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Model 353
Camera CPU Board
NEXT ASSY: 1D20333
DATE: 06/08/2006
DRAWN: Andrew Filippov
PRINTED: 1/6/2008
E=mm 1:1
REV: 10353E 10353

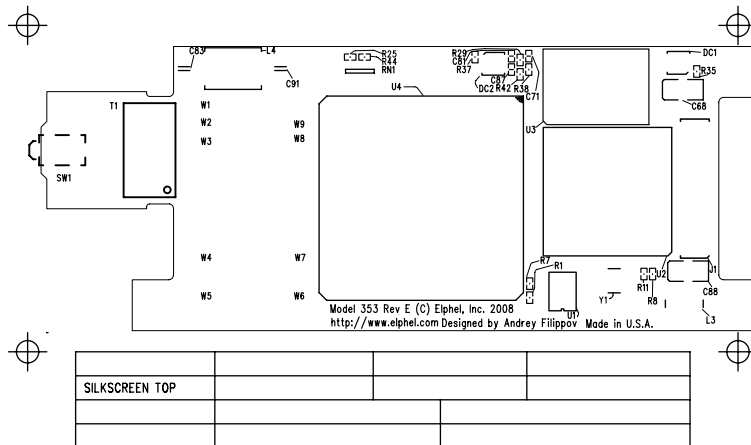
Andrew Filippov
06/08/2006
1/6/2008

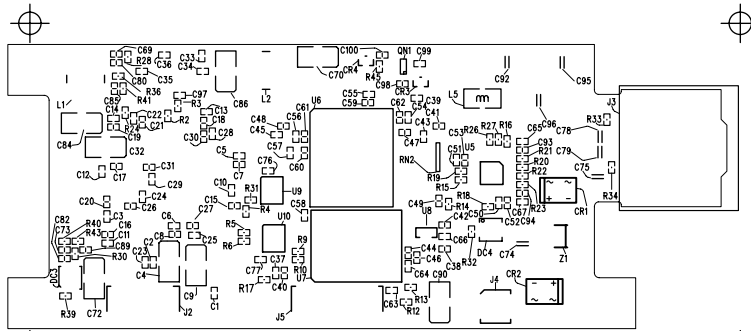
SUB-ASSEMBLY																	
USAGE	#		NO.					RELEASE DATE	01/06/08	P/L	REV.	REV.	Units to	Total	Cost per		
353	1		TITLE	Model 353 Camera CPU Board				JOB#	N/A	6/8/2006	E	1/6/2008	1	\$451.17	\$451.17		
			# TO	MFGR	1				WORK ORDER #	N/A							
			NEXT	ASSY	4A-?????				NON STANDARD								
									NOTATIONS								
DESIGNATOR	ITEM	QTY	EXT	STK	ROHS					PART	MANUFAC	VENDOR	PURCH	UNIT	NEW		
NUMBER	#	REQ	QTY	CHK		DESCRIPTION				#	TURER	VENDOR	PART #	QTY	PRICE	TOTAL	STOCK
Related Documents																	
	0.5	1	1			Schematic 10353e (10353), Model 353				1D20333 Rev.E	Designed by Andrey Filippov						
	20	1	1			Fabrication (10353), Model 353				4F20333 Rev.E							
	21	1	1			Artwork (10353), Model 353				4G20333 Rev.E							
Integrated Circuits																	
U3	40	1	1		Y	DDR Synchronous DRAM, 512Mbit (32Mx16), 32MX16, 2.5V , FBGA-60W, marked as D9GCL				MT46V32M16BN-5B	Micron	Edge Electronics		1	10	10	0
U8	41	1	1		Y	3-pin Supply Voltage Supervisor, 2.93V , SOT-23-123				TPS3809K33DBVT	Texas Instruments	Digi-Key	296-2631-1-ND	1	0.96	0.96	0
U7	42	1	1		Y	1024Mb (128Mx8) NAND Flash, 128MX8, 3.3V , VFBGA-63-9.5x12				NAND01GW3B2AZA6E	STMicroelectronics	Digi-Key	497-5036-ND	1	17	17	0
U9-U10	43	2	2		Y	Noninverting Octal Buffers/Drivers with 3-state outputs, 3.3V , VFBGA-20, marked as LC244A				74LVTH244AZQNR	Texas Instruments	Digi-Key	296-19878-1-ND	2	0.68	1.36	0
U6	44	1	1		Y	Low Power Synchronous DRAM, 256Mbit (DG,DN), 16MX32 , FBGA-90				K4M513233C-DG75	Samsung			0	0	0	-1
U5	45	1	1		Y	10/100BASE-TX Transceiver, QFN-32				78Q2123F	Teridian	Innovation Sales		1	0	0	0
U4	46	1	1		Y	Embedded Linux Processor, PBGA-256				24745	Axis	Axis		1	40	40	0
U2	47	1	1		Y	Spartan 3E FPGA, 1.2 M gates, FT256, programmed as x353				XC3S1200E-5FT256C	Xilinx	Insight Electronics		1	81	81	0
U1	48	1	1		Y	Three-PLL Serial Programmable FLASH Programmable Clock Generator, TSSOP-16				CY22393FXC	Cypress	Digi-Key	428-1744-5-ND	1	5.14	5.14	0
Power Supply Modules																	
DC5	49	1	1		Y	DC-DC Converter, Isolated, Single Output, 8W , DIP24-FKC08S				FKC08-48S33	PDuke	PDuke		0	0	0	-1

DESIGNATOR	ITEM	QTY	EXT	STK	ROHS		PART	MANUFAC	VENDOR	VENDOR	PURCH	UNIT	TOTAL	NEW
NUMBER	#	REQ	QTY	CHK		DESCRIPTION	#	TURER	VENDOR	PART #	QTY	PRICE	TOTAL	STOCK
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DC4	50	1	1		Y	IEEE 802.3af PD Power-Over-Ethernet Interface Controller, DFN-8, marked as 4257	LTC4257CDD#PBF	Linear Technology	Linear Technology		1	1.9	1.9	0
DC1-DC3	51	3	3		Y	Step-Down DC/DC Converter, Synchronous, 4MHz, Y, 1.25A , DFN-10, marked as LADT	LTC3411EDD#PBF	Linear Technology	Digi-Key	LTC3411EDD#PBF-ND	3	6.4	19.2	0
						Transistors								
QN1	52	1	1		Y	Dual N-Channel Enhancement Mode FET, SOT-363, marked as K72	2N7002DW-7-F	Diodes Inc	Digi-Key	2N7002DW-FDICT-ND	1	0.68	0.68	0
						Diodes								
CR3-CR4	53	2	2		Y	Shottky Diode, Series, 100nA Reverse Current, 70V , 70mA , SOT-323, marked as KL8	BAS70-04W	NXP Semiconductors	Digi-Key	568-3408-1-ND	2	0.37	0.74	0
CR1-CR2	54	2	2		Y	Surface Mount Glass Passivated Bridge Rectifier, 600V , 0.8A , MINIDIP-4	HD06	Diodes Inc	Digi-Key	HD06DICT-ND	2	0.68	1.36	0
Z1	55	1	1		Y	Transient Voltage Suppressor, Unidirectional, 60V , SMA, marked as	SMAJ60A-13-F	Diodes Inc	Digi-Key	SMAJ60A-FDICT-ND	1	0.77	0.77	0
						Oscillators and Crystals								
Y1	56	1	1		Y	Quartz Crystal, 12MHZ , ±50ppm , ECX-53B	ECS-120-20-30B-TR	ECS	Digi-Key	XC1118CT-ND	1	1.77	1.77	0
						Resistors								
R20-R23	57	4	4		Y	Resistor, 49.9Ω , ±1% , SMD 0402, marked as 49R9	RC0402FR-0749R9L	Yageo	Digi-Key	311-49.9LRCT-ND	10	0.094	0.94	6
R33-R34	58	2	2		Y	Resistor, 75Ω , ±1% , SMD 0402, marked as 75R0	RC0402FR-0775RL	Yageo	Digi-Key	311-75.0LRCT-ND	10	0.094	0.94	8
R8-R11, R15, R18-R19	59	7	7		Y	Resistor, 100Ω , ±1% , SMD 0402, marked as 1000	9C0402FR-07100RL	Yageo	Digi-Key	311-100LRCT-ND	10	0.094	0.94	3
R32	60	1	1		Y	Resistor, 124Ω , ±1% , SMD 0402, marked as 1240	ERJ-2RKF1240X	Panasonic	Digi-Key	P124LCT-ND	10	0.098	0.98	9
R26-R27	61	2	2		Y	Resistor, 680Ω , ±1% , SMD 0402, marked as 6800	RC0402FR-07680RL	Yageo	Digi-Key	311-680LRCT-ND	10	0.094	0.94	8
R1-R3, R14, R17, R25, R44	62	7	7		Y	Resistor, 1.27KΩ , ±1% , SMD 0402, marked as 1271	ERJ-2RKF1271X	Panasonic	Digi-Key	P1.27KLCT-ND	10	0.098	0.98	3
R4-R7, R12-R13, R16, R24, R31	63	9	9		Y	Resistor, 4.64KΩ , ±1% , SMD 0402, marked as 4641	9C0402FR-074K64L	Yageo	Digi-Key	311-4.64KLRCT-ND	10	0.094	0.94	1
R28-R30	64	3	3		Y	Resistor, 13KΩ , ±1% , SMD 0402, marked as 1302	RC0402FR-0713KL	Yageo	Digi-Key	311-13.0KLRCT-ND	10	0.094	0.94	7
R35, R37, R39	65	3	3		Y	Resistor, 324KΩ , ±1% , SMD 0402, marked as 3243	ERJ-2RKF3243X	Panasonic	Digi-Key	P324KLCT-ND	10	0.098	0.98	7
R36	66	1	1		Y	Resistor, 412KΩ , ±1% , SMD 0402, marked as 4123	ERJ-2RKF4123X	Panasonic	Digi-Key	P412KLCT-ND	10	0.098	0.98	9
R43	67	1	1		Y	Resistor, 442KΩ , ±1% , SMD 0402, marked as 4423	CRCW0402442KF KED	Vishay	Digi-Key	541-442KLCT-ND	1	0.04	0.04	0

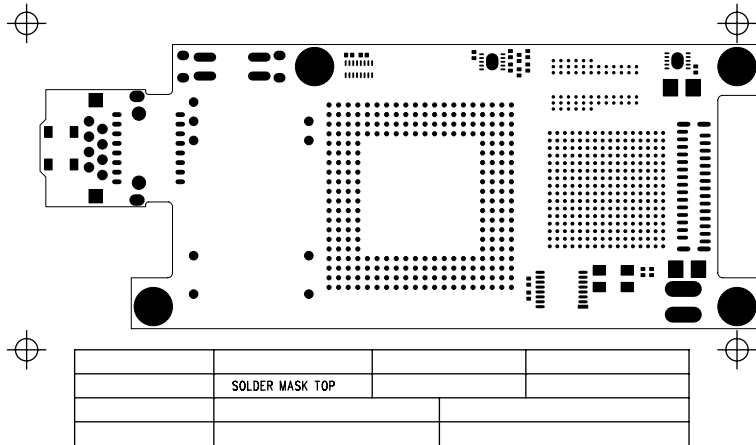
DESIGNATOR	ITEM	QTY	EXT	STK	ROHS		PART	MANUFAC		VENDOR	PURCH	UNIT		NEW
NUMBER	#	REQ	QTY	CHK		DESCRIPTION	#	TURER	VENDOR	PART #	QTY	PRICE	TOTAL	STOCK
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R42	68	1	1		Y	Resistor, 549KΩ , $\pm 1\%$, SMD 0402, marked as 5493	CRCW0402549KF KED	Vishay	Digi-Key	541-549KLCT-ND	1	0.04	0.04	0
R38	69	1	1		Y	Resistor, 619KΩ , $\pm 1\%$, SMD 0402, marked as 6193	ERJ-2RKF6193X	Panasonic	Digi-Key	P619KLCT-ND	10	0.098	0.98	9
R40-R41	70	2	2		Y	Resistor, 887KΩ , $\pm 1\%$, SMD 0402, marked as 8873	ERJ-2RKF8873X	Panasonic	Digi-Key	P887KLCT-ND	10	0.098	0.98	8
R45	71	1	1		Y	Resistor, 10MΩ , $\pm 1\%$, SMD 0402, marked as 1005	CRCW040210M0 FKED	Vishay	Digi-Key	541-10.0MLCT-ND	10	0.0833	0.833	9
RN2	72	1	1		Y	Resistor Network - 8 isolated, 100Ω , EXB-2HV, marked as 101	EXB-2HV101JV	Panasonic	Digi-Key	Y1101CT-ND	10	0.18	1.8	9
RN1	73	1	1		Y	Resistor Network - 8 isolated, 10KΩ , EXB-2HV, marked as 103	EXB-2HV103JV	Panasonic	Digi-Key	Y1103CT-ND	10	0.18	1.8	9
						Capacitors								
C49	74	1	1		Y	Capacitor, Ceramic Chip, Low Distortion, 16V, 1500pF , $\pm 5\%$, C-0402	EMK105SD152KV- F	Taiyo Yuden	Digi-Key	587-1056-1-ND	10	0.407	4.07	9
C4, C9, C32, C68, C70, C72, C84, C86, C88, C90	75	10	10		Y	Low ESR Tantalum Chip Capacitor with Polymer Electrode, 100μF , 4V , SMD B	TCJB107M004R0 070	AVX Corporation	Digi-Key	478-3129-1-ND	10	0.957	9.57	0
C100	76	1	1		Y	Capacitor, Ceramic Chip, 20%, 2.2μF , 6.3V , C-0402	ECJ-0EB0J225M	Panasonic	Digi-Key	PCC2421CT-ND	10	0.239	2.39	9
C1-C3, C5-C6, C10-C14, C22- C25, C28-C29, C33-C37, C39, C43, C45, C50- C51, C54-C58, C63-C67, C76- C77, C97, C99	77	40	40		Y	Capacitor, Ceramic Chip, 0.1μF , 10V , C-0402D	C0402C104K8PA CTU	Kemet	Digi-Key	399-3027-1-ND	40	0.083	3.32	0
C7-C8, C15-C21, C26-C27, C30- C31, C38, C40- C42, C44, C46- C48, C52-C53, C59-C62, C93- C94	78	29	29		Y	Capacitor, Ceramic Chip, 0.01μF , 25V , C-0402	C0402C103K3RA CTU	Kemet	Digi-Key	399-1278-1-ND	29	0.055	1.595	0
C69, C71, C73	79	3	3		Y	Capacitor, Ceramic Chip, 1000pF , 50V , C-0402	C0402C102K5RA CTU	Kemet	Digi-Key	399-1032-1-ND	10	0.055	0.55	7
C98	80	1	1		Y	Capacitor, Ceramic Chip, 0.01μF , 50V , C-0402	GRM155R71H103 KA88D	Murata	Digi-Key	490-4516-1-ND	10	0.021	0.21	9
C74, C78-C79	81	3	3		Y	Capacitor, Ceramic Chip, 0.068μF , 100V , C-1206HV	C1206C683K1RA CTU	Kemet	Digi-Key	399-1803-1-ND	10	0.601	6.01	7

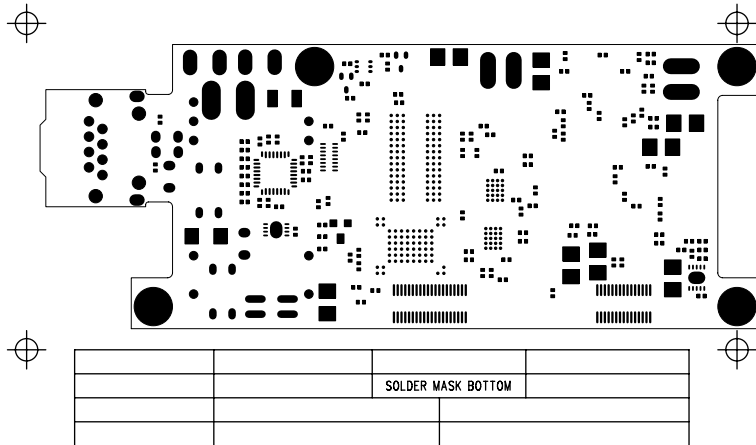
DESIGNATOR	ITEM	QTY	EXT	STK	ROHS		PART	MANUFAC	VENDOR	VENDOR	PURCH	UNIT	TOTAL	NEW
NUMBER	#	REQ	QTY	CHK		DESCRIPTION	#	TURER	VENDOR	PART #	QTY	PRICE	STOCK	
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C83, C91	82	2	2		Y	Capacitor, Ceramic Chip, 1μF, 100V, C-1206	GRM31CR72A105KA01	Murata	Digi-Key	490-3909-1-ND	10	1.007	10.07	8
C96	83	1	1		Y	Capacitor, Ceramic Chip, 4.7μF, 100V, C-2220	GRM55ER72A475KA01	Murata	Digi-Key	490-1934-1-ND	10	7.454	74.54	9
C75	84	1	1		Y	Capacitor, High Voltage Ceramic Chip, 1000pF, 1KV, C-1206HV	12062R102KEBB00	Phycomp	Digi-Key	311-1144-1-ND	10	0.298	2.98	9
C92, C95	85	2	2		Y	Capacitor, Ceramic Chip, 47nF, 1000V, C-1812	GRM43DR73A473KW01L	Murata	Digi-Key	490-3504-1-ND	10	2.32	23.2	8
C80-C82	86	3	3		Y	Capacitor, Ceramic Chip, 10pF, C-0402	CC0402JRNPO9B N100	Yageo	Digi-Key	311-1014-1-ND	10	0.077	0.77	7
C85, C87, C89	87	3	3		Y	Capacitor, Ceramic Chip, 22pF, C-0402	CC0402JRNPO9B N220	Yageo	Digi-Key	311-1018-1-ND	10	0.088	0.88	7
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L1-L3	88	3	3		Y	SMD Inductor, 2.2μHn, 2.6A, VLCF5020T	VLCF5020T-2R2N6-1	TDK	Digi-Key	445-3204-1-ND	3	0.81	2.43	0
L5	89	1	1		Y	SMD Inductor, 15μHn, 220mA, L-1210	ELJ-PA150KF	Panasonic	Digi-Key	PCD1486CT-ND	1	0.28	0.28	0
L4	90	1	1		Y	SMD Common Mode Choke, CAN-bus, 2.2mHn, 500mA, CC2824D225R	CC2824D225R-10	Steward	Digi-Key	240-2451-1-ND	2	0	0	1
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T1	91	1	1		Y	10/100 Base-TX Interface PCMCIA Module, H0013	H0013NL	Pulse	Avnet		40	2.5	100	39
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J4	92	1	1		Y	Connector header, Milli-Grid 2mm, Vertical SMT, 4 contacts, 125V, 1A, 87759-0414	87759-0414	Molex	Digi-Key	WM18712-ND	1	0.83	0.83	0
J1	93	1	1		Y	0.5 mm-Pitch Vertical Slide-Lock FPC Connector, 30 pos., FH1230S05SV	FH12-30S-0.5SV-55	Hirose	Digi-Key	HFL130CT-ND	1	3.11	3.11	0
J2	94	1	1		Y	Connector Header 30 pins, 0.5mm pitch, DF1230DS05V	DF12-30DS-0.5V	Hirose	Digi-Key	H5215CT-ND	1	1.38	1.38	0
J5	95	1	1		Y	Connector Header 40 pins, 0.5mm pitch, DF1240DS05V	DF12-40DS-0.5V	Hirose	Digi-Key	H5217CT-ND	1	1.63	1.63	0
J3	96	1	1		Y	RJ-45 with LEDs, RJHS-538X-CUST	RJHSE-5381	Amphenol	Digi-Key	RJHSE-5381-ND	1	2.43	2.43	0
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SW1	97	1	1		Y	Super Small-sized Side-push Surface Mount Switch, 50mA, EVQ-PSD02K	EVQ-PSD02K	Panasonic	Digi-Key	P8088SCT-ND	1	1.01	1.01	0

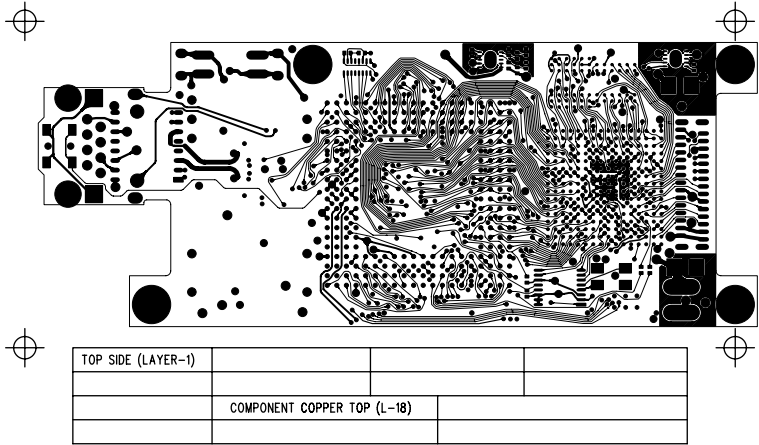


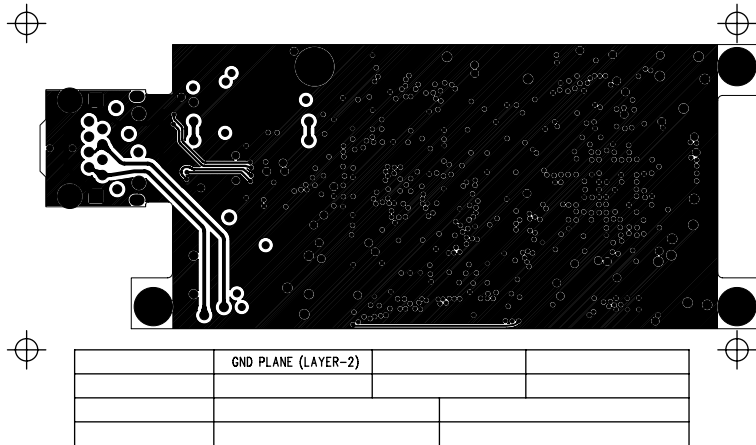


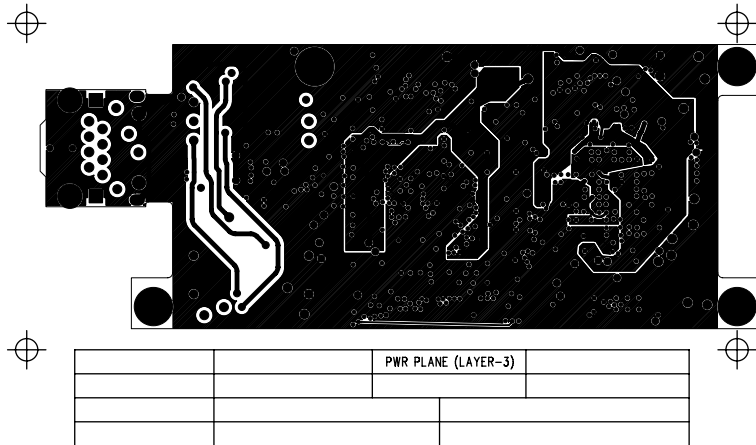
SILKSCREEN BOTTOM			

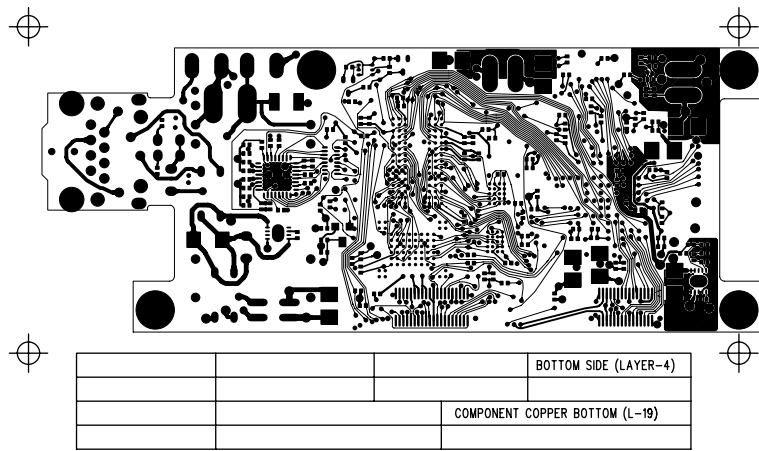




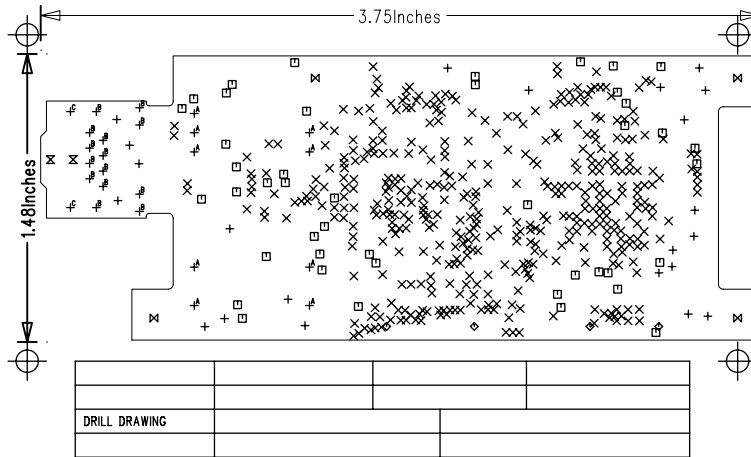








			BOTTOM SIDE (LAYER-4)
		COMPONENT COPPER BOTTOM (L-19)	



SIZE	QTY	SYM	PLTD
32	22	+	PLTD
10	423	×	PLTD
22	44	□	PLTD
23.62	4	◇	NPLTD
33.46	2	⊗	NPLTD
87	4	⊗	NPLTD
23	9	A	PLTD
35	14	B	PLTD
128	2	C	NPLTD

