

Los Monos Bill of Materials PER CHANNEL

Input Stage

Quantity	Name	PCB name (if applicable)	Package/Rating	Note
6	ZTX558	Q2,Q3,Q6	TO-92	
8	1k ohms	R2,R3,R4,R6	1/2W	Invest in 1k
2	1.2k ohms	RSET1	1/2W	Sets current in buffer
2	100k ohms	RLED	3W	Sets current in LEDs
2	2k ohms	RSET2	1/2W	Sets current in voltage reference
4	Red LED	LED2,LED1	3MM	e.g. HLMP-1301
4	IXTP08n100d	Q4,Q1	TO-220	
2	150k ohms	R1	1W	
2	4.7u	C1	500V	Max width 16mm, lead spacing 27.5mm
2	1k ohms	P2	Bourns 3296W	Consider board and adj orientation
2	18k ohms	RLOAD	2W	Range of 18k - 22k depending on gain target
2	IXTP08n50d	Q5	TO-220	
2	47 ohms	RSET3	1/2W	Sets anode CCS current
2	100 ohms	P1	Bourns 3296W	Consider board and adj orientation
2	1N4148	D1	DO35	
2	100 ohms	RANODE	3W	Anode stopper
2	J112	J1	TO-92	
2	15V	D2	DO-35	
2	TO-220 Mounting Kits			Bolt, isolating washer, mica/thermal pad
2	Heatsink		5 C/W or lower	e.g. Ohmite FA-T220-25E
2	47 ohms		1/2W	Degeneration resistors
1	9 pin socket			It puts the tube in the socket
1	6N6P or ECC99			
1	1M ohms		1/2W	Grid leak resistor for driven triode
1	1k ohms		1/2W	Grid leak resistor for undriven triode
2	1k ohms		1/2W	Grid stopper, carbon preferred

Cathode CCS

Quantity	Name	PCB name (if applicable)	Package/Rating	Note
1	2.2k ohms	R-LED	1/2W	Adjust if using different negative voltage rail
2	Red LED	LED1,LED2	3MM	e.g. HLMP-1301
1	MJE340	Q1	TO-225	
1	PN2222	Q2	TO-92	
1	100 ohms	P1	Bourns 3296W	Consider board and adj orientation

1	20 ohms	R-SET	1/2W	Sets current in tail CCS
1	Heatsink			Clip-on type is ok here, dissipation < 1W

Output Stage

Quantity	Name	PCB name (if applicable)	Package/Rating	Note
1	Hammond 1650N		4.3k primary, 60W	Look for 4k to 6k primary, 20W+ rating
2	EL34			Doesn't sound like much without these
4	470 ohms		5W	Cathode garter belt bias
2	330u		100V	Cathode bypass
2	Octal socket			
2	1k		1/2W	Grid stopper, carbon preferred
2	470k		1/2W	Grid leak, 220k-470k, see tube datasheet
2	100 ohms		1/2W	Triode strapping resistor
2	0.1uF		600V	Coupling caps

PSU

Quantity	Name	PCB name (if applicable)	Package/Rating	Note
1	Triad C-14X		6H, 150 DCR	Put the L in CLC
2	120u		600V	600V for safety margin
1	47u		500V	RC for input stage
1	3k ohms		10W	RC for input stage
2	3300u		25V	Voltage doubler
2	1N4007			Voltage doubler
1	300k ohms		1W	Heater elevation component (optional)
1	47k ohms		1/2W	Heater elevation component (optional)
1	10u		100V	Heater elevation component (optional)
2	1200V Hexfred		TO-220	e.g. VS-HFA08TB120-M3
1	Hammond 274BX		750VCT 200mA, 6.3V 6A, 5V 3A	Power transformer

Misc Parts

Quantity	Name	Designator (if applicable)	Package/Rating	Note
1	RCA input			I like Neutrik/REAN NYS367
1	Binding posts			I like Pomona 6883
1	CL90			
1	Fuse holder			
1	2A fuse			Make sure it's the right size for your holder
1	IEC inlet			
1	DPST power switch			On/off, make it beefy
1	Bunch terminal strips			For the point to point parts

The above is PER CHANNEL!