

MAGIC SMOKE ELECTRONICS

TH-201-04								
#	Designators	Description	Package	Source	Source #	Q'ty	Section	Comments
1	C101, 102, 103	Cap, polyester, 0.22uF, 50WV	radial 5.0mm	Mouser	581-BQ014D0224J	3	VCF Core	input DC coupling
2	C2, 5, 8, 11, 14, 15	Cap, ceramic, 10pF	radial 5.0mm	Mouser	140-50N5-100J-RC	6	VCF Core	HF feedback suppress
3	C3, 6, 9, 12	Cap, polystyrene, 560pF	radial 5.0mm	Mouser	23PS156	4	VCF Core	Freq set. Polystyrene
4	C4, 7, 10, 13	Cap, polystyrene, 330pF	radial 5.0mm	Mouser	23PS133	4	VCF Core	Freq set. Polystyrene.
5	C15	Cap, 22pF	radial 5.0mm	Mouser		0	CV Sum	optional, can use 10pF
6	C16, 17	Cap, Electrolytic, 10uF, 35VDC	radial 2.0mm	Mouser	140-HTRL35V10-RC	2	DC IN	power filtering
7	C18 - 27	Cap, ceramic, 0.01uF	radial 5.0mm	Mouser	140-50Z5-103M-RC	10	VCF Core	power decoupling
8	D1	Diode, signal, 1N4148	DO-35	Mouser	1N4148-TR	1	CV Sum	Neg CV block
9	D2, 3	Diode, signal, 1N4001	DO-41	Mouser	512-1N4001	2	DC IN	Reverse polarity protection
10	IC2	SSM 2164 Quad VCA	16 DIP	AD	N/A	1	VCF Core	Purchase from Magic Smoke or Digi-Key
11	IC1, 3	Op Amp, Quad, TL074BCN	14 DIP	Mouser	595-TL074BCN	2	VCF Core	VCF Core
12	IC4, 5	Op Amp, Dual, TL072BCN	8 DIP	Mouser	595-TL072BCP	2	Sum	Audio and CV summers
13	R3, 7, 14, 22, 23, 29, 41, 47, 48, 101, 102, 103	Res, 1/4W, 100K, 1%	radial .4"	Mouser	271-100K-RC	12		
14	R2	Res, 1/4W, 7.5K, 1%	radial .4"	Mouser	271-7.5K-RC	1		Optional. Install for class A, leave off of AB
15	R4, 6, 11, 13, 19, 21, 26, 28	Res, 1/4W, 30K, 1%	radial .4"	Mouser	271-30K-RC	8		
16	R5, 12, 20, 27	Res, 1/4W, 510 Ohm, 1%	radial .4"	Mouser	271-510-RC	4		
17	R8	Res, 1/4W, 49.9K, 1%	radial .4"	Mouser	271-49.9K-RC	1		
18	R9, 16, 17, 24, 25, 31, 32	Res, 1/4W, 1K, 1%	radial .4"	Mouser	271-1K-RC	7		
19	R15	Res, 1/4W, 66.5K, 1%	radial .4"	Mouser	271-66.5K-RC	1		can substitute 68K
20	R10, 18, 46	Res, 1/4W, 2K, 1%	radial .4"	Mouser	271-2K-RC	3		
21	R30	Res, 1/4W, 137K, 1%	radial .4"	Mouser	271-137K-RC	1		
22	R35	Res, 1/4W, 18K, 1%	radial .4"	Mouser	271-18K-RC	1		
23	R37	Res, 1/4W, 220K, 1%	radial .4"	Mouser	271-220K-RC	1		
24	R38	Res, 1/4W, 402K, 1%	radial .4"	Mouser	271-402K-RC	1		Can sub 390K if 402K not available
25	R39	Res, 1/4W, 3.3M, 5%	radial .4"	Mouser	291-3.3M-RC	1		
26	R104, 105, 106	Res, 1/4W, 47K, 1%	radial .4"	Mouser	271-47K-RC	3		
27	R107	Res, 1/4W, 200K, 1%	radial .4"	Mouser	271-200K-RC	1		42d = 1V/Oct CV input
28	R44	Res, 1/4W, 2.7K, 1%	radial .4"	Mouser	271-2.7K-RC	1		
29	R45	Res, tempco, 2K, +3500ppm/°C	radial .4"	Magic Smoke	2K Tempco	1	CV Sum	Temp compensation. Tempcos available from Magic Smoke. Can substitute standard 2K 1% resistor if temp compensation not needed.
	R108, 109	Res, tempco, 1K, +3500ppm/°C	SMT 0805	Magic Smoke	1K Tempco	2	CV Sum	Temp compensation. Tempcos available from Magic Smoke. Use R45 or R108 / R109.
30	R1d, e, f, 34, 36, 40, 42e, f, g	Pot, Panel, 100K, Lin	12mm	Mouser	313-1210F-100K	9	Panel	Order 10 to get better price from Mouser
31	R33	Pot, Trim, 10K, multi-turn		Mouser	72-T93YB-10K	1	VCF Core	Oscillation trim, can use single turn trim, but setting is easier with multi
32	R43	Pot, Trim, 1K Ohm, multi-turn		Mouser	72-T93YB-1K	1	CV Sum	V/Oct Scale Trim
33	PT1, 2	Resettable Fuse, 0.5A, 0.77Ohm	radial .25"	Mouser	652-MFR050-LF	2	DC IN	power short circuit protection
34	J1 - J15	Jack, phone, 1/8"		Mouser	16PJ012	15	Panel	
35	S1 - 3	Switch, SPST		Mouser	108-0001-EVX	3	Panel	AC/DC coupling
36		Main PCB		MSE	TH-201-02	1		
37		Front Panel		MSE		1	Panel	
38		IC Socket, machine pin, 8 pin		Mouser	535-08-3518-10	2		optional
39		IC Socket, machine pin, 14 pin		Mouser	535-14-3518-10	2		optional
40		IC Socket, machine pin, 16 pin		Mouser	535-16-3518-10	1		optional
41		PCB Male conn, .100, friction lock, 2 pin		Mouser	571-6404562	17		PCB Mount connectors
42		PCB Male conn, .100, friction lock, 3 pin		Mouser	571-6404563	11		PCB Mount connectors
43	CN1	PCB Male conn, .100, friction lock, 6 pin		Mouser	571-6404566	1		DC input (Dot Com style) Can use .156" 4 pin MTA (Blacet/MOTM style) instead
43		Fem term housing, .100, w/tabs, 2 pin		Mouser	571-6445632	17		Panel component connector
44		Fem term housing, .100, w/tabs, 3 pin		Mouser	571-6445633	11		Panel component connector
45	CN1	Fem term housing, .100, w/tabs, 6 pin		Mouser	571-6445636	1		DC input (Dot Com style)