461CCS8-3	150433	LTC1504CS8-3.3	1555L	LTC1555LEGN	1620	LTC1620CS8	16472	LTC1647-2CS8	17221	LT1722IS8	1766IFE-5	LT1766IFE-5
1461C4	LT1461CCS8-4	1504A	LTC1504ACS8	155833	LTC1558CGN-3.3	16201	LTC1558CGN-3.3	16472I	LTC1647-2IS8	1723	LT1723CS8	1766SN	LT1766CS8-SYNC
1461C5	LT1461CCS8-5	1504AI	LTC1504AIS8	1558333	LTC1558CS8-3.3	162011	LTC1558CS8-3.3	16473	LTC1647-3CGN	17231	LT1723IS8	1767	LT1767ES8
1462	LT1462CS8	15041	LTC1504IS8	15585	LTC1558CGN-5	1621	LTC1558CGN-5	164731	LTC1647-3IGN	1725	LT1725CGN	1768	LT1768CGN
1462A	LT1462ACS8	150413	LTC1504IS8-3.3	155851	LTC1558CS8-5	16211	LTC1558CS8-5	1654	LTC1654CGN	17251	LT1725IGN	17681	LT1768IGN
1464	LT1464CS8	1506	LT1506CS8	155933	LTC1559CGN-3.3	1622	LTC1559CGN-3.3	16541	LTC1654IGN	172625	LTC1726ES8-2.5	1770	LTC1770CS8
1464A	LT1464ACS8	150633	LT1506CS8-3.3	1559333	LTC1559CS8-3.3	16221	LTC1559CS8-3.3	1655	LTC1655CS8	17265	LT1726ES8-5	17701	LTC1770IS8
1466L	LT1466LCS8	15061	LT1506IS8	15595	LTC1559CGN-5	1623	LTC1623CS8	16551	LTC1655IS8	172615	LTC1726IS8-5	1771	LTC1771ES8
1468	LT1468CS8	1507	LT1507CS8	155951	LTC1559CS8-5	16231	LTC1623IS8	1655L	LTC1655LCS8	172725	LTC1727ES8-2.5	17711	LTC1771IS8
14681	LT1468IS8	15073	LT1507CS8-3.3	15601	LTC1560-1CS8	1624	LTC1624CS8	1655LI	LTC1655LIS8	17275	LTC1727ES8-5	1772	LTC1772CS8
1469	LT1469CDF	15071	LT1507IS8	156011	LTC1560-1IS8	16241	LTC1624IS8	1658	LTC1658CS8	172715	LTC1727IS8-5	1775	LTC1775CGN
14691	LT1469IDF	150713	LT1507IS8-3.3	15632	LTC1563-2CGN	1625	LTC1625CGN	16581	LTC1658IS8	172941	LTC1729CS8-4.1	17751	LTC1775IGN
1469	LT1469CS8	1510	LT1510CGN	156321	LTC1563-2IGN	16251	LTC1625IGN	1659	LTC1659CS8	172942	LTC1729CS8-4.2	1776	LT1776CS8
14691	LT1469IS8	1510	LT1510CS8	15633	LTC1563-3CGN	1627	LTC1627CS8	16591	LTC1659IS8	172982	LTC1729CS8-8.2	17761	LT1776IS8
1470	LTC1470CS8	15105	LT1510-5CGN	156331	LTC1563-3IGN	16271	LTC1627IS8	1660	LTC1660CGN	172984	LTC1729CS8-8.4	1777	LT1777CGN
1470B	LTC1470BCS8	151051	LT1510-5IGN	1563311	LTC1563-3ICS8	1628	LTC1628CUH	16601	LTC1660IGN	17304	LTC1730EGN-4	1778	LTC1778EGN
1470BE	LTC1470BES8	15101	LT1510IGN	156573	LTC1565-7CS8	16281	LTC1628IUH	1664	LTC1664CGN	173041	LTC1730ES8-4.1	17781	LTC1778EGN-1
1470E	LTC1470ES8	15101	LT1510IS8	15661	LTC1566-1CS8	1630	LTC1630CS8	16641	LTC1664IGN	173042	LTC1730ES8-4.2	1778A	LTC1778AEGN
1473	LTC1473CGN	1512	LT1512CGN	156611	LTC1566-1IS8	16301	LTC1630IS8	1665	LTC1665CGN	173082	LTC1730ES8-8.2	1778A1	LTC1778AIGN
14731	LTC1473IGN	15121	LT1512CS8	1568	LT1568CGN	1632	LTC1632CS8	16651	LTC1665IGN	173084	LTC1730ES8-8.4	1778H	LTC1778HGN
1473L	LTC1473LIGN	15121	LT1512IGN	15681	LT1568IGN	16321	LTC1632IS8	1671	LT1671CS8	173141	LTC1731ES8-4.1	17781	LTC1778IGN
1473LI	LTC1473LIGN	15121	LT1512IS8	15696	LTC1569CS8-6	1634A1	LT1634ACS8-1.25	16711	LT1671IS8	173142	LTC1731ES8-4.2	1779	LTC1779ES8
1474	LTC1474CS8	15143	LTC1514CS8-3	15697	LTC1569CS8-7	1634A2	LT1634ACS8-2.5	1672	LT1672CS8	173184	LTC1731ES8-8.4	1785	LT1785CS8
147433	LTC1474CS8-3.3	1514333	LTC1514CS8-3.3	156916	LTC1569IS8-6	1634A4	LT1634ACS8-4.096	16721	LT1672IS8	1733	LTC1733CS8	1785A	LT1785ACS8
14745	LTC1474CS8-5	15145	LTC1514CS8-5	156917	LTC1569IS8-7	1634A5	LT1634ACS8-5	1673	LT1673CS8	17331	LTC1733IS8	1785AI	LT1785AIS8
14741	LTC1474IS8	151413	LTC1514IS8-3	15715	LT1571EGN-5	1634B1	LT1634BCS8-1.25	16731	LT1673IS8	1735	LTC1735CGN	1785I	LT1785IS8
147415	LTC1474IS8-5	151415	LTC1514IS8-5	1573	LT1573CS8	1634B2	LT1634BCS8-2.5	1675	LT1675CGN	17351	LTC1735CGN-1	1787	LT1787CS8
1475	LTC1475CS8	1515	LTC1515CS8	157325	LT1573CS8-2.5	1634BA	LT1634BCS8-4.096	16751	LT1675CS8-1	1735E	LTC1735EGN	1787H	LT1787HS8
147533	LTC1475CS8-3.3	151535	LTC1515CS8-3.3/5	157328	LT1573CS8-2.8	1634B5	LT1634BCS8-5	167511	LT1675IS8-1	1735I	LTC1735IGN	1787HV	LT1787HVC8
14755	LTC1475CS8-5	15151	LTC1515IS8	157333	LT1573CS8-3	1635	LT1635CS8	1676	LT1676CS8	173511	LTC1735IGN-1	1787I	LT1787IS8
14751	LTC1475IS8	1516	LTC1516CS8	15731	LT1573IS8	16351	LT1635IS8	16761	LT1676IS8	1737	LT1737CGN	17891	LT1789CGN-1
1477	LTC1477CS8	15161	LTC1516IS8	1575	LT1575CS8	1636	LT1636CS8	1677	LT1677CS8				

TOP MARKINGS (TOP MARK TO PART NUMBER)

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

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
1789I1	LT1789IS8-1	1863L	LTC1863LIGN	1959I	LT1959IS8	2225	LTC2225CUH	236C15	LT1236CIS8-5	2600I	LTC2600IGN	2801	LTC2801CDE
1792	LT1792CS8	1863LI	LTC1863LIGN	1960	LTC1960CUHF	2225	LTC2225IUF	2400	LTC2400CS8	2604	LTC2604CGN	2801	LTC2801IDE
1792A	LT1792ACS8	1864	LTC1864CS8	1961	LTC1961ES8	2226	LTC2226CUH	2400I	LTC2400IS8	2604I	LTC2604CGN-1	2802	LTC2802CDE
1792AI	LT1792AIS8	1864A	LTC1864ACS8	1963	LT1963ES8	2226	LTC2226IUF	240HVH	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	LTC2227IUF	2410	LTC2410CGN	2605	LTC2605CGN	2803	LTC2803IDHC
1793A	LT1793ACS8	1864L	LTC1864LCS8	196315	LT1963EST-1.5	2228	LTC2228CUH	2410I	LTC2410IGN	2605I	LTC2605CGN-1	28031	LTC2803CGN-1
1793AI	LT1793AIS8	1864LA	LTC1864LACS8	196318	LT1963ES8-1.8	2228	LTC2228IUF	2412	LTC2412CGN	2605I	LTC2605IGN-1	28031	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	LTC2229IUF	2413	LTC2413CGN	2607	LTC2607CDE	2804	LTC2804IDHC
1794A	LT1794ACS8	1865A	LTC1865ACS8	196325	LT1963EST-2.5	222911	LTC2229CUH-11	2413I	LTC2413IGN	2607	LTC2607IDE	28041	LTC2804CGN-1
1796	LT1796CS8	1865AI	LTC1865AIS8	196333	LT1963ES8-3.3	2236	LTC2236CUH	2415	LTC2415CGN	2607I	LTC2607CDE-1	28041	LTC2804IGN-1
1796I	LT1796IS8	1865I	LTC1865IS8	196333	LT1963EST-3.3	2236	LTC2236IUF	2415I	LTC2415-1CGN	2607I	LTC2607IDE-1	2845	LTC2845CUHF
1798	LTC1798CS8	1865L	LTC1865LCS8	1963A	LT1963AES8	2237	LTC2237CUH	2415I1	LTC2415-1IGN	2609	LTC2609CGN	2845I	LTC2845IUF
179825	LTC1798CS8-2.5	1865LA	LTC1865LACS8	1963AEFE	LT1963AEFE	2237	LTC2237IUF	2415I	LTC2415IGN	2609I	LTC2609CGN-1	2847	LTC2847CUHF
17983	LTC1798CS8-3	1865LI	LTC1865LIS8	1963AEFE15	LT1963AEFE-1.5	2238	LTC2238CUH	241HVH	LTC6241HVHS8	2609I	LTC2609IGN	2847I	LTC2847IUF
179841	LTC1798CS8-4.1	1867	LTC1867ACGN	1963AEFE18	LT1963AEFE-1.8	2238	LTC2238IUF	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	LTC2239IUF	2420I	LTC2420IS8	2610	LTC2610CUFD	2850I	LTC2850IS8
1798I3	LTC1798IS8-3	1867	LTC1867IGN	1963EFE	LT1963EFE	2245	LTC2245CUH	242HVH	LTC6242HVHGN	2610	LTC2610IUF	2851	LTC2851CS8
1798I5	LTC1798IS8-5	1867L	LTC1867LACGN	1963EFE15	LT1963EFE-1.5	2245	LTC2245IUF	242HVI	LTC6242HVHGN	2610I	LTC2610IGN	2851H	LTC2851HS8
1800	LT1800CS8	1867L	LTC1867LACGN	1963EFE18	LT1963EFE-1.8	2246	LTC2246CUH	2430	LTC2430CGN	2614	LTC2614CGN	2851I	LTC2851S8
1800I	LT1800IS8	1867L	LTC1867LACGN	1963EFE25	LT1963EFE-2.5	2246	LTC2246IUF	2430I	LTC2430IGN	2614I	LTC2614CGN-1	2855	LTC2855CDE
1801	LT1801CS8	1867L	LTC1867LIGN	1963EFE33	LT1963EFE-3.3	2247	LTC2247CUH	2435	LTC2435CGN	2614I	LTC2614IGN	2855	LTC2855HDE
1801I	LT1801IS8	1874	LTC1874EGN	1963I	LT1963IS8	2247	LTC2247IUF	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	LTC2248IUF	2435I	LTC2435IGN	2615I	LTC2615CGN-1	2855H	LTC2855HGN
1804	LT1804CS8	1881	LT1881CS8	1976BEFE	LT1976BEFE	2249	LTC2249CUH	2436I	LTC2436-1CGN	2615I	LTC2615IGN	2855I	LTC2855IGN
1804I	LT1804IS8	1881A	LT1881ACS8	1976BIFE	LT1976BIFE	2249	LTC2249IUF	2436I1	LTC2436-1IGN	2615I1	LTC2615IGN-1	2860	LTC2860CDE
1806	LT1806CS8	1881AI	LT1881AIS8	1976EFE	LT1976EFE	2250	LTC2250CUH	2440	LTC2440CGN	2617	LTC2617CDE	2860	LTC2860IDE
1806I	LT1806IS8	1881I	LT1881IS8	1976HFE	LT1976HFE	2250	LTC2250IUF	2440I	LTC2440IGN	2617I	LTC2617IDE	2860	LTC2860CGN
1807	LT1807CS8	1884	LT1884CS8	1976IFE	LT1976IFE	2251	LTC2251CUH	2444	LTC2444CUHF	2617I	LTC2617CDE-1	2860I	LTC2860IGN
1807H	LT1807HS8	1884A	LT1884ACS8	1977BEFE	LT1977BEFE	2251	LTC2251IUF	2444	LTC2444IUF	2617I	LTC2617IDE-1	2861	LTC2861CDE
1807I	LT1807IS8	1884AI	LT1884AIS8	1977BIFE	LT1977BIFE	2252	LTC2252CUH	2445	LTC2445CUHF	2619	LTC2619CGN	2861	LTC2861IDE
1809	LT1809CS8	1884I	LT1884IS8	1977EFE	LT1977EFE	2252	LTC2252IUF	2445	LTC2445IUF	2619I	LTC2619CGN-1	2861	LTC2861CGN
1809I	LT1809IS8	1886	LT1886CS8	1977IFE	LT1977IFE	2253	LTC2253CUH	2446	LTC2446CUHF	2619I	LTC2619IGN	2861I	LTC2861IGN
1810	LT1810CS8	1886I	LT1886IS8	1990	LT1990CS8	2253	LTC2253IUF	2446	LTC2446IUF	2619I1	LTC2619IGN-1	29011	LTC2901-1CGN
1810I	LT1810IS8	1905	LT1019CS8-5	1990I0	LT1990CS8-10	2254	LTC2254CUH	2447	LTC2447CUHF	261L45	LTC1261LCS8-4.5	29011I	LTC2901-1IGN
1812	LT1812CS8	1910	LT1019CS8-10	1990A	LT1990ACS8	2254	LTC2254IUF	2447	LTC2447IUF	2620	LTC2620CGN	29012	LTC2901-2CGN
1812I	LT1812IS8	1910E	LT1910ES8	1990AH	LT1990AHS8	2255	LTC2255CUH	2448	LTC2448CUHF	2620	LTC2620CUFD	29012I	LTC2901-2IGN
1813	LT1813CS8	191118	LTC1911ES8-1.8	1990AI	LT1990AIS8	2255	LTC2255IUF	2448	LTC2448IUF	2620	LTC2620IUF	29013	LTC2901-3CGN
1813D	LT1813DS8	1920	LT1920CS8	1990H	LT1990HS8	2301	LTC2301CDE	2449	LTC2449CUHF	2620I	LTC2620IGN	29013I	LTC2901-3IGN
1813HV	LT1813HVCS8	1920I	LT1920IS8	1990I	LT1990IS8	2301	LTC2301IDE	2449	LTC2449IUF	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	29021	LTC2902-1CGN
1814I	LT1814IGN	1923	LTC1923EUH	19AI25	LT1019AIS8-2.5	2305	LTC2305CDE	2487	LTC2487CDE	2624I1	LTC2624IGN-1	29021I	LTC2902-1IGN
1815	LT1815CS8	1925	LT1019CS8-2.5	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	LT1932ES8	200110	LT6200IS8-10	2305	LTC2305IMS	2488	LTC2488IDE	2625I	LTC2625IGN	2910	LTC2910CDHC
1816I	LT1816IS8	1933	LT1933CS8	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	LTC2050HVCS8	2308	LTC2308CUF	2490	LTC2490CS8	2627	LTC2627IDE	2910	LTC2910CGN
1818	LT1818CS8	1942	LT1942EUF	2050I	LTC2050IS8	2308	LTC2308IUF	2490I	LTC2490IS8	2627I	LTC2627CDE-1	2910H	LTC2910HGN
1818I	LT1818IS8	1945	LT1019CS8-4.5	2051	LTC2051CS8	2309	LTC2309CUF	2492	LTC2492CDE	2627I	LTC2627IDE-1	2910I	LTC2910IGN
1819	LT1819CS8	1946	LT1946EUF	2051H	LTC2051HS8	2309	LTC2309IUF	2492	LTC2492IDE	2629	LTC2629CGN	2914I	LTC2914CDHC-1
1819I	LT1819IS8	1946A	LT1946AEUF	2051HV	LTC2051HVCS8	2318	LTC2318CUF	2493	LTC2493CDE	2629I	LTC2629CGN-1	2914I	LTC2914HDHC-1
1840	LTC1840CGN	1949	LT1949ES8	2051I	LTC2051IS8	2318	LTC2318IUF	2493	LTC2493IDE	2629I	LTC2629IGN	2914I	LTC2914DHC-1
1840I	LTC1840IGN	1949I	LT1949IS8	2052	LTC2052CGN	2328	LTC2328CUF	2494	LTC2494CUHF	2629I1	LTC2629IGN-1	2914I	LTC2914CGN-1
1841	LTC1841CS8	1950	LT1950EIGN	2052H	LTC2052HGN	2328	LTC2328IUF	2494	LTC2494IUF	264116	LTC2641CS8-16	29142	LTC2914CDHC-2
1841I	LTC1841IS8	1950I	LT1950IGN	2052HV	LTC2052HVCGN	235112	LTC2351CUH-12	2495	LTC2495CUHF	264116	LTC2641IS8-16	29142	LTC2914HDHC-2
1842	LTC1842CS8	1950I	LT1950IGN	2052I	LTC2052IGN	235112	LTC2351IUF-12	2495	LTC2495IUF	275112	LTC2751CUHF-12	29142	LTC2914IDHC-2
1842I	LTC1842IS8	19521	LT1952EIGN-1	2078	LT2078CS8	235114	LTC2351CUH-14	2496	LTC2496CUHF	275112	LTC2751IUFH-12	29142	LTC2914CGN-2
1843	LTC1843CS8	1952I	LT1952IGN	2078A	LT2078ACS8	235114	LTC2351IUFH-14	2496	LTC2496IUF	275114	LTC2751CUHF-14	2914H1	LTC2914HGN-1
1843I	LTC1843IS8	19521I	LT1952IGN-1	2078AI	LT2078AIS8	236AC1	LT1236ACS8-10	2497	LTC2497CUHF	275114	LTC2751IUFH-14	2914H2	LTC2914HGN-2
1860	LTC1860CS8	1955	LTC1955EUF	2078I	LT2078IS8	236AC5	LT1236ACS8-5	2497	LTC2497IUF	275116	LTC2751ACUHF-16	2914I	LTC2914IGN-1
1860I	LTC1860IS8	1956	LT1956EIGN	2105	LT1021DCS8-5	236AI1	LT1236AIS8-10	2498	LTC2498CUHF	275116	LTC2751AIUHF-16	2914I2	LTC2914IGN-2
1860L	LTC1860LCS8	19565	LT1956EIGN-5	2107	LT1021DCS8-7	236AI5	LT1236AIS8-5	2498	LTC2498IUF	275116	LTC2751BCUHF-16	2921	LTC2921CGN
1860LI	LTC1860LIS8	1956EFE	LT1956EFE	2110	LT1021DCS8-10	236BC1	LT1236BCS8-10	2499	LTC2499CUHF	275116	LTC2751BIUHF-16	292125	LTC2921CGN-2.5
1861	LTC1861CS8	1956EFE-5	LT1956EFE-5	2178	LT2178CS8	236BC5	LT1236BCS8-5	2499	LTC2499IUF	275116	LTC2751CUHF-16	292133	LTC2921CGN-3.3
1861I	LTC1861IS8	1956I	LT1956IGN	2178A	LT2178ACS8	236BI1	LT1236BIS8-10	253AJ	LTC4253ACUF-ADJ	275116	LTC2751IUFH-16	2921I	LTC2921IGN
1861L	LTC1861LCS8	1956I5	LT1956IGN-5	2178AI	LT2178AIS8	236BI5	LT1236BIS8-5	253AJ	LTC4253AIUF-ADJ	275118	LTC2751AIUHF-18	2922I	LTC2922-1CGN

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	LTC3576UEF	3773	LTC3773CUHF	3845FE	LT3845IFE	4217	LTC4217CDHC
2924	LTC2924CGN	3402	LT1034CS8-2.5	3486	LT3486EDHC	3576	LT3576UIEF	3773E	LTC3773UEHF	3850	LTC3850EUF	4217	LTC4217DHC
2924I	LTC2924IGN	3412	LTC3412EUF	3486EFE	LT3486EFE	3586	LTC3586EUF	3773I	LTC3773IUHF	3850	LTC3850EUF	4217I2	LTC4217CDHC-12
2925	LTC2925CUF	3412A	LTC3412AEUF	3486IFE	LT3486IFE	3595	LT3595EUHF	3776	LTC3776EUF	3850	LTC3850EUF	4217I2	LTC4217DHC-12
2925	LTC2925IUF	3412A	LTC3412AIUF	3490	LTC3490ES8	3602	LTC3602EUF	3777	LTC3777EUF	3850	LTC3850IUF	4218	LTC4218CGN
2926	LTC2926CUF	3412AEFE	LTC3412AEFE	3492	LT3492EUF	3602	LTC3602IUF	3780	LTC3780EUF	3850	LTC3850IUF	4218I2	LTC4218CDHC-12
2926	LTC2926CUFD	3412AIFE	LTC3412AIFE	3492	LT3492IUF	3602I	LTC3602EUF-1	3780I	LTC3780IUH	389A12	LT1389ACS8-1.25	4218I2	LTC4218DHC-12
2926	LTC2926IUF	3412EFE	LTC3412EFE	3493ES	LT3493AES8	36022	LTC3602EUF-2	3782	LT3782EUF	389B12	LT1389BCS8-1.25	4218I	LTC4218IGN
2926	LTC2926IUF	3412IFE	LTC3412IFE	3496	LTC3496EUF	3602EFE1	LTC3602EFE-1	3782	LTC3782IUF	389B25	LT1389BCS8-2.5	4220	LT4220CGN
2928	LTC2928CUHF	3413EFE	LTC3413EFE	3496	LT3496IUF	3602EFE2	LTC3602EFE-2	3782H	LT3782HUFD	3900	LTC3900ES8	4220I	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	4221I	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	4001I	LTC4001EUF-1	4222	LTC4222IUF
2933I	LTC2933IGN	3417A1	LTC3417AEDHC-1	3504	LT3504EUF	3703	LTC3703EGN	3785	LTC3785EUF	400242	LTC4002ES8-4.2	4223I	LTC4223CDHD-1
2952	LTC2952CUF	3417A1	LTC3417AIDHC-1	3504	LT3504IUF	37035	LTC3703EGN-5	3800EFE	LTC3800EFE	400284	LTC4002ES8-8.4	4223I	LTC4223IDHD-1
2952	LTC2952IUF	3417A2	LTC3417AEDHC-2	3506	LT3506EDHD	3703H	LTC3703HGN	3800IFE	LTC3800IFE	40062	LTC4006EGN-2	4223I	LTC4223CGN-1
2953	LTC2953IMS-2	3417A2	LTC3417AIDHC-2	3506	LT3506IDHD	3703I	LTC3703IGN	3802	LTC3802EUF	40064	LTC4006EGN-4	42232	LTC4223CDHD-2
29570	LTC2970CUFD	3417AL	LTC3417ALEDHC	3506A	LT3506AEDHD	3703IS	LTC3703IGN-5	3806	LTC3806EDE	40066	LTC4006EGN-6	42232	LTC4223IDHD-2
2970	LTC2970IUF	3417AL	LTC3417ALIDHC	3506A	LT3506AIDHD	3705	LTC3705EGN	3806	LTC3806EGN	4007	LTC4007EUF	42232	LTC4223CGN-2
2970I	LTC2970CUFD-1	3417S	LTC3417SEDHC	3506AEFE	LT3506AEFE	3705I	LTC3705IGN	3807	LTC3807EUF	4007I	LTC4007EUF-1	4223I	LTC4223IGN-1
2970I	LTC2970IUF-1	3418	LTC3418EUHF	3506AIFE	LT3506AIFE	3708	LTC3708EUF	3807I	LTC3807EGN-1	4008	LTC4008EUF	4223I2	LTC4223IGN-2
3011	LT3011EMSE	3421	LTC3421EUF	3506EFE	LT3506EFE	3709	LTC3709EUF	38072	LTC3807EGN-2	4009	LTC4009EUF	4242	LTC4242CUHF
3011H	LT3011HMSE	3425	LTC3425EUH	3506IFE	LT3506IFE	3710EFE	LTC3710EFE	3808	LTC3808EDE	4009I	LTC4009EUF-1	4242	LTC4242IUF
3012	LT3012EDE	3430EFE	LTC3430EFE	3506L	LT3506LEDHD	3717	LTC3717EGN	3808	LTC3808EGN	40092	LTC4009EUF-2	4245	LTC4245CUHF
3012B	LT3012BEDE	3430EFE-1	LTC3430EFE-1	3506LEFE	LT3506LEFE	3717I	LTC3717EUF-1	3810	LTC3810EGN	40093	LTC4009EUF-3	4245	LTC4245IUF
3012BEFE	LT3012BEFE	3430IFE	LTC3430IFE	3507	LT3507EUHF	37211	LTC3721EGN-1	3810	LTC3810EUF	4010CFE	LTC4010CFE	4250H	LT4250HCS8
3012EFE	LT3012EFE	3430IFE-1	LTC3430IFE-1	3507	LT3507IUHF	3721I	LTC3721EUF-1	38105	LTC3810EUFH-5	4010EFE	LTC4010EFE	4250HI	LT4250HIS8
3012HFE	LT3012HFE	3431EFE	LTC3431EFE	3507H	LT3507HUHF	37231	LTC3723EGN-1	38105	LTC3810IUFH-5	4012	LTC4012EUF	4250L	LT4250LCS8
3012I	LT3012IDE	3431IFE	LTC3431IFE	3508	LT3508EUF	37232	LTC3723EGN-2	3811	LTC3811EUFH	4012I	LTC4012EUF-1	4250LI	LT4250LIS8
3012IFE	LT3012IFE	3433	LTC3433EGN	3508	LT3508IUF	3724EFE	LTC3724EFE	38112	LTC3812EFE-5	40122	LTC4012EUF-2	4251	LTC4251CS8
3013	LT3013EDE	3433EFE	LTC3433EFE	3508FE	LT3508EFE	3724IFE	LTC3724IFE	3812IFE-5	LTC3812IFE-5	4051	LTC4051EGN	4251I	LTC4251IS8
3013B	LT3013BEDE	3433I	LTC3433IGN	3508FE	LT3508IFE	3726	LTC3726EGN	3813	LTC3813EUF	4055	LTC4055EUF	4252I	LTC4252-1CS8
3013BEFE	LT3013BEFE	3433IFE	LTC3433IFE	3508HF	LT3508HUF	3726I	LTC3726IGN	3813	LTC3813IUF	4055I	LTC4055EUF-1	42522	LTC4252-2CS8
3013FE	LT3013FE	3434EFE	LTC3434EFE	3508HFE	LT3508HFE	3727I	LTC3727EUF-1	38135	LTC3813EUFH-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	4066I	LTC4066EUF-1	4253I	LTC4253IGN
3021	LT3021EDH	3436EFE	LTC3436EFE	3517	LTC3517EUF	3728L1	LTC3728LIUH-1	3821EFE	LTC3821EFE	4066T	LTC4066EPF	4253J	LTC4253CUF-ADJ
3021	LT3021ES8	3437EFE	LTC3437EFE	3517	LT3517IUF	3728LE	LTC3728LEUH	3822I	LTC3822EGN-1	4067	LTC4067EDE	4253J	LTC4253IUF-ADJ
3021I2	LT3021EDH-1.2	3437HFE	LTC3437HFE	3517FE	LT3517FE	3728LI	LTC3728LIUH	3823	LTC3823EUF	4085	LTC4085EDE	4254	LT4254CGN
3021I2	LT3021ES8-1.2	3437IFE	LTC3437IFE	3517FE	LT3517IFE	3728LX	LTC3728LXCUH	3825EFE	LTC3825EFE	4085	LTC4085EGN	4254I	LT4254-1CGN
3021I5	LT3021EDH-1.5	3439EFE	LTC3439EFE	3517HFE	LT3517HFE	3728ZE	LTC3728ZEUF	3826	LTC3826EUF	4085I	LTC4085EDE-1	4254II	LT4254-1IGN
3021I5	LT3021ES8-1.5	3441	LTC3441EDE	3518	LT3518EUF	3729	LTC3729EUF	3826	LTC3826IUF	4088	LTC4088EDE	42542	LT4254-2CGN
3021I8	LT3021EDH-1.8	3442	LTC3442EDE	3518	LT3518IUF	37296	LTC3729EUFH-6	3827	LTC3827EUF	4088I	LTC4088EDE-1	42542I	LT4254-2IGN
3021I8	LT3021ES8-1.8	3443	LTC3443EDE	3518FE	LT3518FE	3729L6	LTC3729EUFH-6	3827	LTC3827IUF	40882	LTC4088EDE-2	4254I	LT4254IGN
3022	LT3022EDHC	3445	LTC3445EUF	3518FE	LT3518FE	3731	LTC3731CUH	3827H	LTC3827HUH	4089	LTC4089EDJC	4256I	LT4256-1CS8
3022EFE	LT3022EFE	3446	LTC3446EDE	3518HFE	LT3518HFE	3731I	LTC3731IUF	3828	LTC3828EUF	4089I	LTC4089EDJC-1	4256II	LT4256-1IS8
3024	LT3024EDE	3446	LTC3446IDE	3520	LTC3520EUF	3732	LTC3732CUHF	3830	LTC3830EGN	40895	LTC4089EDJC-5	42562	LT4256-2CS8
3024	LT3024IDE	3451	LTC3451EUF	3524	LTC3524EUF	3733I	LTC3733CUHF-1	3830	LTC3830ES8	4090	LTC4090EDJC	42562I	LT4256-2IS8
3024EFE	LT3024EFE	3452	LTC3452EUF	352533	LTC3525ES8-3.3	3734	LTC3734EUF	3830I	LTC3830-1ES8	40905	LTC4090EDJC-5	42563	LT4256-3CGN
3024IFE	LT3024IFE	3453	LTC3453EUF	3533	LTC3533EDE	3735	LTC3735EUF	38308	LTC3830EGN-8	417AL1	LTC3417ALEDHC-1	42563I	LT4256-3IGN
3028	LT3028EDHC	3455	LTC3455EUF	3534	LTC3534EGN	3736	LTC3736EUF	3831	LTC3831IGN	417AL1	LTC3417ALIDHC-1	4257	LTC4257CS8
3028FE	LT3028FE	3456	LTC3456EUF	3534	LTC3534EUF	3736I	LTC3736IUF	3831	LTC3831IGN	4210	LTC4210CS8	4257I	LTC4257CS8-1
3028I	LT3028IDHC	3458	LTC3458EDE	3550	LTC3550EDHC	37362	LTC3736EUF-2	3831I	LTC3831EGN-1	4210I	LTC4210-1CS8	4257I	LTC4257IS8
3028IFE	LT3028IFE	3458EFE	LTC3458EFE	3550I	LTC3550EDHC-1	3737	LTC3737EUF	3832	LTC3832EGN	4210I	LTC4210-1IS8	4257II	LTC4257IS8-1
3035	LTC3035ES8	3458L	LTC3458LEDE	3552	LTC3552EDHC	3738	LTC3738CUHF	3832I	LTC3832-1ES8	42102	LTC4210-2CS8	4260	LTC4260CUH
3080	LT3080EST	3458LEFE	LTC3458LEFE	3552I	LTC3552EDHC-1	3740	LT3740EDHC	3834	LTC3834EUF	42102I	LTC4210-2IS8	4260	LTC4260IUF
3080EFE	LT3080EFE	3459	LTC3459ES8	3555	LTC3555EUF	3742	LT3742EUF	3834	LTC3834IUF	42103	LTC4210-3CS8	4261	LTC4261CUFD
3150	LT3150CGN	3466EFE	LTC3466EFE	3555I	LTC3555EUF-1	3742I	LT3742EUF-1	3834I	LTC3834EDHC-1	42103I	LTC4210-3IS8	4261	LTC4261IUF
3205	LTC3205EUF	3469	LTC3469ES8	3555I	LTC3555IUF-1	3745SN	LT1374CS8-5 SYNC	3834I	LTC3834IDHC-1	42104	LTC4210-4CS8	42612	LTC4261CUFD-2
3205X	LTC3205XUHF	3473A	LTC3473AEDE	3555I	LTC3555EUF-3	374HVI	LT1374HVIS8	3834I	LTC3834EGN-1	42104I	LTC4210-4IS8	42612	LTC4261IUF-2
3206	LTC3206EUF	3474EFE	LTC3474EFE	35553	LTC3555IUF-3	374ISN	LT1374IS8-SYNC	3834I	LTC3834IGN-1	4211	LTC4211CS8	4263	LTC4263CDE
3207	LTC3207EUF	3474EFE-1	LTC3474EFE-1	3555I	LTC3555IUF	3755	LTC3755EMSE	3835	LTC3835EUF	4211I	LTC4211IS8	4263	LTC4263IDE
3207I	LTC3207EUF-1	3474IFE	LTC3474IFE	3556	LTC3556EUF	3755	LTC3755IMSE	3835	LTC3835IUF	4213	LTC4213CS8	4263I	LTC4263CDE-1
3208	LTC3208EUF	3474IFE-1	LTC3474IFE-1	3557	LTC3557EUF	3755I	LT3755EMSE-1	3835I	LTC3835EDHC-1	4213I	LTC4213IS8	4263I	LTC4263IDE-1
3209I	LTC3209EUF-1	3476	LTC3476EUHF	3557I	LTC3557EUF-1	3755I	LT3755IMSE-1	3835I	LTC3835IDHC-1	4215	LTC4215CGN	4264	LTC4264CDE
32092	LTC3209EUF-2	3477	LTC3477EUF	3566	LTC3566EUF	3756	LTC3756EMSE	3835I	LTC3835EGN-1	4215	LTC4215CUFD	4264	LTC4264IDE
3216	LTC3216EDE	3477	LTC3477IUF	3566	LTC3566IUF	3756	LTC3756IMSE	3835I	LTC3835IGN-1	4215	LTC4215IUF	4265	LTC4265CDE
3220	LTC3220EUF	3478FE	LTC3478EFE	3567	LTC3567EUF	3756I	LT3756EMSE-1	3836	LTC3836EUF	4215I	LTC4215CUFD-1	4265	LTC4265IDE
3220I	LTC3220EUF-1	3478FE	LTC3478IFE	3572	LT3572EUF	3756I	LT3756IMSE-1	3837EFE	LTC3837EFE	4215I	LTC4215IUF-1	4267	LTC4267CDHC
3220T	LTC3220EPF	3478FE-1	LTC3478FEFE-1	3572	LT3572IUF	3756I	LT3756HVIS8	3844EFE	LTC3844EFE	4215I	LTC4215IGN	4267	LTC4267IDHC

Amps, Refs, Filters, Comps

Power Management

Data Conversion

Interface

High Frequency

TOP MARKINGS Reference Material



# 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	LT1461BIS8-3	5765SN	LT1576CS8-5SYNC	61DH25	LT1461DHS8-2.5	6556	LT6556IUF	813HVD	LT1813HVDS8	LADG	LT6201IDD
42671	LTC4267CGN-1	461B14	LT1461BIS8-4	5761SN	LT1576IS8-SYNC	61DH33	LT1461DHS8-3.3	6557	LT6557CDHC	813HVI	LT1813HVIS8	LADJ	LT1804CDD
42673	LTC4267CDHC-3	461B15	LT1461BIS8-5	578125	LT1578IS8-2.5	6200	LT6200CS8	6557	LT6557IDHC	864LAI	LTC1864LAIS8	LADJ	LT1804IDD
42673	LTC4267IDHC-3	461C25	LT1461CCS8-2.5	579133	LT1461CCS8-2.5	620010	LT6200CS8-10	6557	LT6557CGN	865LAI	LTC1865LAIS8	LADN	LTC4054EDD-4.2
42673	LTC4267CGN-3	461C33	LT1461CCS8-3.3	60010	LT6600CDF-10	62005	LT6200CS8-5	65571	LT65571GN	921I25	LTC2921IGN-2.5	LADR	LT6552CDD
42671	LTC42671GN	461C13	LT1461CIS8-3	60010	LT6600IDF-10	62001	LT6200IS8	6558	LT6558CDHC	921I33	LTC2921IGN-3.3	LADR	LT6552IDD
426711	LTC42671GN-1	461C14	LT1461CIS8-4	6002	LT6602CDHC	620015	LT6200IS8-5	6558	LT6558IDHC	963A15	LT1963AES8-1.5	LADT	LTC3411EED
426713	LTC42671GN-3	461C15	LT1461CIS8-5	6002	LT6602IDHC	6201	LT6201CS8	6558	LT6558CGN	963A15	LT1963AEST-1.5	LADT	LTC3411IDD
42681	LTC4268CDK-1	461DH3	LT1461DHS8-3	6002	LT6602CGN	62011	LT6201IS8	65581	LT65581GN	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	LT6602IGN	6203	LT6203CS8	660015	LT6600CS8-15	963A25	LT1963AEST-2.5	LADU	LT6010IDD
42692	LTC4269CDK-2	485	LTC485CS8	6005	LT6605CDHC	62031	LT6203IS8	660020	LT6600CS8-20	963A33	LT1963AES8-3.3	LADZ	LT6221CDD
4305	LTC4305CDHD	4851	LTC485IS8	6005	LT6605HDHC	6204	LT6204CGN	660025	LT6600CS8-2.5	963A33	LT1963AEST-3.3	LADZ	LT6221IDD
4305	LTC4305IDHD	490	LTC490CS8	6005	LT6605IDHC	62041	LT6204IGN	66005	LT6600CS8-5	963I18	LT1963IS8-1.8	LAEA	LTC3408EED
4305	LTC4305CGN	4901	LTC490IS8	6005	LT6605CGN	6207	LT6207CGN	660015	LT6600CS8-15	963I25	LT1963IS8-2.5	LAEL	LT62051HVCD
43051	LTC4305IGN	502I33	LTC1502IS8-3.3	6005H	LT6605HGN	62071	LT6207IGN	682133	LTC1682IS8-3.3	963I33	LT1963IS8-3.3	LAEL	LTC2051HVIDD
4306	LTC4306CUFD	503I18	LTC1503IS8-1.8	6005I	LT6605IGN	6220	LT6220CS8	690	LTC690CS8	990I10	LT1990IS8-10	LAEP	LTC6800HDD
4306	LTC4306IUF	504A33	LTC1504ACS8-3.3	600110	LT6600IS8-10	62201	LT6220IS8	6901	LTC690IS8	CXVT	LTC3548EKD-1	LAEQ	LTC2053CDD
4309	LTC4309CDE	506I33	LT1506IS8-3.3	600115	LT6600IS8-15	6221	LT6221CS8	69121	LTC6912CDE-1	DBCT	LTC3502AEK-3	LAEQ	LTC2053HDD
4309	LTC4309IUE	5100	LTC5100EUF	600120	LT6600IS8-20	62211	LT6221IS8	69121	LTC6912HDE-1	DDVT	LTC4098EPDC	LAEQ	LTC2053IDD
4309	LTC4309CGN	514I33	LTC1514IS8-3.3	600125	LT6600IS8-2.5	6222	LT6222CGN	69121	LTC6912IDE-1	DQKT	LTC4099EPDC	LAET	LT6234CDD
43091	LTC4309IGN	515335	LTC1515CS8-3.3/5	6010	LT6610CS8	62221	LT6222IGN	69121	LTC6912CGN-1	DSZT	LTC4098EPDC-1	LAET	LT6234IDD
4350	LTC4350CGN	515I35	LTC1515IS8-3/5	6010A	LT6610ACS8	6231	LT6231CS8	69122	LT6600CS8-2	LAAA	LT6600CS8-2	LAEU	LTC4555EUD
43501	LTC4350IGN	530I19	LTC1530IS8-1.9	6010AI	LT6610AIS8	62311	LT6231IS8	69122	LTC6912HDE-2	LAAB	LT1937ESC6	LAEU	LT6231IDD
4351	LT4351CS8	530I25	LTC1530IS8-2.5	6010I	LT6610IS8	6232	LT6232CGN	69122	LTC6912IDE-2	LAAC	LTC3450EUD	LAEV	LTC4058EDD-4.2
43511	LT4351IS8	530I28	LTC1530IS8-2.8	6011	LT6611CS8	62321	LT6232IGN	69122	LTC6912CGN-2	LAAD	LTC5508ESC6	LAEX	LT3020EED
4353	LT4353CGN	530I33	LTC1530IS8-3.3	6011A	LT6611ACS8	6234	LT6234CS8	6912H1	LTC6912HGN-1	LAAE	LT1937BESC6	LAFQ	LT3463EED
43531	LT4353IGN	5506	LT5506EUF	6011AI	LT6611AIS8	62341	LT6234IS8	6912H2	LTC6912HGN-2	LAAF	LT3460ESC6	LAFQ	LT1618EED
4354	LTC4354CS8	5506A	LT5506AEUF	60111	LT6611IS8	6235	LT6235CGN	691211	LTC6912IGN-1	LAAG	LTC5507ESC6	LAFR	LTC5532EED
43541	LTC4354CS8-1	550L25	LTC1550LCS8-2.5	6012	LT6612CGN	62351	LT6235IGN	691212	LTC6912IGN-2	LAAH	LT1490ACDD	LAFU	LTC4059EED
43542	LTC4354CS8-2	550L41	LTC1550LCS8-4.1	6012A	LT6612ACGN	6240	LTC6240CS8	6915	LTC6915CDE	LAAH	LT1490AIDD	LAGG	LTC4002EDD-4.2
43541	LTC4354IS8	5511EFE	LT5511EFE	6012AI	LT6612AIGN	6240H	LTC6240HS8	6915	LTC6915CGN	LAAJ	LT1636CDD	LAGK	LTC3407EED
4355	LTC4355CDE	5512	LT5512EUF	60121	LT6612IGN	6240HV	LTC6240HVCS8	6915H	LTC6915HGN	LAAJ	LT1636IDD	LAGT	LT6010CDD
4355	LTC4355IDE	5515	LT5515EUF	6013	LT6613CS8	62401	LTC6240IS8	69151	LTC6915IDE	LAAK	LT1637CDD	LAGT	LTC2601IDD
4355	LT4355EMS	5516	LT5516EUF	6013A	LT6613ACS8	6241	LTC6241CS8	69151	LTC6915IGN	LAAK	LT1637IDD	LAHE	LTC3459ESC6
4356	LT4356CDE	5517	LT5517EUF	6013AI	LT6613AIS8	6241H	LTC6241HS8	692	LTC692CS8	LAAL	LT1638CDD	LAHF	LTC3459IS8
4356	LT4356HDE	5518	LT5518EUF	60131	LT6613IS8	6241HV	LTC6241HVCS8	6921	LTC692IS8	LAAL	LT1638IDD	LAHP	LTC4557EUD
4356	LT4356IDE	55182	LT5518EUF-2	6014	LT6614CS8	62411	LTC6241IS8	694	LTC694CS8	LAAM	LT1801CDD	LAJA	LTC3023EED
43561	LT4356CDE-1	5519	LT5519EUF	6014A	LT6614ACS8	6242	LTC6242CDHC	6943	LTC694CS8-3.3	LAAM	LT1801IDD	LAJA	LTC3023IDD
43561	LT4356HDE-1	551L25	LTC1551LCS8-2.5	6014AI	LT6614AIS8	6242	LTC6242IDHC	6943C	LTC6943CGN	LAAN	LTC2051CDD	LAFJ	LTC2905CDD
43561	LT4356IDE-1	551L41	LTC1551LCS8-4.1	6014I	LT6614IS8	6242	LTC6242CGN	6943H	LTC6943HGN	LAAN	LTC2051IDD	LAFJ	LTC3411AEDD
43562	LT4356CDE-2	5520	LT5520EUF	6079	LTC6079ACDHC	6242H	LTC6242HGN	69431	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	LTC6242HVIDHC	69413	LTC6941IS8-3.3	LAAP	LT1813CDD	LAFJ	LT1937CESC6
43561	LT43561GN-1	5522	LT5522EUF	6079	LTC6079IDHC	6242HV	LTC6242HVCGN	699	LTC699CS8	LAAP	LT1813DDD	LAFJ	LTC2606CDD-1
4358CFE	LTC4358CFE	5522T	LT5522TLNEUF	6079	LTC6079CGN	6242I	LTC6242IGN	6991	LTC699IS8	LAAP	LT1813IDD	LAFJ	LTC2606IDD-1
4358IFE	LTC4358IFE	5525	LT5525EUF	6079A	LTC6079ACGN	6300	LT6300CGN	706119	LTC1706IS8-19	LAAR	LT1816CDD	LAFJ	LTC2606CDD
43AL11	LTC1643AL-1IGN	5526	LT5526EUF	6079AH	LTC6079AHGN	63001	LT6300IGN	726125	LTC1726IS8-2.5	LAAR	LT1816IDD	LAFJ	LTC2606IDD
44001	LTC4400-1ES8	5527	LT5527EUF	6079AI	LTC6079AIGN	634A11	LT1634AIS8-1.25	727125	LTC1727IS8-2.5	LAAS	LTC1540CDD	LAFJ	LTC3465AES6
4412	LTC4412CS8	5528A	LT5528EUF	6079H	LTC6079HGN	634A12	LT1634AIS8-2.5	727LX1	LTC3727LXEUH-1	LAAS	LTC1540IDD	LBBB	LTC6078ACDD
4412E	LTC4412ES8	5529	LT5529EUF	6079I	LTC6079IGN	634A15	LT1634AIS8-4.096	728LE1	LTC3728LEUH-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	LTC4441IS8	5537	LT5537EUF	6082H	LTC6082HGN	634B14	LT1634BIS8-4.096	731E82	LTC1731ES8-8.2	LAAV	LT1720CDD	LBD	LTC4304IDD
444111	LTC44411IS8-1	5538	LTC5538EDE	6082I	LTC6082IGN	634B15	LT1634BIS8-5	7415SN	LT1741IS8-5 SYNC	LAAV	LT1720IDD	LBBG	LTC3428EED
4556	LTC4556EUF	5546	LT5546EUF	6085	LTC6085CDHC	640AH1	LT1640AHIS8	7510	LTC7510IUF	LAAX	LTC3403EED	LBBH	LT3466EED
460B11	LT1460BIS8-10	5553	LT5553EUF	6085	LTC6085HDHC	640AL1	LT1640ALIS8	75101	LTC7510EUF-1	LAAY	LTC3403IDD	LBBJ	LTC4150CDD
460B12	LT1460BIS8-2.5	5554	LT5554IUF	6085	LTC6085CGN	641A16	LTC2641ACS8-16	7510D	LTC7510DEUF	LABB	LTC3202EED	LBBK	LTC4354CDD
460B15	LT1460BIS8-5	5557	LT5557EUF	6085	LTC6085HGN	641A16	LTC2641AIS8-16	76315	LT1763CDE-1.5	LABD	LT1396CDD	LBBR	LTC5531EDC
460E11	LT1460EIS8-10	5558	LT5558EUF	6088	LTC6088CDHC	643AH1	LTC1643AHIGN	76318	LT1763CDE-1.8	LABD	LT1396IDD	LBSB	LTC2411CDD
460E12	LT1460EIS8-2.5	555L18	LTC1555LEGN-1.8	6088	LTC6088HDHC	643AL1	LTC1643AL-1CGN	76325	LT1763CDE-2	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	LT1763MP5S-5	LABW	LTC2900-2CDD	LBBY	LTC4301IDD
460MH5	LT1460MHS8-5	5571	LT5571EUF	60LH25	LT1460LHS8-2.5	6552	LT6552CS8	6552	LTC6552CS8	LABX	LTC2900-2IDD	LBCB	LT6014ACDD
461A10	LT1461ACS8-10	5572	LT5572EUF	60MH25	LT1460MHS8-2.5	65521	LT6552IS8	7615SN	LT57615S8-5 SYNC	LACD	LT6011ACDD	LBCB	LT6014AIDD
461A25	LT1461ACS8-2.5	5575	LT5575EUF	61AI10	LT1461AIS8-10	6553	LT6553CGN	787HVH	LT1787HVHS8	LACD	LT6011AIDD	LBCB	LT6014CDD
461A33	LT1461ACS8-3.3	5578	LT5578IUF	61AI25	LT1461AIS8-2.5	65531	LT6553IGN	787HVI	LT1787HVIS8	LACD	LT6011CDD	LBCB	LT6014IDD
461AI3	LT1461AIS8-3	5579	LT5579IUF	61AI33	LT1461AIS8-3.3	6554	LT6554CGN	789110	LT1789IS8-10	LACT	LT6011IDD	LBCD	LT6211CDD
461AI4	LT1461AIS8-4	565311	LTC15655-31IS8	61BI25	LT1461BIS8-2.5	65541	LT6554IGN	798125	LTC1798IS8-2.5	LACT	LTC4257CDD	LBCD	LT6211IDD
461AI5	LT1461AIS8-5	573I25	LT1573IS8-2.5	61BI33	LT1461BIS8-3.3	6555	LT6555CUF	798141	LTC1798IS8-4.1	LACT	LTC4257IDD	LBCW	LTC2055CDD
461B25	LT1461BCS8-2.5	573I28	LT1573IS8-2.8	61CI25	LT1461CIS8-2.5	6555	LT6555IUF	8043E	LTC8043ES8	LADD	LTC5509ESC6	LBCW	LTC2055HDD
461B33	LT1461BCS8-3.3	573I33	LT1573IS8-3.3	61CI33	LT1461CIS8-3.3	6556	LT6556CUF	8043F	LTC8043FS8	LADD	LT6201CDD	LBCW	LTC2055IDD

# TOP MARKINGS (TOP MARK TO PART NUMBER)

LBCX	LTC2055HVCCD	LBZY	LTC2480CDD	LBQM	LT1994CDD	LBWJ	LTC3531IDD-3.3	LBZX	LTC4069EDC	LCFR	LTC3542IDC	LCKF	LT6003HDC
LBCX	LTC2055HVHDD	LBZY	LTC2480IDD	LBQM	LT1994IDD	LBWJ	LTC3772BEDDB	LBZY	LTC3410BESC6	LCFS	LTC3542E56	LCKF	LT6003IDC
LBCX	LTC2055HVIDD	LBZJ	LT1947EDD	LBQP	LTC3221EDC-3.3	LBWQ	LTC3251EDC	LBZZ	LT6402CUD-6	LCFS	LTC3542IS6	LCKH	LT66102CDD
LBCY	LTC2905IDDDB	LBKB	LTC3447EDD	LBQX	LTC3454EDD	LBWR	LTC3251EDD-1.2	LBZZ	LT6402IUD-6	LCFV	LTC2908CDDDB-C1	LCKH	LT66102HDD
LBCZ	LTC2904CDDDB	LBKC	LT3020EODD-1.2	LBQY	LTC3809EDD	LBWS	LTC3251EDD-1.5	LCBB	LT6402CUD-12	LCFV	LTC2908IDDDB-C1	LCKH	LT66102IDD
LBD	LTC2904IDDDB	LBKD	LT3020EODD-1.5	LBQZ	LTC3809EDD-1	LBWT	LTC3525ESC6-5	LCBB	LT6402IUD-12	LCFX	LT3585EDDB-3	LCKN	LTC2913CDD-1
LBD	LTC2906CDDDB	LBKF	LT3020EODD-1.8	LBRR	LTC3499EDD	LBWV	LTC3448EDD-1.5	LCBC	LT6402CUD-20	LCFZ	LT1934EDCB	LCKN	LTC2913HDD-1
LBD	LTC2906IDDDB	LBKM	LT3027EDD	LBRR	LTC4061EDD-4.4	LBWW	LTC3448EDD-1.8	LCBC	LT6402IUD-20	LCFZ	LT1934IDCB	LCKN	LTC2913IDD-1
LBD	LTC2907CDDDB	LBKP	LTC2950CDDDB-1	LBRR	LT3485EDD-0	LBWZ	LT1010CDD	LCBD	LTC4065JEDC	LCGB	LTC3931EDTS8	LCKP	LTC2913CDD-2
LBD	LTC2907IDDDB	LBKP	LTC2950IDDDB-1	LBRR	LT4075XEDD	LBWZ	LT1010IDD	LCBF	LTC3822EDD	LCGD	LTC6244HVCCD	LCKP	LTC2913HDD-2
LBDH	LTC4058XEDD-4.2	LBKT	LTC3440EDD	LBRR	LTC3035XEDDB	LBXB	LT3487EDD	LCBH	LTC3530EDD	LCGD	LTC6244HVHDD	LCKP	LTC2913IDD-2
LBDJ	LT3437EDD	LBKY	LT3484ESC6-0	LBRR	LTC3422EDD	LBXD	LTC4080EDD	LCBN	LT3080EDD	LCGD	LTC6244HVIDD	LCKQ	LTC4069EDC-4.4
LBDK	LT3437IDD	LBKZ	LT3484EDD	LBRR	LTC3490EDD	LBXG	LTC2909CDDDB-2.5	LCBP	LTC3240EDC-2.5	LCGG	LTC3493EDCB	LCKR	LTC4065EDC-4.4
LBD	LTC5536ES6	LBMB	LTC4354IDDDB	LBRR	LTC6241HVCCD	LBXG	LTC2909HDDDB-2.5	LCBS	LTC3541EDC	LCGH	LTC3493IDCB	LCKS	LTC4065LXEDC
LBDT	LTC5536EDC	LBMC	LT3027IDD	LBRR	LTC6241HVIDD	LBXG	LTC2909IDDDB-2.5	LCBT	LTC3210EUD-1	LCGJ	LTC3493EDCB-3	LCLG	LTC4095EDC
LBDV	LT6650C55	LBMG	LT3014EDD	LBRT	LT3014HVEDD	LBXH	LTC3210EUD	LCBV	LTC3531EDD-3	LCGK	LTC3493IDCB-3	LCLH	LTC3585EDDB-2
LBDV	LT6650HS5	LBMG	LT3014IDD	LBRT	LT3014HVIDD	LBXJ	LTC3240EDC-3.3	LCBW	LTC3531IDD-3	LCGM	LT1933IDCB	LCLJ	LT3585EDDB-1
LBDV	LT6650IS5	LBMJ	LTC3448EDD	LBRT	LTC3203IDD	LBXN	LT6660HCDC-2.5	LCBX	LT5560EDD	LCGN	LT1933HDCB	LCLK	LT3585EDDB-0
LBDW	LT6650JEDC	LBMM	LT1991ACDD	LBRT	LT3466EDD-1	LBXN	LT6660JCDC-2.5	LCCB	LT6004CDD	LCGP	LT6411CUD	LCLM	LTC4096XEDD
LBDX	LTC5530ES6	LBMM	LT1991AIDD	LBS	LTC4075EDD	LBXN	LT6660KDCD-2.5	LCCB	LT6004HDD	LCGP	LT6411IUD	LCLN	LTC3544BEUD
LBDY	LTC3025EDC	LBMM	LT1991CDD	LBS	LTC3410ESC6	LBXP	LT16348CDD-2.5	LCCB	LT6004IDD	LCGR	LT642858CDD-1	LCLT	LT3502AEDC
LBF	LTC3407EDD-2	LBMM	LT1991HDD	LBSF	LTC3410ESC6-2	LBXP	LT16348IDD-2.5	LCCD	LT3494EDDB	LCGR	LTC2858HDD-1	LCLT	LT3502AIDC
LBF	LTC3407IDD-2	LBMM	LT1991IDD	LBSG	LTC3410ESC6-3	LBXQ	LT3491ESC8	LCCD	LT6244CDD	LCGR	LTC2858IDD-1	LCLV	LT3502EDC
LBF	LTC2908CDDDB-A1	LBMP	LTC3407EDD-1	LBSH	LTC3410ESC6-4	LBXR	LTC3532EDD	LCCF	LT6244IDD	LCGS	LT3493AIDCB	LCLV	LT3502IDC
LBF	LTC2908IDDDB-A1	LBMW	LT6100CDD	LBSJ	LTC3410ESC6-5	LBXW	LT6700CDCB-1	LCCK	LTC3543EDCB	LCGT	LT3497EDDB	LCLW	LTC6404CUD-1
LBF	LTC2908CDDDB-B1	LBMW	LT6100HDD	LBSK	LTC3410ESC6-6	LBXW	LT6700HDCB-1	LCCN	LTC3221EDC-5	LCGV	LT3493EDCB-4	LCLW	LTC6404HDD-1
LBFH	LTC2908IDDDB-B1	LBMW	LT6100IDD	LBSM	LTC3410ESC6-7	LBXW	LT6700IDCB-1	LCCP	LTC3221EDC	LCGW	LT3503EDCB	LCLW	LTC6404IUD-1
LBFQ	LTC2611CDD	LBNG	LTC2950CDDDB-2	LBSN	LTC3410ESC6-8	LBXX	LT6700CDCB-2	LCCQ	LT6400CUD-8	LCGX	LTC3203BEDD	LCLX	LTC6404CUD-2
LBFQ	LTC2611IDD	LBNG	LTC2950IDDDB-2	LBSQ	LTC3410ESC6-9	LBXX	LT6700HDCB-2	LCCQ	LT6400IUD-8	LCGY	LTC3203BEDD-1	LCLX	LTC6404HDD-2
LBF	LTC2621CDD	LBNJ	LTC3548EDD	LBSQ	LTC2482CDD	LBXX	LT6700IDCB-2	LCCR	LT6400CUD-14	LCHB	LT3505EDD	LCLX	LTC6404IUD-2
LBF	LTC2621IDD	LBNJ	LTC3548IDD	LBSQ	LTC2482IDD	LBXY	LT6700CDCB-3	LCCR	LT6400IUD-14	LCHC	LT3505IDD	LCLY	LTC6404CUD-4
LBFZ	LTC4257CDD-1	LBNK	LTC3204EDC-5	LBSR	LTC2483CDD	LBXY	LT6700HDCB-3	LCCS	LT6400CUD-20	LCHD	LT3505EDCB	LCLY	LTC6404HDD-4
LBFZ	LTC4257IDD	LBNM	LTC3409EDD	LBSR	LTC2483IDD	LBXY	LT6700IDCB-3	LCCS	LT6400IUD-20	LCHF	LT3505IDCB	LCLY	LTC6404IUD-4
LBG	LT3472EDD	LBNN	LTC3409IDD	LBS	LTC2484CDD	LBXZ	LT6700IDCB-3	LCC	LT6400CUD-20A	LCHG	LT6559CUD	LCLZ	LTC6404CUD-1M4
LBG	LT5534ESC6	LBNN	LTC2053CDD-SYNC	LBS	LTC2484IDD	LBXZ	LT6700HDCB-1	LCCV	LT6400CUD-20E	LCHG	LT6559IUD	LCLZ	LTC6404IUD-1M4
LBGJ	LTC6701CDD-1	LBNN	LTC2053HDD-SYNC	LBS	LTC2485CDD	LBXB	LTC6908IDCB-1	LCCW	LT6400CUD-20F	LCHH	LTC6559HVCCD	LCLM	LTC3559EUD
LBGJ	LTC6701IDD-1	LBNN	LTC2053IDD-SYNC	LBS	LTC2485IDD	LBXB	LTC6908IDCB-2	LCCX	LT6400CUD-26	LCHH	LT6559HVUID	LCMD	LTC2857CDD-1
LBGK	LTC6701CDD-2	LBNR	LTC3772EDDB	LBSY	LTC3427EDC	LBYG	LT3489EDD	LCCX	LT6400IUD-26	LCHJ	LTC3491EDC	LCMD	LTC2857HDD-1
LBGK	LTC6701IDD-2	LBNS	LT1993CUD-4	LBS	LTC2951CDDDB-1	LBZH	LTC3020IDD	LCCY	LT6401CUD-8	LCHM	LT6401CUD-8	LCMD	LTC2857IDD-1
LBG	LTC6701CDD-3	LBNS	LT1993IUD-4	LBS	LTC2951IDDDB-1	LBZJ	LT3020IDD-1.2	LCCY	LT6401IUD-8	LCHM	LT3014BIDD	LCMG	LTC2856CDD-1
LBG	LTC6701IDD-3	LBNT	LT1993CUD-10	LBS	LTC2951CDDDB-2	LBZK	LT3020IDD-1.5	LCCZ	LT6401CUD-14	LCHP	LT3014BHVDD	LCMG	LTC2856HDD-1
LBG	LTC4413EDD	LBNT	LT1993IUD-10	LBS	LTC2951IDDDB-2	LBZM	LT3020IDD-1.8	LCCZ	LT6401IUD-14	LCHP	LT3014BHVDD	LCMG	LTC2856IDD-1
LBGY	LTC4002EDD-8.4	LBNV	LT3483ESC6	LBS	LTC3525ESC6-3.3	LBYS	LT16348CDD-1.25	LCCB	LT6401CUD-20	LCHQ	LTC3541EDD-2	LCMJ	LTC2856CDD-2
LBGZ	LTC4354CDDDB-1	LBNX	LTC2859CDD	LBS	LT1440CDD	LBYS	LT16348IDD-1.25	LCCB	LT6401IUD-20	LCHR	LT3541EDD-3	LCMJ	LTC2856HDD-2
LBBH	LTC4354CDDDB-2	LBNX	LTC2859IDD	LBS	LT1440IDD	LBZ	LT6660HCDC-5	LCCD	LT6400CUD-20S	LCHS	LTC3218EDDB	LCMJ	LTC2856IDD-2
LBB	LT6013ACDD	LBNY	LT3484ESC6-1	LBS	LT3485EDD-3	LBZ	LT6660JCDC-5	LCCD	LT6401CUD-20E	LCHT	LTC3872EDDB	LCMM	LTC2857CDD-2
LBB	LT6013AIDD	LBNZ	LT3484ESC6-2	LBS	LT3484EDCB-0	LBZ	LT6660KDCD-5	LCCD	LT6401CUD-20F	LCHV	LTC3410ESC6-1.2	LCMM	LTC2857HDD-2
LBB	LT6013CDD	LBPC	LT1996ACDD	LBS	LT3484EDCB-1	LBZ	LT6660HCDC-3	LCCD	LT6401CUD-20F	LCHV	LTC3526EDC	LCMM	LTC2857IDD-2
LBB	LT6013IDD	LBPC	LT1996AIDD	LBS	LT3484EDCB-2	LBZ	LT6660JCDC-3	LCCD	LT6401IUD-26	LCHX	LT6401IUD-26	LCMR	LTC2858CDD-2
LBB	LTC4300A-3CDD	LBPC	LT1996CDD	LBS	LTC3217EUD	LBZ	LT6660KDCD-3	LCCD	LT6410CUD-15	LCHY	LT6410CUD-15	LCMR	LTC2858HDD-2
LBB	LTC4300A-3IDD	LBPC	LT1996IDD	LBS	LT4308CDD	LBZ	LT6660HCDC-3.3	LCCD	LT6410LUD-15	LCHZ	LTC3410BESC6-1.875	LCMR	LTC2858IDD-2
LBBJ	LTC5535EDC	LBPD	LTC6241CDD	LBS	LT4308IDD	LBZ	LT6660JCDC-3.3	LCCD	LTC3548EDD-2	LCHZ	LTC3548EDD-2	LCMS	LTC3822EDD-1
LBBK	LTC5535ES6	LBPD	LT66241IDD	LBS	LT4307CDD	LBZ	LT6660KDCD-3.3	LCCD	LT6000CDD	LCJB	LTC3407EDD-3	LCMV	LTC3502AEDDB
LBBM	LT3471EDD	LBPG	LTC4065EDC	LBS	LT4307IDD	LBZ	LT6660HCDC-10	LCCD	LT6000IDCB	LCJD	LTC3407EDD-4	LCMV	LT3502AIDDB
LBS	LTC4301LCDD	LBPN	LT3470EDDB	LBS	LTC3531IDD	LBZ	LT6660JCDC-10	LCCD	LT6401CUD-20S	LCJF	LTC3410ESC6-1.65	LCMW	LTC3502EDDB
LBS	LTC4301LIIDD	LBPP	LT3470IDDDB	LBS	LTC3531EDD	LBZ	LT6660KDCD-10	LCCD	LT6401CUD-20E	LCJG	LTC2954CDDDB-1	LCMW	LT3502IDDB
LBSV	LTC4213CDDDB	LBPO	LTC2616CDD	LBS	LT32048EDC-3.3	LBZ	LT16348CDD-4.096	LCCD	LT6401CUD-20F	LCJG	LTC2954IDDDB-1	LCMX	LTC3410BESC6-1.2
LBSV	LTC4213IDDDB	LBPO	LT6616IDD	LBS	LT32048EDC-5	LBZ	LT16348IDD-5	LCCD	LT6401IUD-26	LCJJ	LTC3561EDD	LCMY	LTC3410BESC6-1.5
LBSW	LTC3026EDD	LBPR	LTC2616CDD-1	LBS	LT6001CDD	LBZ	LT16348IDD-5	LCCD	LT6401IUD-26	LCJM	LT3080EDD	LCMZ	LTC3410BESC6-1.8
LBSX	LTC4063EDD	LBPR	LTC2616IDD-1	LBS	LT6001IDD	LBZ	LT4067EDD	LCCD	LT6410CUD-15	LCJP	LTC6081CDD	LCNB	LTC3410ESC6-1.5
LBSZ	LTC4068EDD-4.2	LBPS	LTC2626CDD	LBS	LTC4065AEDC	LBZ	LTC3548EDD-1	LCCD	LT6410LUD-15	LCJP	LTC6081IDD	LCNC	LTC3410ESC6-1.8
LBJF	LT1995CDD	LBPS	LTC2626IDD	LBS	LT3485EDD-1	LBZ	LTC2601CDD-1	LCCD	LT6401CUD-20F	LCJQ	LT5570IDD	LCND	LT3539EDD-1
LBJF	LT1995IDD	LBPT	LTC2626CDD-1	LBS	LT3485EDD-2	LBZ	LTC2601IDD-1	LCCD	LT6401CUD-20F	LCJV	LTC3219EUD	LCNF	LTC4311CSC6
LBJG	LT1993CUD-2	LBPT	LTC2626IDD-1	LBS	LT3214EDD	LBZJ	LTC2611CDD-1	LCCD	LT6401IUD-26	LCJZ	LTC2912CDDDB-1	LCNF	LTC4311IS6
LBJG	LT1993IUD-2	LBPV	LTC2481CDD	LBS	LT4290CDD	LBZJ	LTC2611IDD-1	LCCD	LT6401IUD-26	LCJZ	LTC2912HDDDB-1	LCHG	LTC4311CDD
LBJH	LTC4059AEDC	LBPV	LTC2481IDD	LBS	LT4290IDD	LBZK	LTC2621CDD-1	LCCD	LT6401IUD-26	LCJZ	LTC3499BEDD	LCHG	LTC4311IDD
LBJJ	LT3473EDD	LBPX	LTC3215EDD	LBS	LT3481EDD	LBZK	LTC2621IDD-1	LCCD	LT6401IUD-26	LCJZ	LT3482EUD	LCHG	LTC2912CDDDB-2
LBJK	LT3463AEDD	LBPZ	LT4303CDD	LBS	LT3481IDD	LBZ	LTC3549EDCB	LCCD	LT6401IUD-26	LCJZ	LT3482IUD	LCHG	LTC2912HDDDB-2
LBJR	LT5537EDDB	LBPZ	LT4303IDD	LBS	LT1460KDCDCB-2.5	LBZ	LTC2909CDDDB-3.3	LCCD	LT6401IUD-26	LCJZ	LTC3203EDD-1	LCHG	LTC2912IDDDB-2
LBS	LTC4061EDD	LBOB	LTC4068XEDD-4.2	LBS	LTC3444EDD	LBZS	LTC2909HDDDB-3.3	LCCD	LT6401IUD-26	LCJZ	LTC3203IDD-1	LCHG	LTC2912CDDDB-3
LBJT	LTC4062EDD	LBOC	LTC4053EDD-4.2	LBS	LT4076EDD	LBZS	LTC2909IDDDB-3.3	LCCD	LT6401IUD-26	LCJZ	LTC3872EDDB-1	LCHG	LTC2912CDDDB-3
LBJV	LTC3204EDC-3.3	LBOH	LTC2927CDDDB	LBS	LT4077EDD	LBZT	LTC2909CDDDB-5	LCCD	LT6401IUD-26	LCJZ	LTC3872EDDB-2	LCHG	LTC2912IDDDB-3
LBJV	LT3420EDD	LBOH	LTC2927IDDDB	LBS	LT3493AEDCB	LBZT	LTC2909HDDDB-5	LCCD	LT6401IUD-26	LCKD	LTC3410ESC6-1.875	LCHG	LTC467AEDDB
LBJX	LT3420EDD-1	LBOQ	LTC3203EDD	LBSW	LTC3531EDD-3.3	LBZT	LTC2909IDDDB-5	LCCD	LT6401IUD-26	LCKF	LTC3542EDC	LCNV	LTC2491IDC

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**

LCNW	LTC2491CDD8	LCTC	LTC6406CUD	LXCY	LT3580EED	LCZH	LTC2630CSC6-HM10	LDGH	LTC2918HDD8-A1	LDNZ	LTC3528EDDB-2	LTACL	LTC1992-10CMS8
LCNW	LTC2491IDD8	LCTC	LTC6406IUD	LXCY	LT3580IDD	LCZH	LTC2630HSC6-HM10	LDGH	LTC2918IDD8-A1	LDPB	LTC3528EDDB-2	LTACM	LTC1992-11MS8
LCNZ	LT3590EDC	LCTF	LT6105CDBC	LXCY	LT3590EED	LCZH	LTC2630ISC6-HM10	LDGQ	LTC2451CDD8	LDPF	LTC3459EDC-1	LTACN	LTC1992-5IMS8
LCPB	LT3590ESC8	LCTF	LT6105HDCB	LXCY	LT3590ESC8	LCZJ	LT6702CDC	LDGQ	LTC2451IDD8	LDPF	LTC3459IDD-1	LTACP	LTC1992-10IMS8
LCPC	LTC3547EDDB-1	LCTF	LT6105IDCB	LXCY	LTC3523EUD	LCZJ	LT6702HDC	LDGT	LTC2919CDD8-B.2.5	LDPG	LTC3459EDCB-1	LTACQ	LTC6910-2TTS8
LCPC	LTC3547IDDB-1	LCTG	LTC4442EDCB	LXCY	LTC3528EDDB	LCZJ	LT6702IDC	LDGT	LTC2919HDD8-B.2.5	LDPG	LTC3459IDCB-1	LTACQ	LTC6910-2CTS8
LCPD	LTC3547BEDDB	LCTG	LTC4442IDCB	LXCY	LT3685EED	LCZM	LTC2641CDD-12	LDGT	LTC2919IDD8-B.2.5	LDPJ	LTC4352CDD	LTACQ	LTC6910-2ITS8
LCPD	LTC3547BIDDB	LCTH	LTC4442HDCB	LXCY	LT3685IDD	LCZM	LTC2641IDD-12	LDGV	LTC2302CDD	LDPJ	LTC4352IDD	LTACR	LTC3801ES6
LCPF	LTC3547BEDDB-1	LCTP	LT3480EED	LXCY	LT3680EED	LCZN	LTC2641CDD-14	LDGV	LTC2302IDD	LDPM	LT3080EED-1	LTACS	LTC6910-3CTS8
LCPF	LTC3547BIDDB-1	LCTP	LT3480IDD	LXCY	LT3680IDD	LCZN	LTC2641IDD-14	LDGW	LTC2306CDD	LDPD	LT2940CDD	LTACS	LTC6910-3HTS8
LCPG	LT3591EEDB	LCTO	LT3480HDD	LXCY	LTC4443EED-1	LCZP	LTC2641ACDD-16	LDGW	LTC2306IDD	LDPD	LT2940IDD	LTACS	LTC6910-3ITS8
LOPP	LTC4413EED-1	LCTR	LTC2450CDD	LXCY	LT4443IDD-1	LCZP	LTC2641AIDD-16	LDHB	LTC3805EED-5	LDPQ	LTC3025EEDC-4	LTACV	LTC3803ES6
LCPQ	LTC4413EED-2	LCTR	LTC2450IDD	LXCY	LT4078XEDD	LCZP	LTC2641CDD-16	LDHB	LTC3805IDD-5	LDPQ	LT3470AEDDB	LTACW	LT1720IMS8
LCPV	LTC3562EUD	LCTS	LTC4097XEDDB	LXCY	LT2304CDD	LCZP	LTC2641IDD-16	LDBC	LTC1934EDCB-1	LDPQ	LT3470AIDDB	LTACX	LTC2602CMS8
LCPW	LTC3217EUD-1	LCTW	LT6703CDD-3	LXCY	LT2304IDD	LCZT	LTC2642CDD-12	LDBC	LT1934IDCB-1	LDPQ	LT3008EDC	LTACY	LTC2602IMS8
LCPX	LT3467EDDB	LCTW	LT6703HDC-3	LXCY	LT3483EED	LCZT	LTC2642IDD-12	LDJK	LTC3775EUD	LDPQ	LT3008IDD	LTACZ	LTC2612CMS8
LCPY	LTC3525LESOC6-3	LCTW	LT6703IDC-3	LXCY	LT3483IDD	LCZV	LTC2642CDD-14	LDJM	LT1778EUD	LDPQ	LT3481HDD	LTADA	LTC2612IMS8
LCPZ	LTC3525LESOC6-3.3	LCTX	LTC6087CDD	LXCY	LTC2630ACSC6-LZ8	LCZV	LTC2642IDD-14	LDJM	LT1778IDD	LDPX	LTC2935CDD-1	LTADB	LTC2622CMS8
LQCB	LTC3525LESOC6-5	LCTX	LTC6087HDD	LXCY	LTC2630AHC6-LZ8	LCZV	LTC2642ACDD-16	LDJT	LT1912EED	LDPX	LTC2935IDC-1	LTADC	LTC2622IMS8
LQCC	LTC2850CDD	LCTZ	LTC3529EDCB	LXCY	LTC2630AISC6-LZ8	LCZW	LTC2642AIDD-16	LDJV	LT3460ESC6-1	LDDC	LTC2850HDD	LTADL	LTC6800HMS8
LQCC	LTC2850IDD	LCTZ	LTC6102HVCCDD	LXCY	LTC2630CSC6-LZ8	LCZW	LTC2642CDD-16	LDJV	LT1913EED	LDDC	LTC2935CDD-2	LTADF	LTC1403ACMSE
LQCF	LT3498EDDB	LCTZ	LTC6102HVHDD	LXCY	LTC2630HSC6-LZ8	LCZW	LTC2642IDD-16	LDJV	LT1913IDD	LDDC	LTC2935IDC-2	LTADL	LTC6700CSE6-2
LQCG	LTC2854CDD	LCVC	LTC6102HVIDD	LXCY	LTC2630ISC6-LZ8	LDBD	LTC3537EUD	LDJX	LT1468CDD	LDDQ	LTC3559EUD-1	LTADL	LTC6700HSC6-2
LQCG	LTC2854HDD	LCVG	LT5538EED	LXCY	LTC2630ACSC6-LM8	LDBD	LT5538EED	LDJX	LT1468IDD	LDDQ	LT3470EED-2	LTADL	LTC6700HVS6-2
LQCG	LTC2854IDD	LCVG	LT5538IDD	LXCY	LTC2630AHC6-LM8	LDBG	LT66410CUD-6	LDJY	LT4078EED	LDDQ	LT3495EEDB	LTADL	LTC6700HVS6-2
LQJQ	LTC3419EUD	LCVR	LTC2915CDD8-B1	LXCY	LTC2630AISC6-LM8	LDBG	LTC6410IUD-6	LDJZ	LT1939EED	LDDQ	LT3495EDDB12	LTADL	LTC6700HVS6-2
LQJM	LTC4075HVXEDD	LCVR	LTC2915HDD8-B1	LXCY	LTC2630CSC6-LM8	LDBH	LTC3672BEDC-2	LDJZ	LT1939IDD	LDDQ	LT3085EEDB	LTADL	LTC6700IS6-2
LQJN	LTC3407AEDD	LCVR	LTC2915IDD8-B1	LXCY	LTC2630HSC6-LM8	LDBM	LT66403CUD-1	LDKB	LTC3561AEDD	LDDQ	LTC3025EEDC-3	LTADM	LTC6700CSE6-3
LQJR	LTC2917CDD8-B1	LCVT	LT3684EED	LXCY	LTC2630ISC6-LM8	LDBM	LT66403IUD-1	LDKC	LT3009EEDC-1.8	LDDQ	LTC3612EUDC	LTADM	LTC6700HSC6-3
LQJR	LTC2917HDD8-B1	LCVT	LT3684IDD	LXCY	LTC2630AHC6-HZ8	LDBP	LT4078CDD-1	LDKD	LT3009EEDC-3.3	LDDQ	LT4082EED	LTADM	LTC6700HVS6-3
LQJR	LTC2917IDD8-B1	LCVV	LTC4080XEDD	LXCY	LTC2630AISC6-HZ8	LDBP	LT4078IDD-1	LDKF	LT3009EEDC-5	LDDQ	LT1468CDD-4	LTADM	LTC6700HVS6-3
LQQT	LTC2953CDD-2	LCWD	LTC2851CDD	LXCY	LTC2630AISC6-HZ8	LDBQ	LTC2453CDD8	LDKG	LT3009ESC8-1.8	LDDQ	LT1468IDD-4	LTADM	LTC6700HVS6-3
LQQT	LTC2953IDD-2	LCWD	LTC2851HDD	LXCY	LTC2630CSC6-HZ8	LDBQ	LT2453IDD8	LDKH	LT3009ESC8-3.3	LDTA	LT4351IMS	LTADM	LTC6700IS6-3
LQXQ	LT3009EDC	LCWD	LTC2851IDD	LXCY	LTC2630HSC6-HZ8	LDBX	LTC4081EED	LDKJ	LT3009ESC8-5	LTAD	LT4412ES6	LTADS	LT6221IMS8
LQYQ	LT3009ESC8	LCWG	LT3580EDCB	LXCY	LTC2630ISC6-HZ8	LDBY	LTC3670EEDB	LDKP	LT66405CUD	LTAD	LT4412IS6	LTADV	LTC1540IMS8
LQZQ	LTC3525LESOC6-3.3	LCWG	LT3580IDCB	LXCY	LTC2630AHC6-HM8	LDBZ	LTC2450CDD-1	LDKP	LT66405IUD	LTADW	LT6210CSE6	LTADW	LTC1541IMS8
LCRB	LTC3538EDCB	LCWH	LTC3672BEDC-1	LXCY	LTC2630AHC6-HM8	LDBZ	LTC2450IDD-1	LDKQ	LT3011EED	LTADX	LT6210IS6	LTADX	LTC1542IMS8
LCRM	LTC4097EDDB	LCWM	LTC3212EEDB	LXCY	LTC2630AISC6-HM8	LDCD	LT3558EUD	LDKT	LTC2934CDD-1	LTADY	LTC2920-2IMS8	LTADY	LTC4054XES5-4.2
LCRN	LT3500EED	LCWP	LT6703CDD-2	LXCY	LTC2630CSC6-HM8	LDCD	LTC3210EUD	LDKT	LTC2934IDD-1	LTAEB	LTC3406ES5	LTAEB	LT3461ES6
LCRN	LT3500IDD	LCWP	LT6703HDC-2	LXCY	LTC2630HSC6-HM8	LDCM	LT3210EPD-2	LDKV	LTC2934CDD-2	LTAEB	LTC1663-8CMS8	LTAEC	LT3468ES5
LCRQ	LTC3522EUD	LCWP	LT6703IDC-2	LXCY	LTC2630AISC6-HM8	LDCN	LT3210EPD-3	LDKV	LTC2934IDD-2	LTAED	LT1663-8IMS8	LTAED	LTC2923CMS
LCRW	LT3494AEDDB	LCWQ	LTC3541EED-1	LCZB	LTC2630AISC6-LM12	LDCP	LT66102APCDD	LDKW	LT1965EED-1.5	LTAEB	LT1694IS5	LTAEB	LTC2923IMS
LCRY	LTC2852CDD	LCWR	LTC2630AISC6-HM12	LCZB	LTC2630HSC6-LM12	LDCV	LTC2918CDD8-B1	LDKW	LT1965IDD-1.5	LTAEB	LTC1694-1IS5	LTAEB	LT3010EMS8E-5
LCRY	LTC2852HDD	LCWR	LTC2630AISC6-HM12	LCZB	LTC2630AISC6-LM12	LDCV	LTC2918HDD8-B1	LDKY	LT1965EED-1.8	LTAEG	LT14600CMS8-2.5	LTAEB	LTC2050CS5
LCRY	LTC2852IDD	LCWR	LTC2630CSC6-HM12	LCZB	LTC2630CSC6-LM12	LDCV	LTC2918IDD8-B1	LDKY	LT1965IDD-1.8	LTAEG	LT6221CMS8	LTAEG	LTC2050HS5
LCSB	LTC2630ACSC6-LZ12	LCWR	LTC2630AISC6-HM12	LCZB	LTC2630HSC6-LM12	LDCX	LTC2916CDD8-B1	LDMB	LT1965EED-2.5	LTAEG	LT6221IS6	LTAEG	LTC2050IS5
LCSB	LTC2630AHC6-LZ12	LCWR	LTC2630HSC6-HM12	LCZB	LTC2630ISC6-LM12	LDCX	LTC2916HDD8-B1	LDMB	LT1965IDD-2.5	LTAEH	LT1460FMS8-2.5	LTAEH	LTC2050HVS5
LCSB	LTC2630CSC6-LZ12	LCWS	LTC2630ACDD-HM12	LCZC	LTC2630AISC6-HZ12	LDCX	LT2916IDD8-B1	LDMD	LT1965EED-3.3	LTAEH	LTC3407EMSE	LTAEH	LTC2050HVHS5
LCSB	LTC2630HSC6-LZ12	LCWS	LTC2630AHCDD-HM12	LCZC	LTC2630AISC6-HZ12	LDCY	LT3500HDD	LDMD	LT1965IDD-3.3	LTAEH	LTC4056EMS8-4.2	LTAEH	LTC2050HVS5
LCSB	LTC2630ISC6-LZ12	LCWS	LTC2630AIDC-HM12	LCZC	LTC2630CSC6-HZ12	LDDC	LT3495EEDB-1	LDMJ	LTC2930CDD	LTAEB	LTC3251EMSE-1.5	LTAEB	LTC2050CS6
LCSB	LTC2630AIDC-LZ12	LCWS	LTC2630AIDC-HM12	LCZC	LTC2630HSC6-HZ12	LDDD	LT3495EEDDB-1	LDMJ	LTC2930HDD	LTAEB	LT4300A-1CMS8	LTAEB	LTC2050HVS6
LCSB	LTC2630AIDC-LZ12	LCWS	LTC2630CDD-HM12	LCZC	LTC2630HSC6-HZ12	LDDF	LT3495EEDDB	LDMJ	LTC2930IDD	LTAEB	LT4300A-1MS8	LTAEB	LTC2050IS6
LCSB	LTC2630AIDC-LZ12	LCWS	LTC2630HDC-HM12	LCZD	LTC2630ISC6-HZ12	LDDG	LT3528BEDDB	LDMK	LT3025EEDC-2	LTAEB	LT4214-1CMS	LTAEB	LTC2050HVS6
LCSB	LTC2630AIDC-LZ12	LCWS	LTC2630IDC-HM12	LCZD	LTC2630AISC6-LZ10	LDDH	LT3407AEDD-2	LDMM	LTC3407AEDD-2	LTAEB	LT4214-1MS	LTAEB	LTC2050HVS6
LCSB	LTC2630CDD-LZ12	LCWT	LTC2953CDD-1	LCZD	LTC2630AHC6-LZ10	LDDH	LT3407AIDD-2	LDMM	LTC3459IDCB	LTAEB	LT4214-2CMS	LTAEB	LTC2050HVS6
LCSB	LTC2630HDC-LZ12	LCWT	LTC2953IDD-1	LCZD	LTC2630AISC6-LZ10	LDDK	LTC3527EUD	LDMQ	LT3527EUD	LTAEB	LT4214-2IMS	LTAEB	LT6205CS5
LCSB	LTC2630IDC-LZ12	LCWW	LT3419EED-1	LCZD	LTC2630CSC6-LZ10	LDDM	LT66420CUDC-20	LDMQ	LT3756IUD	LTAEB	LT6903CMS8	LTAEM	LTC2050HVS6
LCSB	LTC2630AIDC-LZ12	LCWZ	LT4151CDD	LCZD	LTC2630HSC6-LZ10	LDDM	LT66420IUDC-20	LDMR	LT3756EUD-1	LTAEB	LT6903HMS8	LTAEM	LTC2050HVS6
LCSB	LTC2630AIDC-LZ12	LCWZ	LT4151IDD	LCZD	LTC2630ISC6-LZ10	LDDN	LT66421CUDC-20	LDMR	LT3756IUD-1	LTAEB	LT6903IMS8	LTAEM	LTC2050HVS6
LCSB	LTC2630CDD-LZ12	LCXC	LT4151CDD-1	LCZF	LTC2630AISC6-LM10	LDDN	LT66421IUDC-20	LDMR	LT3756EUD-1	LTAEB	LT3432ETS8	LTAEB	LTC6904CMS8
LCSB	LTC2630HDC-LZ12	LCXC	LT4151IDD-1	LCZF	LTC2630AHC6-LM10	LDDP	LT3545EUD-1	LDMR	LT3756EUD-1	LTAEB	LT4257IMS8	LTAEB	LTC6904HMS8
LCSB	LTC2630IDC-LZ12	LCXF	LT4357CDD8	LCZF	LTC2630AISC6-LM10	LDDR	LTC3523EUD-2	LDMW	LTC2919CDD8-B.3.3	LTAEB	LTC4302CMS-2	LTAEB	LTC6904IMS8
LCSB	LTC4096EED	LCXF	LTC4357IDCB	LCZF	LTC2630CSC6-LM10	LDDT	LT4098EUDC	LDMW	LTC2919HDD8-B.3.3	LTAEB	LTC4302IMS-2	LTAEB	LTC4057ES5-4.2
LCSK	LTC3873EDDB	LCXF	LT4443EED	LCZF	LTC2630HSC6-LM10	LDDW	LTC3025EEDC-1	LDMW	LTC2919IDD8-B.3.3	LTAEB	LT3469ETS8	LTAEB	LTC2433-1CMS
LCSM	LTC3873EDDB-5	LCXH	LT4443IDD	LCZF	LTC2630ISC6-LM10	LDDT	LT1938EED	LDMX	LTC2919CDD8-5	LTAEB	LT6200CSE6-5	LTAEB	LTC2433-1MS
LCSQ	LT3591EEDB-2	LCXJ	LTC2450CDD8	LCZG	LTC2630AISC6-HZ10	LDDT	LT1938IDD	LDMX	LTC2919HDD8-5	LTAEB	LT6200IS6-5	LTAEB	LT14600CMS8-5
LCSR	LTC3545EUD	LCXJ	LTC2450IDD8	LCZG	LTC2630AHC6-HZ10	LDDG	LTC3693EED	LDMX	LTC2919IDD8-5	LTAEB	LT6200CSE6-10	LTAEB	LTC4054LES5-4.2
LCSR	LTC3526LEDC	LCXM	LT35344EUD	LCZG	LTC2630AISC6-HZ10	LDDG	LT3693IDD	LDMZ	LTC4310CDD	LTAEB	LT6200IS6-10	LTAEB	LTC2053HMS8
LCSST	LTC3526LBEDC	LCPX	LT3527EUD-1	LCZG	LTC2630CSC6-HZ10	LDDG	LT3755EUD	LDMZ	LT4310IDD	LTAEB	LT4300A-2CMS8	LTAEB	LTC1403AHMSE
LCSV	LT5575EED-2	LCXQ	LTC4442EDCB-1	LCZG	LTC2630HSC6-HZ10	LDDG	LT3755IUD	LDMZ	LT3460EEDC-1	LTAEB	LT4300A-2IMS8	LTAEB	LTC1403AHMSE
LCSW	LT5575EED-5	LCXQ	LTC4442IDCB-1	LCZG	LTC2630AISC6-HZ10	LDDG	LTC2917CDD8-A1	LDNH	LTC6084CDD	LTAEB	LTC3467ES6	LTAEB	LTC1407ACMSE
LCSX	LT5575EED-7	LCXT	LTC3210EPD-1	LCZH	LTC2630AHC6-HM10	LDDG	LTC2917HDD8-A1	LDNH	LTC6084HDD	LTAEB	LT3467IS6	LTAEB	LTC1407AHMSE
LCSY	LT5575EED-9	LCXW	LT1965EED	LCZH	LTC2630AHC6-HM10	LDDG	LTC2917IDD8-A1	LDNJ	LTC2452CDD8	LTAEB	LTC1992-1CMS8	LTAEB	LTC1968CMS8
LCSZ	LTC3563EDC	LCXW	LT1965IDD	LCZH	LTC2630AISC6-HM10	LDDG	LTC2918CDD8-A1	LDNJ	LTC2452IDD8	LTAEB	LTC1992-5CMS8	LTAEB	LTC1968IMS8

TOP MARKINGS (TOP MARK TO PART NUMBER)

LTAJ	LTC2903CS6-1	LTAJN	LTC2903CS6-B1	LTBGS	LTC1403AIMSE-1	LTFNF	LTC2950ITS8-2	LTBSX	LTC6101HVAHMS8	LTBZW	LTC2909ITS8-5	LTCJN	LTC6081CMS8
LTAJ	LTC2903IS6-B1	LTAJP	LTC2903IS6-B1	LTBT	LTC1407CMSE-1	LTFNH	LTC3548EMSE	LTBSX	LTC6101HVAIMS8	LTC1	LT6550IMS	LTCJN	LTC6081HMS8
LTAJ	LTC2903CS6-C1	LTAJQ	LTC2903CS6-C1	LTBGV	LTC1407AIMSE-1	LTFNH	LTC3548IMSE	LTBSZ	LTC6101HVACSS5	LTC2	LT6551CMS	LTCJN	LTC6081IMS8
LTAJ	LTC2903IS6-C1	LTAJR	LTC2903IS6-C1	LTBGW	LTC1407ACMSE-1	LTFNP	LTC2053CMS8-SYNC	LTBSZ	LTC6101HVAHS5	LTC2216UP	LTC2216CUP	LTCJR	LTC3404IMS8
LTAJ	LTC2903IS6-C1	LTAJT	LTC3426ES6	LTBGX	LTC1407AIMSE-1	LTFNP	LTC2053HMS8-SYNC	LTBSZ	LTC6101HVAIS5	LTC2216UP	LTC2216IUP	LTCJN	LTC3803ES6-3
LTAJ	LTC2903IS6-C1	LTAJU	LT1937CES5	LTBHG	LT1394CMS8	LTFNP	LTC2053IMS8-SYNC	LTBSZ	LTC6101HVBCCS5	LTC2217UP	LTC2217CUP	LTCJT	LTC3803IS6-3
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078ACMS8	LTBHD	LTC4300A-3CMS8	LTFNQ	LTC3772ETS8	LTBSZ	LTC6101HVBHS5	LTC2217UP	LTC2217IUP	LTCJW	LTC2912CTS8-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078AHMS8	LTBHF	LTC4300A-3IMS8	LTFNW	LT1946EMSE8E	LTBSZ	LTC6101HVBIS5	LTC3	LT6551IMS	LTCJW	LTC2912HTS8-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078AIMS8	LTBHQ	LTC4301LCMS8	LTFPB	LT1996ACMS	LTBSZ	LTC6101HVCCS5	LTC4	LTC3406ES5-1.8	LTCJW	LTC2912ITS8-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078CMS8	LTBHQ	LTC4301LIMS8	LTFPB	LT1996AIMS	LTBSZ	LTC6101HVCCS5	LTC5	LTC4212CMS	LTCJX	LTC2912CTS8-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078HMS8	LTBHR	LTC4412HVIS6	LTFPB	LT1996CMS	LTBSZ	LTC6101HVCS55	LTC6	LTC4212IMS	LTCJX	LTC2912ITS8-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBHT	LT1615IS5-1	LTFPB	LT1996IMS	LTBT	LT1351CMS8	LTC7	LTC1864LACMS8	LTCJX	LTC2912ITS8-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LT1394IMS8	LTFPB	LTC3803ES6-5	LTBTC	LTC2951CTS8-1	LTC7	LTC1864LAIMS8	LTCJY	LTC2912CTS8-3
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC3026EMSE	LTFPB	LTC6905CS5-80	LTBTC	LTC2951ITS8-1	LTC7	LTC1864LCMS8	LTCJY	LTC2912HTS8-3
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC6905ACS5	LTFPB	LTC6905HS5-80	LTBT	LTC2951CTS8-2	LTC7	LTC1864LIMS8	LTCJY	LTC2912ITS8-3
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC3251EMSE	LTFPB	LTC6905IS5-80	LTBT	LTC2951ITS8-2	LTC7	LTC1482CMS8	LTCB	LTC1659CMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC6905AIS5	LTFPB	LTC6905CS5-96	LTBTJ	LTC3485EMSE-3	LTCBG	LTC3822EMSE	LTCB	LTC1659IMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC6905CS5	LTFPJ	LTC6905HS5-96	LTBTJ	LTC1871IMS-7	LTCBG	LTC3530EMS	LTCB	LTC6003CS5
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC6905HS5	LTFPJ	LTC6905IS5-96	LTBTR	LTC4308CMS8	LTCBK	LTC3531ES6-3	LTCB	LTC6003HS5
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC6905IS5	LTFPK	LTC6905CS5-100	LTBTS	LTC4308IMS8	LTCBM	LTC3080EMS8E	LTCB	LTC6003IS5
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1772IS6	LTFPK	LTC6905HS5-100	LTBTV	LTC4307CMS8	LTCBY	LTC3531IS6-3	LTCB	LTC6102CMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LT6550CMS	LTFPK	LTC6905IS5-100	LTBTV	LTC4307IMS8	LTCBZ	LTC6004CMS8	LTCB	LTC6102HMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1326CMS8	LTFPK	LTC6905CS5-133	LTBTV	LTC6907CS6	LTCBZ	LTC6004HMS8	LTCB	LTC6102IMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LT1490CMS8	LTFPM	LTC6905HS5-133	LTBTV	LTC6907HS6	LTCBZ	LT6004IMS8	LTCB	LTC2913CMS-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC4304CMS	LTFPM	LTC6905IS5-133	LTBTV	LTC6907IS6	LTCBZ	LTC4821CMS8	LTCB	LTC2913HMS-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC4304IMS	LTFPM	LT3470ITS8	LTBTV	LTC3531IS6	LTCBZ	LTC4356CMS	LTCB	LTC2913IMS-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC4354CTS8	LTFPM	LTC4303CMS8	LTBTV	LTC3531ES6	LTCBZ	LTC4356HMS	LTCB	LTC2913CMS-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LT6211CMS	LTFPM	LTC4303IMS8	LTBTV	LTC1536CMS8	LTCBZ	LTC356IMS	LTCB	LTC2913CMS-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LT6211IMS	LTFPM	LTC4303IMS8	LTBVD	LTC6001CMS8	LTCBZ	LTC4624CMS8	LTCB	LTC2913IMS-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC5531ES6	LTFPM	LTC4303IMS8	LTBVD	LT6001IMS8	LTCBZ	LTC6244HMS8	LTCB	LTC1636CMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LT3462ES6	LTFPM	LTC4414EM58	LTBVD	LTC3485EMSE-1	LTCBZ	LTC6244IMS8	LTCB	LTC1636IMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC4301CMS8	LTFPM	LTC4414IMS8	LTBVM	LTC3485EMSE-2	LTCBZ	LT1316CMS8	LTCB	LTC3010HMS8E
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC4301IMS8	LTFPM	LTC2927CTS8	LTBVM	LTC3481EMSE	LTCBZ	LT6000CS6	LTCB	LTC3010HMS8E-5
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LT1933ES6	LTFPM	LTC2927CTS8	LTBVM	LTC3481IMS8	LTCBZ	LT6000IS6	LTCB	LTC3502ETS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LT1933IS6	LTFPM	LTC2950CTS8-1	LTBVM	LTC4412CMS8	LTCBZ	LT1761ES5-1.2	LTCB	LTC3502ITS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LT3468ES5-1	LTFPM	LTC1994CMS8	LTBVM	LT1994IMS8	LTCBZ	LTC1747CMS8	LTCB	LTC3502AETS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC6911HMS-2	LTFPM	LTC1994IMS8	LTBVM	LT1994IMS8	LTCBZ	LTC1474IMS8	LTCB	LTC3502AETS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC6911HMS-2	LTFPM	LTC3803HS6	LTBVM	LT6651ACS6-2.5	LTCBZ	LTC1474IMS8	LTCB	LTC3502AETS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC3468ES5-2	LTFPM	LTC4216CMS	LTBVM	LT6651AHS6-2.5	LTCBZ	LTC1936HMS8E	LTCB	LTC1199CMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2904CTS8	LTFPM	LTC4216IMS	LTBVM	LT6651AIS6-2.5	LTCBZ	LTC493AES6	LTCB	LTC2857CMS8-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2904IMS8	LTFPM	LTC6905CMS8	LTBVM	LT6651BGS6-2.5	LTCBZ	LTC3531IS6-3.3	LTCB	LTC2857HMS8-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2906CTS8	LTFPM	LTC6905HMS8	LTBVM	LT6651BHS6-2.5	LTCBZ	LTC3531ES6-3.3	LTCB	LTC2857IMS8-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2906IMS8	LTFPM	LTC6905IMS8	LTBVM	LT6651BIS6-2.5	LTCBZ	LTC3772BETS8	LTCB	LTC2856CMS8-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2907CTS8	LTFPM	LTC3483ES6	LTBVM	LT6651ACS6-3.3	LTCBZ	LTC3448EMSE-1.5	LTCB	LTC2856HMS8-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2907IMS8	LTFPM	LTC3483IS6	LTBVM	LT6651AHS6-3.3	LTCBZ	LTC3448EMSE-1.8	LTCB	LTC2856IMS8-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2055CMS8	LTFPM	LT1197LCMS8	LTBVM	LT6651AIS6-3.3	LTCBZ	LTC1258CMS8-2.5	LTCB	LTC2856CMS8-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2055HMS8	LTFPM	LTC1340CMS8	LTBVM	LT6651BGS6-3.3	LTCBZ	LTC3499BEMS8	LTCB	LTC2856HMS8-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2055IMS8	LTFPM	LTC3027IMSE	LTBVM	LT6651BHS6-3.3	LTCBZ	LTC4416EMS	LTCB	LTC2856IMS8-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2055HVCMS8	LTFPM	LT3014ES5	LTBVM	LT6651BIS6-3.3	LTCBZ	LTC2909CTS8-2.5	LTCB	LTC2856IMS8-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2055HVMMS8	LTFPM	LT3014IS5	LTBVM	LT6651AHS6-5	LTCBZ	LTC2909HTS8-2.5	LTCB	LTC2857HMS8-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2055HVMMS8	LTFPM	LTC3803HS6-5	LTBVM	LT6651AIS6-5	LTCBZ	LTC2909HTS8-2.5	LTCB	LTC2857IMS8-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC3470ETS8	LTFPM	LTC3448EMSE8E	LTBVM	LT6651BGS6-5	LTCBZ	LTC1772BHS6	LTCB	LTC6103CMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1403CMSE	LTFPM	LTC3448EMSE8E	LTBVM	LT6651BGS6-5	LTCBZ	LTC1706EMS-63	LTCB	LTC6103HMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1403IMS8	LTFPM	LTC3407EMSE-1	LTBVM	LT6651BGS6-5	LTCBZ	LTC3532EMS	LTCB	LTC6103IMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1403IMS8	LTFPM	LTC3406ES5-1.2	LTBVM	LT6651BGS6-5	LTCBZ	LTC6908CS6-1	LTCB	LTC6104CMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1403IMS8	LTFPM	LTC3406ES5-1.2	LTBVM	LT6651BGS6-5	LTCBZ	LTC6908CS6-1	LTCB	LTC6104HMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1407CMSE	LTFPM	LTC3429BES6	LTBVM	LT6651BGS6-5	LTCBZ	LTC6908CS6-1	LTCB	LTC6104IMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1407IMS8	LTFPM	LT1936EMSE8E	LTBVM	LT6651BGS6-5	LTCBZ	LTC6908CS6-2	LTCB	LTC2858CMS-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC3407EMSE-2	LTFPM	LT6100CMS8	LTBVM	LT6651BGS6-5	LTCBZ	LTC6908CS6-2	LTCB	LTC2858CMS-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC3407IMS8	LTFPM	LT6100HMS8	LTBVM	LT6651BGS6-5	LTCBZ	LTC6908CS6-2	LTCB	LTC2858HMS-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1541CMS8	LTFPM	LT6100IMS8	LTBVM	LT6651BGS6-5	LTCBZ	LTC6908CS6-2	LTCB	LTC2858IMS-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1871IMS	LTFPM	LTC3499EM58	LTBVM	LT6651BGS6-5	LTCBZ	LTC6908CS6-2	LTCB	LTC3561EMS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2908CTS8-A1	LTFPM	LTC4440ES6-5	LTBVM	LT6651BGS6-5	LTCBZ	LTC489EMSE8E	LTCB	LTC2954CTS8-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2908IMS8	LTFPM	LTC4440EMSE8E-5	LTBVM	LT6651BGS6-5	LTCBZ	LTC3020IMS8	LTCB	LTC2954CTS8-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2908IMS8	LTFPM	LTC3485EMSE	LTBVM	LT6651BGS6-5	LTCBZ	LTC3020IMS8-1.2	LTCB	LTC2954ITS8-2
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2908IMS8	LTFPM	LTC3405AES6-1.375	LTBVM	LT6651BGS6-5	LTCBZ	LTC3020IMS8-1.5	LTCB	LTC3470HTS8
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2908IMS8	LTFPM	LTC3014HVES5	LTBVM	LT6651BGS6-5	LTCBZ	LTC3020IMS8-1.8	LTCB	LTC356CMS-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2611CMS	LTFPM	LT3014HVS5	LTBVM	LT6651BGS6-5	LTCBZ	LTC3548EMSE-1	LTCB	LTC4356HMS-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2611IMS	LTFPM	LT1936IMS8E	LTBVM	LT6651BGS6-5	LTCBZ	LT1931IS5	LTCB	LTC4356IMS-1
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2621CMS	LTFPM	LT6101AIS5	LTBVM	LT6651BGS6-5	LTCBZ	LT1931AIS5	LTCB	LTC3505EMSE8E
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2621IMS	LTFPM	LTC6101BGS5	LTBVM	LT6651BGS6-5	LTCBZ	LTC3014BES5	LTCB	LTC3505IMS8E
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LT4430ES6	LTFPM	LTC6101BHS5	LTBVM	LT6651BGS6-5	LTCBZ	LTC3014BIS5	LTCB	LTC3505IMS8E
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LT1328CMS8	LTFPM	LTC6101BIS5	LTBVM	LT6651BGS6-5	LTCBZ	LT3014BHS5	LTCB	LTC1475CMS8-3.3
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTBGB	LTFPM	LTC6101CCS5	LTBVM	LT6651BGS6-5	LTCBZ	LTC3014BHS5	LTCB	LTC4065ES6
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1403CMSE-1	LTFPM	LTC6101CHS5	LTBVM	LT6651BGS6-5	LTCBZ	LTC3407EMSE-4	LTCB	LTC4210-3CS6
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1403IMS8	LTFPM	LTC6101CIS5	LTBVM	LT6651BGS6-5	LTCBZ	LTC2954CTS8-1	LTCB	LTC4210-3IS6
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC1403ACMSE-1	LTFPM	LTC2950CTS8-2	LTBVM	LT6651BGS6-5	LTCBZ	LTC2954ITS8-1	LTCB	LTC4210-4CS6
LTAJ	LTC2903IS6-C1	LTAJZ	LTC6078IMS8	LTBJ	LTC2950CTS8-2	LTFPM	LTC2950CTS8-2	LTBVM	LT6651BGS6-5	LTCBZ	LTC2954EMS8E	LTCB	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	LTDOS	LT1720CMS8	LTGF	LT1761ES5-3.3
LTCQ	LTC1475CMS8-5	LTCVN	LTC6652AHMS8-4.096	LTD5	LTC1861LIMS	LTDHF	LTC2631AITS8-LM12	LTDJB	LTC2640HTS8-LZ10	LTDOSX	LT3008ETS8	LTGG	LT1761ES5-5
LTCQD	LTC2850CMS8	LTCVN	LTC6652BHMS8-4.096	LTD6	LTC3406EBS5-1.5	LTDHF	LTC2631CTS8-LM12	LTDJB	LTC2640ITS8-LZ10	LTDOSX	LT3008ITS8	LTGH	LT1761ES5-SD
LTCQD	LTC2850HMS8	LTCVP	LTC6652AHMS8-5	LTD7	LTC2920-1CS5	LTDHF	LTC2631HTS8-LM12	LTDJC	LTC2640CTS8-HM10	LTDOT	LT1610CMS8	LTGJ	LT1754ES6-5
LTCQD	LTC2850IMS8	LTCVHP	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	LT1754ES6-3.3
LTCQK	LTC3419EMS	LTCVQ	LTC2915HTS8-1	LTD8	LTC1622CMS8	LTDHG	LTC2631AHTS8-LZ12	LTDJD	LTC2640CTS8-HZ10	LTDW	LTC1661IMS8	LTGM	LT1787CMS8
LTCQP	LTC2917CMS-B1	LTCVQ	LTC2915ITS8-1	LTD8B	LTC3406ABES5-2	LTDHG	LTC2631AHTS8-LZ12	LTDJD	LTC2640HTS8-HZ10	LTDX	LTC1484CMS8	LTGN	LT1787IMS8
LTCQP	LTC2917HMS-B1	LTCVS	LTC3684EMSE	LTD8F	LTC4444EMS8E	LTDHG	LTC2631CTS8-LZ12	LTDJD	LTC2640ITS8-HZ10	LTDY	LT1396CMS8	LTGP	LT5504CMS8
LTCQP	LTC2917IMS-B1	LTCVS	LTC3684IMSE	LTD8F	LTC4444IMS8	LTDHG	LTC2631HTS8-LZ12	LTDJF	LTC2640CTS8-LM8	LTDZ	LTC1710CMS8	LTGR	LT1550LCMS8-2
LTCQV	LTC6652ACMS8-2.5	LTCVW	LTC4080XEMSE	LTD8J	LT6653BCMS8-2.5	LTDHG	LTC2631ITS8-LZ12	LTDJF	LTC2640HTS8-LM8	LTE2	LTC3406BES5	LTGS	LT1610IMS8
LTCQV	LTC6652AHMS8-2.5	LTCVX	LTC2355CMSE-12	LTD8J	LT6653BIMS8-2.5	LTDHH	LTC2631ACTS8-HM12	LTDJF	LTC2640ITS8-LM8	LTE3	LTC3406BES5-1.5	LTGT	LTC1682CMS8-3.3
LTCQV	LTC6652BCMS8-2.5	LTCVX	LTC2355IMSE-12	LTD8N	LTC2355CMS8-1.5	LTDHH	LTC2355IMSE-12	LTDJG	LTC2640CTS8-LZ8	LTE4	LTC3406BES5-1.8	LTGU	LTC1682IMS8-3.3
LTCQV	LTC6652BHMS8-2.5	LTCVY	LTC2355CMSE-14	LTD8N	LTC4307IMS8-1	LTDHH	LTC2631AITS8-HM12	LTDJG	LTC2640HTS8-LZ8	LTE5	LT1819IMS8	LTGV	LTC1682CMS8-5
LTCR	LTC1474CMS8-3.3	LTCVY	LTC2355IMSE-14	LTD8S	LT3593ES6	LTDHH	LTC2631CTS8-HM12	LTDJG	LTC2640ITS8-LZ8	LTE6	LTC1734LES6-4.2	LTGW	LTC1682IMS8-5
LTCRC	LT6653AHS6-1.25	LTCW	LTC1658CMS8	LTD8V	LTC2362CTS8	LTDHH	LTC2631HTS8-HM12	LTDJH	LTC2640CTS8-HM8	LTE7	LT1819CMS8	LTGX	LT1675CMS8-1
LTCRC	LT6653BHS6-1.25	LTCWB	LTC2480CMS	LTD8V	LTC2362HTS8	LTDHH	LTC2631ITS8-HM12	LTDJH	LTC2640HTS8-HM8	LTE8	LTC1844ES5-SD	LTGY	LT1675IMS8-1
LTCRD	LT6653AHS6-2.048	LTCWB	LTC2480IMS	LTD8V	LTC2362ITS8	LTDHJ	LTC2631AHTS8-HZ12	LTDJH	LTC2640ITS8-HM8	LTE9	LTC1844ES5-BYP	LTGZ	LT1813DMS8
LTCRD	LT6653BHS6-2.048	LTCWF	LTC2851CMS8	LTD8W	LTC4081EMSE	LTDHJ	LTC2631AHTS8-HZ12	LTDJJ	LTC2640CTS8-HZ8	LTEB	LTC1693-3CMS8	LTH2	LT3465ES6
LTCRF	LT6653AHS6-2.5	LTCWF	LTC2851HMS8	LTD8W	LTC2365CTS8	LTDHJ	LTC2631AHTS8-HZ12	LTDJJ	LTC2640HTS8-HZ8	LTEC	LTC1502CMS8-3.3	LTH3	LT6206CMS8
LTCRF	LT6653BHS6-2.5	LTCWF	LTC2851IMS8	LTD8B	LTC2365HTS8	LTDHJ	LTC2631CTS8-HZ12	LTDJJ	LTC2640ITS8-HZ8	LTED	LT1613CS5	LTH4	LT6206IMS8
LTCRG	LT6653AHS6-3	LTCWJ	LTC3406AES5	LTD8B	LTC2365ITS8	LTDHJ	LTC2631HTS8-HZ12	LTDJP	LT1762MPMS8-5	LTEE	LTC1694CS5	LTH5	LTC3429ES6
LTCRG	LT6653BHS6-3	LTCWJ	LTC3406AIS5	LTD8C	LTC2365CS6	LTDHJ	LTC2365CMS-2	LTDJQ	LTC2365CMS-2	LTEF	LTC1517CS5-3.3	LTH6	LTC4257CMS8
LTCRH	LT6653AHS6-3.3	LTCWK	LT6106CS5	LTD8C	LTC2365HS6	LTDHK	LTC2631CTS8-LM10	LTDJQ	LT4356IMS-2	LTEG	LT1550LCMS8	LTH7	LTC4054ES5-4.2
LTCRH	LT6653BHS6-3.3	LTCWK	LT6106HS5	LTD8C	LTC2365IS6	LTDHK	LTC2631HTS8-LM10	LTDJQ	LT4356IMS-2	LTEH	LT1550HCS3-2.5	LTH8	LT1460HCS3-2.5
LTCRJ	LT6653AHS6-4.096	LTCWK	LT6106IS5	LTD8G	LTC2453CTS8	LTDHK	LTC2631ITS8-LM10	LTDJS	LT1912EMSE	LTEK	LTC1326CMS8-2.5	LTH8	LT1460JCS3-2.5
LTCRJ	LT6653BHS6-4.096	LTCWN	LTC2356CMSE-12	LTD8G	LTC2453ITS8	LTDHM	LTC2631CTS8-LZ10	LTDK	LT1634BCMS8-5	LTEL	LTC1258CMS8	LTH8	LT1460KCS3-2.5
LTCRK	LT6653AHS6-5	LTCWN	LTC2356IMSE-12	LTD8H	LT1761MPSS-1.8	LTDHM	LTC2631HTS8-LZ10	LTDKK	LT5581IMS8	LTEM	LTC1258CMS8-5	LTH9	LT1460HCS3-3
LTCRK	LT6653BHS6-5	LTCWX	LTC3419EMS-1	LTD8H	LT3580EMS8E	LTDHM	LTC2631ITS8-LZ10	LTDKN	LTC6405CMS8E	LTEN	LTC1258CMS8-4.1	LTH9	LT1460JCS3-3
LTCRP	LT1807HMS8	LTCWY	LTC4151CMS	LTD8J	LT3580IMS8E	LTDHN	LTC2631CTS8-HM10	LTDKN	LTC6405IMS8E	LTEP	LTC1663CS5	LTH9	LT1460KCS3-3
LTCRR	LTC6240CS5	LTCWY	LTC4151IMS	LTD8R	LT3592EMSE	LTDHN	LTC2631HTS8-HM10	LTDKR	LTC2934CTS8-1	LTEP	LTC1663ES5	LTHA	LT1317CMS8
LTCRR	LTC6240HS5	LTCX	LTC1517CS5-5	LTD8R	LT3592IMSE	LTDHN	LTC2631ITS8-HM10	LTDKR	LTC2934ITS8-1	LTEQ	LTC1663CMS8	LTHB	LT1317BCMS8
LTCRR	LTC6240IS5	LTCXB	LTC4151CMS-1	LTD8T	LTC2918CMS-B1	LTDHP	LTC2631CTS8-HZ10	LTDKS	LTC2934CTS8-2	LTER	LTC1682CMS8	LTHC	LT1619EMS8
LTCRS	LTC6240HVCSS5	LTCXB	LTC4151IMS-1	LTD8T	LTC2918HMS-B1	LTDHP	LTC2631HTS8-HZ10	LTDKS	LTC2934ITS8-2	LTES	LT1611CS5	LTHD	LT1734ES6-4.1
LTCRS	LTC6240HVHS5	LTCXD	LTC4357CMS8	LTD8T	LTC2918IMS-B1	LTDHP	LTC2631HTS8-HZ10	LTDKX	LT1965EMS8E-1.5	LTEU	LTC1258CMS8-3	LTHE	LT161694-1CS5
LTCRS	LTC6240HVIS5	LTCXD	LTC4357IMS8	LTD8W	LTC2916CTS8-1	LTDHQ	LTC2631CTS8-LM8	LTDKX	LT1965IMS8E-1.5	LTEZ	LT1521CMS8	LTHF	LT1762EMS8
LTCRX	LTC2852CMS	LTCXG	LTC3404MPMS8	LTD8W	LTC2916HTS8-1	LTDHQ	LTC2631HTS8-LM8	LTDKZ	LT1965EMS8E-1.8	LTF1	LTC1844ES5-1.5	LTHG	LT1762EMS8-2.5
LTCRX	LTC2852HMS	LTCXK	LTC2366CS6	LTD8W	LTC2916ITS8-1	LTDHQ	LTC2631HTS8-LM8	LTDKZ	LT1965IMS8E-1.8	LTF2	LTC1844ES5-1.8	LTHH	LT1762EMS8-3
LTCRX	LTC2852IMS	LTCXK	LTC2366HS6	LTD8J	LTC3407AEMSE-2	LTDHR	LTC2631CTS8-LZ8	LTDMC	LT1965EMS8E-2.5	LTF3	LTC1844ES5-2.5	LTHJ	LT1762EMS8-3.3
LTCRZ	LTC3407AEMSE	LTCXK	LTC2366IS6	LTD8J	LTC3407AIMSE-2	LTDHR	LTC2631HTS8-LZ8	LTDMC	LT1965IMS8E-2.5	LTF4	LTC1844ES5-3.3	LTHK	LT1762EMS8-5
LTCSS	LTC1474CMS8-5	LTCXR	LTC4442EMS8E-1	LTD8Q	LT1933HS6	LTDHS	LTC2631ITS8-LZ8	LTDMF	LT1965EMS8E-3.3	LTF5	LTC4210-1IS6	LTHL	LTC1502IMS8-3.3
LTCSSN	LTC3873ETS8	LTCXR	LTC4442IMS8E-1	LTD8Q	LTC1542CMS8	LTDHS	LTC2631CTS8-HM8	LTDMF	LT1965IMS8E-3.3	LTF6	LTC4210-2IS6	LTHM	LTC1682IMS8
LTCSP	LTC3873ETS8-5	LTCXS	LTC1871HMS	LTD8F	LT1634BCMS8-2.5	LTDHS	LTC2631HTS8-HM8	LTDMN	LT6703HVCS5-2	LTF7	LT1818CS5	LTHN	LT1503CMS8-2
LTCST	LT1671CMS8	LTCXX	LT1965EMS8E	LTD8F	LT3693EMSE	LTDHS	LTC2631ITS8-HM8	LTDMN	LT6703HVHS5-2	LTF7	LT1818IS5	LTHQ	LTC1864ACMS8
LTCSTB	LTC6406CMS8E	LTCXX	LT1965IMSE	LTD8FZ	LT3693IMSE	LTDHT	LTC2631CTS8-HM8	LTDMN	LT6703HVHS5-2	LTF8	LT1934ES6-1	LTHQ	LTC1864AHMS8
LTCSTB	LTC6406IMS8E	LTCXZ	LTC3406ABES5	LTD8G	LTC2917CMS-A1	LTDHT	LTC2631HTS8-HZ8	LTDMP	LT6703HVHS5-3	LTF9	LTC4440EMSE8E	LTHQ	LTC1864AIMS8
LTCSTC	LT6105CMS8	LTCY	LT1638CMS8	LTD8G	LTC2917HMS-A1	LTDHT	LTC2631ITS8-HZ8	LTDMP	LT6703HVHS5-3	LTF9	LT1521CMS8-5	LTHQ	LTC1864CMS8
LTCSTC	LT6105HMS8	LTCY	LT1638IMS8	LTD8G	LTC2917IMS-A1	LTDHV	LTC2640ACTS8-LM12	LTDMP	LT6703HVHS5-3	LTFB	LT1521CMS8-3	LTHQ	LTC1864HMS8
LTCSTC	LT6105IMS8	LTCYF	LT3685EMSE	LTD8G	LTC2918CMS-A1	LTDHV	LTC2640AHTS8-LM12	LTDMT	LTC2919CMS-3.3	LTFE	LT1494CMS8	LTHQ	LTC1864IMS8
LTCSTJ	LTC4442EMS8E	LTCYF	LT3685IMSE	LTD8G	LTC2918HMS-A1	LTDHV	LTC2640AHTS8-LM12	LTDMT	LTC2919HMS-3.3	LTFG	LT1494IMS8	LTHS	LTC1865ACMS
LTCSTJ	LTC4442IMS8E	LTCYM	LT3680EMSE	LTD8G	LTC2918IMS-A1	LTDHV	LTC2640CTS8-LM12	LTDMT	LTC2919IMS-3.3	LTFH	LT1672CMS8	LTHS	LTC1865AIMS
LTCSTK	LTC4442HMS8E	LTCYM	LT3680IMSE	LTD8J	LTC2360CTS8	LTDHV	LTC2640HTS8-LM12	LTDMV	LTC2919CMS-5	LTFJ	LT1672IMS8	LTHS	LTC1865AIMS
LTCSTM	LT3480EMSE	LTCYS	LTC3565EMS	LTD8J	LTC2360HTS8	LTDHV	LTC2640ITS8-LM12	LTDMV	LTC2919HMS-5	LTFL	LTC1199CMS8	LTHS	LT1865CMS
LTCSTM	LT3480IMS	LTCYZ	LTC2366CTS8	LTD8J	LTC2360ITS8	LTDHW	LTC2640ACTS8-LZ12	LTDMV	LTC2919IMS-5	LTFM	LTC1261LCMS8	LTHS	LTC1865HMS
LTCSTN	LT3480HMS	LTCYZ	LTC2366HTS8	LTD8K	LTC2366CS6	LTDHW	LTC2640AHTS8-LZ12	LTDMY	LTC4310CMS	LTFN	LTC1261LCMS8-4	LTHS	LTC1865IMS
LTCSTV	LTC1871EMS-1	LTCYZ	LTC2366IS8	LTD8K	LTC2366HS6	LTDHW	LTC2640AHTS8-LZ12	LTDMY	LTC4310IMS	LTFP	LTC1261LCMS8-4.5	LTHU	LTC1647-1CMS8
LTCSTV	LTC1871IMS-1	LTCZQ	LTC2641CMS8-12	LTD8K	LTC2360IS6	LTDHW	LTC2640CTS8-LZ12	LTDN	LT1389BCMS8-1.25	LTFQ	LTC1551LCMS8	LTHV	LTC1647-2CMS8
LTCSTY	LTC6087CMS8	LTCZQ	LTC2641IMS8-12	LTD8M	LTC2361CTS8	LTDHW	LTC2640HTS8-LZ12	LTDNG	LTC6084CMS8	LTFR	LT1551LCMS8-2	LTHW	LT1719CS6
LTCSTY	LTC6087HMS8	LTCZR	LTC2641CMS8-14	LTD8M	LTC2361HTS8	LTDHW	LTC2640ITS8-LZ12	LTDNG	LTC6084HMS8	LTFE	LTC1551LCMS8-2.5	LTHX	LTC1727EMS8-5
LTCU	LT1671IMS8	LTCZR	LTC2641IMS8-14	LTD8M	LTC2361ITS8	LTDHX	LTC2640ACTS8-HM12	LTDNS	LTC2451CTS8	LTFE	LTC1551LCMS8-4.1	LTHY	LTC1727EMS8-2.5
LTCV	LT1634BCMS8-1.25	LTCZS	LTC2641ACMS8-16	LTD8N	LTC2361CS6	LTDHX	LTC2640AHTS8-HM12	LTDNS	LTC2451ITS8	LTFV	LTC1550LCMS8-2.5	LTHZ	LTC1728ES5-5
LTCVB	LTC6102HVCMS8	LTCZS	LTC2641AIMS8-16	LTD8N	LTC2361HS6	LTDHX	LTC2640AHTS8-HM12	LTDNW	LTC4224CMS-1	LTFW	LTC1658IMS8	LTHZ	LTC1728HS5-5
LTCVB	LTC6102HVHMS8	LTCZS	LTC2641CMS8-16	LTD8N	LTC2361IS6	LTDHX	LTC2640CTS8-HM12	LTDNW	LTC4224IMS-1	LTFX	LTC1503CMS8-1.8	LTHA	LT1728ES5-2.5
LTCVB	LTC6102HVISMS8	LTCZS	LTC2641IMS8-16	LTD8P	LTC2362CS6	LTDHX	LTC2640HTS8-HM12	LTDPK	LTC2452CTS8	LTFY	LTC1503IMS8-1.8	LTHB	LT1307BCMS8
LTCVD	LTC2355CMSE	LTCZX	LTC2642CMS8-12	LTD8P	LTC2362HS6	LTDHX	LTC2640ITS8-HM12	LTDPK	LTC2452ITS8	LTFZ	LTC1503CMS8	LTHC	LT1307CMS8
LTCVD	LTC2355IMSE	LTCZX	LTC2642IMS-12	LTD8P	LTC2362IS6	LTDHY	LTC2640ACTS8-HZ12	LTDPN	LT3080EMS8E-1	LTG2	LT3464ETS8	LTHD	LT1614CMS8
LTCVF	LTC2356CMSE-14	LTCZY	LTC2642CMS-14	LTD8S	LTC2919CMS-2.5	LTDHY	LTC2640AHTS8-HZ12	LTDPV	LT3481HMSE	LTG4	LTC1871EMS-7	LTHI	LT1637CMS8
LTCVF	LTC2356IMSE-14	LTCZY	LTC2642IMS-14	LTD8S	LTC2919HMS-2.5	LTDHY	LTC2640HTS8-HZ12	LTDPW	LTC2935CTS8-1	LTG5	LTC4056ETS8-4.2	LTHI	LT1637IMS8
LTCVH	LTC6652AHMS8-1.25	LTCZZ	LTC2642ACMS-16	LTD8S	LTC2919IMS-2.5	LTDHY	LTC2640CTS8-HZ12	LTDPW	LTC2935ITS8-1	LTG6	LT6202CS5	LTIG	LTC1757-2EMS
LTCVH	LTC6652BHMS8-1.25	LTCZZ	LTC2642AIMS-16	LTD8X	LTC3805EMSE-5	LTDHY	LTC2640HTS8-HZ12	LTDPY	LTC4444EMS8E-5	LTG6	LT6202IS5	LTHI	LT1757-1EMS8
LTCVJ	LTC6652AHMS8-2.048	LTCZZ	LTC2642CMS-16	LTD8X	LT3805IMS8E-5	LTDHY	LTC2640ITS8-HZ12	LTDPY	LTC4444IMS8E-5	LTHA	LTC1503IMS	LTIJ	LTC1758CMS
LTCVK	LTC6652AHMS8-3	LTCZZ	LTC2642IMS-16	LTD8Z	LT6107WS5	LTDHZ	LTC2640CTS8-LM10	LTDQB	LTC2935CTS8-2	LTHC	LT1761ES5-BYP	LTIK	LTC1758CMS8
LTCVK	LTC6652BHMS8-3	LTD2	LTC1860LCMS8	LTDH	LT1634BCMS8-4.096	LTDHZ	LTC2640HTS8-LM10	LTDQB	LTC2935ITS8-2	LTDG	LT1761ES5-2.5	LTLI	LTC1772CS6



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	LTSC	LTC4211CMS8	LTVT	LTC2053CMS8	LTYD	LT1716IS5
LTIR	LTC2050IMS8	LTKY	LT1809CS6	LTPN	LT1990CMS8	LTSD	LTC4211IMS8	LTVU	LTC1772BES6	LYTF	LTC4302CMS-1
LTIIS	LT1782CS6	LTKZ	LTC1726EMS8-2.5	LTPP	LT1990IMS8	LTSF	LT1981ES5	LTVU	LTC1772BIS6	LYTG	LTC4302IMS-1
LTIIT	LT1782IS6	LTLA	LTC1726EMS8-5	LTPQ	LT1962EMS8-3	LTSG	LTC1693-5CMS8	LTVV	LT1715IMS	LYTH	LT3420EMS
LTIU	LT1783CS6	LTLB	LT1761ES5-2.8	LTPR	LT1962EMS8-5	LTSH	LTC3200ES6-5	LTVW	LT1880IS5	LTYJ	LTC2900-1CMS
LTIIV	LT1783IS6	LTLC	LTC1700EMS	LTPS	LT1962EMS8-3.3	LTSK	LTC3402EMS	LTVX	LT1964ES5-SD	LYTK	LTC2900-1IMS
LTIW	LT1784CS6	LTLD	LT1782CS5	LTPT	LT1962EMS8-2.5	LTSL	LTC1758-1EMS8	LTVX	LT1964IS5-SD	LYTL	LTC2900-2CMS
LTIIX	LT1784IS6	LTLF	LT1782IS5	LTPU	LT1490IMS8	LTSM	LTC1758-2EMS	LTVY	LT1964ES5-BYP	LYTM	LTC2900-2IMS
LTIY	LTC1695CS5	LTLG	LT1783CS5	LTPV	LTC1699EMS8-80	LTSN	LT1784IS5	LTVY	LT1964IS5-BYP	LYTN	LT1937ES5
LTIZ	LT1615ES5	LTLH	LT1783IS5	LTPW	LTC1699EMS8-81	LTSP	LT1931AES5	LTVZ	LT1964ES5-5	LTYP	LTC1728ES5-3.3
LTJ1	LT1460HCS3-3.3	LTLJ	LT1812CS5	LTQZ	LT1790ACS6-2.5	LTSQ	LT1930AES5	LTVZ	LT1964IS5-5	LTYQ	LTC1706EMS-85
LTJ1	LT1460JCS3-3.3	LTLK	LT1812IS5	LTQZ	LT1790AIS6-2.5	LTST	LT1932ES6	LTTA	LT1816CMS8	LTYR	LT1801CMS8
LTJ1	LT1460KCS3-3.3	LTLK	LT1812CS6	LTQZ	LT1790BCS6-2.5	LTSU	LTC4211CMS	LTTB	LTC1199IMS8	LTVS	LT1801IMS8
LTJ2	LT1460HCS3-5	LTLM	LT1812IS6	LTQZ	LT1790BIS6-2.5	LTSV	LTC4211IMS	LTTW	LTC1199LIMS8	LTYT	LTC3704EMS
LTJ2	LT1460JCS3-5	LTLN	LT1797CS5	LTOA	LT1790ACS6-3	LTSW	LTC1731EMS8-8.2	LTTD	LTC1767EMS8-2.5	LTYU	LTC1992CMS8
LTJ2	LT1460KCS3-5	LTLN	LT1797CS6	LTOA	LT1790AIS6-3	LTSX	LTC1871EMS	LTFE	LT1767EMS8-3.3	LTYV	LTC1992-2CMS8
LTJ3	LT1460HCS3-10	LTLP	LTC1779ES6	LTOA	LT1790BCS6-3	LTSZ	LT1962EMS8-1.5	LTFW	LT1767EMS8-5	LTYW	LTC4210-1CS6
LTJ3	LT1460JCS3-10	LTLR	LTC1706EMS8-81	LTOA	LT1790BIS6-3	LTTA	LT1962EMS8-1.8	LTFW	LT1767EMS8-1.8	LYTX	LTC4210-2CS6
LTJ3	LT1460KCS3-10	LTLT	LT1767EMS8	LTOB	LT1790ACS6-4.096	LTTB	LTC1699EMS8-82	LTFW	LT1567CMS8	LYTY	LTC4052EMS8E-4.2
LTJ4	LTC1865LACMS	LTLT	LTC1696ES6	LTOB	LT1790AIS6-4.096	LTTC	LT1711CMS8	LTFW	LT1567IMS8	LTYZ	LT1946AEMS8E
LTJ4	LTC1865LAIMS	LTLV	LTC1877EMS8	LTOB	LT1790BCS6-4.096	LTTD	LT1711IMS8	LTKW	LTC3400ES6	LTTA	LT1723IMS8
LTJ4	LTC1865LCMS	LTLV	LTC1877IMS8	LTOB	LT1790BIS6-4.096	LTTD	LT1711IMS8	LTKW	LTC3400ES6	LTTB	LT1722CS5
LTJ4	LTC1865LIMS	LTLW	LTC1754ES6-5	LTOC	LT1790ACS6-5	LTFE	LTC1517ES5-5	LTTW	LTC4252-1CMS8	LTTB	LT1722IS5
LTJ8	LT1937BES5	LTLX	LTC1733EMS8	LTOC	LT1790AIS6-5	LTFG	LTC1966CMS8	LTTW	LTC4252-1CMS	LTCZ	LTC1992IMS8
LTJ9	LTC6901CMS	LTLY	LTC1729CMS8-4.1	LTOC	LT1790BCS6-5	LTHH	LTC1966IMS8	LTTW	LTC4252-2CMS8	LTDZ	LTC1992-2IMS8
LTJA	LTC1197LIMS8	LTLZ	LTC1729CMS8-8.2	LTOC	LT1790BIS6-5	LTTJ	LTC1967CMS8	LTTW	LTC4252-2CMS	LTFE	LTC3250ES6-1.5
LTJB	LT1614IMS8	LTMZ	LT1395CS5	LTOQ	LT1991ACMS	LTTJ	LTC1967IMS8	LTTW	LTC1860CMS8	LTFZ	LTC3010EMS8E
LTJC	LT1949EMS8	LTMZ	LTC2401CMS	LTOQ	LT1991AIMS	LTLT	LT1797IS5	LTTW	LTC1860HMS8	LTTG	LT1767EMS8E
LTJD	LT1784CS5	LTMC	LTC2401IMS	LTOQ	LT1991CMS	LTTM	LT1797IS6	LTTW	LTC1860IMS8	LTTZ	LT1767EMS8E-1.8
LTJE	LT1761ES5-2	LTMZ	LTC2402CMS	LTOQ	LT1991HMS	LTTN	LT1969CMS	LTTW	LTC1861CMS	LTTZ	LT1767EMS8E-2.5
LTJF	LT1719IS6	LTMZ	LTC2402IMS	LTOQ	LT1991IMS	LTPP	LT1969IMS	LTTW	LTC1861HMS	LTKZ	LT1767EMS8E-3.3
LTJG	LTC1729CMS8-8.4	LTMF	LT1395CS6	LTOQ	LTC1844ES5-2.8	LTPQ	LT1810IMS8	LTTW	LTC1861IMS	LTLZ	LT1767EMS8E-5
LTJH	LTC1729CMS8-4.2	LTMJ	LTC1706EMS8-82	LTOQ	LTC3423EMS	LTRR	LT1944EMS	LTTW	LTC2411-1CMS	LTMZ	LTC6900CS5
LTJJ	LTC1663IMS8	LTMK	LTC1872ES6	LTON	LTC3424EMS	LTS	LT1945EMS	LTTW	LTC1732EMS-8.4	LTMZ	LTC6900IS5
LTJK	LTC1731EMS8-4.1	LTML	LT1962EMS8	LTOP	LTC4301-1CMS	LTTT	LT1807CMS8	LTTW	LTC1983CS6-5	LTPZ	LTC3405AES6-1.8
LTJM	LT1761ES5-1.8	LTMN	LT1962IMS8	LTOP	LTC4301-1IMS	LTTU	LT1944-1EMS	LTTW	LTC4400-1ES6	LTOZ	LTC3405AES6-1.5
LTJY	LTC2053IMS8	LTMN	LTC2051CMS8	LTOR	LTC2490CS6	LTTV	LT1807IMS8	LTTX	LTC4401-1ES6	LTRZ	LT1697EMS
LTJZ	LT6200CS6	LTMP	LTC2051IMS8	LTOQ	LTC2490IS6	LTTW	LTC4050EMS-4.1	LTTX	LTC4400-2EMS8	LTSZ	LTC4053EMSE-4.1
LTJZ	LT6200IS6	LTMQ	LTC2051CMS10	LTOQ	LTC3411EMS	LTTX	LTC4050EMS-4.2	LTTX	LTC4401-2EMS8	LTTZ	LTC4053EMSE-4.2
LTK1	LTC6901IMS	LTMZ	LTC2051IMS10	LTOQ	LTC3411IMS	LTTY	LTC1998CS6	LTTD	LTC2431CMS	LTTZ	LTC1921IMS8
LTK2	LTC6902CMS	LTMS	LT1612EMS8	LTOU	LTC4251-1CS6	LTTY	LTC1998IS6	LTXE	LTC2431IMS	LTVZ	LTC1921CMS8
LTK3	LTC6902IMS	LTMT	LT1761ES5-1.5	LTOV	LTC4251-1IS6	LTTA	LTC1732EMS-4.2	LTXF	LTC4402-1EMS8	LTVZ	LTC3405AES6
LTK4	LT6201CMS8E	LTMU	LTC1536IMS8	LTOV	LTC4150CMS	LTTB	LTC4300-1CMS8	LTXG	LTC4403-1EMS8	LTVZ	LTC5507ES6
LTK5	LT6201IMS8E	LTMV	LTC1773EMS	LTOV	LTC4150IMS	LTTU	LTC4300-1IMS8	LTXH	LTC4402-2EMS	LTYZ	LTC4440ES6
LTK6	LTC4251-2CS6	LTMZ	LTC1911EMS8-1.5	LTOX	LT1949-1EMS8	LTTD	LTC1701BES5	LTXJ	LTC4403-2EMS	LTTZ	LT4351CMS
LTK7	LT6700CS6-1	LTNB	LT1616ES6	LTOY	LT1961EMS8E	LTTU	LT1947EMS	LTXK	LT1782HS5	OP07	OP07CS8
LTK7	LT6700HS6-1	LTCN	LT1616IS6	LTOY	LT1961IMS8E	LTFU	LT1809IS6	LTLX	LT1782HS6	OP27G	OP27GS8
LTK7	LT6700HVC6-1	LTND	LTC1799CS5	LTOZ	LT1009CMS8	LTVG	LT1946EMS8	LTXM	LTC1442IMS8	OP37G	OP37GS8
LTK7	LT6700HVS6-1	LTND	LTC1799HS5	LTOZ	LT1009IMS8	LTVH	LTC1326IMS8	LTXN	LTC3700EMS		
LTK7	LT6700HVIS6-1	LTFE	LTC1799IS5	LTRA	LT1931ES5	LTVJ	LTC1326IMS8-2.5	LTXP	LT1934ES6		
LTK7	LT6700IS6-1	LTFG	LT1490ACS8	LTRB	LTC2051HVCMS10	LTVK	LT1713IMS8	LTXQ	LTC3405ES6		
LTK8	LTC4410ES6	LTFH	LT1618EMS	LTRC	LTC2051HVIMS10	LTVL	LT1815CS6	LTXR	LT1783HS5		
LTK9	LTC1706EMS-61	LTFH	LTC1732EMS-4	LTRD	LT1713CMS8	LTVM	LT1880CS5	LTXS	LT1783HS6		
LTKA	LT1617ES5-1	LTFH	LT1806CS6	LTRF	LT1810CMS8	LTVN	LTC3400BES6	LTXT	LT1790ACS6-1.25		
LTKB	LTC1662CMS8	LTFH	LT1806IS6	LTRG	LTC1734ES6-4.2	LTVN	LT1815CS5	LTXT	LT1790AIS6-1.25		
LTKC	LTC1662IMS8	LTFH	LTC1985ES5-1.8	LTRH	LTC1957-1EMS8	LTVQ	LTC4251CS6	LXTT	LT1790BCS6-1.25		
LTKD	LTC1771EMS8	LTFH	LTC2411-1IMS	LTRJ	LTC1957-2EMS	LTVR	LTC4251IS6	LXTT	LT1790BIS6-1.25		
LTKE	LTC1771IMS8	LTFH	LTC3440EMS	LTRK	LT1490AHMS8	LTVS	LT4352CMS8	LXTU	LT1790ACS6-2.048		
LTKF	LT1617ES5	LTFH	LT1816IMS8	LTRL	LT1946-2EMS8	LTVT	LT4352IMS8	LXTU	LT1790AIS6-2.048		
LTKG	LTC1701ES5	LTFH	LT1948EMS8	LTRM	LT1946-2CMS8	LTVU	LTC4352CMS	LXTU	LT1790BCS6-2.048		
LTKH	LT1615ES5-1	LTFH	LTC2411CMS	LTRN	LT1800CS5	LTVU	LTC4352IMS	LXTU	LT1790BIS6-2.048		
LTKJ	LT1787HVCMS8	LTFH	LTC2411IMS	LTRP	LT1800IS5	LTVX	LTC2421CMS	LTVX	LTC5505-1ES5		
LTKK	LT1787HVIMS8	LTFH	LTC1911EMS8-1.8	LTRQ	LTC4252-1IMS8	LTVY	LTC2421IMS	LTXW	LT1790ACS6-3.3		
LTKL	LTC1751EMS8	LTFH	LTC3200EMS8	LTRR	LTC4252-2IMS8	LTVZ	LTC2422CMS	LTXW	LT1790AIS6-3.3		
LTKM	LTC1751EMS8-3	LTFH	LTC1878EMS8	LTRS	LTC4252-1IMS	LTVZ	LTC2422IMS	LTXW	LT1790BCS6-3.3		
LTKN	LTC1751EMS8-3.3	LTFH	LTC1983ES6-3	LTRT	LTC4252-2IMS	LTVB	LTC3201EMS	LTXW	LT1790BIS6-3.3		
LTKP	LTC1751EMS8-5	LTFH	LTC1983EMS8-3	LTRU	LT1973CMS8	LTVB	LT1815IS5	LTXW	LT1816AIMS		
LTKQ	LTC1731EMS8-4.2	LTFH	LTC1731EMS8-8.4	LTRV	LT1973IMS8	LTVB	LT1815IS6	LTXW	LTC1872BES6		
LTKR	LTC3404EMS8	LTFH	LT1982ES6	LTRW	LTC5505-2ES5	LTVF	LTC2051HMS8	LTXW	LT1615IS5		
LTKS	LT1930ES5	LTFH	LTC3401EMS	LTRX	LT1935ES5	LTVH	LTC2051HVHMS8	LTXW	LT1816ACMS		
LTKT	LTC1928ES6-5	LTFH	LTC1728ES5-1.8	LTRY	LT1936CS5	LTVJ	LTC4300-2CMS8	LTYB	LTC1983ES6-5		
LTKU	LTC1663IS5	LTPJ	LTC2051HVCMS8	LTRZ	LT1310EMSE	LTVK	LTC4300-2IMS8	LTYC	LT1723CMS8		
LTKV	LTC1197CMS8	LTPK	LTC2051HVIMS8	L TSA	LTC1663-1CS5	LTVQ	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 x 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 x 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 x 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 x 3	0.60 (0.0236)	KE	KE14	91	2500
		0.80 (0.0315)	UE	UE12	91	2500
	4 x 4	0.80 (0.0315)	DF	DF12	91	2500
	5 x 3	0.80 (0.0315)	DHC	DHC16	73	2500
	5 x 4	0.80 (0.0315)	DHD	DHD16	73	2500
	5 x 5	0.80 (0.0315)	DH	DH16	73	2500
	6 x 3	0.80 (0.0315)	DJC	DJC22	61	2500
	7 x 4	0.80 (0.0315)	DKD	DKD32 (0.40)	52	2500
QFN QFN pkg. code prefix = U UTQFN pkg. code prefix = P	3 x 3	0.80 (0.0315)	UD	UD16 / UD20 (0.45)	121	2500
		0.60 (0.0236)	PD	PD16	121	2500
	3 x 4	0.80 (0.0315)	UDC	UDC20 / UDC20MA / UDC24 (0.40)	91	2500
		0.60 (0.0236)	PDC	PDC20	91	2500
	4 x 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 x 5	0.80 (0.0315)	UFD	UFD20 / UFD24 / UFD28	73	2500
	4 x 6	0.80 (0.0315)	UFE	UFE26 / UFE38 (0.40)	52	2500
	4 x 7	0.80 (0.0315)	UFF	UFF34 / UFF44 (0.40)	52	2500
	5 x 5	0.80 (0.0315)	UH	UH20 (0.65) / UH24 (0.65) / UH32 / UH40 (0.40)	73	2500
	5 x 6	0.80 (0.0315)	UHE	UHE36	52	2500
	5 x 7	0.80 (0.0315)	UHF	UHF38	52	2500
	5 x 8	0.80 (0.0315)	UHG	UHG52 (0.40)	45	2500
	5 x 9	0.80 (0.0315)	UHH	UHH56 (0.40)	60	2500
	6 x 9	0.80 (0.0315)	UJ	UJ40	52	2000
	7 x 7	0.80 (0.0315)	UK	UK48	52	2000
	7 x 8	0.80 (0.0315)	UKG	UKG52	45	2000
	7 x 9	0.80 (0.0315)	UKH	UKH64 (0.40)	40	2000
9 x 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 2 Pins Fused	—	270	Multilayer
	SC8	SC70, 8L, Cu 3 Pins Fused	—	270	Multilayer
Plastic SOT TSOT	S3	SOT-23, 3L, A42 1 Pin Fused	100	180	Pin 2 Single Layer
	S5	TSOT-23, 5L, Cu 1 Pin Fused	50	215	Pin 2 4 Layer
	S6	TSOT-23, 6L, Cu 1 Pin Fused	51	192	Pin 2 4 Layer
Plastic SOT	TS8	TSOT-23, 8L, Cu 1 Pin Fused	47	195	Pin 4 4 Layer
	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	MS 10L, Cu	45	120	4 Layer
	MS8E	MS 8L, Cu Exposed Die Pad	5-10	35-40	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	30	100	Single Layer
Plastic SO 150mil	S	S16, A42	—	150	Single Layer
		S14, Cu	37	90	4 Layer
		S16, Cu	24	75	4 Layer
Plastic SO 300mil	SW	SW16	30	90	Single Layer
		SW18	27	85	Single Layer
		SW20	25	80	Single Layer
Plastic SSOP 150mil	GN	SW24	23	75	Single Layer
		SW28	20	70	Single Layer
		GN16, 4 Pins Fused	37	90	4 Layer
Plastic SSOP 150mil	GN	GN16	40	110	4 Layer
		GN20	30	90	4 Layer
		GN24	30	85	4 Layer
		GN28	25	80	4 Layer
Plastic SSOP 5.3	G	G20	30	110	Single Layer
		G24	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.

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	

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