





ASSEMBLY AND SAFETY NOTES — BUILD REQUIREMENTS, NOT COMMENTARY

1. R1's cold end reaches GND ONLY via the two soldered flange straps (footprint pad 2, x2). The bolted heatsink joint is NOT an electrical path: on an anodised finish it is 418 pF = 15.2 ohm at 25 MHz. Solder both straps to the loose flange BEFORE bolting R1 down.

2. The PCB rides on three 1.0 mm shims so that top copper (2.635 mm above the heatsink mounting plane) meets R1's tab underside (2.667 mm). Nominal solder gap 0.032 mm.

3. C1's threaded case is GND BY DESIGN — it is the metal a hand or a tuning tool touches. Tune at reduced drive or with a VNA. NEVER tune at 150 W. Tool: Johanson 8764.

4. R1 is a +/−5% catalogue part. The 50 ohm +/−2% requirement is met by SELECT ON TEST at incoming inspection: measure each part, accept 49.00–51.00 ohm, reject outside.

5. R1's substrate is BeO (beryllium oxide). DO NOT machine, drill, grind or break the part. The dust is the hazard, not the intact part. Scrap it whole.

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File: PCB-0009-A_rf-term-150w.kicad_sch

Title: 50 ohm / 150 W CW RF termination

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