

nonlinear circuits

CEM3340 VCO

build notes version 1

BOM

component	quantity	http://www.taydaelectronics.com/ part numbers are shown as examples.
100k pot	10	A-1848
SPDT toggle switch	1	on-on type A-4567
10k trimpot	1	10-turn: A-586
20k trimpot	1	A-2504
100k trimpot	1	A-2506
3.5mm jack	14	Kobiconn style A-865
10 pin eurorack power connector	1	A-198
CEM3340	1	get from Onchip or maybe a synth DIY store
TL074	1	SOIC A-1137
TL072	2	SOIC A-1136
BC857	1	SOT23 A-1345
1N4001(2-4 okay)	2	thru-hole A-162
LL4148	3	SOD80
10uf	2	thru-hole, 2mm pin spacing A-4548
10pF	1	0805
20pF	1	0805
100pF	1	0805
1nF	3	0805
1nF	1	Timing Cap: 0805 OR thru-hole poly, use a good one
10nF	2	0805
100nF	9	0805
470Ω	2	0805
560Ω	1	0805
620Ω	1	0805
1k	5	0805
1k8	1	0805
2k2	3	0805
3k9	1	0805
5k6	2	0805
10k	3	0805
18k	1	0805
24k	1	0805
39k	3	0805
47k	7	0805
56k	1	0805
100k	15	0805
150k	1	0805
220k	1	0805
270k	2	0805
300k	1	0805
470k	1	0805
680k 620k	1	0805 marked 680k on PCB
1M	1	0805
1M2	1	0805
2M2	1	0805
4M7	1	0805
10M	2	0805

Mods:

1. To improve centring of tri wave about 0V, change 680k to 620k, this is noted in the BOM
2. Pan-Pulse runs from 0V to 10V, to reduce its peak change 270k to 220k. To make it bipolar add a 470k resistor between the 47k and +V pad as shown, a 0805 resistor will easily fit:



