

### PCB components

Qty	Value	Device	Parts	Description	Mfg	Mfg PN	Vendor	Vendor PN	Cost Ea	Cost Ext	Comments
1				PC board	Pete Millett		<a href="http://www.pmillett.com">www.pmillett.com</a>	DCPP PCB	\$50.00	\$50.00	
1	220uF 100V	CPOL-EUE5-13	C1	Electrolytic capacitor, 220uF 100V, 12.5mm dia, 5mm LS	Nichicon	UVZ2A221MHD	Mouser	647-UVZ2A221MHD	\$0.88	\$0.88	
4	47uF 63V	CPOL-EUE2.5-7	C11, C12, C13, C14	Electrolytic capacitor, 47uF 63V, 6.3mm dia, 2.5mm LS	Nichicon	UVZ1J470MED	Mouser	647-UVZ1J470MED	\$0.22	\$0.88	
4	0.22uF 600V	CCAPM	C17, C18, C19, C20	Film capacitor, 0.22uF, 600V (coupling caps - see comments)	Wima	MKP10-.22/630/5	Mouser	505-M10.22/630/5	\$3.48	\$13.92	You can substitute your favorite coupling cap here. Minimum 0.22uF, minimum 500V. Film, paper-in-oil, others can be used. PCB hole pattern will accept many different sized caps.
7	47uF 450V	CPOL-EUE7.5-18	C2, C3, C6, C21, C24, C25, C27	Electrolytic capacitor, 47uF 450V, 20mm dia 10mm LS snap-in	Nichicon	LGU2W470MELY	Mouser	647-LGU2W470MELY	\$2.29	\$16.03	
2	1uF 63V	C-EU050-075X075	C28, C29	Film capacitor, 1uF 63V, 7.5mm x 7.5mm, 5mm LS	Wima	MKS2-1.0/63/10	Mouser	505-MKS2-1.0/63/10	\$1.05	\$2.10	
6	10uF 450V	CPOL-EUE5-13	C4, C5, C22, C23, C26, C30	Electrolytic capacitor, 10uF 450V, 12.5mm dia, 5mm LS	Nichicon	UVZ2W100MHD	Mouser	647-UVZ2W100MHD	\$0.87	\$5.22	
4	820pF 1000V	CAP_DUAL_FILM2	C7, C9, C10, C15	Mica or film capacitor, 820pF 500-1000V	CDE	CD19FD821JO3	Mouser	5982-19-500V820	\$1.38	\$5.52	
2	470uF 100V	CPOL-EUE7.5-16	C8, C16	Electrolytic capacitor, 470uF 100V, 16mm dia, 7.5mm LS	Nichicon	UVZ2A471MHD	Mouser	647-UVZ2A471MHD	\$1.27	\$2.54	
4	MUR1100	MUR1100	D1, D2, D3, D4	Rectifier, fast recovery, 1A 1000V	On Semi	MUR1100EG	Mouser	863-MUR1100ERLG	\$0.30	\$1.20	
3	1N5262	BZX55	D5, D7, D8	Zener diode, 51V 500mW	Fairchild Semi	1N5262B	Mouser	512-1N5262B	\$0.04	\$0.12	
2	1N5245	BZX55	D6, D9	Zener diode, 15V 500mW	Fairchild Semi	1N5245B	Mouser	512-1N5245B	\$0.04	\$0.08	
4	SF51-B	UF5400	D10, D11, D12, D13	Rectifier, fast recovery, 5A 50V	Rectron	SF51-B	Mouser	583-SF51-B	\$0.69	\$2.76	
2	FQPF8N60C	IRF510	Q1, Q2	MOSFET, 600V 8A TO-220F	Fairchild Semi	FQPF8N60C	Mouser	512-FQPF8N60C	\$1.46	\$2.92	
5	10	R2W_5083	R1, R2, R7, R15, R19	Resistor, 10 ohms 1/2 watt minimum	KOA	SPR2CT521R100J	Mouser	660-SPR2CT521R100J	\$0.16	\$0.80	
1	100	R2W_5083	R12	Resistor, 100 ohms 1/2 watt minimum	KOA	SPR2CT521R101J	Mouser	660-SPR2CT521R101J	\$0.16	\$0.16	
2	10k	LI10-B	R13, R14	Pot, 1-turn trimmer, 10k	Piher	PT10LV10-103A2020	Mouser	531-PT10V-10K	\$0.46	\$0.92	
1	4.7k 5W	R5W	R21	Resistor, 4.7K 5W wirewound axial	Vishay/Dale	CW0054K700JB12	Mouser	71-CW5-4.7K	\$0.97	\$0.97	
2	5k	LI10-B	R22, R23	Pot, 1-turn trimmer, 5k	Piher	PT10LV10-502A2020	Mouser	531-PT10V-5K	\$0.46	\$0.92	
6	100k	R2W_5083	R24, R25, R26, R27, R63, R64	Resistor, 100k 1/2 watt minimum	KOA	SPR2CT521R104J	Mouser	660-SPR2CT521R104J	\$0.16	\$0.96	
6	10k	R2W_5083	R28, R35, R38, R40	Resistor, 10k 1/2 watt minimum	KOA	SPR2C103J	Mouser	660-SPR2C103J	\$0.16	\$0.96	
4	220k	R2W_5083	R29, R30, R31, R47	Resistor, 220k 1/2 watt minimum	KOA	SPR2LT521R224J	Mouser	660-SPR2LT521R224J	\$0.24	\$0.96	
16	1k CC	R2W_5083	R8, R9, R10, R11, R36, R45, R46, R57, R58, R59, R60, R61, R62, R65, R66, R67	Resistor, 1k 1/2W carbon comp only	IRC	RC20GF102J	Mouser	66-RC20GF102J	\$0.32	\$5.12	These are for grid stoppers. Must be carbon comp. Value not critical, can use anything near 1k.
4	1k CC	R2W_5083	R3, R4, R5, R6 (6JN6 only)	Resistor, 1k 1/2W carbon comp only	IRC	RC20GF102J	Mouser	66-RC20GF102J	\$0.32	\$1.28	Place these four resistors if using 6JN6 output tubes. These are for grid stoppers. Must be carbon comp. Value not critical, can use anything near 1k.
4	1k CC	R2W_5083	R16, R17, R18, R20 (6JM6/6GV5)	Resistor, 1k 1/2W carbon comp only	IRC	RC20GF102J	Mouser	66-RC20GF102J	\$0.32	\$1.28	Place these four resistors if using 6JM6 or 6GV5 output tubes. These are for grid stoppers. Must be carbon comp. Value not critical, can use anything near 1k.
2	3.3k	R2W_5083	R68, R70	Resistor, 3.3k ohms 1/2 watt minimum	KOA	SPR2CT521R332J	Mouser	660-SPR2CT521R332J	\$0.16	\$0.32	
4	330k	R2W_5083	R32, R33, R42, R44	Resistor, 330k 1/2 watt minimum	KOA	SPR2CT521R334J	Mouser	660-SPR2CT521R334J	\$0.16	\$0.64	
4	1k	R2W_5083	R34, R41, R48, R49	Resistor, 1k 1/2 watt minimum	KOA	SPR2CT521R102J	Mouser	660-SPR2CT521R102J	\$0.16	\$0.64	
2	200	R2W_5083	R37, R39	Resistor, 200 ohms 1/4 watt minimum	Vishay/Dale	RN60D2000FB14	Mouser	71-RN60D-F-200	\$0.09	\$0.18	
4	47k	R2W_5083	R43, R56, R71, R72	Resistor, 47k 1/2 watt minimum	KOA	SPR2CT521R473J	Mouser	660-SPR2CT521R473J	\$0.16	\$0.64	
4	30k 2W	R2W_5083	R50, R51, R53, R55	Resistor, 30k21 watt minimum	KOA	SPR2CT521R303J	Mouser	660-SPR2CT521R303J	\$0.16	\$0.64	
2	100	LI10-B	R52, R54	Pot, 1-turn trimmer, 100 ohms	Piher	PT10LV10-101A2020	Mouser	531-PT10V-100	\$0.46	\$0.92	
1	1M	R2W_5083	R69	Resistor, 1Meg 1/2 watt minimum	KOA	CF1/2C105J	Mouser	660-CF1/2C105J	\$0.19	\$0.19	
1	CL140	CL110	RT1	Thermistor, inrush limiter, CL-140	Thermometrics	RL3504-31.2-73-S13	Mouser	527-CL140	\$1.10	\$1.10	
12	3,81/1,4		TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12	Test point	Kobicon	151-103-RC	Mouser	151-103-RC	\$0.30	\$3.60	
2	IXCP10M45	IXCP10M45SB	U1, U2	IC, current regulator, Ixys 10M45S, TO-220 package	Ixys	IXCP10M45S	Mouser	747-IXCP10M45S	\$2.52	\$5.04	
4	6JN6_6JM6	6JM6_6JN6_2	VT1, VT2, VT3, VT4	Tube socket, 12-pin compactron, PCB mount	NA	NA	Ebay/Pacific TV	B12C-PCB	\$4.00	\$16.00	Can use others, 1" - 1.1" pin circle
4	6CB6	6CB6_BOT	VT5, VT6, VT7, VT8	Tube socket, 7-pin miniature, PCB mount	NA	NA	Cascade Surplus/Ebay		\$1.50	\$6.00	Can use others, 0.75" pin circle

### Chassis mounted components

1			T1	Power transformer	Eddor	XPWR139	Eddor	XPWR139	\$60.27	\$60.27	Other options can work including Hammond 370HX. 280-0-280 @ 200mA DC with at least one 50V bias tap, plus 6.3V 6A.
2			T2, T3	Output transformer, 8k : 8 25V push-pull	Eddor	CXPP-MS-8k	Eddor	CXPP-MS-8k	\$56.51	\$113.02	Other output transformers can work. 8k P-P to 8 ohms. 25W minimum..
1			J1	RCA jack, red	NA	NA	Antique Electronics	S-H267R	\$2.66	\$2.66	Or use your favorite one.
1			J2	RCA jack, black	NA	NA	Antique Electronics	S-H267B	\$2.66	\$2.66	Or use your favorite one.
2			J3, J4	Speaker terminals, dual binding post	NA	NA	Antique Electronics	S-H263	\$3.56	\$7.12	Or use your favorite one.
1			J5	Power inlet / switch / fuseholder	Qualtek	763-00/001	Mouser	562-763-00/001	\$6.56	\$6.56	
2			F1	Fuse, 2A slow blow	Littlefuse	0313002.HXP	Mouser	576-0313002.HXP	\$0.60	\$1.20	

### Tubes

4			VT1, VT2, VT3, VT4	Sweep tube, 6JM6 or 6JN6	any	6JN6	Antique Electronics	T-6JN6	\$4.77	\$19.08	Can use 6JM6 or 6GV5 with plate cap. Plate caps to connect to PCB with wires.
4			VT5, VT6, VT7, VT8	Pentode, 6CB6	any	6CB6	Antique Electronics	T-6CB6_6CF6	\$2.34	\$9.36	

Total \$326.34