

Part	Position				Suggested Best Part		Mouser		Digikey		Elfa Distrelec		RS Components		Parts Connection		Notes
	Value	Rating	Package	Q.ty	Manufacturer	Part	Order #	Notes	Order #	Notes	Order #	Notes	Order #	Notes			
C1, C2	220µf	50V	E75-16	2	Elna	RJH	867-ELJFM1H221	Panasonic FM	P12927-ND		67-194-21						Can be ordered from Elfa-Distrelec
C4	100µf	250V	C10B5	1	Wima	MPK4	505-MPK4-1/250/10P				65-008-80						
C4 (Alt.)	100µf	250V	C10B5	1	Wima	MPK10	505-MPK10-1/250/10P										
C7	10µf	50V	C5B6.5	1	Wima	FKP2	505-FKP20101002.5				67-007-06	Wima FKP2					NOS ERO KP1834 is a (much) better alternative
C9	220µf	50V	E75-16	1	Black Gate	FK	647-UFJGH1221MMH	Nichicon FG			67-239-21	Panasonic FR					Black Gate PK or STD are fine alternatives
C10	33µf		C5B3.5	1	CDE	CD10	598-CD10E230J03F				65-706-67	Kemet COG	2550081444				
C12	220µf	100V 2.5%	C5B4.5	1	Amtrans	AMCH	505-FKP220010002.5	Wima FKP2			65-427-81	Wima FKP2					AMTRANS-73778
C13	1µf	250V	A98	1	Audyn	True Capac	75-V72SP1503000L	Vishay V-72SP			65-476-24	SCR MKP					Russian NOS K71-4 is an incredibly good cheaper alternative
C30	1µf	100V	C5B4.5	1	Amtrans	AMCH	505-FKP10001002.5	Wima FKP2			65-428-64	Wima FKP2					NOS ERO KC1850 is a fine alternative
C32	150µf	100V 2.5%	C5B4.5	1	Amtrans	AMCH	505-FKP215010002.5	Wima FKP2			65-427-65	Wima FKP2					NOS ERO KP1834 is a fantastic alternative to AMCH
C34	27µf		C0B5	1	CDE	MC	5982-08-100V27-F			338-1103-ND	65-798-41	Kemet COG	2509275887				
D1, D2	BAV99W		SOT23	2	NXP	BAV99W	771-BAV99W-178			568-1626-1-ND	70-300-83						
D3	27V	1/2W	SOD80C	1	NXP	BZV55	771-BZV55-C27115			568-4393-1-ND				788-592	25 Pack		
JC1	LM318M		S08	1	NuSemi	LM318M	506-LM318MMQ0R			LM318M-ND	73-290-71			781-5624	5 Pack		
LM3887F			TO220-11	1	NuSemi	LM3887F	508-LM3887FAC0R			LM3887F-ND	73-267-28			534-2961			
R2	10K	1/4W 2%	R1206	1	Vishay	CMA0204	594-CMA02040X10020GB3			CMA-10KCT-ND	60-197-31	KOA RK73		684-6039	10 Pack		
R3	0R47	5W	TO220	1	Caddock	MP-930	684-MP930-0.5			MP930-0.50P-ND	60-602-30						
R3 HeatSink			TO220	1	Aavid Thermalloy	TO220	532-57702800			105107-ND				712-4302	5 Pack		
R5, R6	22K	1/4W 0.1%	R1206	2	Susumu	RG32	754-RG3216P-2202-BT5			RG32P12-09BCT-ND	60-282-32	Panasonic ERA					
R6, R9	47K	1/4W 0.1%	R1206	2	Susumu	RG32	754-RG3216P-4702-BT5			RG32P12-09BCT-ND	60-282-40	Panasonic ERA					
R7	12K	1/4W 0.1%	R1206	1	Susumu	RG32	754-RG3216P-1202-BT5			RG32P12-09BCT-ND	60-256-98	Panasonic ERA					
R10	390	1/2W 1%	030912	1	Rohm	RM5	660-CF12C391J	KOA CF1/2			60-104-41	Flarionics CF					RIKEN-62074
R11	1	1/4W 2%	041015	1	KOA Saivet	SPR2	660-SPR02C1R01			RG20P13-90BCT-ND	60-101-36	Flarionics CF					
R12, R37	3K3	1/4W 0.1%	R1206	2	Susumu	RG32	754-RG2013P-3K30T5	RG20 (0805)		RG20 (0805)	60-256-94	Panasonic ERA					R12 is even better if Texas Components ASMP
R13	100K	1/2W 1%	B	1	Caddock	MK312V	684-MK312V-100K			RG22P1079BCT-ND				176-7495			
R38	470K	1/4W 2%	R0805	1	Susumu	RG20	754-RG2012P-474-BT5			RG22P1079BCT-ND							
R43	22K	1/4W 2%	R0805	1	Susumu	RG20	754-RG2012P-2230T5			RG22P1079BCT-ND	60-219-99						
Power Supply																	
C101, C201	10,000µf	50V	EBB5D	2	Mundorf	M-Lynx AG (MPL#)	667-ECO-S11HA103EA	Panasonic TS-HA		10000µF-ND				Elma LHA	339-6887	Panasonic TS-HA	MUNDORF-74876
D105, D205	14V	1/2W	DO36	2	Fairchild	1N624AB	515-1N624AB			1N624AB-ND							
D101-D104, D201-D204	MUR820		TO220ACS	8	OnSemi	MUR820G	863-MUR820G			1N624AB-ND	70-248-70	Vishay MUR820	545-2901				
K201, K201	LM317		TO220ACS	2	OnSemi	LM317TG	863-LM317TG			LM317TGQCS-ND	73-286-37						
R101, R201	50	1/2W 1%	TO126	2	Caddock	MP915	684-MP915-50			MP915-500P-ND	60-620-20						
R104, R204	200	1/2W 1%	B	2	Caddock	MK132V	684-MK132V-200							2509014705			
T101	BC639-16	1W	TO-92	1	OnSemi	BC639-16	863-BC639-16D1G				71-300-49	BD138-16					
T201	BC640-16	1W	TO-92	1	OnSemi	BC640-16	863-BC640-16D1G				71-308-42	BD140-16					
DC & Speaker Protection																	
C14	220µf	50V	E5-10.5	1	Nichicon	FW	647-UFW1V221MPD				67-239-21	Panasonic FR					
C15	22µf	25V	E2.5-5	1	Nichicon	FG	647-UFGE1222MDM				67-259-67	Panasonic ECA					
C16	100µf	25V	E3-5.8	1	Nichicon	FG	647-UFGE10101MPM				67-239-16	Panasonic FR					
D4	1N4001		D-7.5	1	Any	1N4001	625-1N4001-E354			1N4001-E354GTR-ND	70-003-67						
DR1, DR2	SBV227	100V	D-10	2	Vishay	SBV227-100	625-SBV227-100-E3				70-024-52	FE1D					
LED		3mm		1	Any	Any	76-TLDR440										
R14	470	2W	030812	1	Any		MOS1CT5R471J				60-598-90	Vishay SMA0414					
R15, R16	75K	1/4W	020710	2	Any		660-MF14CC7502F				60-592-64	Vishay SMA0207					
R19	10K	1/4W	020710	1	Any		660-MF14CC1002F				60-592-39	Vishay SMA0207					
R20	47K	1/4W	020710	1	Any		660-MF14CC4702F				60-592-59	Vishay SMA0207					
R21	220K	1/4W	020710	1	Any		660-MF14CC2213F				60-592-76	Vishay SMA0207					
R22	8K2	1/4W	020710	1	Any		660-MF14CC8215F				60-592-37	Vishay SMA0207					
R23	68K	1W	030812	1	Any		MF120C681F				60-599-18	Vishay SMA0414					
K1	G5LE	DC24V		1	Omron	G5LE-14-DC24	653-G5LE-14-DC24			Z0113-ND	37-037-62						
Q1	BC639		TO-92	1	Any		863-BC639G				71-014-76			545-2276			
Q2, Q3	BC546A		TO-92	2	Any		512-BC546CTA				71-014-60			544-9292			
Connectors & Hardware																	
AC1, AC2, NAC1, NAC2, OUT, OUT_GND, PWR, GND			PCB Faston	7	Keystone / Tyco	1287	534-1287			1287K-ND			48-330-72	Nude Brass			
AC1, AC2, NAC1, NAC2, OUT, OUT_GND, PWR, GND	Bronze		Faston	7	AMP		571-42437-5										
N (Pin strip header)	Gold plated			1	Molex	22-21-1022	538-22-11-2022			WM2100-ND			43-808-61	Tin plated			
EXT LED (Pin strip header)	Tinned			1	Molex	22-23-2021	538-22-23-2021			WM4020-ND			43-808-61				
Molex crimp pin	Gold plated			6	Molex	08-65-0816	538-08-65-0816			WM2140CT-ND			43-805-98	Tin plated			
Molex crimp housing				2	Molex	10-11-2023	538-10-11-2023			WM6001-ND			43-804-65				
Spacer	M3			4	Hawin	R30-101102	655-R30-101102			953-1485-ND			48-018-32				
Screw	M3			8	Keystone	29311	534-29311			29311K-ND			48-004-30				

This BOM is for one (1) PCB.