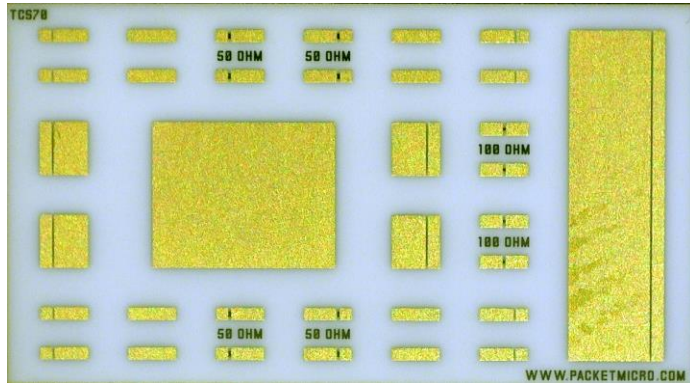


TCS70 Calibration Substrate

S-Parameter Calibration and TDR Impedance Validation

TCS70 is a calibration substrate with short, open, load, and thru (SOLT) standards that are designed for S-parameter calibrations and TDR impedance validations. This substrate allows engineers to perform probe-tip calibration and move the measurement reference point to the probe tips.



TCS70 Calibration Substrate

Specifications

Configuration: GND-Signal and Signal- GND

Probe Pitch:

- 200 μm – 1000 μm

Impedance: Open, short, thru, 50 Ω , and 100 Ω

Accuracy:

- 50 Ω < 0.5%, 100 Ω < 1%

Substrate: Polished alumina

Contact Material: Gold

Size: 17.3 x 9.4 x 0.6 mm (0.68 x 0.37 x 0.025 in)

Calibration Coefficients

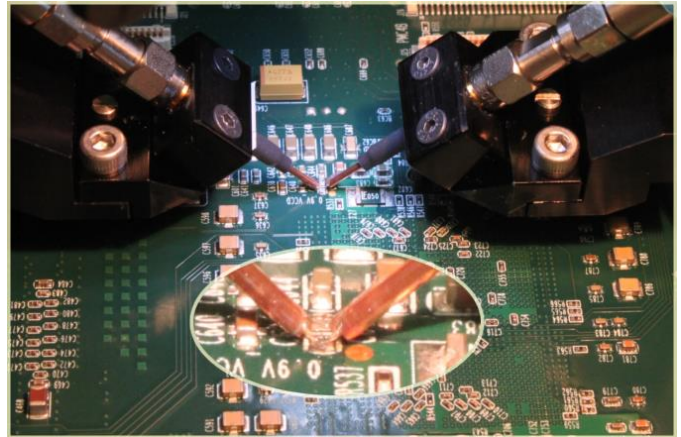
Calibration coefficients are probe-dependent. The following tables list the coefficients that should be entered into the VNA for a specific S-Probe.

Part No.	SP-GR-181510	SP-GR-181508
Probe Pitch	1.0 mm	0.8 mm
Open (C_0)	20.8 fF	20.8 fF
Short (L_0)	64.8 pF	55.1 pF
Load (L_0)	24.8 pF, or Offset $Z_0 = 50 \Omega$ with Offset Delay = 0.496 ps	22.6 pF, or Offset $Z_0 = 50 \Omega$ with Offset Delay = 0.451 ps
Thru	5.8 ps	5.8 ps

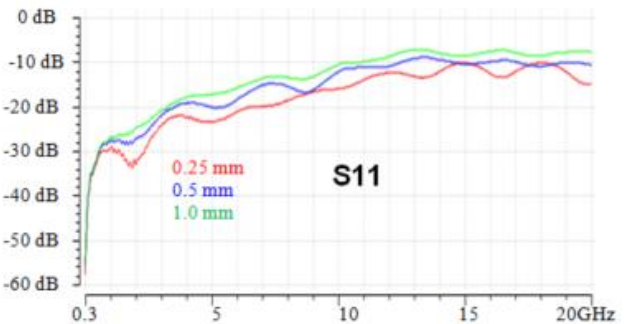
About PacketMicro

PacketMicro, based in Silicon Valley, provides a wide range of gigahertz probes, patented probe positioners, bench-top probe stations, and digital microscopes. PacketMicro customers include many Fortune 100 companies. For more information, please visit www.packetmicro.com.

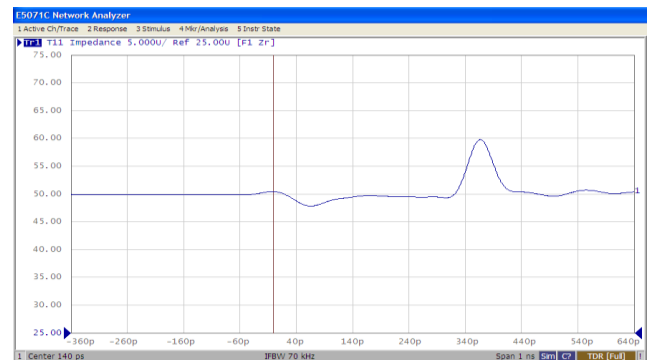
S-Probe series is designed for RF, power integrity, and signal integrity testing. Their strong beryllium copper (BeCu) tips are perfect for direct probing of circuit components or devices on live circuit boards.



S-probe for direct probing on solder pads



Un-calibrated S-Probe S11 using TCS70



TDR impedance with TCS70 50 Ω load