

Reference	Quantity	Value	Footprint	Manufacturer	MPN	Supplier	Order Code	Description	Notes
<b>PCB Mount</b>									
C103 C203	2	100p	C0805	Yageo	CC0805JRNPO9BN101	Mouser	603-CC0805JRNPO9BN101	C0G, 50V, 5%	
C104 C105 C204 C205	4	220p	C0805	Yageo	CC0805JRNPO9BN221	Mouser	603-CC0805JRNPO9BN221	C0G, 50V, 5%	
C101 C201	2	2n2	C0805	Panasonic	ECH-U1C222GX5	Mouser	667-ECH-U1C222GX5	PPS, 16V, 2%	
C1-C4, C106-C113, C206-C213	20	100n	C0805	Yageo	CC0805KRX7R9BB104	Mouser	603-CC0805KRX7R9BB104	X7R, 50V, 10%	
C102 C114 C115 C202 C214 C215	6	22u	CE5x5.8	Panasonic	EEE-FK1V220AR	Mouser	667-EEE-FK1V220AR	35V, 20%, 105deg	
D101 D102 D201 D202	4	BAW56	SOT-23-3	On Semiconductor	BAW56LT1G	Mouser	863-BAW56LT1G	Common anode dual diode	
L1 L2 L101 L102 L201 L202	6	10u	L0805	Taiyo Yuden	LBC2012T100K	Mouser	963-LBC2012T100K	1.2R, 200mA, 10%	
Q101 Q201	2	DMMT3906W	SOT-363	Diodes Inc	DMMT3906W-7-F	Mouser	621-DMMT3906W-F	Dual matched PNP	Note polarity – these are not symmetrical!
Q102 Q202	2	DMMT3904W	SOT-363	Diodes Inc	DMMT3904W-7-F	Mouser	621-DMMT3904W-F	Dual matched NPN	Note polarity – these are not symmetrical!
Q103 Q203	2	MMBT3906	SOT-23-3	On Semiconductor	MMBT3906LT1G	Mouser	863-MMBT3906LT1G	PNP	
Q104 Q204	2	MMBF5485	SOT-23-3	On Semiconductor	MMBF5485	Mouser	512-MMBF5485	N-Channel JFET	
Q105 Q205	2	MMBFJ201	SOT-23-3	On Semiconductor	MMBFJ201	Mouser	512-MMBFJ201	N-Channel JFET	Select for VGS(off) = 0.7V – 1.2V; ideal value is 1.13V
R117 R217	2	390R	R0805	Yageo	RC0805FR-07390RL	Mouser	603-RC0805FR-07390RL	150V, 125mW, 1%, 100PPM	
R146 R246	2	470R	R0805	Yageo	RC0805FR-07470RL	Mouser	603-RC0805FR-07470RL	150V, 125mW, 1%, 100PPM	
R140 R141 R148 R151 R152 R240 R241 R248 R251 R252	10	680R	R0805	Yageo	RC0805FR-07680RL	Mouser	603-RC0805FR-07680RL	150V, 125mW, 1%, 100PPM	
R114 R145 R214 R245	4	1k8	R0805	Yageo	RC0805FR-071K8L	Mouser	603-RC0805FR-071K8L	150V, 125mW, 1%, 100PPM	
R116 R216	2	2k	R0805	TE Connectivity	LT732K0JTG	Small Bear	2530	PTC 5%	Alt. Farnell p/n 1174317
R147 R247	2	2k2	R0805	Yageo	RC0805FR-072K2L	Mouser	603-RC0805FR-072K2L	150V, 125mW, 1%, 100PPM	
R133 R233	2	2k49	R0805	Yageo	RC0805FR-072K49L	Mouser	603-RC0805FR-072K49L	150V, 125mW, 1%, 100PPM	
R124 R149 R224 R249	4	3k3	R0805	Yageo	RC0805FR-073K3L	Mouser	603-RC0805FR-073K3L	150V, 125mW, 1%, 100PPM	
R119 R219	2	4k99	R0805	Yageo	RC0805FR-074K99L	Mouser	603-RC0805FR-074K99L	150V, 125mW, 1%, 100PPM	
R129 R142 R143 R229 R242 R243	6	6k8	R0805	Yageo	RC0805FR-076K8L	Mouser	603-RC0805FR-076K8L	150V, 125mW, 1%, 100PPM	
R150 R250	2	9k1	R0805	Yageo	RC0805FR-079K1L	Mouser	603-RC0805FR-079K1L	150V, 125mW, 1%, 100PPM	
R1 R2 R106 R109 R115 R122 R206 R209 R215 R222	10	10k	R0805	Yageo	RC0805FR-0710KL	Mouser	603-RC0805FR-0710KL	150V, 125mW, 1%, 100PPM	
R121 R125 R130 R221 R225 R230	6	15k	R0805	Yageo	RC0805FR-0715KL	Mouser	603-RC0805FR-0715KL	150V, 125mW, 1%, 100PPM	
R118 R144 R218 R244	4	33k	R0805	Yageo	RC0805FR-0733KL	Mouser	603-RC0805FR-0733KL	150V, 125mW, 1%, 100PPM	
R120 R126 R220 R226	4	68k	R0805	Yageo	RC0805FR-0768KL	Mouser	603-RC0805FR-0768KL	150V, 125mW, 1%, 100PPM	
R107 R111 R113 R207 R211 R213	6	100k	R0805	Yageo	RC0805FR-07100KL	Mouser	603-RC0805FR-07100KL	150V, 125mW, 1%, 100PPM	
R105 R205	2	120k	R0805	Yageo	RC0805FR-07120KL	Mouser	603-RC0805FR-07120KL	150V, 125mW, 1%, 100PPM	SOT for correct V/O scaling
R103 R123 R128 R203 R223 R228	6	150k	R0805	Yageo	RC0805FR-07150KL	Mouser	603-RC0805FR-07150KL	150V, 125mW, 1%, 100PPM	
R101 R102 R201 R202	4	180k	R0805	Yageo	RC0805FR-07180KL	Mouser	603-RC0805FR-07180KL	150V, 125mW, 1%, 100PPM	
R134 R137 R138 R139 R234 R237 R238 R239	8	330k	R0805	Yageo	RC0805FR-07330KL	Mouser	603-RC0805FR-07330KL	150V, 125mW, 1%, 100PPM	
R112 R132 R212 R232	4	390k	R0805	Yageo	RC0805FR-07390KL	Mouser	603-RC0805FR-07390KL	150V, 125mW, 1%, 100PPM	
R135 R235	2	430k	R0805	Yageo	RC0805FR-07430KL	Mouser	603-RC0805FR-07430KL	150V, 125mW, 1%, 100PPM	
R127 R227	2	680k	R0805	Yageo	RC0805FR-07680KL	Mouser	603-RC0805FR-07680KL	150V, 125mW, 1%, 100PPM	
R131 R136 R231 R236	4	820k	R0805	Yageo	RC0805FR-07820KL	Mouser	603-RC0805FR-07820KL	150V, 125mW, 1%, 100PPM	
R108 R110 R208 R210	4	1M5	R0805	Yageo	RC0805FR-071M5L	Mouser	603-RC0805FR-071M5L	150V, 125mW, 1%, 100PPM	
R104 R204	2	2M7	R0805	Yageo	RC0805FR-072M7L	Mouser	603-RC0805FR-072M7L	150V, 125mW, 1%, 100PPM	
TR103 TR203	2	100R	3314J	Bourns	3224W-1-101E	Mouser	652-3224W-1-101E	500V, 250mW, 20%, 100PPM	
TR104 TR204	2	20k	3314J	Bourns	3314J-1-203E	Mouser	652-3314J-1-203E	500V, 250mW, 20%, 100PPM	
TR101 TR102 TR201 TR202	4	100k	3314J	Bourns	3314J-1-104E	Mouser	652-3314J-1-104E	500V, 250mW, 20%, 100PPM	
TR105 TR205	2	1M	3314J	Bourns	3314J-1-105E	Mouser	652-3314J-1-105E	500V, 250mW, 20%, 100PPM	
U1	1	ADR01	SOIC08	Analog Devices	ADR01ARZ	Mouser	584-ADR01ARZ	10V reference, 0.1%, 3PPM	
U101 U201	2	TL074	SOIC14	Texas Instruments	TL074IDR	Mouser	595-TL074IDR	Quad operational amplifier, JFET input	
U102 U202	2	LM13700	SOIC16	Texas Instruments	LM13700MX/NOPB	Mouser	926-LM13700MX/NOPB	Dual transconductance amplifier	
U103 U203	2	TL072	SOIC08	Texas Instruments	TL072IDR	Mouser	595-TL072IDR	Dual operational amplifier, JFET input	
U2 U104 U204	3	TL071	SOIC08	Texas Instruments	TL071IDR	Mouser	595-TL071IDR	Operational amplifier, JFET input	
VR102 VR202	2	100k Lin	RD901F-40-00D	Song Huei	R0904N-B100K-L-25KQ	Small Bear	1012A4-B100K	9mm RA PCB mount potentiometer	
VR101 VR103 VR104 VR106 VR201 VR203 VR204 VR206	8	100k Lin	RV16AF-41-(L)R1-XXX	Alpha	RV16AF-41-15R1-104B	Small Bear	1011 B100K	16mm RA PCB mount potentiometer	Snap off locating lug
VR105 VR205	2	100k Log	RV16AF-41-(L)R1-XXX	Alpha	RV16AF-41-15R1-104A	Small Bear	1011 A100K	16mm RA PCB mount potentiometer	Snap off locating lug
	10			Alpha	M7x0.75	Small Bear	1018	Toothed washer for 16mm potentiometer	Fit between potentiometer body and panel
	10			Alpha		Small Bear	1011AM	Dust cover for 16mm potentiometer	Fit on all 16mm potentiometers
J106-J108, J206-J208	2	Shape Sel		Samtec	TSW-103-07-F-T	Mouser	200-TSW10307GT	3R3P header 2.54mm	Alt. Farnell p/n 2050709

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<b>Panel Mount</b>									
J101 J102 J105 J201 J202 J205	6	CV inputs		Johnson	108-0903-001	Mouser	530-108-0903-1	Black banana jack	
J103 J203	2	V/O input		Johnson	108-0913-001	Mouser	530-108-0913-1	Grey banana jack	
J104 J109 J110 J111 J204 J209 J210 J211	8	Audio IO		Switchcraft	41	Mouser	502-41	Tinijax	
24awg wire black 25mm length	14			Alpha Wire	892419 BK005	Mouser	602-892419-100-02	Wiring to CV inputs + audio shields	Strip 4mm each end. Order code is for 30.5m reel.
24awg wire grey 25mm length	2			Alpha Wire	892419 SL005	Mouser	602-892419-100-09	Wiring to V/O inputs	Strip 4mm each end. Order code is for 30.5m reel.
24awg wire white 25mm length	8			Alpha Wire	892419 WH005	Mouser	602-892419-100-01	Wiring to Audio IO	Strip 4mm each end. Order code is for 30.5m reel.
<b>Hardware &amp; Misc</b>									
PCB	1			Dunnington Audio		thebeast.co.uk	http://thebeast.co.uk/?product=	Printed circuit board	
Front panel	1			The Beast		thebeast.co.uk	http://thebeast.co.uk/?product=	Front panel	If using alternate panels, drill out the scale trim pot holes to 8.5mm
M3x14mm F-F Standoff	5			Harwin	R30-1001402	Mouser	855-R30-1001402		
M3x6mm Pozi CSK	5			RS Pro		RS	528-946		Panel to standoff fixing
M3x6mm Pozi Pan SEMS	5			RS Pro		RS	279-149		PCB to standoff fixing
M3 Toothed Washer	5			RS Pro		RS	526-574		Fit between standoffs and panel
Small Knob	8			Davies Molding	1610AA	Mouser	5164-1610AA		Fit on VR103-VR106 & VR203-VR206
Large knob	2			Davies Molding	1600BM	Mouser	5164-1600BM		Fit on VR101 & VR201
J1	1	Power		EDAC	306-010-500-102	Mouser	587-306-50-010	10P edge connector, 3.96mm	
	1			EDAC	338-240-328	Mouser	587-338-240-328	Polarizing key	Fit in position 7 of power EDAC
20awg wire black 350mm length	1	Q		Alpha Wire	892019 BK005	Mouser	602-892019-100-02		EDAC position 1. Order code is for 30.5m reel.
20awg wire white 350mm length	1	-15V		Alpha Wire	892019 WH005	Mouser	602-892019-100-01		EDAC position 2. Order code is for 30.5m reel.
20awg wire red 350mm length	1	+15V		Alpha Wire	892019 RD005	Mouser	602-892019-100-03		EDAC position 3. Order code is for 30.5m reel.
Expandable Sleeving 3mm 300mm	1			Alpha Wire	GRP1301/8 BK007	Mouser	602-130018-50BK		Fit over power cabling
Heatshrink 6.35mm 40mm length	2			Alpha Wire	FIT221V1/4 BK103	Mouser	602-221V014-4		Fit at each end of expandable sleeving
Heatshrink 3.18mm 12mm length	3			Alpha Wire	FIT221V1/8 BK103	Mouser	602-221V018-4		Fit over terminated EDAC contacts
Cable ties	2			Panduit	PLT.7M-M	Mouser	644-PLT.7M-M		Secure power cabling to PCB and EDAC
Shunt, 3 position	2			Samtec	MNT-103-BK-G	Mouser	200-MNT103BKG		Alt. Farnell p/n 2779698 – Fit on Shape Sel headers for desired operation
Thermally conductive epoxy	1			MG Chemicals	8329TFF-25ML	Mouser	590-8329TFF-25ML		Optionally apply over Q101/R116 and Q201/R216