

National Semiconductor Corporation
7/6/2010
ADC12D1600 Reference Board
Assembly Part Number : 980600479-326
Revision : C

Bill of Materials

Item	Ref Designator	Part Description	Manufacturer	Part Number	Value	Qty	RoHS	Digi-Key P/N	Sec. Dist.	Sec. Dist. P/N	Alt. Manufacturer	Alt. P/N
1		ADC10D1500 Reference Board PCB, RevC Low Power, 12-Bit, Dual 1.6 GSPS or Single 3.2 GSPS ADC	NSC	551600479-003 RevC								
2	U1	from the PowerWise® Family	NSC	ADC12D1600CIUT/NOPB		1			Interco			
3	U2	IC MCU USB PERIPH HI SPD 128TQFP	Cypress	CY7C68013A-128AXC		1	Y	428-1668-ND				
4	U3	5-Pin Microprocessor Reset Circuits	NSC	LM3724IM5-3.08/NOPB		1			Interco			
5	U4	IC EEPROM 2KBIT 1MHZ 8SOIC	Atmel	AT24C02BN-SH-B		1	Y	AT24C02BN-SH-B-ND				
6	U5	IC FPGA VIRTEX-4 24K 668-FCBGA	Xilinx	XC4VLX25-11FFG668C		1	Y	122-1490-ND	Nu-Horizons			
7	U6, U7	50MIL_7PIN_HEADER sm_7pin_ftr Dual Remote Diode and Local Temperature Sensor with SMBus Interface and TruTherm™ Technology	Samtec	FTR-107-03-S-S		2		N/A	Samtec	FTR-107-03-S-S		
8	U8	RELAY-RF303 3GHz RELAY_RF303	NSC	LM95233CISD/NOPB		1			Interco			
9	U11	High Performance Frequency Synthesizer System with Integrated VCO	Teledyne	RF303-5		1	Y	N/A	Allied Electronics	280-1008		
10	U12		NSC	LMX2531LQ1570E/NOPB		1			Interco			
11	U13	Dual 2A, 500kHz Wide Input Range Buck Regulator	NSC	LM26400YMH/NOPB		1			Interco			
12	U14	NO LOAD	NO LOAD	NO LOAD		1		NO LOAD			Xilinx	XCF08P VO48 C (122-1454-5-ND)
13	U15, U18, U19, U20, U22	Micropower 800mA Low Noise "Ceramic Stable" Adjustable Voltage Regulator for 1V to 5V Applications	NSC	LP3878MR-ADJ/NOPB		5			Interco			
14	U16	SIMPLE SWITCHER® 42V, 3A Step-Down Switching Regulator 3A Fast-Response High-Accuracy Adjustable LDO Linear Regulator with Enable and Soft-Start	NSC	LM25576MHX/NOPB		1			Interco			
15	U17		NSC	LP38853SX-ADJ/NOPB		1			Interco			
16	U21	Power Sequencer 36V, 2A PowerWise® Adjustable Frequency Synchronous Buck Regulator	NSC	LM3880MF-1AB/NOPB		1			Interco			
17	U23		NSC	LM20242MH/NOPB		1			Interco			
18	U24, U25 C1, C2, C3, C4, C5, C6, C7, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C34, C35, C36, C37, C38, C39, C40, C46, C47, C48, C49, C52, C54, C55, C56, C57, C58, C59, C60, C61, C62, C66, C68, C72, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99,	IC RCVR/DRVR ECL DIFF 5V 8TSSOP	ON Semiconductor	MC100EP16DTR2G		2	Y	MC100EP16DTGOS-ND	Newark	45J0940		

45	L2	FILTER CHIP 120 OHM 3A 0603	Murata	BLM18SG121TN1D		1	Y	490-3996-1-ND	
46	L3, L11, L12, L13	FILTER CHIP 330 OHM 1.5A 0603	Murata	BLM18SG331TN1D		4	Y	490-3997-1-ND	
47	L4, L8, L14	FILTER CHIP 26 OHM 6A 0603	Murata	BLM18SG260TN1D		3	Y	490-3995-1-ND	
48	L5, L6, L7, L10	10uH 3.4A EIA_481	Coilcraft	MSS1246-103ML	10uH	4	Y	N/A	Coilcraft
49	L9	CHOKe COMMON MODE 170OHMS 10A PCB	Steward	CM2545X171B-10		1	Y	240-2485-ND	
	LD1, LD2, LD3, LD4, LD5, LD6, LD7, LD8, LD9, LD11	LED 565NM WTR CLR GREEN 1206 SMD	Lumex	SML-LX1206GC-TR		10	Y	67-1357-1-ND	
51	LD10	LED 635NM RED WTR CLR 1206 SMD	Lumex	SML-LX1206IC-TR		1	Y	67-1356-1-ND	
				BC817-25LT1			N	BC817-25LT1OSCT-ND	
52	Q1	TRANS NPN GP 500MA 45V SOT23	ON Semiconductor	BC817-25LT1G	45V, 0.5A	1	Y	BC817-25LT1GOSCT-ND	
	R2, R3, R4, R5, R6, R8, R9, R13, R14, R16, R17, R25, R69, R127, R128	RES 49.9 OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF49R9V	49.9	15	Y	P49.9HTR-ND	
54	R7, R12	RES 3.3K OHM 1/10W .1% 0603 SMD	Panasonic	ERA-3YEB332V	3.3K	2	Y	P3.3KYTR-ND	
55	R10, R11	RES 20.0 OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF20R0V	20.0	2	Y	P20.0HTR-ND	
56	R15, R34	RES 4.7K OHM 1/10W 5% 0603 SMD	Panasonic	ERJ-3GEYJ472V	4.7K	2	Y	P4.7KGTR-ND	
57	R18	RES 47K OHM 1/4W 5% 1206 SMD	Panasonic	ERJ-8GEYJ473V	47K	1	Y	P47KETR-ND	
58	R19, R21	RES 2.2K OHM 1/4W 5% 1206 SMD	Panasonic	ERJ-8GEYJ222V	2.2K	2	Y	P2.2KETR-ND	
		RES ZERO OHM 1/10W 5% 0603 SMD							
59	R20, R22, R31, R38, R43, R65, R126	Assembly for R20: mount on 2 pads closest to J20 Assembly for R38: mount on 2 pads closest to U1	Panasonic	ERJ-3GEY0R00V	0	2	Y	P0.0GTR-ND	
60	R24	RES 1.0M OHM 1/4W 5% 1206 SMD	Panasonic	ERJ-8GEYJ105V	1.0M	1	Y	P1.0METR-ND	
	R23, R32, R33, R35, R36, R37, R80, R107, R26, R27, R28, R44, R45, R46, R113, R114, R86, R87, R104								
61	R104	RES 10K OHM 1/10W 5% 0603 SMD	Panasonic	ERJ-3GEYJ103V	10K	19	Y	P10KGCT-ND	
62	R56, R57	RES 49.9 OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF49R9X	49.9	2	Y	P49.9LCT-ND	
	R29, R47, R48, R49, R50, R51, R52, R54, R55, R115, R142								
63	R30, R39, R41, R42	RES 330 OHM 1/10W 5% 0603 SMD	Panasonic	ERJ-3GEYJ331V	330	11	Y	P330GTR-ND	
64		RES 100 OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF1000V	100	4	Y	P100HTR-ND	
65	R40	NO LOAD	NO LOAD	NO LOAD		0		NO LOAD	Panasonic ERJ-3GEYJ103V (P10KHTR-ND)
	R53, R66, R129, R131, R134, R136								
66	R67, R68	RES 33 OHM 1/10W 5% 0603 SMD	Panasonic	ERJ-3GEYJ330V	33	6	Y	P33GTR-ND	
67	R70, R71	RES 150 OHM 1/10W 1% 0603 SMD	Rohm	MCR03EZPFX1500	150	2	Y	RHM150HTR-ND	
68	R72	RESISTOR .22 OHM 1/10W 1% 0603	Panasonic	ERJ-3RQFR22V	0.22	2	Y	P.22AJTR-ND	
69	R72	RES 1200 OHM 1/10W 5% 0603 SMD	Panasonic	ERJ-3GEYJ122V	1.2K	1	Y	P1.2KGCT-ND	
70	R73	NO LOAD	NO LOAD	NO LOAD		0			
71	R74	RES 100 OHM 1/10W 5% 0402 SMD	Panasonic	ERJ-2GEJ101X	100	1	Y	P100JTR-ND	
72	R75	RES ZERO OHM 1/10W 5% 0402 SMD	Panasonic	ERJ-2GE0R00X	0	1	Y	P0.0JTR-ND	
73	R76, R77	NO LOAD	NO LOAD	NO LOAD		2		NO LOAD	Panasonic ERJ-2GE0R00X (P0.0JTR-ND)
74	R78	RESISTOR 3.3 OHM 1/10W 5% 0603	Panasonic	ERJ-3RQJ3R3V	3.3	1	Y	P3.3AHTR-ND	
75	R79	RES 4.3K OHM 1/10W 5% 0603 SMD Not 1%!	Panasonic	ERJ-3GEYJ432V	4.3K	1	Y	P4.3KGCT-ND	
76	R81, R84, R133	NO LOAD 0.1W 5% r0603	Panasonic	ERJ-3GEY0R00V	0	3		P0.0GTR-ND	
77	R82	RES 10 OHM 1/10W 5% 0603 SMD	Panasonic	ERJ-3GEYJ100V		1	Y	P10GTR-ND	
78	R83	NO LOAD	NO LOAD	NO LOAD		1		NO LOAD	Panasonic ERJ-3

92	R103	RES 47.5K OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF4752V	47.5K	1	Y	P47.5KHCT-ND		
93	R105, R140, R141	NO LOAD	NO LOAD	NO LOAD		3		NO LOAD	Panasonic	ERJ-3GEYJ103V (P10KHTR-ND)
94	R106	RES 7.87K OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF7871V	7.87K	1	Y	P7.87KHTR-ND		
95	R108	RES 20.0K OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF2002V	20.0K	1	Y	P20.0KHTR-ND		
96	R109	RES 1.3K OHM 1/10W 5% 0603 SMD	Panasonic	ERJ-3GEYJ132V	1.3K	1	Y	P1.3KGCT-ND		
97	R112, R118	RES 2.4K OHM 1/10W 5% 0603 SMD	Panasonic	ERJ-3GEYJ242V	2.4K	2	Y	P2.4KGCT-ND		
98	R116	RES 360 OHM 1/10W 5% 0603 SMD	Panasonic	ERJ-3GEYJ361V	360	1	Y	P360GCT-ND		
99	R120, R121, R122	RES 22K OHM 1/10W 5% 0603 SMD	Panasonic	ERJ-3GEYJ223V	22K	3	Y	P22KGCT-ND		
100	R125	RES 2.0K OHM 1/10W 5% 0603 SMD	Panasonic	ERJ-3GEYJ202V	2.0K	1	Y	P2.0KGCT-ND		
101	R130, R132, R135, R137	RES 95.3 OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF95R3V	95.3	4	Y	P95.3HCT-ND		
102	R138, R139	NO LOAD	NO LOAD	NO LOAD		2		NO LOAD	Panasonic	ERJ-3GEYJ103V (P100HTR-ND)
103	SW1	SWITCH TACT MOM 130GF H=5MM	ITT Industries/C&K Div	PTS635SL50		1	Y	CKN9017-ND		
104	SW2	SWITCH ROCKER SPDT HORZ ACT RA	ITT Industries/C&K Div	7101J1AQE2		1	Y	CKN2005-ND		
105	T1	FO-3 soic6_026_wg049_L079	Anaren	B0430J50100A00		1	Y	N/A	Anaren	B0430J50100A00
106	Y1	CRYSTAL 24.00 MHZ 12PF HC-49/US	ECS Inc.	ECS-240-12-4X		1	Y	XC1005-ND		
107	Y2	OSC 100MHz osc_100m_5x7	Pletronics	SM7745DV-100.0M	100MHz	1		N/A	Pletronics	SM7745DSV-100.00M
108	Y3	OSC 60MHz SOGP200_4_WGP280	Pletronics	SM7744HV-60.0M	60MHz	1		N/A	Pletronics	SM7744HV-60.0M
109	J1, J3	CONN HEADER .100 SINGL STR 36POS	Sullins	PTC36SAAN		2	N	S1012-36-ND		
110	J2	CONN RECEPT USB TYPE B PCB	Mill-Max	897-43-004-90-000000		1	Y	ED90064-ND		
111	J4	HEADER 10x3 blkcon_10x3				1		N/A		
	J21_SH, J14_SHa, J14_SHb, J14_SHc, J22_SH, J15_SH, J4_Sha, J4_SHb, J4_SHc, J23_SHa, J23_SHb, J23_SHc, J23_SHd, J23_SHe									
112	J23_SHd, J23_SHe	Jumper Shunt, 15uin gold plated, 0.100" pitch	Tyco/AMP	382811-6		14	Y	A26227-ND		
113	J5	HEADER 6 blkcon_6x1	Sullins	PTC36SAAN		1	N	S1012-36-ND		
114	J6	CONN 6 PIN SING. ROW SHDR6X1	Sullins	PTC36SAAN		1	N	S1012-36-ND		
	J7, J8, J9, J10, J11, J19, J26									
115	J19, J26	CONN JACK END LAUNCH PC GOLD SMA	Emerson/Johnson	142-0701-851		7	Y	J658-ND		
116	J12	CONN PWR JACK 2.1X5.5MM HIGH CUR	CUI Inc	PJ-102AH		1	Y	CP-102AH-ND		
117	J13	HEADER 3 blkcon_3x1	Sullins	PTC36SAAN		1	N	S1012-36-ND		
118	J14	JUMPER3 blkcon_3x2	Sullins	PTC36DAAN		1	N	S2012-36-ND		
119	J15, J17, J18	CONN HEADER .100 DUAL STR 72POS	Sullins	PTC36DAAN		3	N	S2012-36-ND		
120	J16, J24	CONN RCPT 38POS VERT .64MM	Tyco Electronics	5767054-1		2	Y	5767054-1-ND	Arrow	5767054-1
121	J20	JUMPER 2X1 th_2_hdr1x2_m_str_100	Sullins	PTC36SAAN		1	N	S1012-36-ND		
122	J21, J22	JUMPER1 blkcon_2x1	Sullins	PTC36SAAN		2	N	S1012-36-ND		
123	J23	JUMPER5 blkcon_5x2	Sullins	PTC36DAAN		1	N	S2012-36-ND		
124	J25	HEADER 3X2 blkcon_3x2	Sullins	PTC36DAAN		1	N	S2012-36-ND		
	J27, J28, J29, J30, J31, J32									
125	J31, J32	NO LOAD	NO LOAD	NO LOAD		0		NO LOAD	Johnson Components	142-0701-851 (J658-ND)
126	J33	NO LOAD	NO LOAD	NO LOAD		0		NO LOAD		
127	TP1, TP2, TP3, TP4 TP5, TP6, TP7, TP8, TP9, TP10, TP11	NO LOAD [Pad on board only]	NO LOAD	NO LOAD		4		NO LOAD		
128		HDR 1X1 .100 Singl Str 36 Pos.	SULLINS ELECT	PBC36SAAN		7	Y	S1011E-36-ND		