

**Amplifier board**

Capacitors	value	digkey part #	Note
C1-C3	220uf	P10326-ND	footprint allows for 12.5mm diameter caps
C4	10pf	338-1090-ND	mica capacitor - CD5 package
C5	1nf	PS1H103G-ND	Panasonic ECHS PPS film
Diodes	value	digkey part #	Note
D1-D5	9.1v zener	1N4739ADICT-ND	
Resistors	value	digkey part #	Note
R0	3.0	P3.0W-3BK-ND	3w 5% metal film
R1	10.0K	PPC10.0KXCT-ND	PPC + Value + XCT-ND
R2	100K	PPC100KXCT-ND	
R3	68.1K	PPC68.1KXCT-ND	
R4	221	PPC221XCT-ND	
R5	4.75K	PPC4.75KXCT-ND	
R6	optional	PPC + Value + XCT-ND	optional, for closer matching of Q1 and Q2
R7	221	PPC221XCT-ND	
R8	221	PPC221XCT-ND	
R9	10.0K	PPC10.0KXCT-ND	
R10	68.1K	PPC68.1KXCT-ND	
R11	221	PPC221XCT-ND	
R12	820	PPC820XCT-ND	* initial value, could be optimized for expected power/load conditions
R13	47.5K	PPC47.5KXCT-ND	* initial value, could be optimized for expected power/load conditions
R14	1.50K	PPC1.50KXCT-ND	
R15	100K	PPC100KXCT-ND	
R16	1.50K	PPC1.50KXCT-ND	
R17	392	PPC392XCT-ND	* initial value, could be optimized for expected power/load conditions
R18	392	PPC392XCT-ND	
R19	not used		output boards used instead
R20	1.00k	PPC1.00kXCT-ND	
R21	221	PPC221XCT-ND	
R22	not used		output boards used instead
R23	0.47	P0.47W-3BK-ND	3w 5% metal film
R24	0.47	P0.47W-3BK-ND	3w 5% metal film
R25	0.47	P0.47W-3BK-ND	3w 5% metal film
R26	0.47	P0.47W-3BK-ND	3w 5% metal film
R27	not used		output boards used instead
R28	not used		output boards used instead
R47	0.47	P0.47W-3BK-ND	3w 5% metal film - not shown on layouts, stacks over R23-26
R48	0.47	P0.47W-3BK-ND	3w 5% metal film - not shown on layouts, stacks over R23-26
R49	not used		used for higher power designs - not shown on layouts, stacks over R23-26
Transistors	value	digkey part #	Note
Q1-Q3	IRF9610	IRF9610-ND	Q1 and Q2 should be matched Vgs
Q4-Q5	ZTX450	ZTX450-ND	
Q6-Q7	not used		output boards used instead
Output boards			
Q8-Q13	IRFP240	IRFP240-ND	Q8-Q13 should have matched VGS
R29-R34	221	PPC221XTR-ND	
R35-R46	1		2w 5% metal film (2 paralleled for closer matching)

R21 on Aleph 30 schematic  
R19 on Aleph 30 schematic

R16 on Aleph 30 schematic