

Component	Value	Description	Role	Q.ty	Manufacturer		Mouser P/N	Digikey P/N	European alternatives for Digikey			
					Name	Part Number			RS Components P/N	Same?	Distrelec P/N	Same?
D2, D3 (Changed)		1A - 50V Diodes	Aux Rectifier	2	Vishay	SBYV27-100-E3/4	625-SBYV27-100-E3/4		629-8843 (5 Pack)	Y	601737	Diotec FE1D
D4		1A - 50V Diodes	Relay driver protection	1	Vishay /Fairchild	1N4001-E3	625-1N4001-E3/54	1N4001FSCT-ND	628-8931 (10 Pack)	Y	603560	?
Q2-Q3		NPN Bipolar Transistor	Relay driver	2	Fairchild	BC546	512-BC546	BC546-ND	544-9292 (5 Pack)	Y	610356	?
Q1		NPN Bipolar Transistor	Relay driver	1	ON Semiconductor /Fairchild	BC639G	863-BC639G	BC639-ND	545-2276	Y	610378	?
ZD1-ZD2		12V 1.3W Zener Diode	V Ref	2	Fairchild	BZX85C12	512-BZX85C12	BZX85C12-ND	812-487	Y	600932	Y
C4, C5	100nF	MKT 100V 7,50mm	Bypass	2	Wima MKP4	MKP4-.1/250/10	505-MKP4.1/250/10		Order from Banzai Music			
C7	100nF	MKT 50V / COG 5,00mm	Bypass	1	Wima MKP2	MKP2-.1/100/5	505-MKP20.1/100/5		-			
C7 (Much better but experimental)	10-22nF	MKT 50V / COG 5,00mm	Bypass	1	Wima FKP2							
C17, C18, C19, C20	220nF	MKT 50V / COG 5,00mm	Bypass	4				not used				
C21 (Changed)	22nF	MKT 50V / COG 5,00mm	Signal Bypass	1	Wima FKP2	FKP2-.022/63/2.5	505-FKP20.022/63/2.5		Order from Banzai Music			
C10	22pF	MKT 50V / COG 5,00mm	Signal Filter	1	CDE CD10	CD10ED220JO3F	598-CD10ED220JO3F		Order from Banzai Music			
C12	220pF	MKT 50V / COG 5,00mm	Signal Filter (Shunt)	1	Wima FKP2	FKP2220/100/2.5	505-FKP2220/100/2.5		Order from Banzai Music			
C13	1uF	MKP 50V 22,5 mm	Coupling	1	Mundorf MCAP Zn 1.2 uf 250V (Obligato 1.0uF 600V, much cheaper but very good alternate)			Order from Banzai Music				
C9	220uF	Radial 50V Elco 5mm, D.8mm Audio grade	Signal Filter (Shunt)	1	Elna Silmic II	RFS-35V221M6#5		604-1066-ND	Order from Banzai Music			
C14	220uF	Radial 50V Elco 5mm, D.8mm	Aux PS Decoupling	1	Nichicon VR	UVR1H221MPD1TD	647-UVR1H221MPD1TD		228-6919 (5 pack)	Panasonic CA	802452	NCC SMG
C1, C2	220uF	Radial 50V Elco 5mm, D.8mm Low ESR	35V PS Decoupling	2	Panasonic FM	EEU-FM1H221		P12397-ND	526-1660 (5 Pack)	Y	818676	Elna RJH
C3, C8	10000uF	Snap-In 50V Elco10mm,D.300mm Audio Grade	35V PS Decoupling	2	Panasonic TS-HA / TS-UP	ECO-S1HA103DA		P6690-ND	339-6887	Y	818884	Elna LAH
C15	22uF	Radial 25V Elco 2mm, D.6.5mm	Relay PS Decoupling	1	Nichicon VR	UVR1E220MDD	647-UVR1E220MDD		228-6767	Panasonic CA	802449	NCC SMG
C16	100uF	Radial 25V Elco 5mm, D.8mm	Relay PS Decoupling	1	Nichicon VR	UVR1E101MED	647-UVR1E101MED		228-6767 (5 Pack)	Panasonic CA	802451	NCC SMG
C6, C11	100uF	Radial 50V Elco 5mm, D.8mm Low ESR	12V PS Decoupling	2	Elna Silmic II	RFS-35V101MH5#5		604-1065-ND	Order from Banzai Music			
C34	10pF	COG 200V 5,00mm	LM318 Compensation	1	CDE CD5	CD5CC100JO3F	598-CD5CC100JO3F		Order from Banzai Music			
C30	1nF	MKP 100V 5,00mm	Signal Filter	1	Wima FKP2	FKP2-1000/100/5	505-FKP21000/100/5		Order from Banzai Music			
C32	150pF	COG 200V 5,00mm	Signal Filter	1	Wima FKP2	FKP2-150/100/2.5	505-FKP2150/100/2.5		Order from Banzai Music			
U1		LM318 DIL	Voltage Opamp	1	National Semi	LM318N/NOBP		LM318N-ND	461-042 (10 pack)	Y	640727	Y
IC1		LM3886	Current Opamp	1	National Semi	LM3886TF/NOBP		LM3886TF-ND	534-2961	Y	640447	Y
DR1, DR2, DR3, DR4		Soft Recovery Diode	Main Rectifier	1	ON Semiconductor	MUR820G	863-MUR820G	MUR820GOS-ND	688-2108 (5 pack)	Taiwan Semi	603597	NXP BYW29
R5, R8	22K0	1/4W 0.1% 6,3mm	Signal	2	IRC	RC55LF-D-22K1-B-B	66-RC55LF-D-22.1K		167-052 (5 Pack)	Welwyn RC55Y	Only 100 pack...	
R6, R9	47K0	1/4W 0.1% 6,3mm	Signal	2	IRC	RC55LF-D-47K5-B-B	66-RC55LF-D-47.5K		167-377 (5 Pack)	Welwyn RC55Y	Only 100 pack...	
R42	47	1/4W 1% 6,3mm Metal Film	Signal	1	KOA Speer MF	MF1/4CCT52R47R0F	660-MF1/4CCT52R47R0F		683-3758 (25 Pack)	Vishay MSR25	Only 100 pack...	
R10	390	1/4W 2% 6,3mm Carbon Film	Signal (Shunt)	1	KOA Speer CF	CF1/4CT52R391J	660-CFS1/4CT52R391G		131-205 (10 Pack)	Tyco CFR25	Only 100 pack...	
R12, R37	3K3	1/4W 1% 6,3mm Metal Film	Signal	2	KOA Speer MF	MF1/4CC3321F	660-MF1/4CC3321F		683-3629 (25 Pack)	Vishay MSR25	Only 100 pack...	
R7	12K0	1/4W 1% 6,3mm Metal Film	Signal	1	KOA Speer MF	MF1/4CC1202F	660-MF1/4CC1202F		683-2989 (25 Pack)	Vishay MSR25	Only 100 pack...	
R13	100K	1/4W 2% 6,3mm Carbon Film	Signal (Shunt)	1	KOA Speer MF	CFS1/4CT52R104G	660-CFS1/4CT52R104G			Tyco CFR25	Only 100 pack...	
R2	10K	1/4W 1% 6,3mm Metal Film	LM3886 Mute	1	KOA Speer MF	MF1/4CC1002F	660-MF1/4CC1002F		683-2939 (25 Pack)	Vishay MSR25	Only 100 pack...	
R39	470K	1/4W 1% 6,3mm Metal Film	LM318 Compensation	1	KOA Speer MF	MF1/4CC4703F	660-MF1/4CC4703F		683-3730 (25 Pack)	Vishay MSR25	Only 100 pack...	
R43	22K	1/4W 1% 6,3mm Metal Film	LM318 Compensation	1	KOA Speer MF	MF1/4CC2212F	660-MF1/4CC2212F		683-3730 (25 Pack)	Vishay MSR25	Only 100 pack...	
R11 (See note)	1	1/4W 5% 6,3mm Carbon Film	Shunt to power ground	1	KOA Speer SPR2	SPRX2C1R0J	660-SPRX2C1R0J		-			
R11 (Alternate code, perfect fit)	1	1/4W 5% 6,3mm Carbon Film	Shunt to power ground	1	KOA Speer CF	CF1/4CT52R1R0J	660-CF1/4CT52R1R0J		135-550 (10 Pack)	Tyco CFR25	Only 100 pack...	
R19	10K	1/4W 1% 6,3mm Metal Film	Speaker Protection	1	KOA Speer MF	MF1/4CC1002F	660-MF1/4CC1002F		Already ordered for R2	Vishay MSR25	Only 100 pack...	
R23	6K8	1/2W 5% 9mm Metal Film	Speaker Protection	1	KOA Speer MF	MF1/2DC6811F	660-MF1/2DC6811F		149-795 (10 Pack)	Vishay MSR25	Only 100 pack...	
R22	8K2	1/4W 1% 6,3mm Metal Film	Speaker Protection	1	KOA Speer MF	MF1/4CC8251F	660-MF1/4CC8251F		148-714 (10 Pack)	Tyco LR1F	Only 100 pack...	
R20	47K	1/4W 1% 6,3mm Metal Film	Speaker Protection	1	KOA Speer MF	MF1/4CC4702F	660-MF1/4CC4702F		148-893 (10 Pack)	Tyco LR1F	Only 100 pack...	
R15, R16	75K	1/4W 1% 6,3mm Metal Film	Speaker Protection	2	KOA Speer MF	MF1/4CC7502F	660-MF1/4CC7502F		148-944 (10 Pack)	Tyco LR1F	Only 100 pack...	
R21	220K	1/4W 1% 6,3mm Metal Film	Speaker Protection	1	KOA Speer MF	MF1/4CC2213F	660-MF1/4CC2213F		149-060 (10 Pack)	Tyco LR1F	Only 100 pack...	
R1, R4	1K	3W 5% 16mm (2W)	35V PS Decoupling	2	KOA Speer SPR3	SPR3CT631R102J	660-SPR3CT631R102J		-			
R1, R4 (Metal film alternate code)	1K	3W 5% 16mm (2W)	35V PS Decoupling	2	KOA Speer MOS3	MOS3CT631R102J	660-MOS3CT631R102J		683-5887 (10 Pack)	Vishay PR03	Only 100 pack...	
R14	470	1W 5% 10mm (2W)	Led PS Decoupling	1	KOA Speer MOS1	MOS1CT52R471J	660-MOS1CT52R471J		683-5518 (10 Pack)	Vishay PR01	Only 100 pack...	
R3	0,47	5W WW 20x10 Ceramic case	Signal	1	Caddock	MP915-0.5-1%	684-MP915-0.5	MP915-0.50F-ND	320-4700	Y	727127	MP930
R3 heatsink				1	Aavid Thermalloy	504222B00000G	532-504222B00	HS104-2-ND	-			
R3 heatsink - much smaller alternate – In my setup works fine but USE AT YOUR OWN RISK				1	Aavid Thermalloy	577202B00000G	532-577202B00	HS107-ND	-			
RELAY1		24VDC 2sc 8A-250V	Speaker Protection	1	Omron	G5LE-14-DC24	653-G5LE-14-DC24	Z1013-ND	369-488	Y	-	-
RELAY1 (alternate code – not sealed)		25VDC 2sc 8A-250V	Speaker Protection	1	Omron	G5LE-1-DC24	653-G5LE-1-DC24	Z1016-ND	399-8231 (5 Pack)	Y	400069	Y
PGND, AC1, AC2		Faston Connectors (PCB Mount)	Power connection	5	Keystone / Tyco	1287	534-1287 / 62409-1	A24742-ND	284-8466 (100 Pack)	Y		
Connector		Faston Female connectors	Power connection	5	Molex	19003-0001	538-19003-0001	WM18237-ND	2509189196 (50 pack)	Y		
IGND_IN		Pin Strip Headers (gold plated)	Signal connection	1	Molex	22-11-2022	538-22-11-2022		679-5515 (10 Pack)	Y		
LED		Pin Strip Headers (tin)	Signal connection	1	Molex	22-23-2021	538-22-23-2021		679-5583 (10 Pack)	Y		
Molex pin		Phosphor Bronze/gold plated Contacts	Signal connection	4	Molex	08-65-0816	538-08-65-0816		172-9178 (100 Pack)	Brass type		
Molex housing		Receptacle Housings	Signal connection	2	Molex	10-11-2023	538-10-11-2023		679-5173 (10 Pack)	Y		
Spacer		Metric Hex Spacer	PCB Mount	4	Harwin	R30-1011002	855-R30-1011002					
Screw		M3 steel screw	PCB Mount	8	Keystone	29311	534-29311					

Supplier P/Ns in **Bold** are the from the preferred source (usually cheaper or for availability for that particular P/N).

All resistors in blue are good candidates for 'Audio Grade' alternates like PRP or Takman, the 0.1% ones must be matched by hand in this case.

C9 with its bypass is very good but a BlackGate Standard 220uF 16V is even a bit better. Don't buy C21 if you'll use the BG.

Some shunt resistors are indicated as carbon film since they sound better than metal film in these positions.

Recommended R11 is a KOA SPR aka Kiwame, it's bigger than the original part so it must be mounted using C20 ground pin.

Except for R10 where I recommend a Takman REX, PRPs are recommended. An all PRPs config is also good.

PRP are more lively, punchy, Takmans are more relaxed and sweet, all of them are a nice improvement over KOAs CF and MF.

**This bom is for ONE (1) monoblock**

For Audio Grade components:

Part Connexion (PRP, Takman, BlackGate, Mundorf Zn), Sonicraft (PRP, Takman, BlackGate),DIYHiFi Supply (Takman and Obligato)

For European builders:

The most convenient thing to do is to buy all you can from Mouser trying to reach 75€ to have free shipping and the remaining (indicated in bold) from RS Components/Distrelec and Banzai effects.

Buying all from RS Components/Distrelec is simply impossible and MUCH more costly (higher prices and minimum q.ty).

Nevertheless all remaining RS/Distrelec part numbers for each component are indicated in gray for reference.

Where possible the RS/Distrelec P/N refers to the same component of the BOM, refer to the next column.