Signal Microwave FPP Probe Series

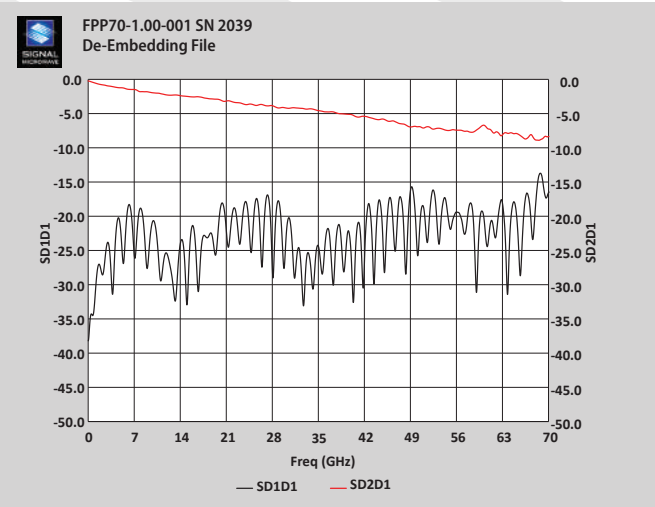
40/50/70/110 GHz Wide Pitch True Differential TDR/VNA Probes

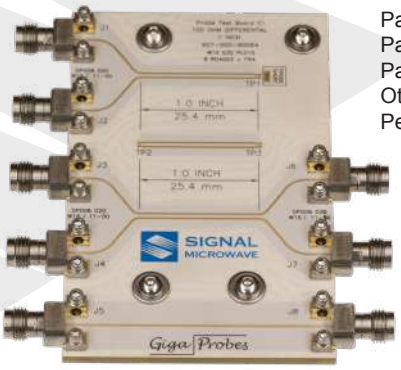
Signal Microwave, in partnership with DVT Solutions, is producing a series of differential probes. The DVT-FPPXX, are 40 GHz, 50 GHz, 70 GHz, and 110 GHz true differential probes. These probes are designed to support the industry's demand for higher data rates over differential traces. They are used to characterize transmission lines and devices such as 28 - 56 GHz Nyquist bandwidth S-parameters for standards like PCIe5 with SerDes technology.

To meet these needs, a newly patented differential probe design was developed to replace internal cable wires with a printed circuit board. It has a high bandwidth differential transmission line that can be used with test equipment to measure differential S-parameters up to 110 GHz. There are also de-embedding methods and boards available that support the probes.

- **100 ohm true odd mode differential**
- **2 signal pins only – no ground pins**
- **Multiple bandwidths**
  40 GHz, 50 GHz, 70 GHz, and 110 GHz
- **Multiple probe pin pitches**
  1.0 mm, 0.8 mm, and 0.6 mm pin pitches
- **Multiple 3 hole mounting configurations**
  PM-001: X- axis, y- axis, and up/down axis control
  PM-002: X- axis, y- axis, and theta angle axis control
- **Straight 1 hole mounting**
- **Custom mounting configurations available**
- **Multiple pin lengths available as options**
- **1 year warranty**

Probe 70 GHz s-parameters





Patent 10852322
Patent 11175311
Patent 11543434
Other Patents Pending

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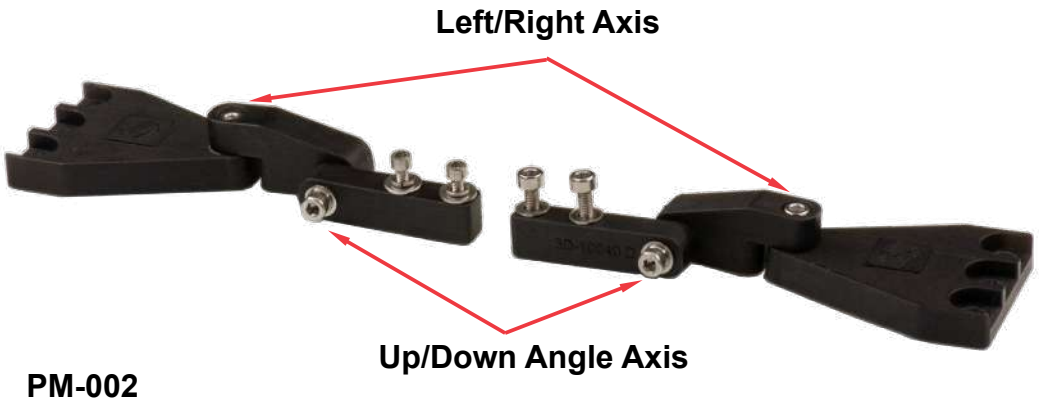
Probe Mount options

PM-001



PM-002

Probe Ordering Information

FPPxx(x) — x.xx — xxx

Fixed Pitch Probe frequency range as defined by connectors

FPP – default

Frequency Range
40 (GHz) for 2.92 mm connectors
50 (GHz) for 2.40 mm connectors
70 (GHz) for 1.85 mm connectors
110 (GHz) for 1.0 mm connectors

Probe pin pitch spacing (center to center of probe tips)

1.00 – 1.0 mm spacing
0.80 – 0.8 mm spacing
0.60 – 0.6 mm spacing

Body style and pin length defined in sequential order

001 – standard
002 and beyond will be for different configurations

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