

L-1 QUAD VCA-MIXER

Partlist

C1-C12	22p	12	ceramic
C13-C20, C22-C29	0.1 mF	14	SMD ceramic (installed)
C21, C30	10 mF	2	electrolytic
D1, D2	1N4004 or 1N4007	2	Reverse polarity protection
IC1-IC3	TL074	3	
IC4, IC5	OPA2604 (or TL072 for small budget)	2	
IC6-IC9	THAT2181 or THAT2180	4	Distortion trimming is not needed for THAT2180
Q1-Q4	BC847BS	4	SMD dual transistors (installed)
R10, R24, R38, R52	2K tempco	4	SMD tempco (installed)
R57, R58	Ferrite bead or 10R	2	
R8, R22, R36, R50	200R	4	1% metal film
R14, R28, R42, R56, R66, R67, R72, R77	1K	8	1% metal film
R7, R21, R35, R49	3K	4	1% metal film
R1, R15, R29, R43, R68, R69, R70, R71, R73, R74, R75, R76	10K	12	1% metal film
R11, R13, R25, R27, R39, R41, R53, R55, R59, R60, R61, R62, R63, R64, R65	22K	15	1% metal film
R4, R18, R32, R46	100K	4	1% metal film
R6, R20, R34, R48	160K	4	1% metal film
R2, R16, R30, R44	220K	4	1% metal film
R3, R17, R31, R45	1M	4	1% metal film
R5, R19, R33, R47	RA 15V version – 68K 12V version – 43K	4	1% metal film
R12, R26, R40, R54	RB 15V version – 5K1 12V version – 3K9	4	1% metal film
R9, R23, R37, R51	RC THAT2181A – 680K THAT2181B – 220K THAT2181C – 130K THAT2180 – N/A	4	1% metal film
T1-T4	100K trimmer	4	VCA gain
T5-T8	50K or 47K trimmer	4	Distortion symmetry (not needed for THAT2180)
P1-P4	50K lin potentiometer	4	Level pots
	jack	16	

Eliminate RC and 50K trimmer if you use THAT2180.