



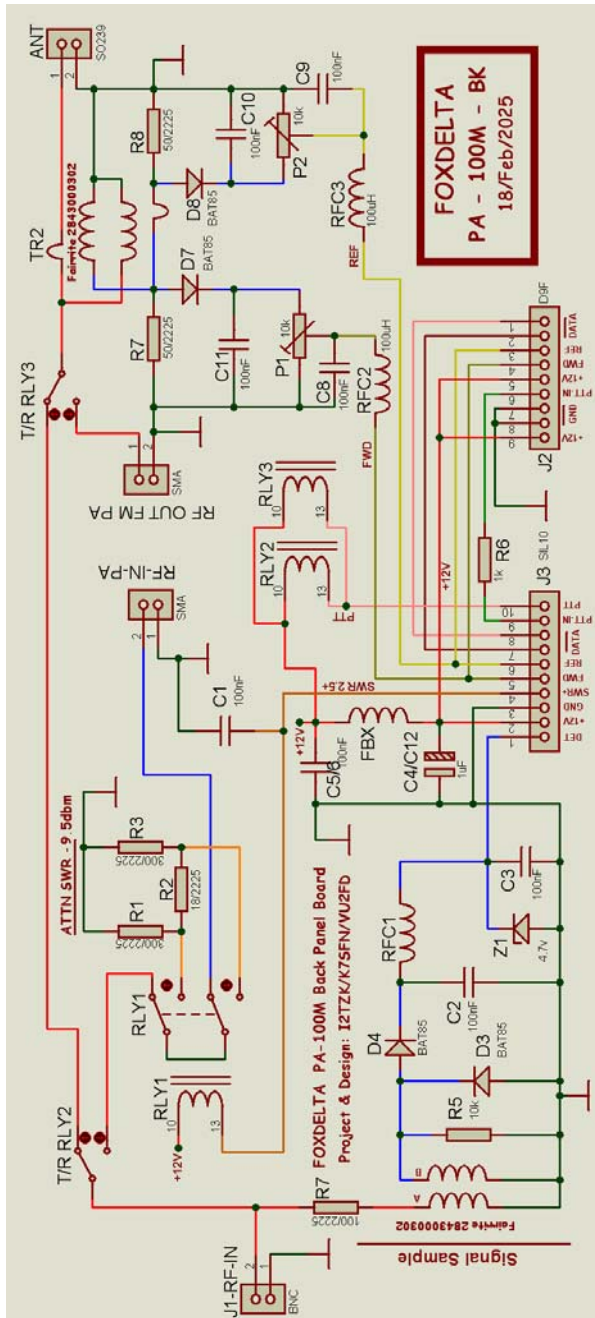
Fox Delta

Amateur Radio Projects & Kits

PA -100M BK

Schematic & Parts List: HF Power Amp Back Panel Board

PA-100M - BK: Back Panel Board Schematic



Purpose of this board:

1. RF Input from Transceiver
2. Provide Input attenuation for radios with over 5W RF out
3. Transmit / Receive Relays
4. Generate DC Voltages (Max 4.7V) from RF for RF Activated PTT Operation
5. Provide external PTT at D9 Socket
6. Provide USB access at back panel For PC Operation / Config (PIC FW)
7. In-Built tandem SWR Bridge for OUTPUT FWD/REF measurement

PA-100M-BK PARTS LIST:

Quantity	Part ID	Details
1	RLY1	Relay OEN 46 12V For Input attenuation
2	RLY2, 3	Relay OEN 61 12V RX/TX
2	TR1, TR2	RF Transformer Fair-rite 2843000302
2	P1, P2	50K Presets
4	D3, 4, 7, 8	BAT85
4	D1, 2, 5, 6	1N4148
1	Z1	Zener 4.7V
1	J1	BNC PCB Vertical
2	SMA Female	RF IN, RF FROM PA
1	J2	D9-F Straight + Hardware
3	RFC1, 2, 3	82uH RFC
2	FBX	Ferrite Bead or RFC
1	J3	SIL10 Connector for CPU
1	Set	Copper wire for TR1 & TR2

Resistors & Capacitors:

Quantity	Part ID	Details
2	R1, R3	2225 SMT 300 Ohms
1	R2	2225 SMT 18 ohms
2	R7, R8	2225 SMT 50 ohms
1	R4	2224 SMT 100 ohms
1	R5	10K 1/4w
5	C1, 2, 3, 5, 6, 7,13	Cap 100nf 50v Poly
4	C8, 9, 10, 11	Cap 1206 100nf 50v
2	C4, 12	1uf Tantalum Capacitor
4	FB	1206 Ferrite beads
2	RO	Zero ohms resistors 1206
1	R6	Resistor 1K 1206
7	CX	1206 100nf capacitors

Dinesh Gajjar / 21st Feb 2025

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