

BILL OF MATERIALS

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Design: subfilter / SPn

Dokumentointi on tehty osittain myös englanniksi, koska ulkomaiset nettisivujemme käyttäjät ovat toivoneet englanninkielistä dokumentointia. (Kieliopillisesti englanti ei ole välttämättä oikein).

QTY	PART-REFS	VALUE
Resistors		
6	R1,R2,R9,R10,R17,R18	10.7k / 1% / metal film
2	R3,R4	23.2k / 1% / metal film
8	R5,R6,R7,R8,R13,R14,R15,R16	97.6k / 1% / metal film
2	R11,R12	3.32k / 1% / metal film
Capacitors		
3	C1,C39,C40	10uF/35V/elko/105°/r. 5mm/dia.5mm/vertical
2	C2,C4	100nF/63V/polyester/r.5mm
3	C3,C5,C14	100uF/16V/elko/105°/r.5mm/dia. 8.2mm/vertical
6	C6,C7,C8,C9,C12,C13	2.2uF/50V/polyester/r.5mm
2	C10,C11	470nF/63V/polyester/r.5mm
2	C41,C42	220uF/10V/elko/105°/r.5mm/dia. 8.2mm/vertical
(24max.	CA, CB, CC, CD	Cutoff frequencies listed below)
5	CA1,CB1,CA3,CA5,CA6	47nF/63V/polyester/r.5mm
1	CD1	220nF/63V/polyester/r.5mm
2	CC1,CD5	22nF/63V/polyester/r.5mm
2	CA2,CA4	68nF/63V/polyester/r.5mm
1	CB2	15nF/63V/polyester/r.5mm
4	CC2,CD2,CC5,CC6	100nF/63V/polyester/r.5mm
2	CB3,CD3	33nF/63V/polyester/r.5mm
2	CC3,CC4	150nF/63V/polyester/r.5mm
1	CB4	6.8nF/63V/polyester/r.5mm
2	CB5,CD5	10nF/63V/polyester/r.5mm
1	CB6	4.7nF/63V/polyester/r.5mm
All capacitors from CA to CD are commonly available polyester capacitors. Raster r. 5mm voltage usually <63V, tolerance 10 ... 20 %. If you like to use precision capacitors, take care that those are not too big to PCB, because those 1 to 2% capacitors are usually approx. minimum 7.5 x 7.5 mm.		
Integrated Circuits		
1	U1 78L08	+8V voltage regulator / TO-92
1	U2 MC 33074	Quad operational amplifier / DIP-14
1	U3 PT 2351	Special subwoofer filter IC / DIP-8
Miscellaneous		
2	J1, J2	Soldering points
1	SW1	2 x 6 changeover Lorlin switch 2 x 6, make before brake
4	J3,J4,J5,J6	Hosiden RCA female Vertical RCA to PCB with switch (all same colour)
2	RV1,RV2 20k	Preset cermet 948C with knob
4		15 or 16 mm long metal spacer Spacer bolts are needed if PCB is connected to front panel, suitable spacers are for example number 5 or 6 in our catal.

Measuring was made by using HP 8903B Audio analyzer, audio signal level 1Vpp, RV1 and RV2 at minimum attenuation. Distortion was < 0.1 % in all measurings. Overall gain is approx. 6 dB.

SW1 position	CA	CB	CC	CD	- 3dB point	- 12dB attenuation	- 18dB attenuation
1	47nF	47nF	22 nF	220nF	55 Hz	120 Hz	170 Hz
2	68nF	15nF	100nF	100nF	65 Hz	135 Hz	190 Hz
3	47nF	33nF	150nF	33nF	75 Hz	150 Hz	205 Hz
4	68nF	6.8nF	150nF	----	85 Hz	175 Hz	235 Hz
5	47nF	10nF	100nF	22nF	95 Hz	195 Hz	270 Hz
6	47nF	4.7nF	100nF	10nF	105 Hz	225 Hz	295 Hz