

Headphone Amplifier Bill Of Materials

Date: 19/08/2009

Item	Part Reference	Quantity	Reference Designators	Description 1	Description 2	Description 3	Parameter 1	Value 1	Parameter 2	Value 2	Parameter 3	Value 3	Manufacturer	Manufacturers Part No	Supplier	Supplier Order No	Price Break 1	Price Break 1 Qty	Unit Price	Total Price				
PCB Components																								
1	00000101	1	BR1	Diode	Bridge Rectifier		Vrrm	600V	If	1A			Multicomp	1W06	Farnel	4077300	0.167	5	0.167	0.167				
2	00000242	6	C1, C2, C3, C4, C5, C6	Capacitor	Electrolytic	Ultra Low Impeadance	Capacitance	1000u	Voltage	25V	Tolerance	20%	Panasonic	EEUFC1E102	Farnel	9692193	0.57	5	0.570	3.420				
3	00000243	2	C7, C8	Capacitor	Electrolytic	Ultra Low Impeadance	Capacitance	4700u	Voltage	16V	Tolerance	20%	Rubycon	16ZLH4700M16X25	Farnel	8126330	2.29	1	2.290	4.580				
4	00000244	8	C9, C10, C11, C12, C18, C19, C25, C26	Capacitor	Polyester		Capacitance	100n	Voltage	100V	Tolerance	10%	Wima	MKS2 0.1UF +/-10% 63V	Farnel	1006030	0.26	5	0.260	2.080				
5	00000253	2	C13, C20	Capacitor	Polyester		Capacitance	470n	Voltage	63V	Tolerance	10%	Evox Rifa	MMK5474K63J02L4	Farnel	1572140	0.3	5	0.300	0.600				
6	00000254	2	C14, C21	Capacitor	Polyester		Capacitance	100p	Voltage	100V	Tolerance	5%	Evox Rifa	PFR5-101J100L4	RS Components	2404707	0.16	5	0.160	0.320				
7	00000255	2	C15, C22	Capacitor	Polyester		Capacitance	10n	Voltage	63V	Tolerance	5%	Evox Rifa	PFR5-103J63L4	RS Components	2404690	0.23	5	0.230	0.460				
8	00000276	2	C16, C23	Capacitor	Electrolytic		Capacitance	470u	Voltage	35V	Tolerance	20%	Panasonic	ECA1VAM471X	Farnel	8767289	0.38	1	0.380	0.760				
9	00000257	2	C17, C24	Capacitor	Electrolytic		Capacitance	470u	Voltage	25V	Tolerance	20%	ELNA	ROA Series	Hifi Collective	ELNAC-155	0.2	1	0.200	0.400				
10	00000239	1	CN7	Connector	Audio	6.35mm Jack Socket							Lumberg	KLBRSS 3	Farnel	1200145	2.46	1	2.460	2.460				
11	00000258	12	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12	Diode	Signal		Vrrm	100V	If	200mA					Farnel	1081177	0.034	10	0.034	0.408				
12	00000269	1	F1	Fuse	Holder	20x5mm							Schurter	0031.8201	Farnel	1162740	0.194	1	0.194	0.194				
13	00000267	1	Heatsink	Hardware	Heatsink	TO220	Height	25.4	Width	34.9	Depth	12.7	Wakefield Engineering	637-10ABPE	Farnel	1219495	2	1	2.000	2.000				
14	00000246	1	IC1	IC	Voltage Regulator	Positive	Voltage	12V	Current	1A			National Semiconductors	LM2940CT-12	Farnel	9490299	1.88	1	1.880	1.880				
15	00000245	1	IC2	IC	Voltage Regulator	Negative	Voltage	-12V	Current	1.5A			SGS Thomson	L7912CP	Farnel	1087144	0.48	1	0.480	0.480				
16	00000259	2	IC3, IC4	IC	Operational Amplifier								National Semiconductors	LME49710HA	Farnel	1433162	10.09	1	10.090	20.180				
18	00000268	1			Printed Circuit Board	160x100x1.6mm							Custom Design		Newbury Electronics		45	1	45.000	45.000				
19	00000248	8	R1, R3, R4, R5, R11, R13, R14, R15	Resistor	Carbon Composition		Resistance	1K	Power	0.25W	Tolerance	5%	Tyco electronics	CBT25-1K	Farnel	1265072	0.175	5	0.175	1.400				
20	00000277	2	R2, R12	Resistor	Carbon Composition		Resistance	3K3	Power	0.25W	Tolerance	5%	Tyco electronics	CBT25-3K3	Farnel	1265075	0.175	5	0.175	0.350				
21	00000272	1	R21	Resistor	Carbon Composition		Resistance	22K	Power	0.25W	Tolerance	5%	Tyco electronics	CBT25-22K	Farnel	1265081	0.175	5	0.175	0.175				
22	00000250	4	R6, R7, R16, R17	Resistor	Carbon Composition		Resistance	47R	Power	0.25W	Tolerance	5%	Tyco electronics	CBT25-47R	Farnel	1265063	0.175	5	0.175	0.700				
23	00000251	4	R8, R9, R18, R19	Resistor	Carbon Composition		Resistance	10R	Power	0.5W	Tolerance	5%	Tyco electronics	CBT50-10R	Farnel	1265104	0.27	5	0.270	1.080				
24	00000252	2	R10, R20	Resistor	Carbon Composition		Resistance	47R	Power	2W	Tolerance	20%	Allen Bradley		Hifi Collective		1.6	1	1.600	3.200				
25	00000278	2	R22, R23	Resistor	Carbon Composition		Resistance	100K	Power	0.25W	Tolerance	5%	Tyco electronics	CBT25-100K	Farnel	1265085	0.175	5	0.175	0.350				
26	00000240	1	T1	Transformer	Toroidal	Encapsulated	Power	3.2VA	Voltage	2x12V	Current	133mA	Nuvotem	70012K	RS Components	2239070	6.29	1	6.290	6.290				
27	00000261	2	TR1, TR5	Transistor	PNP		Vce	45V	Ice	100mA	Power	500mW	Fairchild Semiconductors	BC557	Farnel	1467882	0.078	1	0.078	0.156				
28	00000260	2	TR2, TR6	Transistor	NPN		Vce	45V	Ice	100mA	Power	500mW	Fairchild Semiconductors	BC547	Farnel	1467869	0.078	1	0.078	0.156				
29	00000262	2	TR3, TR7	Transistor	NPN		Vce	160V	Ice	600mA	Power	625mW	Fairchild Semiconductors	2N5551	Farnel	9846751	0.105	5	0.105	0.210				
30	00000263	2	TR4, TR8	Transistor	PNP		Vce	150V	Ice	600mA	Power	625mW	Fairchild Semiconductors	2N5401	Farnel	9846867	0.093	5	0.093	0.186				
31	00000230	1	VR1	Resistor	Potentiometer	Audio	Resistance	50K	Power	50mW	Tolerance	20%	Alps	RK27-50K	Rapid Electronics	66-0225	8.5	1	8.500	8.500				
Total PCB Price:																	£108.14							
Other Hardware																								
1	00000231	1	Audio Input Right	Connector	Audio	Phono							Neutrik	NYS367-2	Farnel	5008529	1.37	1	1.370	1.370				
2	00000232	1	Audio Input Left	Connector	Audio	Phono							Neutrik	NYS367-0	Farnel	5008517	1.37	1	1.370	1.370				
3	00000234	1	Enclosure	Enclosure	Aluminium	Black Anodised	Width	103mm	Height	53mm	Depth	160mm	Hammond Manufacturing	1455N1601BK	Farnel	9287884	15.48	1	15.480	15.480				
4	00000271	1	Front Panel LED	Opto	LED	3mm							TT Electronics	OLVBB4C7	Farnel	1497965	0.58	1	0.580	0.580				
5	00000266	1	Rear Mains Switch	Switch	Rocker	SPST	Contact VAC	250V	Contact Cl.6A				Arcolectric	H8600VBAAA	Farnel	1511133	0.57	1	0.570	0.570				
6	00000241	1	Power Input Connector	Connector	Power	IEC							Schurter	6100.4315	Farnel	9523855	0.96	1	0.960	0.960				
7	00000235	1	Volume Knob	Knob	Aluminium	Anodised	Diameter	40mm	Height	28mm	Shaft	6mm			HifiCollective		8.75	1	8.750	8.750				
8	00000273	1	Front Panel	Hardware	Front Panel								Custom Design		cam export		25	1	25.000	25.000				
9	00000000	4	Enclosure Feet	Feet	Black	7.9mm height							3M	SJ5027BLACK	Farnel	1165076	10.36	1	0.259	1.036				
Total Hardware Price:																	£55.12							
																	Total Price:				£163.26			