

JH. "Resonator of an early Polyphonic Synthesizer" Bill Of Materials (V.1.0)

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Errors excepted

Quantity	Component	Remarks
<b>Semiconductors</b>		
1	4016	Quad 15V CMOS Transimission Gate (HEF4016, CD4016, or similar)
1	OPA604	or TL071 Op Amp
1	741	Op Amp
6	MC1458	Dual Op Amp (for Vintage Version) or use something "better" like the OPA2134 for a clean version
1 *)	LM317	TO-220 package
1 *)	LM337	TO-220 package
6 *)	1N4002	Diode
<b>Potentiometers</b>		
3	10k lin Dual (Stereo)	Alps RK14 fits on PCB - or use whatever you like and connect it with wires.
3	10k lin	Alps RK11 fits on PCB - or use whatever you like and connect it with wires.
5	10k log (audio taper)	off-board
<p><i>Remark: Original uses Slider Potentiometers. There are Alps RK14 and RK11 (rotary potentiometer) footprints on the PCB because these are decent pots, but spacing might be a bit dense.</i></p>		
<b>Capacitors, ceramic, 2.5mm</b>		
1	100pF	
<b>Capacitors, electrolytic (polarized!)</b>		
2 *)	470uF / 35V	
3	10uF / 35V	
<b>Capacitors, Polyester</b>		
2	220nF	"u22"
<b>Capacitors: Polyester, Polypropypene or Polystyrene</b>		
2	2.7nF	
2	12nF	
2	68nF	

<b>Capacitors, SMT</b>		
10	100nF	0805 or 1206 (on solder side)
<b>Resistors, 1%</b>		
2 *)	240	
3	470	
3	620	
1	1k	
6	2k4	
2 *)	2k7	
2	4k7	
2	8k2	
8	10k	
18	22k	
1	47k	
1	56k	
1	62k	
2 *)	82k	
17	100k	
1	130k	
1	1M	
<b>Fuses</b>		
2 *)	200mAT (slow blow)	with fuse holder - see footprint on PCB
<b>PCB Connectors (optional)</b>		
1 **)	MOTM Power Connector	or Synthesizers.com Power Connector
2 ***)	PSS254/2G	or similar 2 pin, 2.54mm spacing
7	PSS254/3G	or similar 3 pin, 2.54mm spacing
1 ****)	PSS254/5G	or similar 5 pin, 2.54mm spacing
*) only for on-board power supply		
**) only for +/-15V DC supply (MOTM, Synthesizers.com, etc.)		
***) plus 9, if you connect external potentiometers for Frequency and Emphasis		
****) plus 1 for on-board power supply		