

These pin sockets are used for the KAI-11002 sensor (U11), with ref designators matching pin numbers

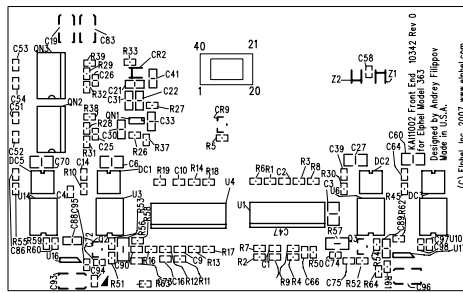
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Model 363		Elphel, Inc 1 of 1	
KAI11002 Front End		DESIGNED BY: Andrey Filippov	
NEXT ASSY	1D20342	DATE	01/11/2007
USED	QTY 1	REV	0
FILE 10342	80342	PRINTED	1/11/2007 AT 0:28:52 AM

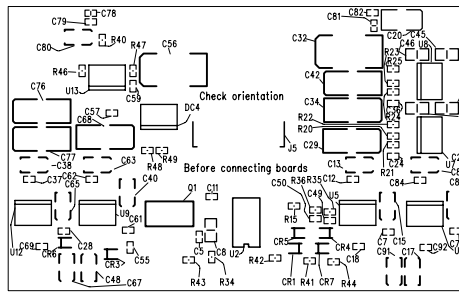
SUB-ASSEMBLY											
	USAGE	#		NO.	4A20342	RELEASE DATE	01/11/07	P/L	REV.	REV.	U
	363	1		TITLE	Model 363 KAI11002 Front End PCB Assembly 80342	JOB#	N/A	DATE	LTR	DATE	B
				# TO	1	WORK ORDER #	N/A	1/11/2007	0		
				NEXT	ASSY	NON STANDARD					
					4A-?????	NOTATIONS					
DESIGNATOR	ITEM	QTY	EXT	STK		PART	MANUFAC		VENDOR	PURCH	
NUMBER	#	REQ	QTY	CHK	DESCRIPTION	#	TURER	VENDOR	PART #	QTY	
					Related Documents						
	0.5	1	1		Schematic 10342 (80342), Model 363	1D20342 Rev.0	Designed by Andrey Filippov				
	20	1	1		Fabrication (80342), Model 363	4F20342 Rev.0					
	21	1	1		Artwork (80342), Model 363	4G20342 Rev.0					
					Integrated Circuits						
U7-U8	40	2	2		Single 1000V/us Operational Amplifier, 1363W , S8	LT1363CS8PBF	Linear Technology	Digi-Key	LT1363CS8PBF- ND	2	
U3, U6, U10, U14	41	4	4		Digital Potentiometers, 128 taps, +/-15V, 100K , TSSOP-14	AD7376ARU100	Analog Devices	Analog Devices		4	
U2	42	1	1		8-Channel, 12-Bit Digital-to-Analog Converter, TSSOP-20	TLV5630IPW	Texas Instruments	Digi-Key	296-3066-5-ND	1	
U5	43	1	1		CCD Sensor 4008x2672, KAI11000CM	KAI11000CM	Kodak	Kodak	4H0278	1	
U9, U12-U13, U15	44	4	4		CMOS Driver, 40MHz, MDP0027	EL7156CS	Intersil	Nu Horizons		4	
U1, U4	45	2	2		Quad 600V/us Operational Amplifier, S	LT1359CS	Linear Technology	Digi-Key	LT1359CS-ND	2	
U16-U17	46	2	2		Wideband, Unity Gain stable Operational Amplifier, SOT-23-6, marked as OAGI	OPA692IDBVT	Texas Instruments	Digi-Key	296-15364-1-ND	2	
					Power Supply Modules						
DC4	47	1	1		Low Dropout Adjustable Voltage Regulator, 700mA , S8	LT1129CS8	Linear Technology	Digi-Key	LT1129CS8-ND	1	
DC1-DC3, DC5	48	4	4		Low Dropout Positive Adjustable Voltage Regulator, 300mA , MS8	LT1962EMS8	Linear Technology	Digi-Key	LT1962EMS8-ND	4	
					Transistors						
Q2-Q3	49	2	2		Transistor NPN, 3904 , 200mA , 200mW , SOT-323, marked as K2N	MMST3904	Diodes Inc	Digi-Key	MMST3904DICT- ND	2	
Q1	50	1	1		Transistor NPN, PZT2222A , 40V , 1A , 1W , SOT-223	PZT2222A	Fairchild	Digi-Key	PZT2222ACT-ND	1	
QN2-QN3	51	2	2		Complementary Transistor Pair NPN-PNP, 6790 , 40V , 2A , SM-8, marked as T6790	ZDT6790TA	Zetex	Digi-Key	ZDT6790CT-ND	2	

DESIGNATOR	ITEM	QTY	EXT	STK		PART	MANUFAC		VENDOR	PURCH	
NUMBER	#	REQ	QTY	CHK	DESCRIPTION	#	TURER	VENDOR	PART #	QTY	
QN1	52	1	1	---	Complimentary NPN/PNP Small Signal Surface Mount Transistor, MMDT2227 , 75V, 600mA , SOT-363, marked as K27	MMDT2227	Diodes Inc	Digi-Key	MMDT2227DICT-ND	1	
				---	Diodes						
CR9	53	1	1	---	Dual Switching Diode, Common Cathode, 70V, 200mA, 200mW , SOT-323, marked as A4	BAV70WT1	ON Semiconductor	Digi-Key	BAV70WT1OSC T-ND	1	
CR1-CR7	54	7	7	---	Surface Mount Fast Switching Diode, 70V, 500mA , SOD-323, marked as T5	1N4448WS	Diodes Inc	Digi-Key	1N4448WSDICT-ND	10	
Z1-Z2	55	2	2	---	Zener Diode, 4.7V , SOD-323, marked as W7	BZT52C4V7S-7	Diodes Inc	Digi-Key	BZT52C4V7SDICT-ND	2	
				---	Resistors						
R56-R57	56	2	2	---	Resistor, 1.21KΩ, 0.125W, \pm1% , SMD 0805, marked as 1211	ERJ-6ENF1211V	Panasonic	Digi-Key	P1.21KCCT-ND	10	
R38-R39	57	2	2	---	Resistor, 0.39Ω, \pm1% , SMD 0402, marked as 390M	ERJ-2BQFR39X	Panasonic	Digi-Key	P.39AKCT-ND	10	
R40-R44	58	5	5	---	Resistor, 1Ω, \pm1% , SMD 0402, marked as 1R00	RC0402FR-071RL	Yageo	Digi-Key	311-1.00LRCT-ND	10	
R51-R52, R63-R64	59	4	4	---	Resistor, 22Ω, \pm1% , SMD 0402, marked as 22R0	RC0402FR-0722RL	Yageo	Digi-Key	311-22.0LRCT-ND	10	
R31-R32	60	2	2	---	Resistor, 49.9Ω, \pm1% , SMD 0402, marked as 49R9	RC0402FR-0749R9L	Yageo	Digi-Key	311-49.9LRCT-ND	10	
R20, R22-R23, R25, R53-R54	61	6	6	---	Resistor, 130Ω, \pm1% , SMD 0402, marked as 1300	ERJ-2RKF1300X	Panasonic	Digi-Key	P130LCT-ND	10	
R35	62	1	1	---	Resistor, 510Ω, \pm1% , SMD 0402, marked as 5100	RC0402FR-07510RL	Yageo	Digi-Key	311-510LRCT-ND	10	
R37, R46-R47	63	3	3	---	Resistor, 2.49KΩ, \pm1% , SMD 0402, marked as 2491	ERJ-2RKF2491X	Panasonic	Digi-Key	P2.49KLCT-ND	10	
R21, R24, R28-R29, R36	64	5	5	---	Resistor, 3.48KΩ, \pm1% , SMD 0402, marked as 3481	ERJ-2RKF3481X	Panasonic	Digi-Key	3.48KLCT-ND	10	
R1-R4, R12-R15, R26-R27, R33	65	11	11	---	Resistor, 10KΩ, \pm1% , SMD 0402, marked as 1002	RC0402FR-0710KL	Yageo	Digi-Key	311-10.0KLRCT-ND	11	
R10, R30, R45, R55, R59-R62	66	8	8	---	Resistor, 20KΩ, \pm1% , SMD 0402, marked as 2002	RC0402FR-0720KL	Yageo	Digi-Key	311-20.0KLRCT-ND	10	
R7, R16-R19	67	5	5	---	Resistor, 30.1KΩ, \pm1% , SMD 0402, marked as 3012	RC0402FR-0730K1L	Yageo	Digi-Key	311-30.1KLRCT-ND	10	
R5, R8	68	2	2	---	Resistor, 49.9KΩ, \pm1% , SMD 0402, marked as 4992	RC0402FR-0749K9L	Yageo	Digi-Key	311-49.9KLRCT-ND	10	
R6, R9	69	2	2	---	Resistor, 90.9KΩ, \pm1% , SMD 0402, marked as 9092	RC0402FR-0790K9L	Yageo	Digi-Key	311-90.9KLRCT-ND	10	
R11, R34, R49-R50, R58	70	5	5	---	Resistor, 150KΩ, \pm1% , SMD 0402, marked as 1503	RC0402FR-07150KL	Yageo	Digi-Key	311-150KLRCT-ND	10	
R48	71	1	1	---	Resistor, 634KΩ, \pm1% , SMD 0402, marked as 6343	ERJ-2RKF6343X	Panasonic	Digi-Key	P634KLCT-ND	10	

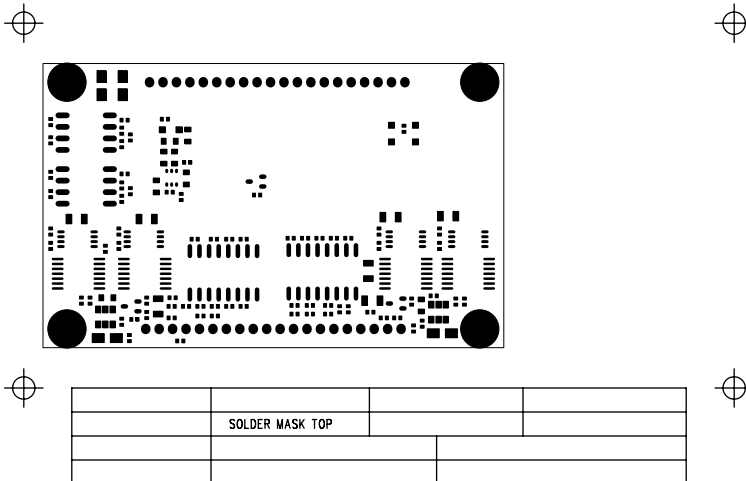
DESIGNATOR	ITEM	QTY	EXT	STK		PART	MANUFAC	VENDOR	VENDOR	PURCH
NUMBER	#	REQ	QTY	CHK	DESCRIPTION	#	TURER	VENDOR	PART #	QTY
-----	----	---	----	---	-----	-----	-----	-----	-----	-----
Capacitors										
C3, C6, C8, C27, C60, C70	72	6	6		Capacitor, Film, 10nF, 16V, ±2% , C-0805	ECH-U1C103GX5	Panasonic	Digi-Key		10
C88-C89	73	2	2		Capacitor, Ceramic Chip, X5R, 1µF, 25V, ±10% , C-0603	ECJ-1VB1E105K	Panasonic	Digi-Key	PCC2422CT-ND	2
C13, C15, C17, C19, C38, C40, C48, C63, C65, C67, C80, C83, C85, C87, C91, C93, C96	74	17	17		Capacitor, Tantalum Chip. low ECR, 10µF, 16V, SMD A	T494A106M016AS	Kemet	Digi-Key	399-3105-1-ND	17
C20	75	1	1		Capacitor, Tantalum Chip, 10µF, 20V, SMD B , marked as 106/20V	ECS-T1DX106R	Panasonic	Digi-Key	P11324CT-ND	10
C1-C2, C4-C5, C7, C9-C12, C14, C16, C18, C23-C24, C28, C35-C37, C39, C47, C49-C55, C57-C59, C61-C62, C64, C66, C69, C71, C73, C75, C79, C82, C84, C86, C90, C92, C94, C97	76	46	46		Capacitor, Ceramic Chip, 0.1µF, 25V, C-0402D	GRM155F51E104ZA01D	Murata	Digi-Key	490-3271-1-ND	46
C43-C46	77	4	4		Capacitor, Ceramic Chip, 2µF, 25V, C-0805	ECJ-2FF1E225Z	Panasonic	Digi-Key	PCC2231CT-ND	10
C29, C34, C42, C68, C76-C77	78	6	6		Capacitor, Tantalum Chip. low ECR, 10µF, 25V, SMD C	T494C106M025AS	Kemet	Digi-Key	399-1786-1-ND	6
C32, C56	79	2	2		Capacitor, Tantalum Chip, 10µF, 35V, SMD D	T491D106M035AS	Kemet	Digi-Key	399-1655-1-ND	2
C25-C26	80	2	2		Capacitor, Ceramic Chip, 10pF, 50V, C-0402	ECJ-0EC1H100D	Panasonic	Digi-Key	PCC100CQCT-ND	10
C72, C74, C78, C81, C95, C98	81	6	6		Capacitor, Ceramic Chip, 1nF, 50V, C-0402	ECJ-0EB1H102K	Panasonic	Digi-Key	PCC1721CT-ND	10
C21-C22, C30-C31, C33, C41	82	6	6		Capacitor, Ceramic Chip, 0.1µF, 50V, C-0603	ECJ-1VF1H104Z	Panasonic	Digi-Key	PCC2153CT-ND	10
Connectors										
J5	83	1	1		Connector Receptacle 40 pins, 0.5mm pitch, DF12D40DP05V	DF12D(4.0)-40DP-0.5V(81)	Hirose	Digi-Key	H5236CT-ND	1
Sockets and Matching Parts										
XU1-XU40	84	40	40		Pin socket for 0.015-0.022 diameter pins, 0.040" mounting hole, SOCK040	0569-0-15-01-11-27-10-0	Mill-Max	Mouser	575-056901	40

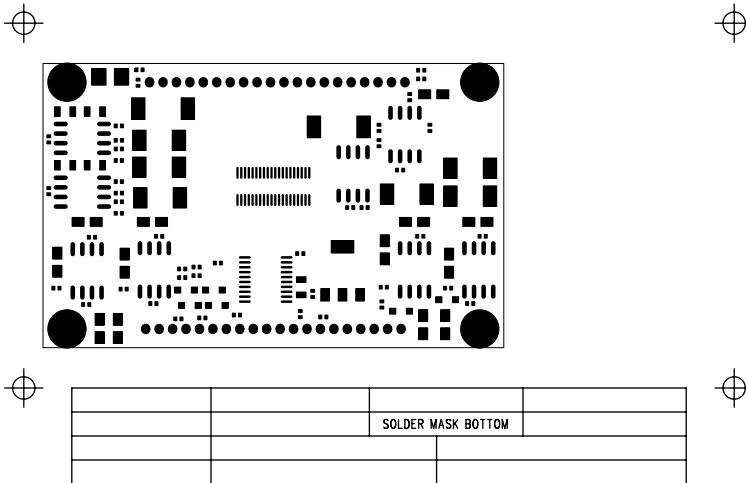


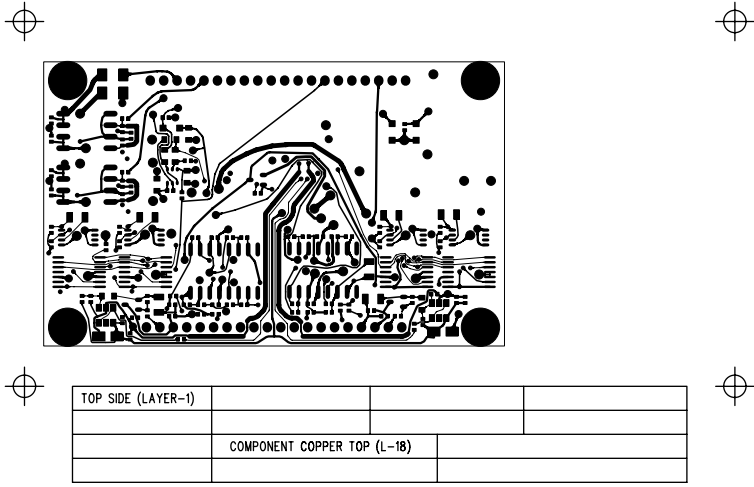
SILKSCREEN TOP			

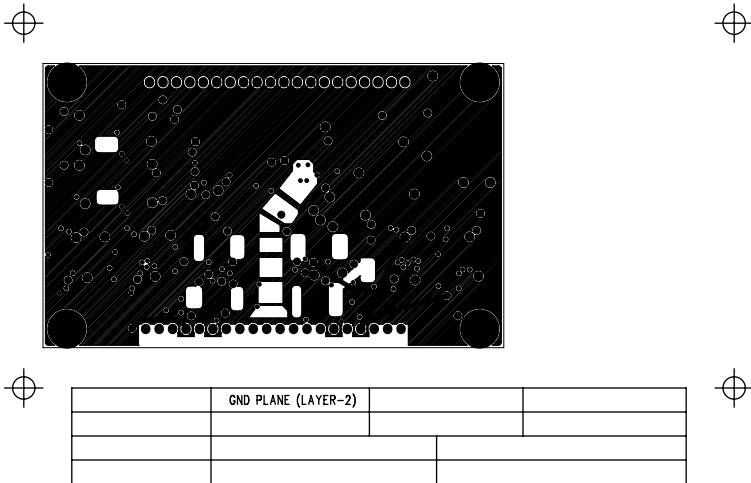


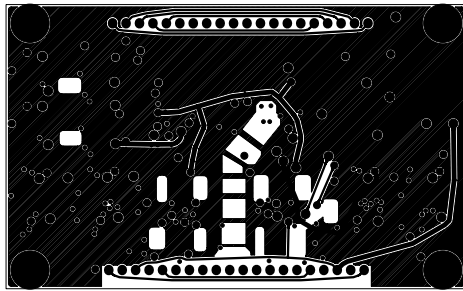
SILKSCREEN BOTTOM			



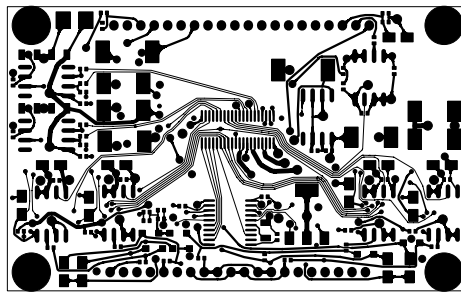




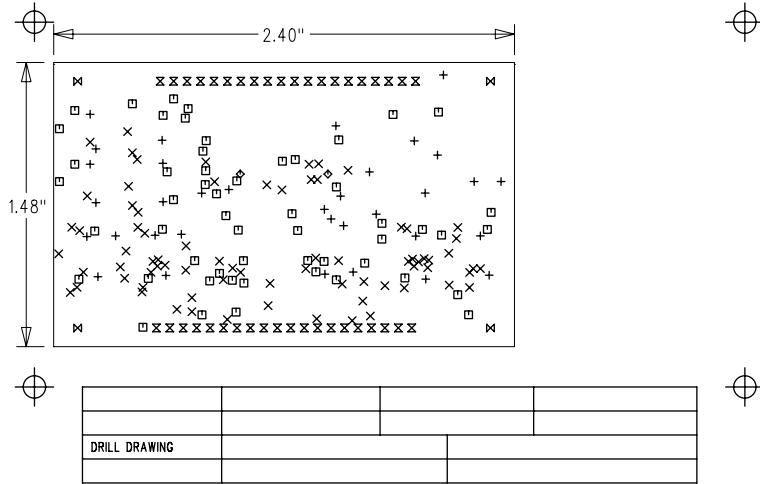




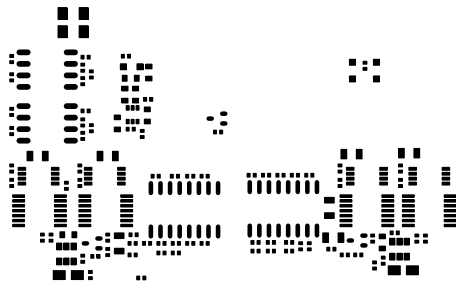
		PWR PLANE (LAYER-3)	



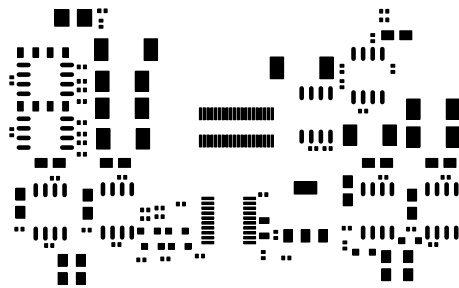
			BOTTOM SIDE (LAYER-4)
			COMPONENT COPPER BOTTOM (L-19)



SIZE	QTY	SYM	PLTD
32	34	+	PLTD
10	75	×	PLTD
22	54	□	PLTD
23.62	2	◇	NPLTD
40	40	⊗	PLTD
120	4	⊗	NPLTD



	PASTE TOP		



			PASTE BOTTOM