



Exhibit 10: Parts List

**External Radio Frequency
Power Amplifier ACOM 1200S**

Model 1200S

ACOM 1200S PARTS LIST

AMP UNIT

Designator	Description	Value	Volts/Watts	Comment	Case/Package	Layer
A1	Jack Straight				SMB	Top
A2	Jack Straight				SMA	Top
A3	Jack Straight				SMB	Top
ATT1	High Power Attenuator	10dB	100W	Flange Mount	FA10975	Top
C1	High Q Cap.	180pF	1kV	NP0/C0G	1111	Top
C4	Capacitor	10nF	100V	X7R	1206	Top
C5	Capacitor	10nF	100V	X7R	1206	Top
C6	Capacitor	22nF	250V	X7R	1205	Top
C7	Capacitor	22nF	250V	X7R	1205	Top
C8	Capacitor	1nF	200V	X7R	1206	Top
C10	Capacitor	100nF	250V	X7R	1206	Top
C12	High Q Cap.	180pF	1kV	NP0/C0G	1111	Top
C14	Capacitor	100nF	100V	X7R	1206	Top
C15	Capacitor	10nF	100V	X7R	1206	Top
C16	Capacitor	10nF	100V	X7R	1206	Top
C17	Capacitor	10nF	100V	X7R	1206	Top
C18	Capacitor	10nF	100V	X7R	1206	Top
C19	Capacitor	10nF	100V	X7R	1206	Top
C20	Capacitor	10nF	100V	X7R	1206	Top
C21	Capacitor	10nF	100V	X7R	1206	Top
C22	Capacitor	10nF	100V	X7R	1206	Top
C23	Capacitor	10nF	100V	X7R	1206	Top
C24	Capacitor	10nF	250V	X7R	1206	Top
C25	Capacitor	1nF	200V	X7R	1206	Top
C26	Capacitor	1nF	200V	X7R	1206	Top
C27	Capacitor	100nF	250V	X7R	1206	Top
C28	Capacitor	100nF	250V	X7R	1206	Bottom
C29	Capacitor	100nF	250V	X7R	1206	Top
C30	Tantalum Capacitor	1uF	25V		CASE A	Top
C31	Capacitor	100nF	100V	X7R	1206	Top
C32	Capacitor	100nF	100V	X7R	1206	Top
C33	Capacitor	100nF	100V	X7R	1206	Top
C34	Capacitor	100nF	100V	X7R	1206	Top
C35	Capacitor	Capacitor	100nF	250V	X7R	1206
C36	Capacitor	Capacitor	100nF	250V	X7R	1206
C37	Capacitor	100nF	100V	X7R	1206	Top
C38	Capacitor	10nF	100V	X7R	1206	Top
C39	Electrol. Capacitor	150uF	100V	FK	16mm x 16.5mm	Top
C40	Capacitor	100nF	250V	X7R	1206	Top
C41	Capacitor	100nF	250V	X7R	1206	Top
C42	Capacitor	100nF	250V	X7R	1206	Top
C43	Capacitor	100nF	250V	X7R	1206	Top
C45	Capacitor	10nF	100V	X7R	1206	Top
C46	Capacitor	100nF	250V	X7R	1206	Bottom
C50	Capacitor	10nF	630V	NP0	1206	Top
C51	Capacitor	10nF	630V	NP0	1206	Top
C52	Capacitor	10nF	630V	NP0	1206	Top
C53	Capacitor	10nF	630V	NP0	1206	Top
C54	Capacitor	10nF	630V	NP0	1206	Top
C55	Capacitor	10nF	630V	NP0	1206	Top
C56	Capacitor	10nF	630V	NP0	1206	Top
C57	Capacitor	10nF	630V	NP0	1206	Top
C58	Capacitor	10nF	630V	NP0	1206	Top
C59	Capacitor	10nF	630V	NP0	1206	Top
C60	Capacitor	10nF	200V	X7R	1206	Top
C61	Capacitor	1nF	50V	X7R	1206	Top
C62	Capacitor	1nF	50V	X7R	1206	Top
D1	Diode	FDLL4448	100V	200mA	SOD-80	Top
D2	Schottky Diode	BAS70-04	70V		SOT-23	Top

D3	Diode	S1B	100V		DO-214AC	Top
D4	Diode	S1B	100V		DO-214AC	Top
D5	Diode	S1B	100V		DO-214AC	Top
D6	Diode	FDLL4448	100V	200mA	SOD-80	Top
D7	Transient Voltage Suppressor	SMBJ30CA	600W		DO-214AA	Top
D8	Schottky Diode	BAS70-04	70V		SOT-23	Top
D9	Schottky Diode	BAS70-04	70V		SOT-23	Top
D10	Diode	FDLL4448	100V	200mA	SOD-80	Top
D11	Diode	FDLL4448	100V	200mA	SOD-80	Top
D12	Diode	FDLL4448	100V	200mA	SOD-80	Top
D13	Diode	FDLL4448	100V	200mA	SOD-80	Bottom
D14	Diode	FDLL4448	100V	200mA	SOD-80	Bottom
D15	Diode	FDLL4448	100V	200mA	SOD-80	Bottom
D16	Diode	FDLL4448	100V	200mA	SOD-80	Top
D17	Diode	FDLL4448	100V	200mA	SOD-80	Top
D18	Diode	FDLL4448	100V	200mA	SOD-80	Top
D19	Diode	FDLL4448	100V	200mA	SOD-80	Bottom
D20	Diode	FDLL4448	100V	200mA	SOD-80	Bottom
D21	Diode	FDLL4448	100V	200mA	SOD-80	Bottom
D22	Transient Voltage	SMCJ120AC	1500W		DO-214AB	Top
D23	Transient Voltage	SMCJ120AC	1500W		DO-214AB	Bottom
D24	Schottky Diode	BAS70-04	70V		SOT-23	Top
D25	Schottky Diode	BAS70-04	70V		SOT-23	Top
D26	Diode	FDLL4448	100V	200mA	SOD-80	Top
D27	Diode	FDLL4448	100V	200mA	SOD-80	Top
D28	Diode	FDLL4448	100V	200mA	SOD-80	Top
D29	Diode	FDLL4448	100V	200mA	SOD-80	Bottom
D30	Diode	FDLL4448	100V	200mA	SOD-80	Bottom
D31	Diode	FDLL4448	100V	200mA	SOD-80	Bottom
D32	Diode	FDLL4448	100V	200mA	SOD-80	Top
D33	Diode	FDLL4448	100V	200mA	SOD-80	Top
D34	Diode	FDLL4448	100V	200mA	SOD-80	Top
D35	Diode	FDLL4448	100V	200mA	SOD-80	Bottom
D36	Diode	FDLL4448	100V	200mA	SOD-80	Bottom
D37	Diode	FDLL4448	100V	200mA	SOD-80	Bottom
D38	Transient Voltage	SMCJ120AC	1500W		DO-214AB	Top
D39	Transient Voltage	SMCJ120AC	1500W		DO-214AB	Bottom
J1	Connector, 3-Pin				MTA100 3p	Top
J2	Pin Header, 10-Pin				2.54mm pitch	Top
J3	Pin Header, 2-Pin				2.54mm pitch	Top
J4	2 wires					Bottom
J5	Terminal				K14	Top
J6	Terminal				K14	Top
K1	Relay	G6K-2F 24DC	24V		G6K-2F	Top
K2	Relay	G6K-2F 24DC	24V		G6K-2F	Top
L1	Inductor	22uH		100mA	L1210	Top
L2	Inductor	22uH		100mA	L1210	Top
L3	Air Coil	60nH		4 turns, Ø0.8mm,		Top
L9	Power Choke	0.1uH				Top
L10	Air Coil	33nH		2 turns, Ø1.3mm,		Top
L11	Air Coil	33nH		2 turns, Ø1.3mm,		Top
Q1	RF Mosfet LDMOS	BLF188XRU	135V		SOT539A	Top
Q2	MOSFET N-CH	NDT3055L	60V		SOT-223-4	Top
R1	Metal Film Resistor	22	3W		AXIAL-Ø5.5 x 16mm	Top
R2	Metal Film Resistor	22	3W		AXIAL-Ø5.5 x 16mm	Top
R5	Resistor	1M	1/4W		1206	Top
R6	Metal Film Resistor	4.7	3W		AXIAL-Ø5.5 x 16mm	Top
R7	Metal Film Resistor	4.7	3W		AXIAL-Ø5.5 x 16mm	Top
R8	Metal Film Resistor	8.2	3W		AXIAL-Ø5.5 x 16mm	Top
R9	Metal Film Resistor	8.2	3W		AXIAL-Ø5.5 x 16mm	Top
R10	Metal Film Resistor	160	1W		AXIAL-Ø2.5 x 6.5mm	Top
R11	Metal Film Resistor	270	1W		AXIAL-Ø2.5 x 6.5mm	Top
R12	Resistor	10	2W		2512	Top
R13	Resistor	47	1/4W		1206	Top
R14	Resistor	10k	1/4W		1206	Top
R15	Resistor	240	1/4W	1%	1206	Top
R16	Resistor	1.1k	1/4W	1%	1206	Top
R17	Resistor	47	1/4W		1206	Top
R18	Resistor	2.7k	1/4W	1%	1206	Top

R19	Resistor	1k	1/4W		1206	Top
R20	Resistor	1k	1/4W		1206	Top
R21	Resistor	27k	1/4W		1206	Top
R22	Resistor	2.2k	1/4W		1206	Top
R23	Resistor	1k	1/4W		1206	Top
R25	Resistor	10k	1/4W		1206	Top
R26	Resistor	5.1k	1/4W	1%	1206	Top
R27	Resistor	6.8k	1/4W	1%	1206	Top
R28	Metal Film Resistor	2.2	3W		AXIAL-Ø5.5 x 16mm	Top
R29	Resistor	22k	1/4W	1%	1206	Top
R30	Resistor	1.1k	1/4W	1%	1206	Top
R31	Metal Film Resistor	39k	3W		AXIAL-Ø5.5 x 16mm	Top
R32	High Power Resistor	50	250W	Flange Mount	FR10975	Top
R33	Resistor	1M	1/4W		1206	Top
R34	Resistor	4.7k	1/4W		1206	Top
R35	Resistor	22k	1/4W	1%	1206	Top
R36	Resistor	0	1/4W		1206	Top
R37	Resistor	0	1/4W		1206	Top
R38	Resistor	510	1/4W		1206	Top
R39	Resistor	510	1/4W		1206	Top
R40	Resistor	0	1/4W		1206	Top
R41	Resistor	47	1/4W		1206	Top
R42	Resistor	10k	1/4W		1206	Top
R43	Resistor	47	1/4W		1206	Top
R44	Resistor	10k	1/4W		1206	Top
RP1	Potentiometer	1k	250mW		3314J-1	Top
RT1	Thermistor	10k	15mW		Radial	Top
T1	Input Transformer	1:4				Top
T2	Output Transformer				D12A-R1B	Top
T3	Balun Transformer					Top
T4	Output Transformer				D12A-R1B	Top
T5	Double Choke					Bottom
U1	Operational Amplifier	LM358			SO8	Top
U2	Operational Amplifier	LM358			SO8	Top
U3	Current Sensor IC	ACS723LLCTR-		40A	SO8	Top
VR1	Voltage Regulator	78L05		100mA	SOT89	Top
ZD1	Zener Diode	BZX84C5V1	0.3W		SOT-23	Top

AMP UNIT

Designator	Description	Value	Volts/Watts	Comment	Case/Package	Layer
C1	Capacitor	1nF	250V	X7R	1206	Top
C2	Tantalum Capacitor	1uF	35V		CASE A	Top
C3	Capacitor	100nF	100V	X7R	1206	Top
C4	Capacitor	100nF	100V	X7R	1206	Top
C5	Capacitor	1nF	250V	X7R	1206	Top
C6	Capacitor	1nF	250V	X7R	1206	Top
C7	Capacitor	100nF	100V	X7R	1206	Top
C8	Capacitor	10nF	100V	X7R	1206	Top
C9	Capacitor	10nF	100V	X7R	1206	Top
C10	Capacitor	10nF	100V	X7R	1206	Top
C11	Capacitor	100nF	100V	X7R	1206	Top
C12	Capacitor	100nF	100V	X7R	1206	Top
C13	Capacitor	10nF	100V	X7R	1206	Top
C14	Capacitor	10nF	100V	X7R	1206	Top
C15	Capacitor	10nF	100V	X7R	1206	Top
C16	Capacitor	10nF	100V	X7R	1206	Top
C17	Capacitor	10nF	100V	X7R	1206	Top
C18	Capacitor	10nF	100V	X7R	1206	Top

C19	Capacitor	100nF	50V	X7R	1206	Top
C20	Capacitor	100nF	50V	X7R	1206	Top
C21	Capacitor	100nF	50V	X7R	1206	Top
C22	Capacitor	100nF	50V	X7R	1206	Top
C23	Capacitor	1nF	50V	X7R	1206	Top
C24	Capacitor	2.2uF	50V	Y5V	1206	Top
C25	Capacitor	100nF	50V	X7R	1206	Top
C26	Capacitor	1nF	250V	X7R	1206	Top
C27	Capacitor	1nF	50V	X7R	1206	Top
C28	Capacitor	2.2uF	50V	Y5V	1206	Top
C29	Capacitor	100nF	50V	X7R	1206	Top
C30	Capacitor	10nF	100V	X7R	1206	Top
C31	Capacitor	22nF	50V	X7R	1206	Top
C32	Capacitor	2.2uF	50V	Y5V	1206	Top
C33	Capacitor	NA	NA	NA	1206	Top
C34	Capacitor	1nF	50V	X7R	1206	Top
C35	Capacitor	100nF	50V	X7R	1206	Top
C36	Capacitor	2.2uF	50V	Y5V	1206	Top
C37	Capacitor	1nF	50V	X7R	1206	Top
D1	LED	GREEN	2.6V	20mA	0805	Top
D2	LED	RED	2.6V	20mA	0805	Top
D3	LED	YELLOW	2.6V	20mA	0805	Top
D4	LED	BLUE	2.6V	20mA	0805	Top
J1	Female Header, 10-Pin				2.54mm pitch	Bottom
J2	Female Header, 2-Pin				2.54mm pitch	Bottom
J3	Connector, 2-Pin				MTA100 2p	Top
J4	Connector, 2-Pin				MTA100 2p	Top
J5	Connector, 10-Pin				MTA100 10p	Top
J6	Connector, 2-Pin				MTA100 2p	Top
J7	Connector, 4-Pin				MTA100 4p	Top
L1	Inductor	22uH		100mA	1210	Top
L2	Inductor	2.2uH		320mA	1210	Top
L3	Inductor	2.2uH		320mA	1210	Top
L4	Inductor	22uH		100mA	1210	Top
L5	Inductor	22uH		100mA	1210	Top
L6	Inductor	2.2uH		320mA	1210	Top
L7	Inductor	22uH		100mA	1210	Top
L8	Inductor	22uH		100mA	1210	Top
L9	Inductor	22uH		100mA	1210	Top
L10	Inductor	22uH		100mA	1210	Top
L11	Inductor	22uH		100mA	1210	Top
L12	Inductor	22uH		100mA	1210	Top
L13	Inductor	22uH		100mA	1210	Top
Q1	NPN Transistor	BC817-40	45V		SOT-23	Top
Q2	MOSFET N-CH	2N7002	60V		SOT-23	Top
Q3	MOSFET N-CH	2N7002	60V		SOT-23	Top
Q4	PNP Transistor	BC857C	45V		SOT-23	Top

Q5	MOSFET N-CH	2N7002	60V		SOT-23	Top
R1	Resistor	6.8k	1/4W		1206	Top
R2	Resistor	39k	1/4W		1206	Top
R3	Metal Film Resistor	10k	1W		AXIAL-Ø2.5 x 6.5mm	Top
R4	Resistor	10k	1/4W		1206	Top
R5	Metal Film Resistor	33	3W		AXIAL-Ø5.5 x 16mm	Top
R6	Metal Film Resistor	68	3W		AXIAL-Ø5.5 x 16mm	Top
R7	Resistor	221k	1/4W	1%	1206	Top
R8	Resistor	10k	1/4W		1206	Top
R9	Resistor	470	1/4W		1206	Top
R10	Resistor	100	1/4W		1206	Top
R11	Resistor	511k	1/4W	1%	1206	Top
R12	Resistor	1M	1/4W		1206	Top
R13	Resistor	221k	1/4W	1%	1206	Top
R14	Resistor	2.2k	1/4W		1206	Top
R15	Resistor	470	1/4W		1206	Top
R16	Potentiometer	10k	250mW		3314J-1	Top
R17	Resistor	5.62k	1/4W	1%	1206	Top
R18	Resistor	33	1/4W		1206	Top
R19	Resistor	53.6k	1/4W	1%	1206	Top
R20	Resistor	22k	1/4W		1206	Top
R21	Resistor	221k	1/4W	1%	1206	Top
R22	Resistor	2.2k	1/4W		1206	Top
R23	Resistor	470	1/4W		1206	Top
R24	Potentiometer	10k	250mW		3314J-1	Top
R25	Resistor	3.32k	1/4W	1%	1206	Top
R26	Resistor	0	1/4W		1206	Top
R27	Resistor	22k	1/4W		1206	Top
R28	Resistor	0	1/4W	1%	1206	Top
R29	Resistor	1M	1/4W		1206	Top
R30	Resistor	221k	1/4W	1%	1206	Top
R31	Resistor	2.2k	1/4W		1206	Top
R32	Resistor	470	1/4W		1206	Top
R33	Potentiometer	10k	250mW		3314J-1	Top
R34	Resistor	33	1/4W		1206	Top
R35	Resistor	10k	1/4W	1%	1206	Top
R36	Resistor	10k	1/4W		1206	Top
R37	Resistor	22k	1/4W		1206	Top
R38	Resistor	10k	1/4W		1206	Top
U1	Darlington Transistor	ULN2003			SO16	Top
	Dual Precision					
U3	Dual Differential	LM393			SO8	Top
U4	Dual 4-Input NOR	CD74HC40			SO14	Top
	Dual Precision					
U6	Dual Differential	LM393			SO8	Top
VR1	Voltage Regulator	78L05		100mA	SOT89	Top
ZD1	Zener Diode	BZX84C18	0.3W		SOT-23	Top
ZD2	Zener Diode	BZX84C4V	0.3W		SOT-23	Top

FILTER UNIT

Designator	Description	Value	Volts/Watts	Comment	Case/Package	Layer
C1	High Q Cap.	33pF	1.5kV	NP0/C0G	1111	Top
C2	High Q Cap.	27pF	1.5kV	NP0/C0G	1111	Top
C3	High Q Cap.	33pF	1.5kV	NP0/C0G	1111	Top
C4	High Q Cap.	56pF	1.5kV	NP0/C0G	1111	Top
C5	High Q Cap.	56pF	1.5kV	NP0/C0G	1111	Top
C6	High Q Cap.	39pF	1.5kV	NP0/C0G	1111	Top
C7	High Q Cap.	39pF	1.5kV	NP0/C0G	1111	Top
C8	High Q Cap.	39pF	1.5kV	NP0/C0G	1111	Top
C9	High Q Cap.	56pF	1.5kV	NP0/C0G	1111	Top
C10	High Q Cap.	56pF	1.5kV	NP0/C0G	1111	Top
C11	High Q Cap.	33pF	1.5kV	NP0/C0G	1111	Top
C12	High Q Cap.	27pF	1.5kV	NP0/C0G	1111	Top
C13	High Q Cap.	82pF	1.5kV	NP0/C0G	1111	Top
C14	High Q Cap.	82pF	1.5kV	NP0/C0G	1111	Top
C15	High Q Cap.	68pF	1.5kV	NP0/C0G	1111	Top
C16	High Q Cap.	68pF	1.5kV	NP0/C0G	1111	Top
C17	High Q Cap.	47pF	1.5kV	NP0/C0G	1111	Top
C18	High Q Cap.	82pF	1.5kV	NP0/C0G	1111	Top
C19	High Q Cap.	68pF	1.5kV	NP0/C0G	1111	Top
C20	High Q Cap.	82pF	1.5kV	NP0/C0G	1111	Top
C21	High Q Cap.	150pF	1kV	NP0/C0G	1111	Top
C22	High Q Cap.	120pF	1kV	NP0/C0G	1111	Top
C23	High Q Cap.	100pF	1kV	NP0/C0G	1111	Top
C24	High Q Cap.	100pF	1kV	NP0/C0G	1111	Top
C25	High Q Cap.	120pF	1kV	NP0/C0G	1111	Top
C26	High Q Cap.	120pF	1kV	NP0/C0G	1111	Top
C27	High Q Cap.	82pF	1.5kV	NP0/C0G	1111	Top
C28	High Q Cap.	100pF	1kV	NP0/C0G	1111	Top
C29	High Q Cap.	150pF	1kV	NP0/C0G	1111	Top
C30	High Q Cap.	180pF	1kV	NP0/C0G	1111	Top
C31	High Q Cap.	150pF	1kV	NP0/C0G	1111	Top
C32	High Q Cap.	120pF	1kV	NP0/C0G	1111	Top
C33	High Q Cap.	100pF	1kV	NP0/C0G	1111	Top
C34	High Q Cap.	150pF	1kV	NP0/C0G	1111	Top
C35	High Q Cap.	120pF	1kV	NP0/C0G	1111	Top
C36	High Q Cap.	150pF	1kV	NP0/C0G	1111	Top
C37	High Q Cap.	200pF	630V	NP0/C0G	1111	Top
C38	High Q Cap.	200pF	630V	NP0/C0G	1111	Top
C40	High Q Cap.	200pF	630V	NP0/C0G	1111	Top
C41	High Q Cap.	200pF	630V	NP0/C0G	1111	Top
C43	High Q Cap.	200pF	630V	NP0/C0G	1111	Top
C44	High Q Cap.	200pF	630V	NP0/C0G	1111	Top
C45	High Q Cap.	180pF	1kV	NP0/C0G	1111	Top
C46	High Q Cap.	100pF	1kV	NP0/C0G	1111	Top
C47	High Q Cap.	100pF	1kV	NP0/C0G	1111	Top
C48	High Q Cap.	300pF	630V	NP0/C0G	1111	Top
C49	High Q Cap.	240pF	630V	NP0/C0G	1111	Top
C52	High Q Cap.	300pF	630V	NP0/C0G	1111	Top
C53	High Q Cap.	300pF	630V	NP0/C0G	1111	Top
C56	High Q Cap.	240pF	630V	NP0/C0G	1111	Top
C58	High Voltage Cap.	220pF	1kV	NP0/C0G	1812	Top
C59	High Voltage Cap.	220pF	1kV	NP0/C0G	1812	Top
C60	High Voltage Cap.	150pF	1kV	NP0/C0G	1812	Top
C61	High Voltage Cap.	100pF	1kV	NP0/C0G	1812	Top
C62	High Voltage Cap.	100pF	1kV	NP0/C0G	1812	Top
C63	High Voltage Cap.	100pF	1kV	NP0/C0G	1812	Top
C64	High Voltage Cap.	100pF	1kV	NP0/C0G	1812	Top
C65	High Voltage Cap.	100pF	1kV	NP0/C0G	1812	Top
C66	High Voltage Cap.	100pF	1kV	NP0/C0G	1812	Top
C67	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C67A	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C67B	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C68	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C68A	High Q Cap.	390pF	630V	NP0/C0G	1111	Top

C68B	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C69	High Voltage Cap.	150pF	1kV	NP0/C0G	1812	Top
C70	High Voltage Cap.	150pF	1kV	NP0/C0G	1812	Top
C71	High Voltage Cap.	220pF	1kV	NP0/C0G	1812	Top
C72	High Voltage Cap.	390pF	1kV	NP0/C0G	1812	Top
C73	High Voltage Cap.	390pF	1kV	NP0/C0G	1812	Top
C74	High Voltage Cap.	220pF	1kV	NP0/C0G	1812	Top
C75	High Voltage Cap.	220pF	1kV	NP0/C0G	1812	Top
C76	High Voltage Cap.	220pF	1kV	NP0/C0G	1812	Top
C77	High Voltage Cap.	220pF	1kV	NP0/C0G	1812	Top
C78	High Voltage Cap.	220pF	1kV	NP0/C0G	1812	Top
C79	High Voltage Cap.	220pF	1kV	NP0/C0G	1812	Top
C80	High Voltage Cap.	100pF	1kV	NP0/C0G	1812	Top
C81	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C81A	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C81B	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C82	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C82A	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C82B	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C83	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C83A	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C83B	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C84	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C84A	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C84B	High Q Cap.	390pF	630V	NP0/C0G	1111	Top
C85	High Voltage Cap.	330pF	1kV	NP0/C0G	1812	Top
C86	High Voltage Cap.	330pF	1kV	NP0/C0G	1812	Top
C87	High Voltage Cap.	330pF	1kV	NP0/C0G	1812	Top
C88	Capacitor	100nF	50V	X7R	0805	Bottom
C89	Capacitor	100nF	50V	X7R	0805	Bottom
C90	Capacitor	100nF	50V	X7R	0805	Bottom
C91	Capacitor	100nF	50V	X7R	0805	Bottom
C92	Capacitor	100nF	50V	X7R	0805	Bottom
C93	Capacitor	100nF	50V	X7R	0805	Bottom
C94	Capacitor	100nF	50V	X7R	0805	Bottom
C95	Capacitor	100nF	50V	X7R	0805	Bottom
C96	Capacitor	100nF	50V	X7R	0805	Bottom
C97	Capacitor	100nF	50V	X7R	0805	Bottom
C98	Capacitor	100nF	50V	X7R	0805	Bottom
C99	Capacitor	100nF	50V	X7R	0805	Bottom
C100	Capacitor	100nF	50V	X7R	0805	Bottom
C101	Capacitor	100nF	50V	X7R	0805	Bottom
C102	Capacitor	100nF	50V	X7R	0805	Bottom
C103	Capacitor	100nF	50V	X7R	0805	Bottom
C104	Capacitor	100nF	50V	X7R	0805	Bottom
C105	Capacitor	100nF	50V	X7R	0805	Bottom
C106	Capacitor	100nF	50V	X7R	0805	Bottom
C107	Capacitor	100nF	50V	X7R	0805	Bottom
C108	Capacitor	100nF	50V	X7R	0805	Bottom
C109	Capacitor	100nF	50V	X7R	0805	Bottom
C110	Capacitor	100nF	50V	X7R	0805	Bottom
C111	Capacitor	100nF	50V	X7R	0805	Bottom
C112	Capacitor	100nF	50V	X7R	0805	Bottom
C113	Capacitor	100nF	50V	X7R	0805	Bottom
C114	Capacitor	100nF	50V	X7R	0805	Bottom
C115	Capacitor	100nF	50V	X7R	0805	Bottom
C116	Capacitor	100nF	50V	X7R	0805	Bottom
C117	Capacitor	100nF	50V	X7R	0805	Bottom
C118	Capacitor	100nF	50V	X7R	0805	Bottom
C119	Capacitor	100nF	50V	X7R	0805	Bottom
C120	Capacitor	10pF	500V	NP0	1206	Bottom
C121	Capacitor	2.2nF	630V	U2J	1210	Bottom
C122	Capacitor	2.2nF	630V	U2J	1210	Bottom
C123	Capacitor	2.2nF	630V	U2J	1210	Bottom
C124	Capacitor	2.2nF	630V	U2J	1210	Bottom
C125	Capacitor	2.2nF	630V	U2J	1210	Bottom
C126	Capacitor	39nF	250V	X7R	1206	Bottom
C127	Capacitor	3.3pF	630V	NP0	1206	Bottom

C128	Capacitor	33pF	630V	NP0/C0G	1206	Bottom
C129	Capacitor	10nF	50V	X7R	0805	Bottom
C130	Capacitor	1nF	50V	C0G	0805	Bottom
C132	Capacitor	1nF	50V	C0G	0805	Bottom
C133	Capacitor	1nF	50V	C0G	0805	Bottom
C134	Capacitor	2,7pF	5kV	NP0	disc Ø8mm	Top
C135	Capacitor	1nF	50V	C0G	0805	Bottom
C136	Capacitor	47nF	50V	X7R	0805	Bottom
C137	Capacitor	1nF	50V	C0G	0805	Bottom
C138	Capacitor	1nF	50V	C0G	0805	Bottom
C139	Capacitor	1nF	50V	C0G	0805	Bottom
C140	Capacitor	1nF	50V	C0G	0805	Bottom
C141	Trim Cap	9-120pF	200V	DAU	Ø9.5mm	Top
C142	Capacitor	56pF	50V	C0G	1206	Bottom
C143	Capacitor	56pF	50V	C0G	1206	Bottom
C144	Capacitor	56pF	50V	C0G	1206	Bottom
C145	Capacitor	1nF	50V	C0G	0805	Bottom
C146	Capacitor	47nF	50V	X7R	0805	Bottom
C147	Capacitor	220nF	100V	X7R	1206	Bottom
C148	Electrol. Capacitor	10uF	35V	RK	Ø5mm x 11mm	Top
C149	Capacitor	100nF	200V	X7R	1206	Bottom
C150	Capacitor	47nF	50V	X7R	0805	Bottom
C151	Capacitor	47nF	50V	X7R	0805	Bottom
C152	Capacitor	47nF	50V	X7R	0805	Bottom
C153	Capacitor	47nF	50V	X7R	0805	Bottom
C154	Capacitor	100nF	50V	X7R	0805	Bottom
C155	Capacitor	100nF	50V	X7R	0805	Bottom
C156	Capacitor	100nF	50V	X7R	0805	Bottom
C157	Capacitor	100nF	50V	X7R	0805	Bottom
C158	Capacitor	220nF	100V	X7R	1206	Bottom
C159	High Voltage Ceramic	10pF	6.3kV	SL	disc Ø7mm	Bottom
C160	High Voltage Ceramic	18pF	6.3kV	SL	disc Ø7mm	Bottom
C161	High Voltage Ceramic	15pF	6.3kV	SL	disc Ø7mm	Bottom
C162	High Voltage Ceramic	27pF	6.3kV	SL	disc Ø7mm	Bottom
C163	High Voltage Ceramic	22pF	6.3kV	SL	disc Ø7mm	Bottom
C164	High Voltage Ceramic	39pF	6.3kV	SL	disc Ø7mm	Bottom
D1	Diode	S1G	400V		DO-214AC	Bottom
D2	Diode	S1G	400V		DO-214AC	Bottom
D3	Diode	S1G	400V		DO-214AC	Bottom
D4	Diode	S1G	400V		DO-214AC	Bottom
D5	Diode	S1G	400V		DO-214AC	Bottom
D6	Diode	S1G	400V		DO-214AC	Bottom
D7	Diode	S1G	400V		DO-214AC	Bottom
D8	Diode	S1G	400V		DO-214AC	Bottom
D9	Diode	S1G	400V		DO-214AC	Bottom
D10	Diode	S1G	400V		DO-214AC	Bottom
D11	Diode	S1G	400V		DO-214AC	Bottom
D12	Diode	S1G	400V		DO-214AC	Bottom
D13	Diode	S1G	400V		DO-214AC	Bottom
D14	Diode	S1G	400V		DO-214AC	Bottom
D15	Diode	S1G	400V		DO-214AC	Bottom
D16	Diode	S1G	400V		DO-214AC	Bottom
D17	Diode	S1G	400V		DO-214AC	Bottom
D18	Diode	S1G	400V		DO-214AC	Bottom
D19	Diode	S1G	400V		DO-214AC	Bottom
D20	Diode	S1G	400V		DO-214AC	Bottom
D21	Diode	S1G	400V		DO-214AC	Bottom
D22	Diode	S1G	400V		DO-214AC	Bottom
D23	Diode	S1G	400V		DO-214AC	Bottom
D24	Diode	S1G	400V		DO-214AC	Bottom
D25	Schottky Diode	BAS70-04	70V		SOT-23	Bottom
D26	Zener Diode	BZX84C4V	0.3W		SOT-23	Bottom
D27	Schottky Diode	BAS70-04	70V		SOT-23	Bottom
D28	Schottky Diode	BAS70-04	70V		SOT-23	Bottom
D29	Schottky Diode	BAS70-04	70V		SOT-23	Bottom
D30	Diode	S1G	400V		DO-214AC	Bottom
D31	Diode	S1G	400V		DO-214AC	Bottom
J1	Connector Jack	1-1337482-			SMB	Top

J2	Connector Jack	5-1814832-			SMA	Top
J3	Connector Jack	1-1337482-			SMB	Top
J4	Hollow Rivet				DIN7340A	Top
J5	Connector Jack	1-1337482-			SMB	Top
J6	Hollow Rivet				DIN7340A	Top
J7	Connector Jack	1-1337482-			SMB	Top
J8	Connector, 8-Pin				MTA-100 8P	Top
J9	Connector, 10-Pin				MTA-100 10P	Top
J10	Connector, 5-Pin				MTA-100 5P	Top
K1	Relay	TQ2-12V	12V		TQ2	Top
K2	Relay	RTE24024	24V		RT2	Top
K3	Relay	RTE24024	24V		RT2	Top
K4	Relay	TQ2-12V	12V		TQ2	Top
K5	Relay	RTE24024	24V		RT2	Top
K6	Relay	RTE24024	24V		RT2	Top
K7	Relay	TQ2-12V	12V		TQ2	Top
K8	Relay	RTE24024	24V		RT2	Top
K9	Relay	RTE24024	24V		RT2	Top
K10	Relay	TQ2-12V	12V		TQ2	Top
K11	Relay	RTE24024	24V		RT2	Top
K12	Relay	RTE24024	24V		RT2	Top
K13	Relay	TQ2-12V	12V		TQ2	Top
K14	Relay	RTE24024	24V		RT2	Top
K15	Relay	RTE24024	24V		RT2	Top
K16	Relay	TQ2-12V	12V		TQ2	Top
K17	Relay	RTE24024	24V		RT2	Top
K18	Relay	RTE24024	24V		RT2	Top
K19	Relay	TQ2-12V	12V		TQ2	Top
K20	Relay	RTE24024	24V		RT2	Top
K21	Relay	RTE24024	24V		RT2	Top
K22	Relay	TQ2-12V	12V		TQ2	Top
K23	Relay	RTE24024	24V		RT2	Top
K24	Relay	RTE24024	24V		RT2	Top
K25	Relay	TQ2-12V	12V		TQ2	Top
K26	Relay	RTE24012	12V		RT2	Top
L1	Air Coil	170nH		5.5 turns, Ø1.6mm,		Top
L2	Air Coil	67nH		2.5 turns, Ø1.6mm,		Top
L3	Air Coil	64nH		2.5 turns, Ø1.6mm,		Top
L4	Air Coil	180nH		2.5 turns, Ø2mm,		Top
L5	Air Coil	220nH		3.5 turns, Ø2mm,		Top
L6	Air Coil	180nH		3.5 turns, Ø2mm,		Top
L7	Air Coil	290nH		7.5 turns, Ø1.2mm,		Top
L8	Air Coil	110nH		4.5 turns, Ø1.6mm,		Top
L9	Air Coil	110nH		4.5 turns, Ø1.6mm,		Top
L10	Air Coil	340nH		4.5 turns, Ø2mm,		Top
L11	Air Coil	410nH		3.5 turns, Ø2mm,		Top
L12	Air Coil	330nH		3.5 turns, Ø2mm,		Top
L13	Air Coil	400nH		9.5 turns, Ø1.2mm,		Top
L14	Air Coil	160nH		5.5 turns, Ø1.2mm,		Top
L15	Air Coil	150nH		5.5 turns, Ø1.6mm,		Top
L16	Air Coil	440nH		4.5 turns, Ø2mm,		Top
L17	Air Coil	530nH		5.5 turns, Ø2mm,		Top
Designator	Description	Value	Volts/Watts	Comment	Case/Package	Layer
L18	Air Coil	420nH		4.5 turns, Ø2mm,		Top
L19	Toroidal Coil	620nH		11 turns, Ø1.2mm	T80- 6	Top
L20	Toroidal Coil	230nH		5 turns, Ø1.2mm	T80- 6	Top
L21	Toroidal Coil	210nH		6 turns, Ø1.2mm	T80- 6	Top
L22	Toroidal Coil	610nH		7 turns, Ø1.6mm	T130- 6	Top
L23	Toroidal Coil	730nH		8 turns, Ø1.6mm	T130- 6	Top
L24	Toroidal Coil	530nH		7 turns, Ø1.6mm	T130- 6	Top
L25	Toroidal Coil	890nH		14 turns, Ø1.2mm	T80- 6	Top
L26	Toroidal Coil	320nH		8 turns, Ø1.2mm	T80- 6	Top
L27	Toroidal Coil	300nH		8 turns, Ø1.2mm	T80- 6	Top
L28	Toroidal Coil	870nH		9 turns, Ø1.6mm	T130- 6	Top
L29	Toroidal Coil	1uH		10 turns, Ø1.6mm	T130- 6	Top
L30	Toroidal Coil	790nH		9 turns, Ø1.6mm	T130- 6	Top
L31	Toroidal Coil	930nH		14 turns, Ø1.2mm	T80- 6	Top
L32	Toroidal Coil	400nH		9 turns, Ø1.2mm	T80- 6	Top

L33	Toroidal Coil	390nH		9 turns, Ø1.2mm	T80- 6	Top
L34	Toroidal Coil	1.1uH		12 turns, Ø1.6mm	T130- 6	Top
L35	Toroidal Coil	1.4uH		13 turns, Ø1.6mm	T130- 6	Top
L36	Toroidal Coil	1.1uH		10 turns, Ø1.6mm	T130- 6	Top
L37	Toroidal Coil	1.85uH		20 turns, Ø1.2mm	T80- 6	Top
L38	Toroidal Coil	810nH		13 turns, Ø1.2mm	T80- 6	Top
L39	Toroidal Coil	780nH		13 turns, Ø1.2mm	T80- 6	Top
L40	Toroidal Coil	2.3uH		14 turns, Ø1.6mm	T130- 6	Top
L41	Toroidal Coil	2.7uH		15 turns, Ø1.6mm	T130- 6	Top
L42	Toroidal Coil	2.3uH		15 turns, Ø1.6mm	T130- 6	Top
L43	Toroidal Coil	3.6uH		28 turns, Ø1.2mm	T80- 6	Top
L44	Toroidal Coil	1.5uH		18 turns, Ø1.2mm	T80- 6	Top
L45	Toroidal Coil	1.5uH		18 turns, Ø1.2mm	T80- 6	Top
L46	Toroidal Coil	4.4uH		20 turns, Ø1.6mm	T130- 6	Top
L47	Toroidal Coil	5uH		22 turns, Ø1.6mm	T130- 6	Top
L48	Toroidal Coil	4.4uH		21 turns, Ø1.6mm	T130- 6	Top
L49	Inductor	56uH		190mA	1812	Bottom
L50	Inductor	56uH		190mA	1812	Bottom
L51	Inductor	56uH		190mA	1812	Bottom
L52	Inductor	56uH		190mA	1812	Bottom
L53	Inductor	56uH		190mA	1812	Bottom
L54	Inductor	56uH		190mA	1812	Bottom
L55	Inductor	56uH		190mA	1812	Bottom
L56	Inductor	56uH		190mA	1812	Bottom
L57	Inductor	56uH		190mA	1812	Bottom
L58	Inductor	56uH		190mA	1812	Bottom
L59	Inductor	56uH		190mA	1812	Bottom
L60	Inductor	56uH		190mA	1812	Bottom
L61	Inductor	56uH		190mA	1812	Bottom
L62	Inductor	56uH		190mA	1812	Bottom
L63	Inductor	56uH		190mA	1812	Bottom
L64	Inductor	56uH		190mA	1812	Bottom
L65	Choke Toroidal	47uH		33 turns, Ø0.53mm	Fair-Rite 596- 7000-	Top
L66	Choke Ferrite	47uH		30 turns, Ø0.53mm	8x31mm u80	Top
L67	Inductor	820uH		30mA	1812	Bottom
L69	Inductor	10uH		250mA	1812	Bottom
L70	Inductor	56uH		190mA	1812	Bottom
L71	Inductor	56uH		190mA	1812	Bottom
L72	Inductor	56uH		190mA	1812	Bottom
L73	Inductor	56uH		190mA	1812	Bottom
L74	Inductor	56uH		190mA	1812	Bottom
L75	Inductor	56uH		190mA	1812	Bottom
L76	Inductor	56uH		190mA	1812	Bottom
L77	Inductor	56uH		190mA	1812	Bottom
L78	Inductor	56uH		190mA	1812	Bottom
L79	Inductor	56uH		190mA	1812	Bottom
L80	Inductor	56uH		190mA	1812	Bottom
L81	Inductor	56uH		190mA	1812	Bottom
L82	Inductor	56uH		190mA	1812	Bottom
L83	Inductor	56uH		190mA	1812	Bottom
L84	Inductor	56uH		190mA	1812	Bottom
R1	Resistor	1k	1/4W		1206	Bottom
R2	Resistor	1k	1/4W		1206	Bottom
R3	Resistor	1k	1/4W		1206	Bottom
R4	Resistor	1k	1/4W		1206	Bottom
R5	Resistor	1k	1/4W		1206	Bottom
R6	Resistor	1k	1/4W		1206	Bottom
R7	Resistor	1k	1/4W		1206	Bottom
R8	Resistor	1k	1/4W		1206	Bottom
R9	Resistor	100	1/4W	1%	1206	Bottom
R10	Metal Oxide Film	1M	1W		AXIAL-Ø4.5mm	Top
R11	Resistor	4.7k	1W	1%	2512	Bottom
R12	Resistor	470	1/4W	1%	1206	Bottom
R13	Resistor	62k	1/8W	1%	0805	Bottom
R14	Resistor	33k	1/8W	1%	0805	Bottom
R15	Resistor	1k	1/8W		0805	Bottom
R16	Resistor	100	1/4W	1%	1206	Bottom
R17	Resistor	100	1/4W	1%	1206	Bottom

R18	Resistor	100	1/4W	1%	1206	Bottom
R19	Resistor	100	1/4W	1%	1206	Bottom
R20	Resistor	100	1/4W	1%	1206	Bottom
R21	Resistor	100	1/4W	1%	1206	Bottom
R22	Resistor	100	1/4W	1%	1206	Bottom
R23	Resistor	100	1/4W	1%	1206	Bottom
R24	Resistor	390	1/8W	1%	0805	Bottom
R25	Resistor	1k	1/8W		0805	Bottom
R26	Resistor	62k	1/8W	1%	0805	Bottom
R27	Resistor	43k	1/8W	1%	0805	Bottom
R28	Resistor	82k	1/8W	1%	0805	Bottom
R29	Resistor	8.2k	1/8W	1%	0805	Bottom
R30	Resistor	1k	1/8W		0805	Bottom
R31	Resistor	43k	1/8W	1%	0805	Bottom
R32	Resistor	1k	1/8W		0805	Bottom
R33	Resistor	16k	1/8W	1%	0805	Bottom
R34	Resistor	0R	1/8W		0805	Bottom
R35	Metal Oxide Film	330	1W		AXIAL-Ø4.5mm	Top
R36	Resistor	1k	1/4W		1206	Bottom
R37	Resistor	0R	1/8W		0805	Bottom
R38	Resistor	1M	1/8W		0805	Bottom
R39	Resistor	10k	1/8W		0805	Bottom
R40	Resistor	14k	1/8W	1%	0805	Bottom
R41	Resistor	8.2k	1/8W	1%	0805	Bottom
R42	Resistor	47	1/8W		0805	Bottom
R43	Resistor	43k	1/8W	1%	0805	Bottom
RP1	Trimmer Potentiometer	10k	1/10W		7.50mm x 6.40mm x	Top
RP2	Trimmer Potentiometer	10k	1/10W		7.50mm x 6.40mm x	Top
Designator	Description	Value	Volts/Watts	Comment	Case/Package	Layer
RP3	Trimmer Potentiometer	10k	1/10W		7.50mm x 6.40mm x	Top
RP4	Trimmer Potentiometer	10k	1/10W		7.50mm x 6.40mm x	Top
				HSF-141-50-FEP,		
				SF250-FEP 50		
	Transformer (Coupled	ATU signal		23 turns- Ø0.53mm,		
U1	Dual Differential	LM393			SO8	Bottom

CPU UNIT

Designator	Description	Value	Volts/Watts	Comment	Case/Package	Layer
C1	Capacitor	100nF	50V	X7R	0805	Bottom
C2	Capacitor	100nF	50V	X7R	0805	Bottom
C3	Capacitor	100nF	50V	X7R	0805	Bottom
C4	Capacitor	100nF	50V	X7R	0805	Bottom
C5	Capacitor	100nF	50V	X7R	0805	Bottom
C6	Capacitor	100nF	50V	X7R	0805	Bottom
C7	Capacitor	100nF	50V	X7R	0805	Bottom
C101	Capacitor	100nF	50V	X7R	0805	Top
C102	Capacitor	1uF	50V	X7R	0805	Top
C103	Capacitor	10nF	50V	X7R	0805	Top
C104	Capacitor	10nF	50V	X7R	0805	Top
C105	Capacitor	10nF	50V	X7R	0805	Top
C106	Capacitor	1uF	50V	X7R	0805	Top
C107	Capacitor	100nF	50V	X7R	0805	Top
C108	Capacitor	100nF	50V	X7R	0805	Top
C109	Capacitor	4.7uF	25V	X7R	0805	Top
C110	Capacitor	4.7uF	25V	X7R	0805	Top
C111	Capacitor	100nF	50V	X7R	0805	Top
C201	Capacitor	100nF	50V	X7R	0805	Top
C202	Capacitor	100nF	50V	X7R	0805	Top
C203	Capacitor	100nF	50V	X7R	0805	Top
C204	Capacitor	100nF	50V	X7R	0805	Bottom
C205	Capacitor	1uF	50V	X7R	0805	Bottom
C206	Capacitor	1uF	50V	X7R	0805	Top
C207	Capacitor	1uF	50V	X7R	0805	Bottom
C208	Capacitor	1uF	50V	X7R	0805	Top
C209	Capacitor	1uF	50V	X7R	0805	Top
C210	Capacitor	100nF	50V	X7R	0805	Top

C211	Capacitor	10nF	50V	X7R	0805	Bottom
C212		Not placed			0805	Top
C213		Not placed			0805	Top
C214	Capacitor	4.7uF	25V	X7R	0805	Top
C215	Capacitor	100nF	50V	X7R	0805	Bottom
C216		Not placed			0805	Top
C217	Trimmer Capacitor	4.2-20pF	100V	N750	TZ03	Bottom
C218	Capacitor	18pF	50V	C0G	0805	Top
C219	Capacitor	18pF	50V	C0G	0805	Top
C301	Capacitor	10nF	50V	X7R	0805	Top
C302	Capacitor	10nF	50V	X7R	0805	Top
C303	Capacitor	10nF	50V	X7R	0805	Top
C304	Capacitor	10nF	50V	X7R	0805	Top
C305	Capacitor	10nF	50V	X7R	0805	Top
C306	Capacitor	10nF	50V	X7R	0805	Top
C307	Capacitor	10nF	50V	X7R	0805	Top
C308	Capacitor	10nF	50V	X7R	0805	Top
C309	Capacitor	10nF	50V	X7R	0805	Top
C310	Capacitor	10nF	50V	X7R	0805	Top
C311	Capacitor	4.7uF	50V	X7R	1206	Bottom
C401	Capacitor	100nF	50V	X7R	0805	Top
C402	Capacitor	10nF	50V	X7R	0805	Top
C403	Capacitor	1nF	50V	X7R	0805	Top
C404	Capacitor	100nF	50V	X7R	0805	Top
C405	Capacitor	1nF	50V	X7R	0805	Bottom
C406	Capacitor	1nF	50V	X7R	0805	Bottom
C407	Capacitor	1nF	50V	X7R	0805	Bottom
C408	Capacitor	10nF	50V	X7R	0805	Top
C409		Not placed			0805	Top
C410	Capacitor	10nF	50V	X7R	0805	Top
C411	Capacitor	10nF	50V	X7R	0805	Bottom
C501		Not placed			0805	Top
C502	Capacitor	10nF	50V	X7R	0805	Bottom
C503	Capacitor	100nF	50V	X7R	0805	Top
C504	Capacitor	100nF	50V	X7R	0805	Top
C505	Capacitor	100nF	50V	X7R	0805	Top
C506	Capacitor	100nF	50V	X7R	0805	Top
C507	Capacitor	10nF	50V	X7R	0805	Top
C508	Capacitor	10nF	50V	X7R	0805	Top
C509	Capacitor	10nF	50V	X7R	0805	Top
C510	Capacitor	10nF	50V	X7R	0805	Top
C511	Capacitor	10nF	50V	X7R	0805	Top
C512	Capacitor	10nF	50V	X7R	0805	Top
C513	Capacitor	10nF	50V	X7R	0805	Top
C514	Capacitor	10nF	50V	X7R	0805	Top
C515	Capacitor	100nF	50V	X7R	0805	Top
C516	Capacitor	10nF	50V	X7R	0805	Top
C517	Capacitor	10nF	50V	X7R	0805	Top
C518	Capacitor	10nF	50V	X7R	0805	Bottom
C519	Capacitor	10nF	50V	X7R	0805	Top
C520	Capacitor	10nF	50V	X7R	0805	Top
C521	Capacitor	10nF	50V	X7R	0805	Top
C522	Capacitor	10nF	50V	X7R	0805	Top
C523	Capacitor	10nF	50V	X7R	0805	Bottom
C601	Capacitor	1uF	50V	X7R	0805	Bottom
C602	Capacitor	1uF	50V	X7R	0805	Top
C603	Capacitor	1uF	50V	X7R	0805	Top
C604	Capacitor	1uF	50V	X7R	0805	Bottom
C605	Capacitor	1uF	50V	X7R	0805	Top
C606	Capacitor	4.7uF	25V	X7R	0805	Top
C607	Capacitor	1uF	50V	X7R	0805	Top
C608		Not placed			0805	Top
C609		Not placed			0805	Top
C610		Not placed			0805	Top
C611		Not placed			0805	Top
C612		Not placed			0805	Top
C613		Not placed			0805	Top
C614	Capacitor	10nF	50V	X7R	0805	Bottom

C615	Capacitor	10nF	50V	X7R	0805	Bottom
D1		Not placed			DO-214AB	Top
D101	Schottky Diode	1N5819HW-7-F	40V	1A	SOD-123	Top
D102	Schottky Diode	1N5819HW-7-F	40V	1A	SOD-123	Bottom
D103	Schottky Diode	1N5819HW-7-F	40V	1A	SOD-123	Top
D104	Schottky Diode	1N5819HW-7-F	40V	1A	SOD-123	Bottom
D105	Schottky Diode	1N5819HW-7-F	40V	1A	SOD-123	Bottom
D106	Schottky Diode	1N5819HW-7-F	40V	1A	SOD-123	Top
D107	Schottky Diode	1N5819HW-7-F	40V	1A	SOD-123	Top
D201	Zener Diode	BZX84C4V7	0.3W		SOT-23	Top
D202	Diode	LL4148	100V		SOD-123	Bottom
D203	Diode	LL4148	100V		SOD-123	Bottom
D204	Diode	LL4148	100V		SOD-123	Bottom
D205		Not placed			SOD-123	Top
D206	Zener Diode	BZX84C4V7	0.3W		SOT-23	Bottom
D301		Not placed			0805	Bottom
D302		Not placed			0805	Bottom
D303		Not placed			0805	Bottom
D304		Not placed			0805	Bottom
D305		Not placed			0805	Bottom
D306		Not placed			0805	Bottom
D307		Not placed			0805	Bottom
D308		Not placed			0805	Bottom
D309		Not placed			0805	Bottom
D310		Not placed			0805	Bottom
D401	Dual Series	BAV99	100V		SOT-23	Bottom
D402	Diode	LL4148	100V		SOD-123	Top
D601	Diode	LL4148	100V		SOD-123	Top
D602	Diode	LL4148	100V		SOD-123	Top
J1	Female Header, 3-Pin,				100" pich	Top
J201	Pin Header, 6-Pin				100" pich	Bottom
J501	Connector, 6-Pin				MTA100 6p	Bottom
J502	Connector, 4-Pin				MTA100 4p	Bottom
J503	Connector, 12-Pin				MTA100 12p	Bottom
J504	Jack Straight				SMA	Top
J505	Jack Straight				SMA	Top
J506	Connector, 8-Pin				MTA100 8p	Top
J507	Connector, 5-Pin				MTA100 5p	Bottom
J508		Not placed			100" pich	Top
J509	Connector, 12-Pin,				MTA100 12p	Top
J510		Not placed			100" pich	Top
J511		Not placed			100" pich	Bottom
J516	Connector, 2-Pin				MTA100 2p	Top
J517	Female Header, 8-Pin				100" pich	Top
J518	Female Header, 10-Pin				100" pich	Top
L201	Inductor	22uH		100mA	0805	Top
L301	Inductor	22uH		100mA	0805	Top
L302	Inductor	22uH		100mA	0805	Top
L303	Inductor	22uH		100mA	0805	Top
L304	Inductor	22uH		100mA	0805	Top
L305	Inductor	22uH		100mA	0805	Top
L306	Inductor	22uH		100mA	0805	Top
L307	Inductor	22uH		100mA	0805	Top
L308	Inductor	22uH		100mA	0805	Top
L309	Inductor	22uH		100mA	0805	Top
L310	Inductor	22uH		100mA	0805	Top
L401	Inductor	22uH		100mA	0805	Bottom
L402		Not placed			0805	Bottom
L501	Inductor	22uH		100mA	0805	Bottom
Q301	Dual Transistor PNP	DDA114YU	50V		SOT-363	Top
Q302	Dual Transistor PNP	DDA114YU	50V		SOT-363	Top
Q303	Dual Transistor NPN	DDC114YU	50V		SOT-363	Top
Q304	Dual Transistor NPN	DDC114YU	50V		SOT-363	Top
Q305	Dual Transistor PNP	DDA114YU	50V		SOT-363	Top
Q306	Dual Transistor PNP	DDA114YU	50V		SOT-363	Top
Q307	Dual Transistor NPN	DDC114YU	50V		SOT-363	Top
Q308	Dual Transistor NPN	DDC114YU	50V		SOT-363	Top
Q309	Dual Transistor PNP	DDA114YU	50V		SOT-363	Top

Q310	Dual Transistor NPN	DDC114YU	50V		SOT-363	Top
Q401	Dual Transistor PNP	DDA114YU	50V		SOT-363	Top
Q402		Not placed			SOT-363	Top
Q403	Dual Transistor NPN	DDC114YU	50V		SOT-363	Top
Q404		Not placed			SOT-363	Top
Q501	NPN Transistor	BC847	50V		SOT-23	Bottom
Q601	NPN Transistor	BC847	50V		SOT-23	Top
R101	Resistor	220k	1/8W		0805	Top
R102	Resistor	3.3k	1/8W		0805	Top
R103	Resistor	47k	1/8W		0805	Top
R104	Resistor	10k	1/8W		0805	Top
R105	Resistor	1k	1/8W		0805	Top
R106	Resistor	1k	1/8W		0805	Top
R107	Resistor	3.3k	1/8W		0805	Top
R108	Resistor	1k	1/8W		0805	Top
R109	Resistor	1k	1/8W	1%	0805	Top
R110	Resistor	3.3k	1/8W	1%	0805	Top
R201	Resistor	10k	1/8W		0805	Top
R202	Resistor	10k	1/8W		0805	Bottom
R203	Resistor	4.7k	1/8W		0805	Top
R204	Resistor	330	1/8W		0805	Top
R205	Resistor	10k	1/8W		0805	Top
R206	Resistor Array	330	4 x 1/16W		1206	Top
R207	Resistor Array	330	4 x 1/16W		1206	Bottom
R208		Not placed			0805	Bottom
R209	Resistor	10k	1/8W		0805	Top
R210	Resistor	10k	1/8W		0805	Top
R211	Resistor	10k	1/8W		0805	Top
R212		Not placed			0805	Bottom
R213		Not placed			0805	Bottom
R214		Not placed			0805	Top
R215	Resistor Array	330	4 x 1/16W		1206	Top
R216		Not placed			0805	Bottom
R217		Not placed			0805	Bottom
R218		Not placed			0805	Top
R219	Resistor	4.7k	1/8W	1%	0805	Top
R220	Resistor	330	1/8W		0805	Top
R221	Resistor	330	1/8W		0805	Top
R222	Resistor	330	1/8W		0805	Top
R223	Resistor	2k	1/8W	1%	0805	Top
R224	Resistor	100	1/8W		0805	Bottom
R225		Not placed			0805	Top
R226	Resistor	100	1/8W		0805	Bottom
R227	Resistor	1k	1/8W		0805	Top
R228	Resistor	47k	1/8W		0805	Top
R301		Not placed			0805	Top
R302		Not placed			0805	Top
R303		Not placed			0805	Top
R304		Not placed			0805	Top
R305		Not placed			0805	Top
R306		Not placed			0805	Top
R307		Not placed			0805	Top
R308		Not placed			0805	Top
R309		Not placed			0805	Top
R310		Not placed			0805	Top
R401	Resistor	100k	1/8W		0805	Top
R402	Resistor	47	1/8W		0805	Top
R403	Resistor	47	1/8W		0805	Top
R404	Resistor	47	1/8W		0805	Top
R405	Resistor	10k	1/8W		0805	Top
R407	Resistor	220k	1/8W		0805	Top
R408	Resistor	1k	1/8W		0805	Bottom
R409	Resistor	2k	1/8W		0805	Top
R410	Resistor	2k	1/8W		0805	Top
R411	Resistor	2k	1/8W		0805	Top
R412	Resistor	2k	1/8W		0805	Bottom
R413	Resistor	47	1/8W		0805	Top
R414	Resistor	47	1/8W		0805	Top

R415	Resistor	510	1/4W		1206	Bottom
R501	Resistor	1k	1/8W		0805	Bottom
R502		Not placed			0805	Top
R503	Resistor	10k	1/8W		0805	Bottom
R504	Resistor	2k	1/8W		0805	Bottom
R505	Resistor	2k	1/8W		0805	Bottom
R506	Resistor	220	1/4W		1206	Top
R507	Resistor	2k	1/8W		0805	Bottom
R508	Resistor	2k	1/8W		0805	Bottom
R509	Resistor	2k	1/8W		0805	Bottom
R510	Resistor	220	1/4W		1206	Top
R511	Resistor	2k	1/8W		0805	Bottom
R512	Resistor	2k	1/8W		0805	Bottom
R513	Resistor	2k	1/8W		0805	Bottom
R514	Resistor	220	1/4W		1206	Top
R515	Resistor	2k	1/8W		0805	Bottom
R516	Resistor	2k	1/8W		0805	Bottom
R517	Resistor	2k	1/8W		0805	Bottom
R518	Resistor	2k	1/8W		0805	Bottom
R519	Resistor	2k	1/8W		0805	Bottom
R520	Resistor	2k	1/8W		0805	Bottom
R521	Resistor	10k	1/8W	1%	0805	Bottom
R522	Resistor	1k	1/8W	1%	0805	Bottom
R523	Resistor	1k	1/8W	1%	0805	Bottom
R524	Resistor	2k	1/8W	1%	0805	Bottom
R601a		Not placed			0805	Bottom
R601b	Resistor	0	1/8W		0805	Bottom
R602a		Not placed			0805	Bottom
R602b	Resistor	0	1/8W		0805	Bottom
R603a	Resistor	1k	1/8W		0805	Top
R603b		Not placed			0805	Top
R604	Resistor	150	1/8W		0805	Top
R605	Resistor	1k	1/8W		0805	Top
R606	Resistor	10k	1/8W		0805	Top
R607		Not placed			0805	Bottom
R608		Not placed			0805	Bottom
R609		Not placed			0805	Bottom
R610		Not placed			0805	Bottom
R611		Not placed			0805	Bottom
R612		Not placed			0805	Bottom
R613		Not placed			0805	Top
R614		Not placed			0805	Top
R615		Not placed			0805	Top
R616		Not placed			0805	Top
R617		Not placed			0805	Top
R618		Not placed			0805	Top
R619	Resistor	330	1/8W		0805	Top
R620	Resistor	330	1/8W		0805	Top
TP201	Test Point				Keystone 5006	Bottom
U1	Microcontroller	MCP120T-475			SOT-23	Top
U101	Monostable	CD4047			SO14	Top
U102	Voltage Regulator	LM317MDT			TO-252	Top
U201	D-Type Transparent	74HC573			TSSOP-20	Top
U202	D-Type Transparent	74HC573			TSSOP-20	Top
U203	D-Type Transparent	74HC573			TSSOP-20	Top
U204	D-Type Transparent	74HC573			TSSOP-20	Top
U205	Digital Signal Controller	dsPIC30F6014A			TQFP-80 12x12mm	Top
U206		Not placed			SOT-353	Top
U207		Not placed			SO8- Wide	Top
U208	Adjustable CMOS LDO	TC1187			SOT-23-5	Top
	Dual D-Type Positive					
U402	Hex Inverter IC	74AC04			SO14	Top
U501	8-Channel Analog	74HC4051			SO16	Top
U502		Not placed			SO16	Top
U503	8-Channel Analog	74HC4051			SO16	Top
U601	Dual EIA-232 Driver	MAX232D			SO16	Top
U602	Buzzer	PK21N30PQ	12V		Ø24mm	Bottom
Y201	Quartz Crystal	7.3728 MHz			HC-49	Top

Int Board A UNIT

Designator	Description	Value	Volts/Wats	Comment	Case/Package	Layer
C1	Capacitor	2.2nF	50V	X7R	0805	Bottom
C2	Capacitor	2.2nF	50V	X7R	0805	Bottom
C3	Capacitor	1uF	50V	X7R	0805	Bottom
C4	Capacitor	1uF	50V	X7R	0805	Bottom
C5	Capacitor	2.2nF	50V	X7R	0805	Bottom
C6	Capacitor	2.2nF	50V	X7R	0805	Bottom
C7	Capacitor	1uF	50V	X7R	0805	Bottom
C8	Capacitor	100nF	50V	X7R	0805	Bottom
C9	Capacitor	1uF	50V	X7R	0805	Bottom
C10	Capacitor	1uF	50V	X7R	0805	Bottom
C11	Capacitor	10nF	50V	X7R	0805	Bottom
C12	Capacitor	10nF	50V	X7R	0805	Bottom
C13	Capacitor	100nF	50V	X7R	0805	Bottom
C14	Capacitor	100nF	50V	X7R	0805	Bottom
C15	Capacitor	100nF	50V	X7R	0805	Bottom
C16	Capacitor	100nF	50V	X7R	0805	Bottom
C17	Capacitor	10nF	50V	X7R	0805	Top
C18	Capacitor	10nF	50V	X7R	0805	Top
C19	Capacitor	10nF	50V	X7R	0805	Top
C20	Capacitor	10nF	50V	X7R	0805	Top
C21	Capacitor	10nF	50V	X7R	0805	Bottom
C22	Capacitor	10nF	50V	X7R	0805	Bottom
C23	Capacitor	100nF	50V	X7R	0805	Bottom
C24	Capacitor	10nF	50V	X7R	0805	Bottom
C25	Capacitor	10nF	50V	X7R	0805	Bottom
C26	Capacitor	10nF	50V	X7R	0805	Bottom
CON1	Connector D-Sub, 15p			Right Angle		Top
CON2	RCA Jack Mono				Keystone 901	Top
CON3	Header	1x10		Right Angle	100" pich	Top
CON4	RCA Jack Mono				Keystone 901	Top
CON5	Header	1x8		Right Angle	100" pich	Top
D1	Zener Diode	BZX84C12	0.25W		SOT-23	Bottom
D2	Zener Diode	BZX84C4V7	0.3W		SOT-23	Bottom
D3	Zener Diode	BZX84C4V7	0.3W		SOT-23	Bottom
D4	Zener Diode	BZX84C4V7	0.3W		SOT-23	Bottom
D5	Zener Diode	BZX84C4V7	0.3W		SOT-23	Bottom
D6	Diode	LL4148	100V		SOD-123	Bottom
D7	Zener Diode	BZX84C12	0.25W		SOT-23	Bottom
D8	Schottky Diode	1N5819HW-7-F	40V	1A	SOD-123	Bottom
K1	Relay	TQ2-12V	12V		TQ2	Top
L1	Inductor	22uH		100mA	0805	Bottom
L2	Inductor	22uH		100mA	0805	Bottom
L3	Inductor	22uH		100mA	0805	Bottom
L4	Inductor	22uH		100mA	0805	Bottom
L5	Inductor	22uH		100mA	0805	Bottom
L6	Inductor	22uH		100mA	0805	Bottom
Q1	MOSFET N-CH	BSS138	50V		SOT-23	Bottom
Q2	MOSFET N-CH	BSS138	50V		SOT-23	Bottom
Q3	MOSFET N-CH	BSS138	50V		SOT-23	Top
Q4	MOSFET N-CH	BSS138	50V		SOT-23	Bottom
R1	Resistor	4.7k	1/8W		0805	Bottom
R2	Resistor	10k	1/8W		0805	Bottom
R3	Resistor	10k	1/8W		0805	Bottom
R4	Resistor	1k	1/8W		0805	Bottom
R5	Resistor	10k	1/8W		0805	Bottom
R6	Resistor	10k	1/8W	1%	0805	Bottom
R7	Resistor	10k	1/8W	1%	0805	Bottom
R8	Resistor	4.7k	1/8W		0805	Top
R9	Resistor	4.7k	1/8W		0805	Top
R10	Resistor	4.7k	1/8W		0805	Top
R11	Resistor	4.7k	1/8W		0805	Top
R12	Resistor	100k	1/8W		0805	Top
R13	Resistor	100k	1/8W		0805	Top
R14	Resistor	100k	1/8W		0805	Top

R15	Resistor	100k	1/8W		0805	Top
R16a	Resistor	1k	1/4W		1206	Top
R16b		Not placed			0805	Top
R17	Resistor	1k	1/8W		0805	Top
R18	Resistor	4.7k	1/8W		0805	Bottom
R19	Resistor	10k	1/8W		0805	Bottom
R20	Resistor	1k	1/8W		0805	Bottom
R21	Resistor	39	1/8W		0805	Bottom
R22	Resistor	39	1/8W		0805	Bottom
R23	Resistor	1k	1/8W		0805	Bottom
R24	Resistor	4.7k	1/8W		0805	Top
R25	Resistor	10k	1/8W		0805	Bottom
R26	Resistor	10k	1/8W		0805	Top
R27	Resistor	4.7k	1/8W		0805	Bottom
U1	Quad buffer/line driver	74HC125			SO14	Top
U2	Dual EIA-232 Driver	MAX232D			SO16	Top
U3	Exclusive OR IC	74HC86			SO14	Top

Int Board B UNIT

Designator	Description	Value	Volts/Watts	Comment	Case/Package	Layer
C1	Capacitor	100nF	50V	X7R	0805	Bottom
C2	Capacitor	100nF	50V	X7R	0805	Bottom
C3	Capacitor	1uF	25V	X7R	0805	Bottom
C4	Capacitor	1uF	25V	X7R	0805	Bottom
C5	Capacitor	1uF	25V	X7R	0805	Bottom
C6	Capacitor	2.2nF	50V	X7R	0805	Bottom
C7	Capacitor	2.2nF	50V	X7R	0805	Bottom
C8	Capacitor	1uF	25V	X7R	0805	Bottom
C9	Capacitor	1uF	25V	X7R	0805	Bottom
C10	Capacitor	1uF	25V	X7R	0805	Bottom
C11	Capacitor	10nF	50V	X7R	0805	Bottom
C12	Capacitor	10nF	50V	X7R	0805	Bottom
C13	Electrol. Capacitor	100uF	16V	RK	Ø5mm x 11mm	Top
C14		Not placed			0805	Bottom
C15		Not placed			0805	Bottom
C16		Not placed			0805	Bottom
C17		Not placed			0805	Bottom
C18		Not placed			0805	Bottom
C19		Not placed			0805	Bottom
C20		Not placed			0805	Top
C21		Not placed			0805	Top
C22		Not placed			0805	Top
C23		Not placed			0805	Bottom
C24		Not placed			0805	Bottom
C25		Not placed			Ø5mm x 11mm	Top
C26		Not placed			0805	Top
C27		Not placed			0805	Bottom
C28		Not placed			0805	Bottom
C29		Not placed			0805	Bottom
C30		Not placed			0805	Bottom
C31		Not placed			0805	Bottom
C32		Not placed			0805	Bottom
C33		Not placed			0805	Bottom
C34		Not placed			Ø5mm x 11mm	Top
CON1	Connector D-Sub, 9p			Right Angle		Top
CON2	Header	1x6		Right Angle	100" pich	Top
CON3	Header	1x8		Right Angle	100" pich	Top
CON4		Not placed				Top
CON5		Not placed				Top
D1	Schottky Diode	1N5819HW-7-F	40V	1A	SOD-123	Bottom
D2	Schottky Diode	1N5819HW-7-F	40V	1A	SOD-123	Bottom
D3	Zener Diode	BZX84C4V7	0.3W		SOT-23	Top
L1	Inductor	22uH		100mA	0805	Bottom
L2	Inductor	22uH		100mA	0805	Bottom
L3	Inductor	22uH		100mA	0805	Bottom
L4	Inductor	22uH		100mA	0805	Bottom

L5		Not placed			0805	Bottom
L6		Not placed			0805	Bottom
L7		Not placed			0805	Bottom
Q1	PNP Transistor	BC857	50V		SOT-23	Bottom
Q2	MOSFET N-CH	BSS138	50V		SOT-23	Top
R1	Resistor	10k	1/8W		0805	Bottom
R2	Resistor	1k	1/8W		0805	Bottom
R3	Resistor	10k	1/8W		0805	Bottom
R4	Resistor	3.3k	1/8W		0805	Bottom
R5	Resistor	3.3k	1/8W		0805	Bottom
R6	Resistor	3.3k	1/8W		0805	Top
R7		Not placed			0805	Bottom
R8		Not placed			0805	Bottom
R9		Not placed			0805	Top
R10		Not placed			0603	Bottom
R11		Not placed			0603	Bottom
R12		Not placed			0805	Top
R13		Not placed			0603	Bottom
R14		Not placed			0603	Bottom
R15		Not placed			0805	Top
R16		Not placed			0805	Top
R17		Not placed			0805	Bottom
R18		Not placed			0805	Top
R19		Not placed			0805	Bottom
R20		Not placed			0805	Bottom
R21		Not placed			0805	Bottom
R22		Not placed			0805	Bottom
R23		Not placed			0805	Bottom
R24		Not placed			0805	Bottom
R25		Not placed			0805	Bottom
U1	Dual EIA-232 Driver	MAX232D			SO16	Top
U2		Not placed			SOT-23-6	Bottom
U3		Not placed			SOT-223	Top
U4		Not placed			SO14	Bottom
U5		Not placed			SSOP28	Bottom

ATU Interface UNIT

Designator	Description	Value	Volts/Watts	Comment	Case/Package	Layer
C1	Capacitor	100nF	50V	X7R	0805	Bottom
C2	Electrol. Capacitor	47uF	35V		Ø6.3mm x 11mm	Top
C3	Capacitor	4.7uF	25V	X7R	0805	Bottom
C4	Capacitor	10nF	50V	X7R	0805	Bottom
C5	Capacitor	22pF	50V	C0G	0805	Bottom
C6	Capacitor	22pF	50V	C0G	0805	Bottom
C7	Capacitor	220pF	50V	C0G	0805	Bottom
C8	Capacitor	22pF	50V	C0G	0805	Bottom
C9	Capacitor	15pF	50V	C0G	0805	Bottom
C10	Capacitor	1uF	50V	X7R	0805	Bottom
C11	Capacitor	470pF	50V	C0G	0805	Bottom
C12	Capacitor	220pF	50V	C0G	0805	Bottom
C13	Capacitor	10nF	50V	X7R	0805	Top
C14	Capacitor	47nF	50V	X7R	0805	Top
C15	Capacitor	10nF	50V	X7R	0805	Bottom
C16a	Capacitor	33nF	50V	X7R	0805	Top
C16b	Capacitor	33nF	50V	X7R	0805	Top
C17	Electrol. Capacitor	47uF	35V		Ø6.3mm x 11mm	Top
C18	Capacitor	100nF	50V	X7R	0805	Bottom
C19	Capacitor	100nF	50V	X7R	0805	Bottom
C20	Electrol. Capacitor	47uF	35V		Ø6.3mm x 11mm	Top
C21	Capacitor	4.7uF	50V	X7R	1206	Bottom
C22	Capacitor	4.7uF	50V	X7R	1206	Bottom
CON1	Header	1x8			2.54mm pich	Bottom
CON2	Header	1x10			2.54mm pich	Bottom
D1	Dual Schottky Diode	BAT54S	30V		SOT-23	Bottom

D2	Dual Schottky Diode	BAT54S	30V		SOT-23	Bottom
JP1	Resistor	10k	1/8W		0805	Bottom
L1	Inductor	150uH		50mA	1210	Top
L2	Inductor	100uH		50mA	1210	Top
L3	Inductor	10uH		50mA	1210	Bottom
R1	Resistor	4.7	1/8W		0805	Bottom
R2	Resistor	22.6k	1/8W	1%	0805	Bottom
R3	Resistor	5.11k	1/8W	1%	0805	Bottom
R4	Resistor	18.7k	1/8W	1%	0805	Bottom
R5	Resistor	2.74k	1/8W	1%	0805	Bottom
R6	Resistor	56.2k	1/8W	1%	0805	Bottom
R7	Resistor	1k	1/8W		0805	Bottom
R8	Resistor	1.78k	1/8W	1%	0805	Bottom
R9	Resistor	10	1/8W		0805	Bottom
R10	Resistor	3.9k	1/8W		0805	Bottom
R11	Resistor	4.7k	1/8W		0805	Bottom
R12	Resistor	13k	1/8W		0805	Bottom
R13	Resistor	36.5	1/8W	1%	0805	Bottom
R14	Resistor	24	1/8W		0805	Bottom
R15	Resistor	100	1/8W		0805	Top
R16	Resistor	10k	1/8W		0805	Bottom
R17	Resistor	10k	1/8W		0805	Bottom
R18	Resistor	1k	1/8W		0805	Bottom
R19	Resistor	301k	1/8W	1%	0805	Bottom
R20	Carbon Film Resistor	68	2W		AXIAL-Ø5.5 x 16mm	Top
U1	FSK Power Line Transceiver	ST7540			HTSSOP28	Top
U2	Current Protection Load Switch	FPF2700MX			SO8	Top
U3	Voltage Regulator	78M12		500mA	TO-252	Top
Y1	Quartz Crystal	16.000 MHz			HC-49	Top

ATU Interface UNIT

Designator	Description	Value	Volts/Watts	Comment	Case/Package	Layer
BC1	Ferrite Bead	BLM21AG601SH1		600mA	0805	Bottom
BC2	Ferrite Bead	BLM21AG601SH1		600mA	0805	Bottom
BC3	Ferrite Bead	BLM21AG601SH1		600mA	0805	Bottom
BC4	Ferrite Bead	BLM21AG601SH1		600mA	0805	Bottom
BD1	Bridge Rectifier	GBJ3506	600V		GBJ	Top
C1	Capacitor	10nF	275VAC	X1	13x5x10	Top
C2	Capacitor	100pF	400VAC	Y1	disc Ø6.5mm	Top
C3	Capacitor	100pF	400VAC	Y1	disc Ø6.5mm	Top
C4	Polyester Capacitor	2.2uF	275VAC	X2	32 x 20 x 33mm	Top
C5	Capacitor	100nF	50V	X7R	0805	Bottom
C7	Capacitor	3.3nF	400VAC	Y1	disc Ø11mm	Top
C8	Capacitor	3.3nF	400VAC	Y1	disc Ø11mm	Top
C9	Polyester Capacitor	2.2uF	275VAC	X2	32 x 20 x 33mm	Top
C10	Polyester Capacitor	2.2uF	400V	MKS4	11 x 21 x 31.5mm	Top
C11	Capacitor	1nF	400VAC	Y1	disc Ø8mm	Top
C12	Polyester Capacitor	2.2uF	400V	MKS4	11 x 21 x 31.5mm	Top
C13	Capacitor	100nF	50V	X7R	0805	Bottom
C14	Capacitor	680pF	3kV	Y5P	disc Ø7.5mm	Top
C15	Capacitor	1nF	50V	X7R	0805	Bottom
C16	Electrol. Capacitor	470uF	400V	Low ESR	Ø30mm x 47mm	Top
C17	Electrol. Capacitor	470uF	400V	Low ESR	Ø30mm x 47mm	Top
C18	Electrol. Capacitor	470uF	400V	Low ESR	Ø30mm x 47mm	Top
C21	Polyester Capacitor	100nF	630V	MKS4	6 x 12.5 x 18mm	Top
C22	Electrol. Capacitor	47uF	25V	RK	Ø5mm x 11mm	Top
C23	Capacitor	1uF	50V	X7R	0805	Bottom
C24	Capacitor	1uF	50V	X7R	0805	Bottom
C25	Capacitor	100nF	50V	X7R	0805	Bottom
C26	Capacitor	100nF	50V	X7R	0805	Bottom
C27	Capacitor	2.2nF	1kV	Y5P	disc Ø7.5mm	Top
C28	Capacitor	100nF	50V	X7R	0805	Bottom

C29	Electrol. Capacitor	47uF	25V	RK	Ø5mm x 11mm	Top
C30	Electrol. Capacitor	330uF	25V	Low ESR	Ø8mm x 12mm	Top
C31	Electrol. Capacitor	330uF	25V	Low ESR	Ø8mm x 12mm	Top
C32	Capacitor	10nF	50V	X7R	0805	Bottom
C33	Capacitor	10nF	50V	X7R	0805	Bottom
C34	Capacitor	100nF	50V	X7R	0805	Bottom
C35	Capacitor	1uF	50V	X7R	0805	Bottom
C36	Capacitor	3.3nF	400VAC	Y1	disc Ø11mm	Top
C37	Electrol. Capacitor	220uF	35V	Low ESR	Ø8mm x 12mm	Top
C38	Capacitor	100nF	50V	X7R	0805	Bottom
C39	Capacitor	2.7nF	50V	X7R	0805	Bottom
C40	Capacitor	33nF	50V	X7R	0805	Bottom
C41	Capacitor	100nF	50V	X7R	0805	Bottom
C42	Electrol. Capacitor	470uF	35V	Low ESR	Ø10mm x 20mm	Top
C43	Electrol. Capacitor	470uF	16V		Ø8mm x 12mm	Top
C44	Capacitor	100nF	50V	X7R	0805	Bottom
C45	Electrol. Capacitor	470uF	16V		Ø8mm x 12mm	Top
C46	Capacitor	100nF	50V	X7R	0805	Bottom
C53	Capacitor	100nF	50V	X7R	0805	Bottom
C54	Capacitor	100nF	50V	X7R	0805	Bottom
C55	Capacitor	100nF	50V	X7R	0805	Bottom
C56	Capacitor	100nF	50V	X7R	0805	Bottom
C60	Capacitor	100nF	50V	X7R	0805	Bottom
C61	Capacitor	100nF	50V	X7R	0805	Bottom
C63	Capacitor	100nF	50V	X7R	0805	Bottom
C64	Capacitor	100nF	50V	X7R	0805	Bottom
C70	Polyester Capacitor	1uF	630V	MKS4	11 x 21 x 31.5mm	Top
C71	Capacitor	1uF	50V	X7R	0805	Bottom
C72	Capacitor	1uF	50V	X7R	0805	Bottom
C73	Capacitor	100nF	50V	X7R	0805	Bottom
C74	Electrol. Capacitor	330uF	25V	Low ESR	Ø8mm x 12mm	Top
C75	Capacitor	1uF	50V	X7R	0805	Bottom
C76	Electrol. Capacitor	10uF	35V	RK	Ø5mm x 11mm	Top
C77	Capacitor	1uF	50V	X7R	0805	Bottom
C78	Polyester Multilayer Capacitor	2.2uF	630V	TS02	30 x 16 x 26mm	Top
C79	Polyester Multilayer Capacitor	2.2uF	630V	TS02	30 x 16 x 26mm	Top
C80	Capacitor	1nF	100V	X7R	1206	Bottom
C81	Capacitor	1nF	100V	X7R	1206	Bottom
C82	Capacitor	1nF	100V	X7R	1206	Bottom
C83	Electrol. Capacitor	470uF	63V	Low ESR	Ø12.5mm x 25mm	Top
C84	Electrol. Capacitor	470uF	63V	Low ESR	Ø12.5mm x 25mm	Top
C85	Electrol. Capacitor	470uF	63V	Low ESR	Ø12.5mm x 25mm	Top
C86	Electrol. Capacitor	470uF	63V	Low ESR	Ø12.5mm x 25mm	Top
C87	Capacitor	1nF	100V	X7R	1206	Bottom
C88	Capacitor	100nF	200V	X7R	1206	Bottom
C89	Polyester Capacitor	470nF	100VDC	MKT	2824	Bottom
C93	Electrol. Capacitor	470uF	63V	Low ESR	Ø12.5mm x 25mm	Top
C94	Electrol. Capacitor	470uF	63V	Low ESR	Ø12.5mm x 25mm	Top
C95	Capacitor	1nF	100V	X7R	1206	Bottom
C96	Electrol. Capacitor	470uF	63V	Low ESR	Ø12.5mm x 25mm	Top
C97	Electrol. Capacitor	470uF	63V	Low ESR	Ø12.5mm x 25mm	Top
C98	Polyester Capacitor	470nF	100VDC	MKT	2824	Bottom
C99	Capacitor	100nF	200V	X7R	1206	Bottom
C101	Capacitor	100nF	50V	X7R	0805	Bottom
C102	Capacitor	100nF	50V	X7R	0805	Bottom
C214	Capacitor	100nF	50V	X7R	0805	Bottom
C215	Capacitor	100nF	50V	X7R	0805	Bottom
C216	Capacitor	10nF	50V	X7R	0805	Bottom
C217	Capacitor	10nF	50V	X7R	0805	Bottom
C218	Capacitor	10nF	50V	X7R	0805	Bottom
C219	Capacitor	10nF	50V	X7R	0805	Bottom
C220	Capacitor	10nF	50V	X7R	0805	Bottom
C222	Capacitor	10nF	50V	X7R	0805	Bottom
C224	Capacitor	100nF	50V	X7R	0805	Bottom
CN4	Connector, 2-Pin				MTA100 2p	Top
D1	Diode	LL4148	100V		SOD-80	Bottom
D2	Schottky Diode	SS14	40V		DO-214AC	Bottom

D3	Ultrafast Rectifier Diode	STTH3006W	600V		DO-247	Top
D4	Rectifier Diode	1N5406	600V		DO-201AD	Top
D5	Diode	BAS16	75V		SOT-23	Bottom
D6	Zener Diode	BZV55C6V2	500mW		SOD-80	Bottom
D7	Rectifier Diode	HER307	800V		DO-27	Top
D8	Ultrafast Diode	UF3GB	400V		DO-214AA	Bottom
D9	Ultrafast Diode	UF3GB	400V		DO-214AA	Bottom
D10	Diode	BAS16	75V		SOT-23	Bottom
D11	Hyperfast Diode	FFP08H60STU	600V		TO-220-2L	Top
D12	Ultrafast Diode	UF3GB	400V		DO-214AA	Bottom
D13	Ultrafast Diode	UF3GB	400V		DO-214AA	Bottom
D14	Diode	BAS16	75V		SOT-23	Bottom
D15	Diode	BAS16	75V		SOT-23	Bottom
D16	Hyperfast Diode	FFP08H60STU	600V		TO-220-2L	Top
D17	Hyperfast Diode	FFP08H60STU	600V		TO-220-2L	Top
D18	Diode	BAS16	75V		SOT-23	Bottom
D19	Diode	BAS16	75V		SOT-23	Bottom
D20	Dual Schottky Diode	BAT54S	30V		SOT-23	Bottom
D21	Dual Schottky Diode	BAT54S	30V		SOT-23	Bottom
D22	Diode	BAS16	75V		SOT-23	Bottom
D23	Dual Schottky Diode	BAT54S	30V		SOT-23	Bottom
D24	Dual Schottky Diode	BAT54S	30V		SOT-23	Bottom
D25	Schottky Diode	SS14	40V		DO-214AC	Bottom
D26	Schottky Diode	SS14	40V		DO-214AC	Bottom
D27	Dual Schottky Diode	BAT54S	30V		SOT-23	Bottom
D28	Dual Schottky Diode	BAT54S	30V		SOT-23	Bottom
D29	DIODE ARRAY	STTH6003CW	300V		TO247-3L	Top
D30	DIODE ARRAY	STTH6003CW	300V		TO247-3L	Top
D31	DIODE ARRAY	STTH6003CW	300V		TO247-3L	Top
D32	DIODE ARRAY	STTH6003CW	300V		TO247-3L	Top
D208	Diode	LL4148	100V		SOD-80	Bottom
D209	Diode	LL4148	100V		SOD-80	Bottom
F1	Axial Lead Fuse	10A	250V	Fast Acting	5x20mm	Top
F2	Axial Lead Fuse	0.2A	250V	Fast Acting	5x20mm	Top
J1A	Connector, 8-Pin				MTA100 8p	Top
J1B	Connector, 5-Pin				MTA100 5p	Top
J2	Connector, 2-Pin				MTA100 2p	Top
J3	QUICK-FIT Terminal				Keystone 1287	Top
J4	QUICK-FIT Terminal				Keystone 1287	Top
J5	QUICK-FIT Terminal				Keystone 1287	Top
J6	QUICK-FIT Terminal				Keystone 1287	Top
J101	Connector, 3-Pin				MTA156 3p	Top
J102	Connector, 2-Pin				MTA100 2p	Top
J200	Plug					Top
J201	Plug					Top
J204	Connector, 4-Pin				MTA100 4p	Top
J205	Connector, 6-Pin				MTA100 6p	Top
K202	Relay	RT334012	12V		RT1	Top
K203	Relay	RT334012	12V		RT1	Top
L1	Choke Cumulative				ETD-39	Top
L2	Choke Cumulative				ETD-39	Top
L3	Power Inductor	68uH		1.5A	DBS135	Bottom
L4	Power Inductor	68uH		1.5A	DBS135	Bottom
L5	Inductor	22uH		370mA	1812	Bottom
L6	Inductor	22uH		370mA	1812	Bottom
L7	Inductor	22uH		370mA	1812	Bottom
L8	Inductor	2.2uH		410mA	1812	Bottom
L9	Inductor	22uH		370mA	1812	Bottom
L10	Inductor	22uH		370mA	1812	Bottom
L11	Inductor	22uH		370mA	1812	Bottom
L12	Inductor	22uH		370mA	1812	Bottom
L13	Inductor	22uH		370mA	1812	Bottom
L14	Choke	0.012mH			ETD-29	Top
L15	Output Choke	130uH			TOROID	Top
L16	Output Choke	130uH			TOROID	Top
L17	Output Choke	130uH			TOROID	Top
L18	Output Choke	130uH			TOROID	Top
L19	Inductor	22uH		370mA	1812	Bottom
L20	Inductor	2.2uH		410mA	1812	Bottom
L21	Inductor	2.2uH		410mA	1812	Bottom

L101	Toroidal Coil	340uH		Ø0.9mm, 30 turns	TOROID 22.5x14x8.4	Top
L203	Inductor	22uH		370mA	1812	Bottom
L204	Inductor	22uH		370mA	1812	Bottom
L205	Inductor	22uH		370mA	1812	Bottom
L206	Inductor	22uH		370mA	1812	Bottom
L209	Inductor	22uH		370mA	1812	Bottom
LF1	Toroidal Coil	3mH			TOROID	Top
LF2	Toroidal Coil	3mH			TOROID	Top
LF3	Ferrite Coil			Ø2mm, 12.5 turns	Ferrite Ø8x31	Top
Q1	NPN Transistor	BCX55-16	60V		SOT89	Bottom
Q2	PNP Transistor	BCX52-16	60V		SOT89	Bottom
Q3	PNP Transistor	BCX52-16	60V		SOT89	Bottom
Q4	PNP Transistor	BCX52-16	60V		SOT89	Bottom
Q5	PNP Transistor	BCX52-16	60V		SOT89	Bottom
Q6	MOSFET N-CH	20N60C3			TO247	Top
Q7	MOSFET N-CH	20N60C3			TO247	Top
Q8	MOSFET N-CH	20N60C3			TO247	Top
Q9	MOSFET N-CH	20N60C3			TO247	Top
Q10	PNP Transistor	MMBT2907	60V		SOT-23	Bottom
Q11	NPN Transistor	BCX55-16	60V		SOT89	Bottom
Q12	MOSFET N-CH	2N7002	60V		SOT-23	Bottom
Q13	MOSFET N-CH	FQA24N50			TO247-AD	Top
Q14	MOSFET N-CH	FQA24N50			TO247-AD	Top
Q15	MOSFET N-CH	FQA24N50			TO247-AD	Top
Q16	MOSFET N-CH	FQA24N50			TO247-AD	Top
Q17	NPN Transistor	BCX55-16	60V		SOT89	Bottom
Q18	NPN Transistor	BCX55-16	60V		SOT89	Bottom
Q19	NPN Transistor	BCX55-16	60V		SOT89	Bottom
Q200	MOSFET N-CH	2N7002	60V		SOT-23	Bottom
R1	Metal Film Resistor	390k	1W		AXIAL-Ø2.5 x 6.5mm	Top
R2	Resistor	47	1/4W	1%	1206	Bottom
R3	Resistor	0	1/4W		1206	Bottom
R4	Resistor	47	1/4W	1%	1206	Bottom
R5	Resistor	47	1/4W	1%	1206	Bottom
R6	Resistor	47	1/4W	1%	1206	Bottom
R7	Resistor	47	1/4W	1%	1206	Bottom
R8	Resistor	10	1/4W		1206	Bottom
R9	Resistor	10	1/4W		1206	Bottom
R10	Resistor	10	1/4W		1206	Bottom
R11	Resistor	10	1/4W		1206	Bottom
R12	Resistor	10k	1/8W	1%	0805	Bottom
R13	Resistor	10k	1/8W	1%	0805	Bottom
R14	Resistor	10k	1/8W	1%	0805	Bottom
R15	Resistor	10k	1/8W	1%	0805	Bottom
R16	Carbon Film Resistor	15R	2W		AXIAL-Ø5.5 x 16mm	Top
R17	Resistor	16.5	1/8W	1%	0805	Bottom
R18	Resistor	16.5	1/8W	1%	0805	Bottom
R19	Resistor	1.2k	1/8W	1%	0805	Bottom
R20	Resistor	510	1/8W	1%	0805	Bottom
R21	Resistor	8.25k	1/8W	1%	0805	Bottom
R22	Resistor	100k	1/8W	1%	0805	Bottom
R23	Resistor	47	1/8W		0805	Bottom
R24	Resistor	270k	1/4W	1%	1206	Bottom
R25	Resistor	270k	1/4W	1%	1206	Bottom
R26	Resistor	270k	1/4W	1%	1206	Bottom
R27	Resistor	270k	1/4W	1%	1206	Bottom
R28	Resistor	390k	1/4W	1%	1206	Bottom
R29	Resistor	390k	1/4W	1%	1206	Bottom
R30	Resistor	390k	1/4W	1%	1206	Bottom
R31	Resistor	390k	1/4W	1%	1206	Bottom
R32	Resistor	22k	1/8W	1%	0805	Bottom
R33	Resistor	1.5	3/4W		2010	Bottom
R34	Metal Film Resistor	33k	3W		AXIAL-Ø5.5 x 16mm	Top
R35	Resistor	12	3/4W		2010	Bottom
R36	Resistor	6.8	1/8W		0805	Bottom
R37	Resistor	8.2	1/4W		1206	Bottom
R38	Resistor	2.7k	1/8W	1%	0805	Bottom
R39	Resistor	24.9k	1/8W	1%	0805	Bottom
R40	Resistor	332k	1/4W	1%	1206	Bottom
R41	Resistor	332k	1/4W	1%	1206	Bottom

R42	Resistor	332k	1/4W	1%	1206	Bottom
R43	Resistor	332k	1/4W	1%	1206	Bottom
R44	Resistor	4.87k	1/8W	1%	0805	Bottom
R45	Resistor	1k	1/8W	1%	0805	Bottom
R46	Resistor	2.4k	1/8W	1%	0805	Bottom
R47	Resistor	1k	1/8W	1%	0805	Bottom
R48	Resistor	270	1/8W	1%	0805	Bottom
R49	Resistor	100k	1/8W	1%	0805	Bottom
R50	Resistor	11k	1/8W	1%	0805	Bottom
R51	Resistor	1k	1/4W		1206	Bottom
R52	Resistor	11k	1/8W	1%	0805	Bottom
R53	Resistor	2.4k	1/8W	1%	0805	Bottom
R54	Resistor	100	1/8W	1%	0805	Bottom
R55	Resistor	2.7k	1/8W	1%	0805	Bottom
R56	Resistor	330	1/8W		0805	Bottom
R57	Resistor	1k	1/8W	1%	0805	Bottom
R58	Resistor	10k	1/8W	1%	0805	Bottom
R59	Resistor	10k	1/8W	1%	0805	Bottom
R60	Resistor	710k	3/5W	1%	AXIAL-Ø2.5 x 6.8mm	Top
R61	Resistor	5.1	1/4W		1206	Bottom
R62	Resistor	5.1	1/4W		1206	Bottom
R63	Resistor	10k	1/8W	1%	0805	Bottom
R64	Resistor	10k	1/8W	1%	0805	Bottom
R65	Resistor	10k	1/8W	1%	0805	Bottom
R66	Resistor	10k	1/8W	1%	0805	Bottom
R67	Resistor	5.1	1/4W		1206	Bottom
R68	Resistor	5.1	1/4W		1206	Bottom
R69	Resistor	5.1	1/4W		1206	Bottom
R70	Resistor	390	3/4W		2010	Bottom
R71	Resistor	390	3/4W		2010	Bottom
R72	Resistor	390	3/4W		2010	Bottom
R73	Resistor	390	3/4W		2010	Bottom
R74	Resistor	1.2k	1/8W	1%	0805	Bottom
R75	Resistor	1.2k	1/8W	1%	0805	Bottom
R76	Resistor	1.2k	1/8W	1%	0805	Bottom
R77	Resistor	100	1/8W	1%	0805	Bottom
R78	Resistor	100	1/8W	1%	0805	Bottom
R79	Metal Film Resistor	220	3W		AXIAL-Ø5.5 x 16mm	Top
R80	Resistor	5.1	1/4W		1206	Bottom
R81	Resistor	100	1/8W	1%	0805	Bottom
R82	Resistor	100	1/8W	1%	0805	Bottom
R83	Resistor	22	3/4W		2010	Bottom
R84	Resistor	22	3/4W		2010	Bottom
R85	Resistor	22	3/4W		2010	Bottom
R86	Resistor	22	3/4W		2010	Bottom
R87	Metal Film Resistor	330	3W		AXIAL-Ø5.5 x 16mm	Top
R88	Resistor	22	3/4W		2010	Bottom
R89	Resistor	22	3/4W		2010	Bottom
R90	Metal Film Resistor	330	3W		AXIAL-Ø5.5 x 16mm	Top
R91	Resistor	22	3/4W		2010	Bottom
R92	Resistor	22	3/4W		2010	Bottom
R93	Metal Film Resistor	220	3W		AXIAL-Ø5.5 x 16mm	Top
R201	Resistor	1k	1/8W	1%	0805	Bottom
R208	Resistor	4.7k	1/8W	1%	0805	Bottom
R210	Resistor	10k	1/8W	1%	0805	Bottom
R211	Resistor	10k	1/8W	1%	0805	Bottom
R212	Resistor	100	1/8W	1%	0805	Bottom
RTH1	Power Thermistor	SCK20150		4.5A	disc Ø21.5mm	Top
RTH2	Power Thermistor	SCK20150		4.5A	disc Ø21.5mm	Top
RY1	Relay	RT334012	12V		RT1	Top
SRC1	Thyristor	BT169D			TO-92-3	Top
T1	Current Transformer	58.6mH		1:200	UU-9.8-2S	Top
T2	Transformer				B66208 Vert	Top
T3	Darlington Transistor	TIP122			TO220-3L	Top
T4	Gate Transformer				T1611	Top
T5	Gate Transformer				T1611	Top
T6	Output Transformer				ETD-39	Top
T7	Output Transformer				ETD-39	Top
T8	Current Transformer			1:100	UU-9.8-2S	Top
U1	Shunt Regulator	TL431C			SOT-23	Bottom

U2	Integr. Off-line Switch	TOP244			TO-220-7C	Top
U3	Optocoupler	LTV817	35V		SMD4	Bottom
U4	Sistem Resetting IC	M51957			SO8	Bottom
U5	Shunt Regulator	TS431			SOT-23	Bottom
U6	Shunt Regulator	TS431			SOT-23	Bottom
U7	Step-Down Regulator	LM2575-5.0V			TO-220-5L	Top
U8	Optocoupler	LTV817	35V		SMD4	Bottom
U9	MOSFET Driver	UCC27424			SO8	Bottom
U10	MOSFET Driver	UCC27424			SO8	Bottom
U200	AC-DC Power Supply	IRM-03-12	12VDC		IRM-03	Top
U201	Optocoupler	LTV817	35V		SMD4	Bottom
U202	Optocoupler	LTV817	35V		SMD4	Bottom
ZD1	Zener Diode	BZV55C62	500mW		SOD-80	Bottom
ZVR1	Varistor	ERZ-V20D431	275VAC		VARISTOR 20mm	Top

PFC1500 CNTRL Board Unit

Designator	Description	Value	Volts/Watts	Comment	Case/Package	Layer
C40	Capacitor	100nF	100V	X7R	1206	Top
C41	Capacitor	470nF	50V	X7R	0805	Top
C42	Capacitor	680pF	16V	C0G	0805	Top
C43	Capacitor	100nF	50V	X7R	0805	Top
C44	Capacitor	1uF	50V	X7R	0805	Top
C45	Capacitor	1nF	50V	X7R	0805	Top
C50	Capacitor	33nF	50V	X7R	0805	Top
C51	Capacitor	100nF	50V	X7R	0805	Top
C52	Capacitor	33nF	50V	X7R	0805	Top
C53	Capacitor	1uF	50V	X7R	0805	Top
C54	Capacitor	100nF	50V	X7R	0805	Top
C55	Capacitor	1uF	50V	X7R	0805	Top
C57	Capacitor	220pF	50V	X7R	0805	Top
C58	Capacitor	2.2nF	50V	X7R	0805	Top
C59	Capacitor	680pF	16V	C0G	0805	Top
C60	Capacitor	680pF	16V	C0G	0805	Top
C66	Capacitor	4.7nF	50V	X7R	0805	Top
C70		Not placed			0805	Top
C71	Capacitor	100nF	50V	X7R	0805	Top
D31	Diode	BAS16	75V		SOT-23	Top
D32		Not placed			SMA	Top
D33	Schottky Diode	SS14	40V		DO-214AC	Top
J1	Header	1x5		Right Angle	100" pich	Top
J2	Header	1x3		Right Angle	200" pich	Top
Q24	PNP Transistor	2SC4116	60V		SOT-23	Top
R32	Resistor	270k	1/8W	1%	0805	Top
R33	Resistor	270k	1/8W	1%	0805	Top
R34	Resistor	270k	1/8W	1%	0805	Top
R35	Resistor	90.9k	1/8W	1%	0805	Top
R36	Resistor	17.8k	1/8W	1%	0805	Top
R37	Resistor	200k	1/8W	1%	0805	Top
R38	Resistor	200k	1/8W	1%	0805	Top
R39	Resistor	200k	1/8W	1%	0805	Top
R40	Resistor	270k	1/8W	1%	0805	Top

R41	Resistor	1k	1/8W	1%	0805	Top
R48	Resistor	5.1k	1/8W	1%	0805	Top
R49	Resistor	3.3k	1/8W	1%	0805	Top
R50	Resistor	270k	1/8W	1%	0805	Top
R51	Resistor	270k	1/8W	1%	0805	Top
R52	Resistor	270k	1/8W	1%	0805	Top
R53	Resistor	270k	1/8W	1%	0805	Top
R54	Resistor	270k	1/8W	1%	0805	Top
R55	Resistor	270k	1/8W	1%	0805	Top
R56	Resistor	270k	1/8W	1%	0805	Top
R57	Resistor	270k	1/8W	1%	0805	Top
R58	Resistor	270k	1/8W	1%	0805	Top
R59	Resistor	200k	1/8W	1%	0805	Top
R60	Resistor	3.3k	1/8W	1%	0805	Top
R61	Resistor	1.2M	1/8W	1%	0805	Top
R62	Resistor	150k	1/8W	1%	0805	Top
R63	Resistor	21.5k	1/8W	1%	0805	Top
R64	Resistor	10k	1/8W	1%	0805	Top
R65	Resistor	51	1/8W	1%	0805	Top
R68	Resistor	100	1/8W	1%	0805	Top
R69	Resistor	22k	1/8W	1%	0805	Top
R76	Resistor	1k	1/8W	1%	0805	Top
R77	Resistor	1k	1/8W	1%	0805	Top
R78	Resistor	10k	1/8W	1%	0805	Top
R79	Resistor	49.9k	1/8W	1%	0805	Top
R80	Resistor	10k	1/8W	1%	0805	Top
U2	IC PFC Control	UC3855BDW			SO20	Top
U5	Operational Amplifier	LM358			SO8	Top
ZD1	Zener Diode	BZX84C5V6	0.3W		SOT-23	Top
ZD2		Not placed			SOT-23	Top

DC1500 CNTRL Board Unit

Designator	Description	Value	Volts/Watts	Comment	Case/Package	Layer
C1	Capacitor	100nF	50V	X7R	0805	Top
C2	Capacitor	10nF	50V	X7R	0805	Top
C3	Capacitor	100nF	50V	X7R	0805	Top
C4	Capacitor	10uF	6.3V	X7R	0805	Top
C5	Capacitor	100nF	50V	X7R	0805	Top
C6	Capacitor	4.7nF	50V	X7R	0805	Top
C7	Capacitor	100nF	50V	X7R	0805	Top
C8	Capacitor	10nF	50V	X7R	0805	Top
C9	Capacitor	470pF	50V	X7R	0805	Top
C10	Capacitor	100nF	50V	X7R	0805	Top
C11	Capacitor	470pF	50V	X7R	0805	Top
C12	Capacitor	10nF	50V	X7R	0805	Top
C13	Capacitor	1uF	16V	X7R	0805	Top
C14	Capacitor	100nF	50V	X7R	0805	Top

C15	Capacitor	1uF	16V	X7R	0805	Top
C16	Capacitor	100nF	50V	X7R	0805	Top
C17	Capacitor	100nF	50V	X7R	0805	Top
C18	Capacitor	100nF	50V	X7R	0805	Top
C19	Capacitor	100nF	50V	X7R	0805	Top
C20	Capacitor	100nF	50V	X7R	0805	Top
C21	Capacitor	100nF	50V	X7R	0805	Top
C22	Capacitor	100nF	50V	X7R	0805	Top
C24	Capacitor	100nF	50V	X7R	0805	Top
C25	Capacitor	100nF	50V	X7R	0805	Top
C26	Capacitor	100nF	50V	X7R	0805	Top
C27	Capacitor	100nF	50V	X7R	0805	Top
C28	Capacitor	100nF	50V	X7R	0805	Top
C29	Capacitor	100nF	50V	X7R	0805	Top
C30	Capacitor	100nF	50V	X7R	0805	Top
C31	Capacitor	100nF	50V	X7R	0805	Top
C32	Capacitor	100nF	50V	X7R	0805	Top
C33	Capacitor	100nF	50V	X7R	0805	Top
C34	Capacitor	100nF	50V	X7R	0805	Top
C35	Capacitor	100nF	50V	X7R	0805	Top
C36	Capacitor	100nF	50V	X7R	0805	Top
CN2	Connector, 2-Pin			Right Angle	MTA100 2p	Top
CN3	Connector, 2-Pin			Right Angle	MTA100 2p	Top
D1	Diode	BAS16	75V		SOT-23	Top
D3	Schottky Diode	BAS70-04	70V		SOT-23	Top
D4	Schottky Diode	BAS70-04	70V		SOT-23	Top
D5	Schottky Diode	BAS70-04	70V		SOT-23	Top
L4	Inductor	10uH		150mA	0805	Top
L5	Inductor	10uH		150mA	0805	Top
LED1	LED	Green- Deffused		20mA	3mm Round Standart	Top
PCB1	Header	1x17		Right Angle	100" pich	Top
Q1	NPN Transistor	BC847	45V		SOT-23	Top
Q2	NPN Transistor	BC847	45V		SOT-23	Top
R1	Resistor	40.2k	1/8W	1%	0805	Top
R2	Resistor	1.5k	1/8W	1%	0805	Top
R3	Resistor	10k	1/8W	1%	0805	Top
R4	Resistor	1.5k	1/8W	1%	0805	Top
R5	Resistor	1k	1/8W	1%	0805	Top
R6	Resistor	1k	1/8W	1%	0805	Top
R7	Resistor	1k	1/8W	1%	0805	Top
R8	Resistor	1k	1/8W	1%	0805	Top
R10	Resistor	30k	1/8W	1%	0805	Top
R11	Resistor	10k	1/8W	1%	0805	Top
R12	Resistor	100k	1/8W	1%	0805	Top
R13	Resistor	100k	1/8W	1%	0805	Top
R14	Resistor	102k	1/8W	1%	0805	Top
R15	Resistor	10	1/8W	1%	0805	Top

R16	Resistor	7.5	1/8W	1%	0805	Top
R17	Resistor	10k	1/8W	1%	0805	Top
R18	Resistor	5.1k	1/8W	1%	0805	Top
R19	Resistor	1k	1/8W	1%	0805	Top
R20	Resistor	2.2k	1/8W	1%	0805	Top
R21	Resistor	2.2k	1/8W	1%	0805	Top
R22	Resistor	2.4k	1/8W	1%	0805	Top
R23	Resistor	5.1k	1/8W	1%	0805	Top
R24	Resistor	10	1/8W	1%	0805	Top
R25	Resistor	23.7k	1/8W	1%	0805	Top
R26	Resistor	2.4k	1/8W	1%	0805	Top
R27	Resistor	5.1k	1/8W	1%	0805	Top
R28	Resistor	10k	1/8W	1%	0805	Top
R29	Resistor	10k	1/8W	1%	0805	Top
R30	Resistor	100k	1/8W	1%	0805	Top
R31	Resistor	10	1/8W	1%	0805	Top
R32		Not placed		1%	0805	Top
R33	Resistor	300	1/8W	1%	0805	Top
R35	Resistor	1k	1/8W	1%	0805	Top
R37	Resistor	5.1k	1/8W	1%	0805	Top
R38	Resistor	100k	1/8W	1%	0805	Top
R39	Resistor	560k	1/8W	1%	0805	Top
R40	Resistor	2.2k	1/8W	1%	0805	Top
R43	Resistor	2.2k	1/8W	1%	0805	Top
R44	Resistor	120k	1/8W	1%	0805	Top
R45	Resistor	100k	1/8W	1%	0805	Top
R46	Resistor	750k	1/8W	1%	0805	Top
R47	Resistor	820k	1/8W	1%	0805	Top
R48	Resistor	30k	1/8W	1%	0805	Top
R49	Resistor	30k	1/8W	1%	0805	Top
R50	Resistor	30k	1/8W	1%	0805	Top
R51	Resistor	180k	1/8W	1%	0805	Top
R52	Resistor	30k	1/8W	1%	0805	Top
R53	Resistor	510k	1/8W	1%	0805	Top
R54	Resistor	150k	1/8W	1%	0805	Top
R55	Resistor	100k	1/8W	1%	0805	Top
R56	Resistor	100k	1/8W	1%	0805	Top
R57	Resistor	200k	1/8W	1%	0805	Top
R58	Resistor	2.2k	1/8W	1%	0805	Top
R59	Resistor	2.2k	1/8W	1%	0805	Top
R65	Resistor	5.1k	1/8W	1%	0805	Top
R66	Resistor	10k	1/8W	1%	0805	Top
R68	Resistor	33	1/4W		1206	Top
R69	Resistor	300k	1/8W	1%	0805	Top
R70	Resistor	33	1/4W		1206	Top
R71	Resistor	2.2k	1/8W	1%	0805	Top
R72	Resistor	2.2k	1/8W	1%	0805	Top
R73	Resistor	2.4k	1/8W	1%	0805	Top

R74	Resistor	2.4k	1/8W	1%	0805	Top
R75	Resistor	33	1/4W		1206	Top
R76	Resistor	2.2k	1/8W	1%	0805	Top
R77	Resistor	100	1/8W		0805	Top
R78	Resistor	100	1/8W		0805	Top
R79	Resistor	100	1/8W		0805	Top
SVR1	Trimmer Resistor	1k	1/2W		Bourns- 3296X	Top
U1	Shunt Regulator	TS431			SOT-23	Top
U2	Operational Amplifier	LM358			SO8	Top
U3	Shunt Regulator	TS431			SOT-23	Top
U4	Phase-Shift PWM	UCC2895DW			SO20	Top
U5	Dual Differential	LM393			SO8	Top
U6	Single-Supply Quad	LM339			SO14	Top
ZD1	Zener Diode	BZV55C75	500mW		SOD-80	Top

LCD CNTRL Unit

Designator	Description	Value	Volts/Watts	Comment	Case/Package	Layer
B1		Not placed			Ø7mm BATT	Bottom
C1	Capacitor	1uF	16V	X7R	0805	Bottom
C2	Capacitor	100nF	50V	X7R	0805	Bottom
C3	Tantalum Capacitor	150uF	10V		CASE D	Bottom
C4	Capacitor	100nF	50V	X7R	0805	Bottom
C5	Tantalum Capacitor	150uF	10V		CASE D	Bottom
C6	Tantalum Capacitor	150uF	10V		CASE D	Bottom
C7	Capacitor	100nF	50V	X7R	0805	Bottom
C8	Capacitor	100nF	50V	X7R	0805	Bottom
C9	Capacitor	100nF	50V	X7R	0805	Bottom
C10	Capacitor	10uF	16V	X5R	0805	Bottom
C11	Capacitor	100nF	50V	X7R	0805	Bottom
C12	Capacitor	100nF	50V	X7R	0805	Bottom
C13	Electrol. Capacitor	100uF	35V		Ø6.3mm x 12mm	Bottom
C14	Capacitor	560pF	50V	C0G	0805	Bottom
C15	Capacitor	1uF	16V	X7R	0805	Bottom
C16	Capacitor	1uF	16V	X7R	0805	Bottom
C17	Capacitor	10uF	16V	X5R	0805	Bottom
C18	Capacitor	10uF	16V	X5R	0805	Bottom
C19	Capacitor	10uF	16V	X5R	0805	Bottom
C20	Capacitor	1uF	16V	X7R	0805	Bottom
C21	Capacitor	1nF	50V	X7R	0805	Bottom
C22	Capacitor	10uF	16V	X5R	0805	Bottom
C23	Capacitor	100nF	50V	X7R	0805	Bottom
C24	Capacitor	22pF	50V	C0G	0805	Bottom
C25	Capacitor	100nF	50V	X7R	0805	Bottom
C26	Capacitor	100nF	50V	X7R	0805	Bottom
C27	Capacitor	100nF	50V	X7R	0805	Bottom
C28	Tantalum Capacitor	150uF	10V		CASE D	Bottom
C29	Capacitor	1nF	50V	X7R	0805	Bottom
C30	Capacitor	100nF	50V	X7R	0805	Bottom
C31	Capacitor	100nF	50V	X7R	0805	Bottom
C32	Capacitor	10uF	16V	X5R	0805	Bottom
C33	Capacitor	100nF	50V	X7R	0805	Bottom
C34	Capacitor	22pF	50V	C0G	0805	Bottom
C35	Capacitor	100nF	50V	X7R	0805	Bottom
C36	Capacitor	100nF	50V	X7R	0805	Bottom
C37	Capacitor	100nF	50V	X7R	0805	Bottom
C38	Capacitor	100nF	50V	X7R	0805	Bottom
C39	Capacitor	100nF	50V	X7R	0805	Bottom
C40	Capacitor	100nF	50V	X7R	0805	Bottom
C41	Capacitor	100nF	50V	X7R	0805	Bottom
C42	Capacitor	100nF	50V	X7R	0805	Bottom

C43	Capacitor	100nF	50V	X7R	0805	Bottom
C44	Capacitor	10uF	16V	X5R	0805	Bottom
C45	Capacitor	100nF	50V	X7R	0805	Bottom
C46	Capacitor	100nF	50V	X7R	0805	Bottom
C47	Capacitor	100nF	50V	X7R	0805	Bottom
C48	Capacitor	100nF	50V	X7R	0805	Bottom
C49	Capacitor	100nF	50V	X7R	0805	Bottom
C50	Capacitor	100nF	50V	X7R	0805	Bottom
C51	Capacitor	100nF	50V	X7R	0805	Bottom
C52	Capacitor	10uF	16V	X5R	0805	Bottom
C53	Capacitor	100nF	50V	X7R	0805	Bottom
C54	Capacitor	100nF	50V	X7R	0805	Bottom
C55	Capacitor	100nF	50V	X7R	0805	Bottom
C56	Capacitor	1nF	50V	X7R	0805	Bottom
C58	Capacitor	100nF	50V	X7R	0805	Bottom
C59	Capacitor	100nF	50V	X7R	0805	Bottom
C60	Capacitor	100nF	50V	X7R	0805	Bottom
C61	Capacitor	100nF	50V	X7R	0805	Bottom
C62	Capacitor	100nF	50V	X7R	0805	Bottom
C63	Capacitor	100nF	50V	X7R	0805	Bottom
C64	Capacitor	33pF	50V	C0G	0805	Bottom
C65	Tantalum Capacitor	150uF	10V		CASE D	Bottom
C66	Capacitor	100nF	50V	X7R	0805	Bottom
C67	Capacitor	100nF	50V	X7R	0805	Bottom
C68	Capacitor	100nF	50V	X7R	0805	Bottom
C69	Capacitor	100nF	50V	X7R	0805	Bottom
C70	Capacitor	100nF	50V	X7R	0805	Bottom
C71	Capacitor	100nF	50V	X7R	0805	Bottom
C72	Capacitor	33pF	50V	C0G	0805	Bottom
C73	Capacitor	100nF	50V	X7R	0805	Bottom
C74	Capacitor	100nF	50V	X7R	0805	Bottom
C75	Capacitor	100nF	50V	X7R	0805	Bottom
C76	Capacitor	100nF	50V	X7R	0805	Bottom
C77	Capacitor	100nF	50V	X7R	0805	Bottom
C78	Capacitor	100nF	50V	X7R	0805	Bottom
C79	Capacitor	1nF	50V	X7R	0805	Bottom
C80	Capacitor	100nF	50V	X7R	0805	Bottom
D1	Schottky Diode	B0540W-7-F	40V	0.5A	SOD-123	Bottom
DL1	LED	GREEN	2.6V	20mA	0805	Bottom
DL2	LED	GREEN	2.6V	20mA	0805	Bottom
DL3	LED	RED	2.6V	20mA	0805	Bottom
DZ1	Zener Diode	BZX84C24	0.25W		SOT-23	Bottom
FB1	Ferrite Bead	330		100MHz	0805	Bottom
FB2	Ferrite Bead	330		100MHz	0805	Bottom
FB3	Ferrite Bead	330		100MHz	0805	Bottom
FB4	Ferrite Bead	330		100MHz	0805	Bottom
FB5	Ferrite Bead	330		100MHz	0805	Bottom
FB6	Ferrite Bead	330		100MHz	0805	Bottom
J601	Connector, 8-Pin				MTA100 8p	Bottom
J602	IDC BOX Header				2.54mm pich	Bottom
J603	Connector, 6-Pin				MTA100 6p	Bottom
J604	Connector USB Mini				SMT	Bottom
J605	Connector, 2-Pin				MTA100 2p	Bottom
J606	FPC Connector, 40p	FH12A-40S-			0.5mm, Top Contact	Bottom
J607		Not placed			2.54mm pich	Bottom
J608		Not placed			2.54mm pich	Bottom
J609	Pin Header, 2-Pin				2.54mm pich	Bottom
L1	Inductor	10uH		650mA	1812	Bottom
L2	Ferrite Bead	1k		100MHz	0805	Bottom
L3	Inductor	180uH		190mA	2220	Bottom
L4	Inductor	10uH		150mA	0805	Bottom
L5	Inductor	10uH		150mA	0805	Bottom
Q1	NPN PRE-BIASED	DDTC143XUA-7-	50V		SOT-323	Bottom
Q2	NPN PRE-BIASED	DDTC143XUA-7-	50V		SOT-323	Bottom
Q3	NPN PRE-BIASED	DDTC143XUA-7-	50V		SOT-323	Bottom
Q4	NPN PRE-BIASED	DDTC143XUA-7-	50V		SOT-323	Bottom
Q5	NPN PRE-BIASED	DDTC143XUA-7-	50V		SOT-323	Bottom
Q6	PNP Transistor	BC807-40	45V		SOT-23	Bottom

Q7	NPN Transistor	BC817-40	45V		SOT-23	Bottom
R1	Resistor	1k	1/8W		0805	Bottom
R2	Resistor	1k	1/8W		0805	Bottom
R3	Resistor	1k	1/8W		0805	Bottom
R4	Resistor	1k	1/8W		0805	Bottom
R5	Resistor	1k	1/8W		0805	Bottom
R6	Resistor	1k	1/8W		0805	Bottom
R7		Not placed			0805	Bottom
R8		Not placed			0805	Bottom
R9		Not placed			0805	Bottom
R10		Not placed			0805	Bottom
R11		Not placed			0805	Bottom
R12		Not placed			0805	Bottom
R13		Not placed			0805	Bottom
R14		Not placed			0805	Bottom
R15	Resistor	1k	1/8W		0805	Bottom
R16	Resistor	1k	1/8W		0805	Bottom
R17	Resistor	47k	1/8W		0805	Bottom
R18	Resistor	330k	1/8W		0805	Bottom
R19	Resistor	10k	1/8W		0805	Bottom
R20	Resistor	27k	1/8W		0805	Bottom
R21	Resistor	27	1/8W		0805	Bottom
R22	Resistor	330k	1/8W		0805	Bottom
R23	Resistor	27	1/8W		0805	Bottom
R24	Resistor	1k	1/8W		0805	Bottom
R25	Resistor	1k	1/8W		0805	Bottom
R26	Resistor	1k	1/8W		0805	Bottom
R27	Resistor	1k	1/8W		0805	Bottom
R28	Resistor	1k	1/8W		0805	Bottom
R29	Resistor	1k	1/8W		0805	Bottom
R30	Resistor	0	1/8W		0805	Bottom
R31		Not placed			0805	Bottom
R32	Resistor	10k	1/8W		0805	Bottom
R33	Resistor	100k	1/8W		0805	Bottom
R34		Not placed			0805	Bottom
R35	Resistor	100	1/8W		0805	Bottom
R36	Resistor	10k	1/8W		0805	Bottom
R37	Resistor	4.7k	1/8W		0805	Bottom
R38	Resistor	4.7k	1/8W		0805	Bottom
R39	Resistor	180	1/8W		0805	Bottom
R40	Resistor	0.47	1/4W	1%	1206	Bottom
R41	Resistor	100k	1/8W		0805	Bottom
R42	Resistor	4.7k	1/8W		0805	Bottom
R43	Resistor	560	1/8W		0805	Bottom
R44	Resistor	300	1/8W		0805	Bottom
R45	Resistor	1k	1/8W		0805	Bottom
R46	Resistor	560	1/8W		0805	Bottom
R47	Resistor	100k	1/8W		0805	Bottom
R48	Resistor	100k	1/8W		0805	Bottom
R49	Resistor	100k	1/8W		0805	Bottom
R50	Resistor	120	1/8W		0805	Bottom
SW1	Tactile Switch				6mm X 6mm SMT	Bottom
SW2	Tactile Switch				6mm X 6mm SMT	Bottom
U1	Dual EIA-232 Driver	MAX232D			SO16	Bottom
U2	Serial EEPROM	24LC512-I/SN			SO-8W	Bottom
U3	Microcontroller	MCP120T-475			SOT-23	Bottom
U4	Gate NAND IC	74HC00			SO14	Bottom
U5	Gate NAND IC	74HC30			SO14	Bottom
U6	AVR Microcontroller	ATMEGA128A-			TQFP64	Bottom
U7		Not placed				Bottom
U8	D-Type Transparent	74HC573			TSSOP-20	Bottom
U9	CMOS Static RAM	IS62C1024AL-			SOP32	Bottom
U10	Voltage Regulator	LD1117S33TR	3.3V		SOT-223	Bottom
U11	EconoReset with	DS1818R-10+T/R			SOT-23	Bottom
U12	DC-DC converter	MC34063			SO8	Bottom
U13		Not placed				Bottom
U14	Voltage Regulator	LD1117S12TR	1.2V		SOT-223	Bottom
U15	IC FLASH	AT45DB321D			SO8	Bottom

U16	IC SDRAM	IS42S32800D-			TSOP-86 II	Bottom
U17	Amulet GEM Graphical	AGB75LC04-QU-			PQFP-208	Bottom
Y1	Quartz Crystal	16.000 MHz			HC-49S	Bottom
Y2	Quartz Crystal	12.000 MHz			HC-49S	Bottom
Y3		Not placed				Bottom

Keyboard Unit

Designator	Description	Value	Volts/Wats	Comment	Case/Package	Layer
J601	Connector, 8-Pin				MTA100 8p	Top
SW1	Switch	MEC			5GTH965	Top
SW2	Switch	MEC			5GTH965	Top
SW3	Switch	MEC			5GTH965	Top
SW4	Switch	MEC			5GTH965	Top
SW5	Switch	MEC			5GTH965	Top
SW6	Switch	MEC			5GTH965	Top

ON/OFF Unit

Designator	Description	Value	Volts/Wats	Comment	Case/Package	Layer
SW1	Switch	MEC			5GTH965	Top
J601	Connector, 4-Pin			Right Angle	MTA100 4p	Top
LD1	LED	Red		20mA	5mm Round Standart	Top