

L-1 SYNTH

Vocoder filterbank capacitors (film 5mm spacing)

Really no matter how to distribute channels between boards but to save good functionality with any quantities of filterbank boards I've distributed so:

board	channels
1	1, 5, 9, 13, 17, 21
2	2, 6, 10, 14, 18, 22
3	3, 7, 11, 15, 19, 23
4	4, 8, 12, 16, 20, 24

Quantity per channel: **C1 – 8, C2 – 1.**

These capacitors don't listed into next page partlist, only here.

Channels differ only with these capacitors values, other parts are identical.

Lead spacing – 5mm.

Channel	C1	C2
1.	47n	0.33uF
2.	39n	0.33uF
3.	33n	0.22uF
4.	27n	0.22uF
5.	22n	0.15uF
6.	18n	0.15uF
7.	15n	0.1uF
8.	12n	0.1uF
9.	10n	68n
10.	8n2	68n
11.	6n8	47n
12.	5n6	47n
13.	4n7	33n
14.	3n9	33n
15.	3n3	22n
16.	2n7	22n
17.	2n2	15n
18.	1n8	15n
19.	1n5	10n
20.	1n2	10n
21.	1n	6n8
22.	820p	6n8
23.	680p	4n7
24.	560p	4n7

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Vocoder filterbank board– Parts list. (4 BOARDS TOTAL, so multiply everything on 4)

All parts not higher than 10mm to fit into 12mm between boards.

Qty	Value	Package	Comments	Parts	Farnell code
IC's					
6	TL074	DIL14		IC1, IC2, IC3, IC4, IC5, IC6	1256325
6	THAT4301	DIL20		U1, U2, U3, U4, U5, U6	1354170
3	THAT300	DIL14		Q1, Q2, Q3	1354175
Capacitors					
12	47p	5mm	ceramic	C114, C115, C214, C215, C314, C315, C414, C415, C514, C515, C614, C615	1216413
6	100p	5mm	ceramic	C113, C213, C313, C413, C513, C613	1216414
24	0.1uF	1206	ceramic, power decoupling caps	C116, C117, C118, C119, C216, C217, C218, C219, C316, C317, C318, C319, C416, C417, C418, C419, C516, C517, C518, C519, C616, C617, C618, C619	1759361
6	2.2uF	2.5mm	electrolyth (tantal prefered)	C112, C212, C312, C412, C512, C612	1457578
2	22uF	2.5mm	electrolyth	C1, C2	1165527
12	47uF	2.5mm	electrolyth	C105, C111, C205, C211, C305, C311, C405, C411, C505, C511, C605, C611	1165523
Resistors					
2	10 Ohm or ferrite bead	0.25W through-hole		R1, R2	9341145
6	51			R125, R225, R325, R425, R525, R625	9342044
6	200			R124, R224, R324, R424, R524, R624	9341471
12	1K			R107, R115, R207, R215, R307, R315, R407, R415, R507, R515, R607, R615	9341102
12	1K3			R105, R113, R205, R213, R305, R313, R405, R413, R505, R513, R605, R613	9341277
12	1K5			R102, R110, R202, R210, R302, R310, R402, R410, R502,	9341323

				R510, R602, R610	
6	2K (tempco)	0.25W through-hole	Install something one – through hole or SMD. Tempco preferred but regular will work too.	R121, R221, R321, R421, R521, R621	9341480
6	2K (tempco)	0805 SMD		R121-1, R221-1, R321-1, R421-1, R521-1, R621-1	1174317
6	3K			R123, R223, R323, R423, R523, R623	9341692
6	4K99			R117, R217, R317, R417, R517, R617	9468722
12	10K			R108, R120, R208, R220, R308, R320, R408, R420, R508, R520, R608, R620	9341110
6	20K			R126, R226, R326, R426, R526, R626	9341498
6	56K			R112, R212, R312, R412, R512, R612	9342079
6	68K			R109, R209, R309, R409, R509, R609	9342176
6	100K			R104, R204, R304, R404, R504, R604	9341129
6	150K			R101, R201, R301, R401, R501, R601	9341340
6	160K			R122, R222, R322, R422, R522, R622	9341404
6	220K			R118, R218, R318, R418, R518, R618	9341552
6	560K			R114, R214, R314, R414, R514, R614	9342087
6	620K			R106, R206, R306, R406, R506, R606	9342133
6	680K			R111, R211, R311, R411, R511, R611	9342184
6	750K			R103, R203, R303, R403, R503, R603	9342249
6	1M			R119, R219, R319, R419, R519, R619	9341137
6	2M			R116, R216, R316, R416, R516, R616	9466878
Trim pots					
6	100K		gain	T101, T201, T301, T401, T501, T601	9355294
Other					
1	Samtec connector	6-pin	ESQ-106-13-G-S		1769276
4	Spacer 12mm				1466845