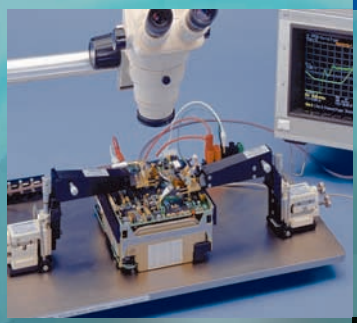
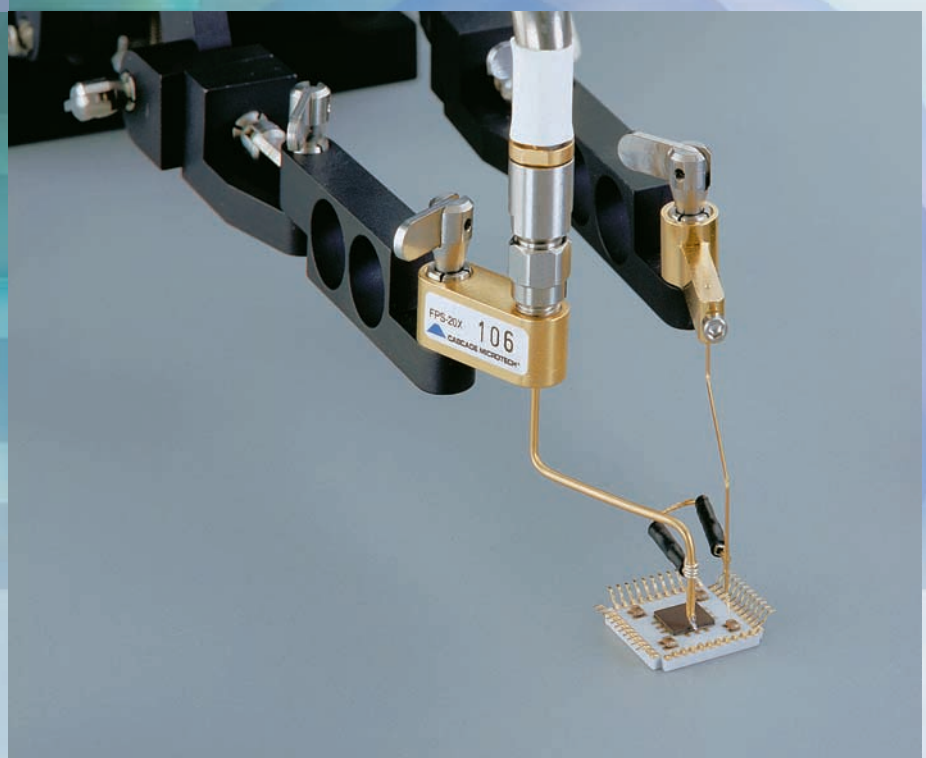




Replace your oscilloscope probes with fine-pitch microprobes that can touch-down on pads as small as 25 microns

The FPM-Series Fine-Pitch Microprobe achieves a new level of measurement accuracy for characterizing and troubleshooting high-speed MCMs and SMT assemblies. The FPM-Series combines both the electrical and mechanical accuracy needed for fine-pitch applications. By minimizing tip capacitance and ground inductance, the FPM-Series enables state-of-the-art probing of modules with pads as small as 25 microns.

CASCADE® MICROTECH

Innovating Test Technologies

Description

Using traditional handheld oscilloscope probes on today's high-density technologies can limit measurement accuracy and damage fragile devices. The FPM-Series Fine-Pitch Microprobe achieves a new level of measurement accuracy for characterizing and troubleshooting high-speed SMT assemblies and MCMs. The FPM-Series combines both the electrical and mechanical accuracy needed for fine-pitch applications. By minimizing tip capacitance and ground inductance, the FPM-Series enables state-of-the-art probing of modules with pads as small as 25 microns (1 mil).

The Fine-Pitch Microprobe offers four attenuation options for different requirements - 1x, 10x, 20x, and 100x. A unique ground system provides the low-inductance needed to effectively troubleshoot high-density applications. To minimize loading effects on the circuit or node measured, FPM probes provide as little as 0.02 pF tip capacitance.

When used with the MTS-2000 Series Fine-Pitch Probing Systems, the FPM ground and signal contacts are configured using flexible, articulated dual positioners. The positioners provide variable pitch setting and are easily moved from node to node.

Features

- 18 GHz bandwidth for 10x, 20x, and 100x probe, 5 GHz for 1x probe
- Low input capacitance (< 0.02 pF for 20x version)
- Sub-30 ps rise time
- Designed for use on flexible Fine-Pitch Dual Positioners
- Choice of ground configurations
- Optimized for use with the MTS-2000 Series Fine-Pitch Probing Systems

Electrical Specifications	FPM-1X	FPM-10X	FPM-20X	FPM-100X
Attenuation*	1x	10x	20x	100x
Bandwidth (3 dB)*	dc-5 GHz	dc-18 GHz	dc-18 GHz	dc-18 GHz
Input resistance	50Ω	500Ω	1000Ω	5000Ω
Input capacitance	0.15 pF	0.03 pF	0.02 pF	0.02 pF
Rise time	<100 ps	<30 ps	<30 ps	<30 ps
Settling time (2%)**	500 ps	500 ps	500 ps	500 ps

* 50 Ω instrument impedance **Measured using 1 meter coax cable included in system. Max. input voltage: 10 V

Benefits

- Provides 1% accuracy for model development
- Low invasiveness for detecting conditions like metastability
- Offers ten times less tip capacitance than traditional handheld probes
- Easily contacts lines as small as 1 mil
- Exhibits fast settling time
- Reduces measurement errors with low-inductance ground
- Configure easily with FPD-100 Fine-Pitch Dual Positioners
- Minimizes signal distortion by providing high bandwidth

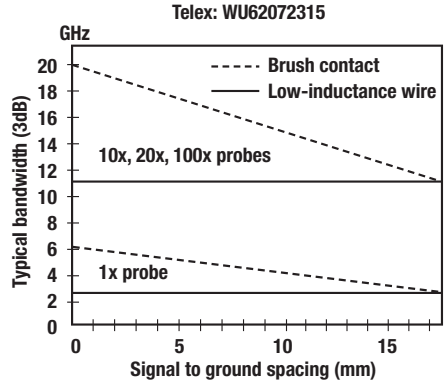
Mechanical Specifications

Vertical clearance: 15 mm (0.6 in.)
Contact tip diameter: 30 microns
DUT temperature range:
-55°C to +200°C
Maximum ambient temperature: +85°C
TCR (thin film resistor): 30 ppm/°C
Cable length: 1 meter
Connector: K connector, compatible with SMA connectors

Product Details

FPM-XXX Fine-Pitch Microprobe Kit includes the following:
1 Fine-Pitch Microprobe (XXX denotes attenuation)
1 Ground needle kit with brush contacts
1 Ground needle kit with low-inductance wires
1 SMA (female) to BNC (male) adapter
1 dc to 20 GHz coax cable with elbow

Telex: WU62072315



Ordering Information

1x Fine-Pitch Microprobe kit *FPM-1X*
10x Fine-Pitch Microprobe kit *FPM-10X*
20x Fine-Pitch Microprobe kit *FPM-20X*
100x Fine-Pitch Microprobe kit *FPM-100X*

For More Information

These data sheets give information on associated products:
MTS-2000 Series Fine-Pitch Probe Stations
FPA-Series Fine Pitch Active Probe
FPR-Series Fine Pitch Resistive Divider Probe
These application notes give information on high-speed probing:
Microprobing Essentials for Fine Pitch Modules
Microprobing with the MTS-2200 Fine Pitch Probing System
Microprobing with the Fine-Pitch Active Probe

CASCADE® MICROTECH

Innovating Test Technologies for better measurements faster

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FPMDS-1200
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