



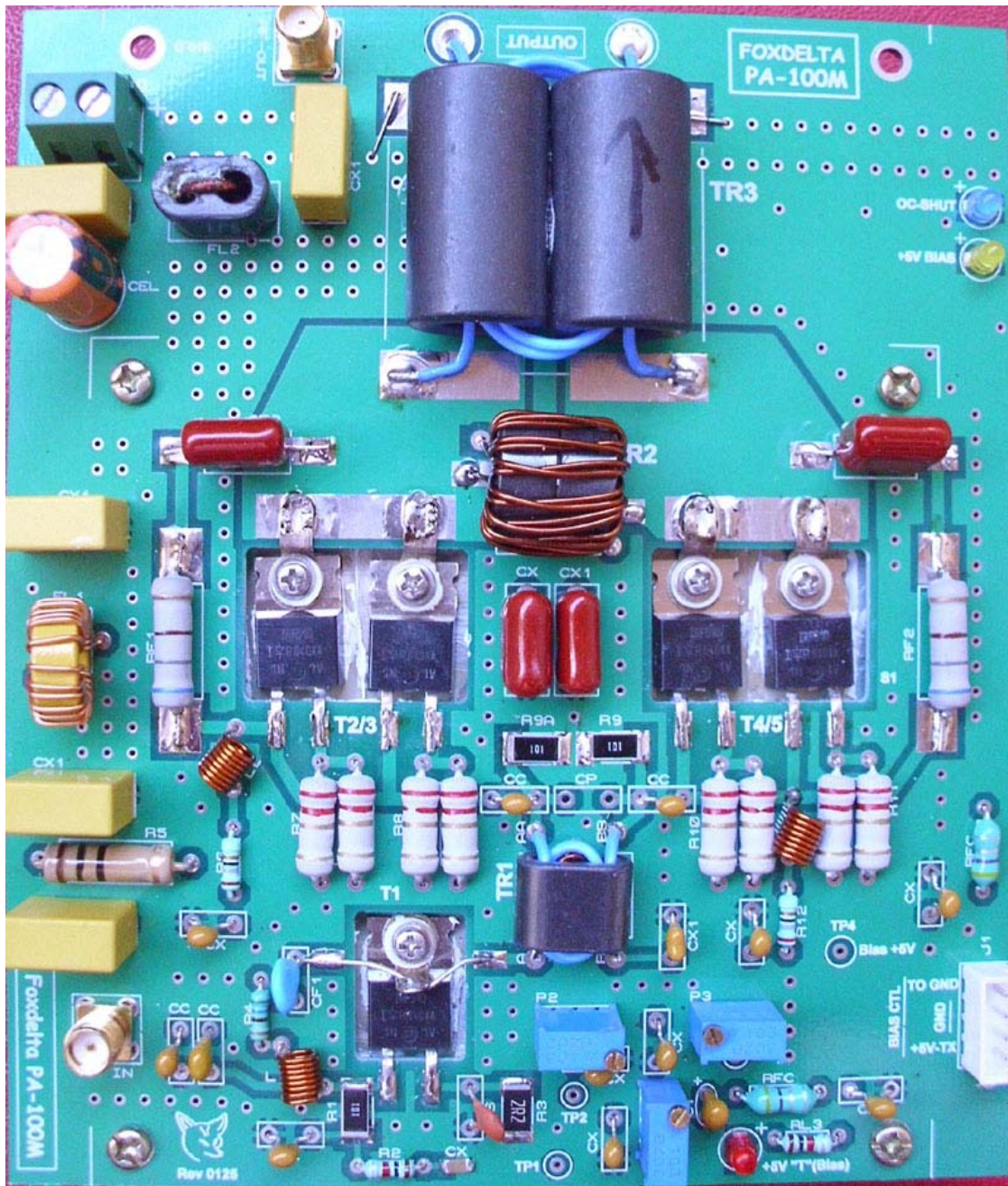
Fox Delta

Amateur Radio Projects & Kits

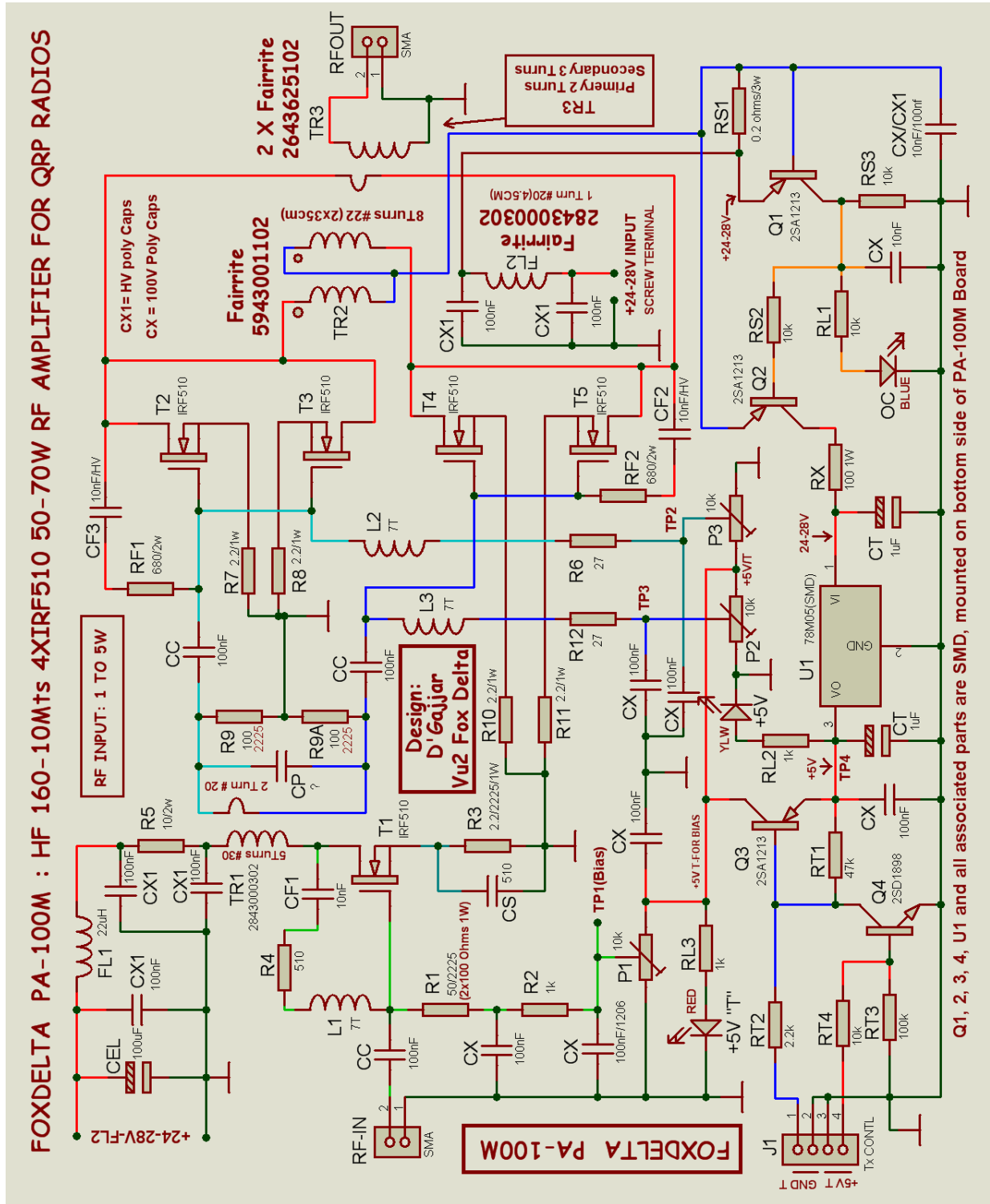
PA -100M

Schematic & Parts List: 50-70W RF Power Amp with 4 X IRF510

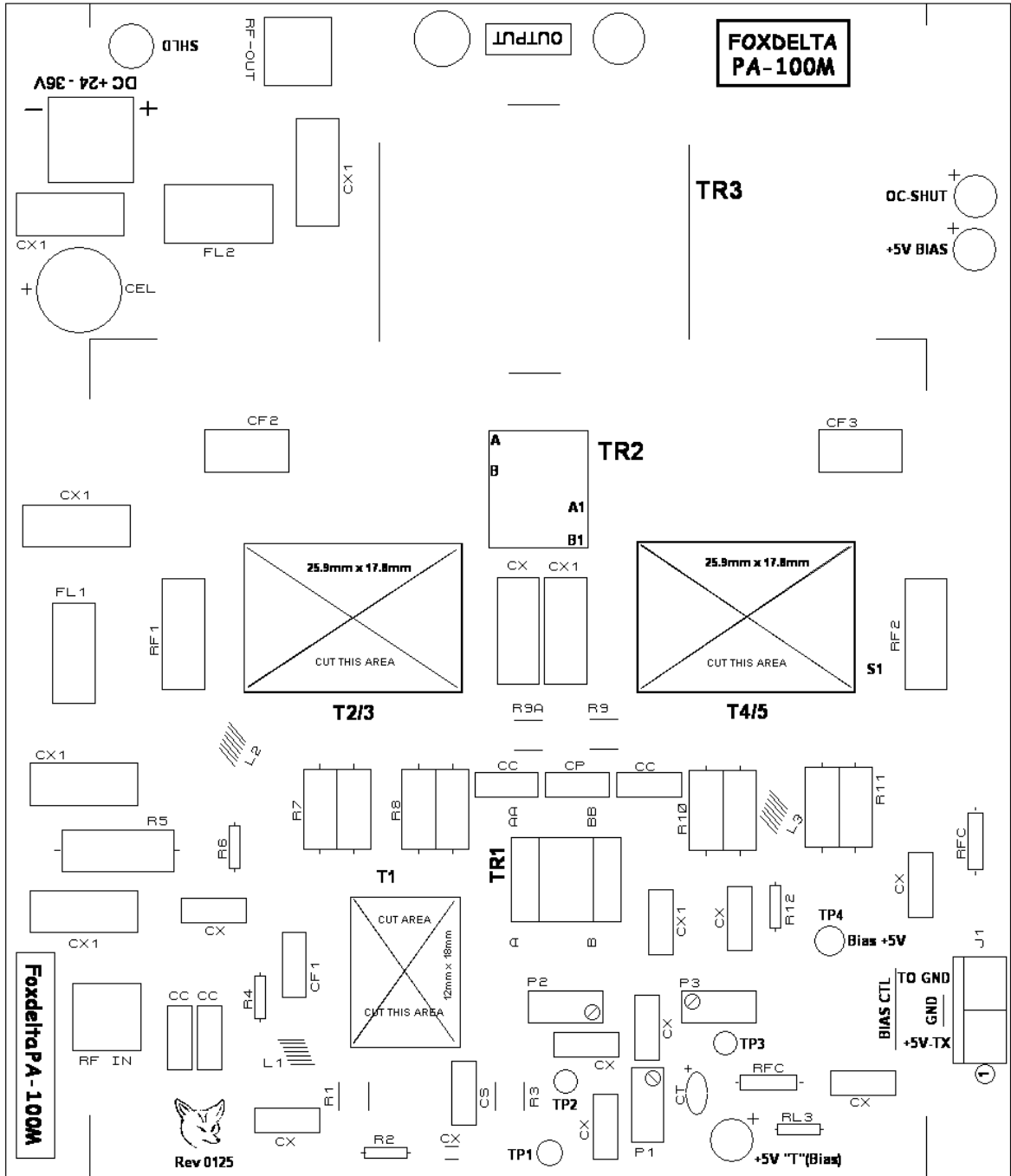
PA-100M: POWER AMPLIFIER TOP VIEW



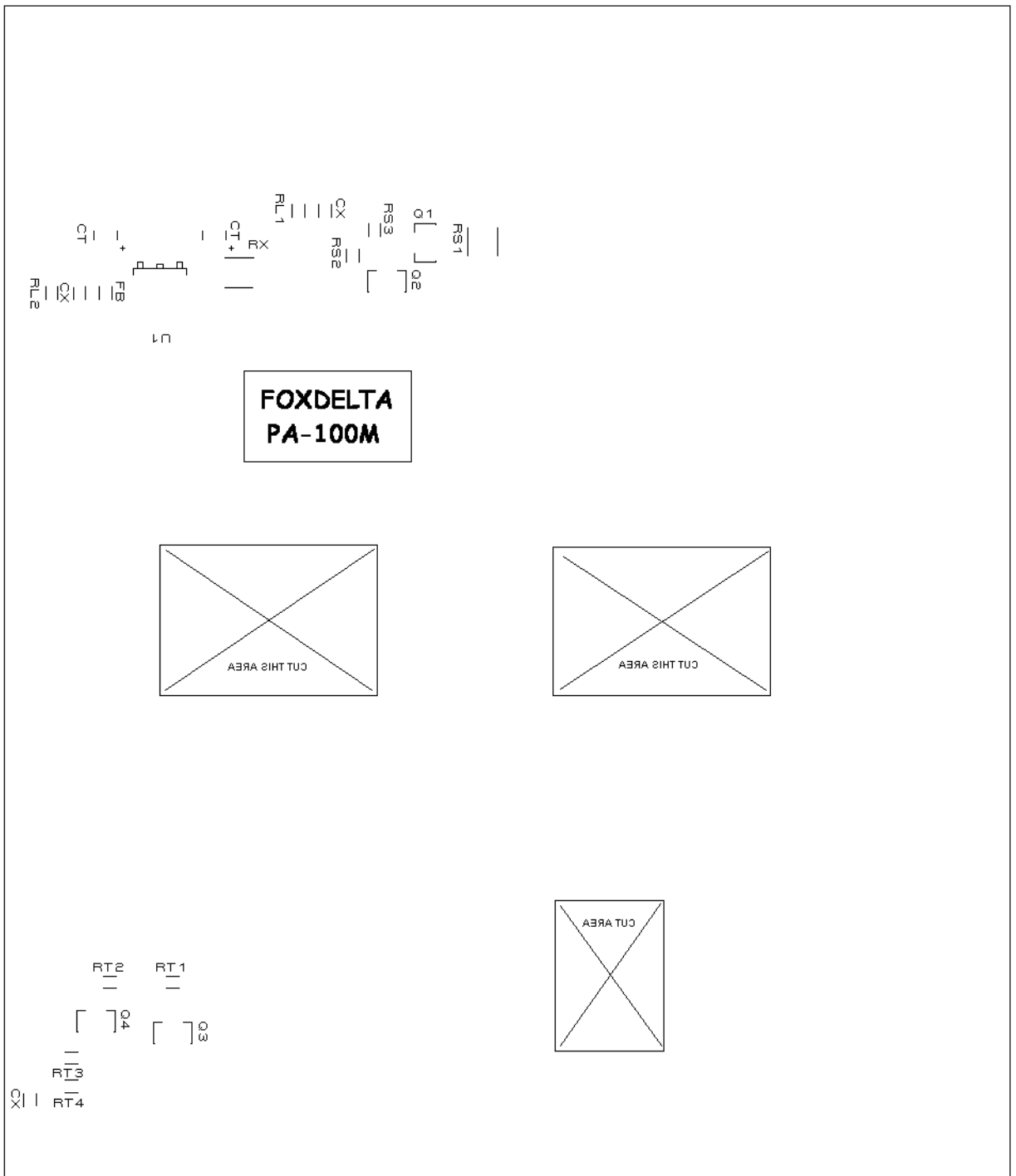
PA-100M Schematic: PA



PA-100M: PA TOP SIDE SILK:



PA-100M PA BOTTOM SILK:



PARTS LIST:

Quantity	Part ID	Details
5*	T1, 2, 3, 4, 5	IRF510 TO220
1	FL1	80uH filter Toroid x 1 piece
1	FL2, TR1	Fair-rite 2843000302 x 2 pieces
1	TR3	Fair-rite 2643625102 X 2pieces
1	TR2	Fair-rite 5943001102 X 2, Stacked
2	SMA	PCB / Female Connectors
1	Power Terminal	2PIN Screw Terminal Type 5002
1	SIL4 Male PCB	Control Connector 4PIN Male + Ribbon cable
3	L1, 2, 3	7turn air inductors
3	P1, 2, 3	10K 10Turn Presets
1	PCB	PA-100M DSPTH FR4 PCB
1	Heat sink	125mm x 190mm x 10mm (Thick) (PA CASE BOTTOM)
1	Heat sink	100mm x 100mm x 10mm (PA BOTTOM)
1 set	Set Hardware	PCB to Heat sink & to bottom Heat sink
1 set	TR3 Wire	Teflon wire for 3:2 turns
1 set	TR1, TR2, TR2	Copper & Teflon wires
3	LED	3mm: OC, +5V & T-Bias
3	Q1, Q2, Q3	2SA1213 SMD
1	Q4	2SD1898 SMD
1	U1	7805M SMD

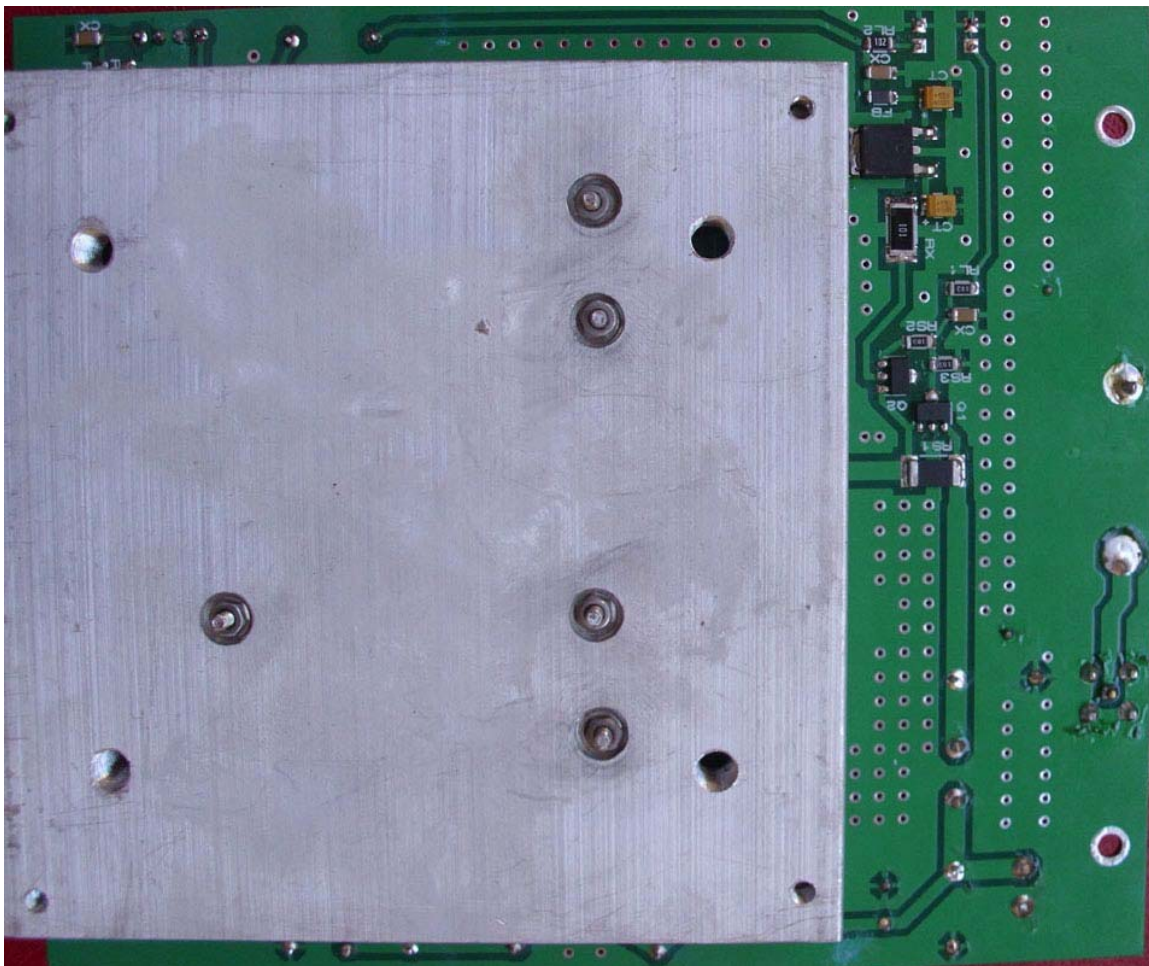
Resistors:

Quantity	Part ID	Details
8	R7, 8, 10, 11	2.2 ohms 2W
2	RF1, 2	680 ohms 2W
1	R5	10 Ohms 2W
1	R1	2225 100 ohms x 2 Stacked
2	R9, 9A	2225 100 ohms
1	R2, R13	1k 1/4w
1	R4	560 ohm 1/4w
1	R3	2225 2.2 ohms
2	R6, 12	27 ohms 1/4w
3	RL1, 2, 3	1K 1/4w (For LEDs)

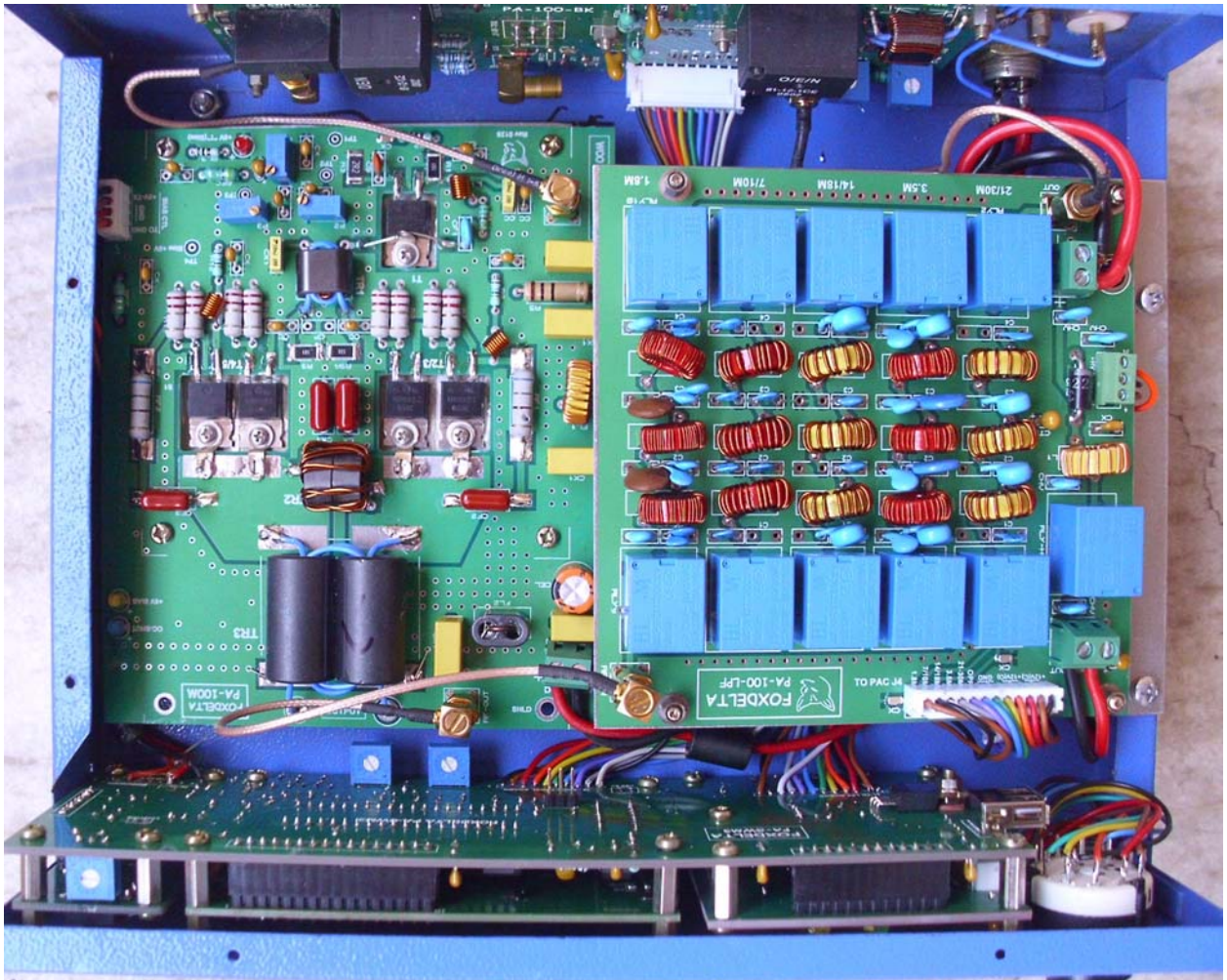
Capacitors:

Quantity	Part ID	Details
7	CX1	100nf 400V
2	CF2, CF3	10nf 400V
1	CF1	10nf 400V
5	CC, CX1	100nf 100V
10	CX	100nf 50V
9	CX 1206	100nf SMT
1	CS	510pf Ceramic
4	FB 1206	Ferrite bead
3	CT	1uf Tantalum

PA-100 BOTTOM VIEW WITH HEATSINK:



COMPLETED PA-100M POWER AMPLIFIER IN METAL CASE:



Dinesh Gajjar / 21 Feb 2025

For More info, pls visit: <https://www.foxdelta.com/products/>