Probe tool: Specification

PRB-1 | Blaide product line | 17 November 2026 | Design only: nothing built or tested



Requirements

- Find opens and shorts on a bare board before parts go on
- One probe, no fixture
- Say 'cannot judge' rather than pass a net it cannot measure

Specification

Parameter	Target
Size / mass	38 x 34 x 105 mm, about 55 g
Tip	0.6 mm spring probe in a driven shield
Sensor	Capacitance converter, about 0.5 fF resolution (datasheet class)
Sensitivity	2.49 pF per cm2 of copper on 1.6 mm FR-4
Smallest net judged	0.04 pF, about 1.6 mm2 of copper
Coverage on the sample board	11 of 12 nets
Supply	3.3 V from the tool's switched 24 V; under 1 mA

Design summary

- Spring probe inside a driven shield, 0.6 mm tip at the standard tool position
- PT-100 board: capacitance converter, 3.3 V regulator from switched 24 V, identity resistor
- Each net's capacitance to the bed is compared with its copper area; two ends of a net must agree
- Reference coupon with six pads from 0.2 to 3.6 pF for a self-check

All figures are design targets, calculations or planning values.