

Ref.	Description	Value	Notes	Manufacturer	Mfg part #
C1	Film cap	.1uF	may be marked "104" or "100n"	EPCOS (TDK)	B32529C1104J
C4	Film cap	.1uF	may be marked "104" or "100n"	EPCOS (TDK)	B32529C1104J
C7	Film cap	.1uF	may be marked "104" or "100n"	EPCOS (TDK)	B32529C1104J
C10	Film cap	.1uF	may be marked "104" or "100n"	EPCOS (TDK)	B32529C1104J
C13	Film cap	.1uF	may be marked "104" or "100n"	EPCOS (TDK)	B32529C1104J
C15	Film cap	.1uF	may be marked "104" or "100n"	EPCOS (TDK)	B32529C1104J
C21	Film cap	.1uF	may be marked "104" or "100n"	EPCOS (TDK)	B32529C1104J
C2	Film cap	0.33u	may be marked "334"	Kemet	R82DC3330AA60J
C11	Film cap	0.33u	may be marked "334"	Kemet	R82DC3330AA60J
C3	Film cap 5%	0.033u	may be marked "333" or "33n"	Kemet	R82EC2330AA50J
C5	Film cap 5%	0.033u	may be marked "333" or "33n"	Kemet	R82EC2330AA50J
C9	Film cap 5%	0.033u	may be marked "333" or "33n"	Kemet	R82EC2330AA50J
C17	Film cap 5%	0.033u	may be marked "333" or "33n"	Kemet	R82EC2330AA50J
C20	Film cap 5%	0.033u	may be marked "333" or "33n"	Kemet	R82EC2330AA50J
C6	Film cap 5%	0.001u	may be marked "1.0", "1n0" or "102"	Kemet	R82EC1100AA50J
C24	Film cap 5%	0.001u	may be marked "1.0", "1n0" or "102"	Kemet	R82EC1100AA50J
C8	Film cap	1u	may be marked "105"	EPCOS (TDK)	B32529C105J
C14	Film cap	1u	may be marked "105"	EPCOS (TDK)	B32529C105J
C18	Film cap	1u	may be marked "105"	EPCOS (TDK)	B32529C105J
C28	Film cap	1u	may be marked "105"	EPCOS (TDK)	B32529C105J
C30	Film cap	1u	may be marked "105"	EPCOS (TDK)	B32529C105J
C12	Film cap	0.047u	may be marked "473" or "47n"	Kemet	R82EC2470DQ60J
C16	Electrolytic	220uF		Panasonic	ECA-1HM221
C22	Film cap 5%	0.0033u	may be marked "332" or "3n3"	Kemet	R82EC1330AA50J
C23	Film cap 5%	0.0033u	may be marked "332" or "3n3"	Kemet	R82EC1330AA50J
C25	Film cap 5%	0.0033u	may be marked "332" or "3n3"	Kemet	R82EC1330AA50J
C26	Film cap 5%	0.0033u	may be marked "332" or "3n3"	Kemet	R82EC1330AA50J
C27	Film cap 5%	0.0033u	may be marked "332" or "3n3"	Kemet	R82EC1330AA50J
C19	Electrolytic cap	2.2 uF	May be a tantalum cap	Panasonic	EEU-FC1H2R2H
D1	Small glass diode	1N4148		Fairchild	1N4148
D4	Small glass diode	1N4148		Fairchild	1N4148
D7	Small glass diode	1N4148		Fairchild	1N4148
D2	LED, red			Lite-On Inc.	LTL-4223
D3	Diode	1N4001	may be 1N4005	Comchip	1N4001-G
D5	Zener diode	5.1V		Micro Commercial	1N4733A-TP
D6	LED, green			Lite-On Inc.	LTL-4233
J1	2x3 header	6-pin		Harwin Inc.	M20-9980346

J2	0.198 term	12 pin	Wire openings face board edge	Phoenix Contact	1935268
J3	2x4 header	8-pin		Harwin Inc.	M20-9980445
JU1	3-pin header	3-pin		Amphenol FCI	68001-403HLF
JU2	3-pin header	3-pin		Amphenol FCI	68001-403HLF
JU3	3-pin header	3-pin		Amphenol FCI	68001-403HLF
JU-PIN 1	2-pin jumper		Push-on shorting jumper	Amphenol FCI	65474-002LF
JU-PIN 2	2-pin jumper		Push-on shorting jumper	Amphenol FCI	65474-002LF
JU-PIN 3	2-pin jumper		Push-on shorting jumper	Amphenol FCI	65474-002LF
JU-PIN 4	2-pin jumper		Push-on shorting jumper	Amphenol FCI	65474-002LF
Q1	NPN Transistor	2N4401		Micro Commercial	2N4401-AP
Q2	NPN Transistor	2N4401		Micro Commercial	2N4401-AP
Q3	NPN Transistor	2N4401		Micro Commercial	2N4401-AP
R1	Res 5%	47k	yellow, violet, orange, gold	Stackpole	CF14JT47K0
R2	Res 5%	47k	yellow, violet, orange, gold	Stackpole	CF14JT47K0
R23	Res 5%	47k	yellow, violet, orange, gold	Stackpole	CF14JT47K0
R3	Res 5%	10k	brown, black, orange, gold	Stackpole	CF14JT10K0
R6	Res 5%	10k	brown, black, orange, gold	Stackpole	CF14JT10K0
R7	Res 5%	10k	brown, black, orange, gold	Stackpole	CF14JT10K0
R8	Res 5%	10k	brown, black, orange, gold	Stackpole	CF14JT10K0
R12	Res 5%	10k	brown, black, orange, gold	Stackpole	CF14JT10K0
R9	Res 5%	8.2k	gray, red, red, gold	Stackpole	CF14JT8K20
R10	Res 5%	100k	brown, black, yellow, gold	Stackpole	CF14JT100K
R31	Potentiometer	10k	20-turn, may be marked "103"	Bourns Inc.	3296W-1-103LF
R13	Potentiometer	20K	1-turn, may be marked "203"	Bourns Inc.	3386P-1-203LF
R22	Potentiometer	20K	1-turn, may be marked "203"	Bourns Inc.	3386P-1-203LF
R18	Res 1%	2.21k	red, red, brown, brown, brown or "2211"	Stackpole	RNF14FTD2K21
R16	Res 1%	130k	brown, orange, black, orange, brown or "1303"	Stackpole	RNF14FTD130K
R17	Res 5%	1M	brown, black, green, gold	Stackpole	CF14JT1M00
R20	Res 5%	1M	brown, black, green, gold	Stackpole	CF14JT1M00
R19	Res 1%	13k	brown, orange, black, red, brown or "1302"	Stackpole	RNF14FTD13K0
R21	Res 1%	5.49k	green, yellow, white, brown, brown or "5491"	Stackpole	RNF14FTD5K49
R24	Res 5%	270k	red, violet, yellow, gold	Stackpole	CF14JT270K
R26	Res 5%	270k	red, violet, yellow, gold	Stackpole	CF14JT270K
R25	Res 5%	1.3k	brown, orange, red, gold	Stackpole	CF14JT1K30
R11	Res 1%	2k	red, black, black, brown, brown or "2001"	Stackpole	RNF14FTD2K00
R15	Res 1%	2k	red, black, black, brown, brown or "2001"	Stackpole	RNF14FTD2K00
R27	Res 1%	2k	red, black, black, brown, brown or "2001"	Stackpole	RNF14FTD2K00

R28	Res 1%	22.1k	red, red, brown, red, brown or "2212"	Stackpole	RNF14FTD22K1
R32	Res 5%	470	yellow, violet, brown, gold	Stackpole	CF14JT470R
R35	Res 5%	470	yellow, violet, brown, gold	Stackpole	CF14JT470R
R33	Res 5%	10	brown, black, black, gold	Stackpole	CF14JT10R0
R4	Potentiometer	100K	20-turn, may be marked "104"	Bourns Inc.	3296W-1-104LF
R5	Res 5%	470k	yellow, violet, yellow, gold	Yageo	CFR-25JB-52-470K
SO1	14-pin IC socket	14 pin		TE Connectivity	814-AG11D-ESL-LF
SO2	14-pin IC socket	14 pin		TE Connectivity	814-AG11D-ESL-LF
SO3	28-pin IC socket	28 pin		Mill-Max	110-44-328-41-001000
SO4	8-pin IC socket	8 pin		TE Connectivity	808-AG11D-ESL-LF
U1	Quad op-amp	TL084CN	14-pin DIP	Texas Instruments	TL084ACN
U2	Quad op-amp	TL084CN	14-pin DIP	Texas Instruments	TL084ACN
U3	Voltage Reg (5V)	5V	Small TO-92 case	ON Semiconductor	MC78L05ABPRAG
U4	Voltage Reg (9V)	9V	TO-220 case	Fairchild/ON Semi.	LM7809CT
U5	Audio amplifier IC	LM386N	8-pin DIP	Texas Instruments	LM386N-3/NOPB
Y1	Resonator	16 MHz	Looks like a fat 3-lead disc cap	ECS	ZTT-16.00MX
ZU1	Microcontroller		28-pin DIP	Atmel	ATMEGA328P-PU
TP1	Test jack		Metering test lead jack	Keystone	6036
TP2	Test jack		Metering test lead jack	Keystone	6036
	Squelch Board PCB				