

## JH. Variable Slope Filter / Phaser (Full Version) Bill Of Materials (V.1.0)

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Errors excepted

Quantity	Component	Remarks
<b>Semiconductors</b>		
1 *)	LM317T	*) only needed for on-board PSU version
1 *)	LM337T	*) only needed for on-board PSU version
2 *)	1N4002	*) only needed for on-board PSU version (the two big unmarked diodes)
1 *)	B80C1500	or similar bridge rectifier. (Check footprint on PCB.) *) only needed for on-board PSU version
21	BC560C or BC560B	all unmarked transistors (pnp-BJT)
8	BF245A	all transistors marked with "245" (n-JFET)
8	LM13600 or LM13700	Dual OTA
1	TL071	BiFET Opamp
5	TL072	Dual BiFet Opamp
6 **)	DG419	Electronic Switch. **) You can omit these and use mechanical switches here, but only with very short and stiff wires, which must be kept at a distance from other wires.
8	1N4148	small signal diode
<b>Trimpots</b>		
1	2k5 or 2k2 or 2k0	10mm trimpot (see PCB layout for footprint and dimensions).
1	5k or 4k7	10mm trimpot (see PCB layout for footprint and dimensions).
1	50k or 47k	10mm trimpot (see PCB layout for footprint and dimensions).
6	100k	10mm trimpot (see PCB layout for footprint and dimensions).
<b>Capacitors, ceramic, 2.5mm</b>		
1	22pF	
4	33pF	
4	100pF	one of them labelled "n1"
<b>Capacitors, Polystyrene</b>		

6	150pF	labelled "n15" (use other type, but no ceramic, if you can't get polystyrene)
<b>Capacitors, electrolytic (polarized!)</b>		
2 *)	470uF/35V	*) only needed for on-board PSU version
2	10uF/25V (or higher Voltage) Tantal	near MOTM connector
2	10uF/35	
2	22uF/25V (or higher voltage)	
1	47uF/25V (or higher voltage)	
<b>Capacitors, Polyester</b>		
2	10nF	5mm spacing
2	220nF	5mm spacing labelled "u22"
1	470nF	5mm spacing labelled "u47"
<b>Capacitors, SMT</b>		
18	100nF	0805 or 1206 (on solder side)
<b>Resistors, 1%</b>		
6	220	
2 *)	240	*) only needed for on-board PSU version
4	470	
5	620	
1	820	
1	1k	
1	1k5	
7	1k8	
3	2k	
2	2k4	
2 *)	2k7	*) only needed for on-board PSU version
1	4k7	
1	5k1	
1	6k8	
2	7k5	
5	10k	

1	12k	
20	15k	
1	16k	
3	18k	
3	20k	
3	22k	
1	24k	
16	33k	
1	36k	
1	43k	
1	47k	
2	51k	
1	56k	
3	75k	
2 *)	82k	*) only needed for on-board PSU version
44	100k	
2	150k	
1	160k	
3	180k	
1	200k	
3	220k	
1	240k	
3	300k	
3	330k	
	430k	
7	560k	
1	680k	
4	1M	
<b>Resistors, 10% or better</b>		
1	10M	
<b>PCB Connectors (optional)</b>		
1 ***)	MOTM Power Connector	or Synthesizers.com Power Connector ***) only for +/-15V supply version
6	PSS254/2G	or similar 2 pin, 2.54mm spacing
5	PSS254/3G	or similar 3 pin, 2.54mm spacing

1	PSS254/5G	or similar 5 pin, 2.54mm spacing
2	PSS254/8G	or similar 8 pin, 2.54mm spacing
1 *)	PSS254/5G	or similar 5 pin, 2.54mm spacing *) only needed for on-board PSU version