

# Linear Technology Corporation

LT3781EG, LTC1698EGN, LT1783CS5

ISOLATED SYNCHRONOUS FORWARD CONVERTER

**BILL OF MATERIALS**

**DC479A-1**

**QTY-375**

10/25/02

4:38 PM

Item	Qty	Reference	Part Description	Manufacture / Part #	Kit Qty
				<b>NUMBER OF BOARDS =</b>	<b>375</b>
1	3	C1,C2,C3	CAP., X7R, 0.82uF, 100V, 20%, 1812	VITRAMON, VJ1812Y824MXB	1125
2	4	C4,C5,C6,C7	CAP.,TANT., 330uF, 6.3V, 20%, 7343	KEMET, T520D337M006AS	1500
3	2	C8,C9	CAP., X7R, 1000pF, 100V, 20%, 1206	AVX, 12061C102MAT2A	750
4	1	C10	CAP., X7R, 2200pF, 250VAC, 10%, 2220	MURATA, GHM3045X7R222K-GC	375
5	1	C11	CAP., JMP, 0, 1/4W, 1206	AAC, CJ18-000JM	375
6	2	C12,C15	CAP., X7R, 4.7uF, 16V, 20%, 1210	TAIYO YUDEN, EMK325BJ475MN	750
7	1	C13	CAP., X7R, 0.22uF, 50V, 20%, 1206	AVX, 12065C224MAT2A	375
8	1	C14	CAP., X7R, 330pF, 50V, 10%, 0603	AVX, 06035C331KAT2A	375
9	2	C16,C28	CAP., NPO, 1000pF, 25V, 10%, 0603	AVX, 06033A102KAT2A	750
10	1	C17	CAP., NPO, 220pF, 50V, 10%, 0603	AVX, 06035A221KAT2A	375
11	2	C18,C26	CAP., X7R, 3300pF, 50V, 10%, 0603	AVX, 06035C332KAT2A	750
12	1	C19	CAP., X7R, 0.022uF, 25V, 10%, 0603	AVX, 06033C223KAT2A	375
13	1	C20	CAP., X7R, 0.1uF, 100V, 10%, 1206	AVX, 12061C104KAT2A	375
14	4	C21,C24,C27,C33	CAP., X7R, 0.1uF, 50V, 10%, 0805	AVX, 08055C104KAT2A	1500
15	2	C22,C30	CAP., X7R, 4700pF, 50V, 20%, 0603	AVX, 06035C472MAT2A	750
16	1	C23	CAP., X7R, 0.22uF, 16V, 10%, 0805	AVX, 0805YC224KAT2A	375
17	1	C25	CAP., TANT., 100uF 20V, 20%, 7343	AVX, TAJE107M020R0150	375
18	1	C29	CAP., X7R, 0.01uF, 25V, 10%, 0603	AVX, 06033C103KAT2A	375
19	1	C31	CAP., X7R, 1uF, 25V, 10%, 1206	TAIYO YUDEN, TMK316BJ105KL	375
20	1	C32	CAP., NPO, 82pF, 25V, 10%, 0603	AVX, 06033A820KAT2A	375
21	2	D1,D2	RECTIFIER, 200V, 1Amp, SMB-DIODE	DIODES INC., MURS120	750
22	3	D3,D4,D13	DIODE, Speed Switching, BAS21, SOT23	DIODES INC., BAS21	1125
23	0	D5	DIODE, Schottky, MBR0540, SOD123 OPT	DIODES INC., B0540W	0
24	1	D6	DIODE, Schottky, MBR0540, SOD123	DIODES INC., B0540W	375
25	3	D7,D12,D14	DIODE, Schottky, BAT54,SOT23	DIODES INC., BAT54-7	1125
26	1	D8	DIODE, Zener, 18V, MMBZ5248B,SOT23	DIODES INC., MMBZ5248B-7	375
27	2	D9,D15	DIODE, Switching, MMBD914,SOT23	DIODES INC., MMBD914-7	750
28	1	D10	DIODE, Zener, 10V, MMBZ5240B,SOT23	DIODES INC., MMBZ5240B-7	375
29	0	D11	DIODE, Schottky, BAT54,SOT23 OPT	DIODES INC., BAT54-7	0
30	1	ISO1	I.C., Optocoupler, SO8	FAIRCHILD SEMI., MOC207	375
31	1	L1	IND, 3.3uH, L-DO1608C-S	COILCRAFT, DO1608C-332	375
32	1	L2	IND, 1.0mH, L-DO1608C-S	COILCRAFT, DO1608C-105	375
33	1	L3	IND, 1.5uH, RM7,	SCHOTT, 39603	375
	0	<b>OR</b>	IND, CHOKE COIL, 1.3UH, L-PANA-PCCS1	PANASONIC, ETQPAF1R3EFA	0

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				<b>NUMBER OF BOARDS =</b>	<b>375</b>
34	6	P1,P2,P3,P5,P6,P7	CONN, Swage Mount, PIN40	KEYSTONE, 1425-2	2250
35	2	P4,P8	CONN, 0.060PIN, 0.320 LONG, PIN62	STAFFAL INC., NIP-0913-01-CET-00	750
36		FOR P1-P8	Special Tools (1 set each)	KEYSTONE TL-2, & USECO TL-7721	
37	2	Q1,Q3	TRANSISTOR, N-Mosfet, 100V, SO8-POWERPAK	VISHAY SILICONIX, Si7456DP	750
38	2	Q2,Q8	TRANSISTOR, PNP, MMBT3906LT1, SOT23	DIODES INC., MMBT3906	750
39	4	Q4,Q5,Q6,Q7	TRANSISTOR, N-Mosfet, 30V, SO8-POWERPAK	VISHAY SILICONIX, Si7892DP	1500
40	1	Q9	TRANSISTOR, N-Channel, SOT223	FAIRCHILD SEMI., FQT7N10LTF	375
41	1	Q10	TRANSISTOR, N-DMosfet, SOT23	ZETEX, ZVN3310F	375
42	1	Q11	TRANSISTOR, NPN, MMBT3904, SOT23	DIODES INC., MMBT3904	375
43	1	Q12	TRANSISTOR, High Gain, NPN, SOT223	ZETEX, FZT690B	375
44	1	RT1	THERMISTOR, 100K, 5%, 1206	VISHAY DALE, NTHS1206N01N1003J	375
45	3	R1,R2,R41	RES., Chip, 10, 1/16W, 5%, 0603	AAC, CR16-100JM	1125
46	2	R3,R4	RES., Chip, 10, 1/4W, 5%, 1206	AAC, CR18-100JM	750
47	1	R5	RES., 0.030, 1/2W, 1%, 2010	DALE, WSL2010 0.030 1.0%R86	375
48	1	R6	RES., Chip, 3.3, 1/4W, 5%, 1206	AAC, CR18-3R3JM	375
49	5	R8,R9,R12,R18,R22	RES., Chip, 100, 1/4W, 5%, 1206	AAC, CR18-101JM	1875
50	1	R10	RES., Chip, 4.7, 1/4W, 5%, 1206	AAC, CR18-4R7JM	375
51	1	R11	RES., Chip, 62K, 1/4W, 5%, 1206	AAC, CR18-623JM	375
52	0	R25	RES., Chip, 20K, 1/4W, 5%, 1206	AAC, CR18-203JM	0
53	5	R14,R19,R20,R21,R34	RES., Chip, 3.01K, 1/16W, 1%, 0603	AAC, CR16-3011FM	1875
54	1	R15	RES., Chip, 47K, 1/16W, 5%, 0603	AAC, CR16-473JM	375
55	1	R16	RES., Chip, 2K, 1/4W, 5%, 1206	AAC, CR18-202JM	375
56	3	R17,R40,R43	RES., Chip, 10K, 1/16W, 5%, 0603	AAC, CR16-103JM	1125
57	6	R23,R27,R31,R35,R38,R46	RES., Chip, 1K, 1/16W, 5%, 0603	AAC, CR16-102JM	2250
58	1	R24	RES., Chip, 270K, 1/4W, 5%, 1206	AAC, CR18-274JM	375
59	1	R26	RES., Chip, 73.2K, 1/16W, 1%, 0603	AAC, CR16-7322FM	375
60	0	R28,R49	RES., Chip, 0603	TBD	0
61	1	R32	RES., Chip, 470, 1/4W, 5%, 0603	AAC, CR16-471JM	375
62	2	R33,R42	RES., Chip, 2.43K, 1/16W, 1%, 0603	AAC, CR16-2431FM	750
63	1	R37	RES., Chip, 3K, 1/16W, 5%, 0603	AAC, CR16-302JM	375
64	1	R39	RES., Chip, 52.3K, 1/16W, 1%, 0603	AAC, CR16-5232FM	375
65	2	R45,R48	RES., Chip, 1.24K, 1/16W, 1%, 0603	AAC, CR16-1241FM	750
66	1	R47	RES., Chip, 1.78K, 1/16W, 1%, 0603	AAC, CR16-1781FM	375
67	1	T1	TRANSFORMER, 39402	SCHOTT, 39402	375

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				<b>NUMBER OF BOARDS =</b>	<b>375</b>
	<b>0</b>	<b>OR</b>	TRANSFORMER, PA0191	PULSE ENG., PA0191	<b>0</b>
68	1	T2	TRANSFORMER, 1.4mH min. 50kHz, PA0184	PULSE ENG., PA0184	375
69	1	U1	I.C., Op Amp, LT1783CS5, SOT23-5	LINEAR TECH., LT1783CS5	375
70	1	U2	I.C., LTC1698EGN, SSOP16GN	LINEAR TECH., LTC1698EGN	375
71	1	U3	I.C., LT3781EG, SSOP20G	LINEAR TECH., LT3781EG	375
		<b>NOTES: UNLESS OTHERWISE SPECIFIED</b>			
		<b>1. ALL RESISTORS ARE IN OHMS.</b>			
		<b>2. P1-P8 ARE STUFFED ON THE BOTTOM SIDE.</b>			