

Cascade

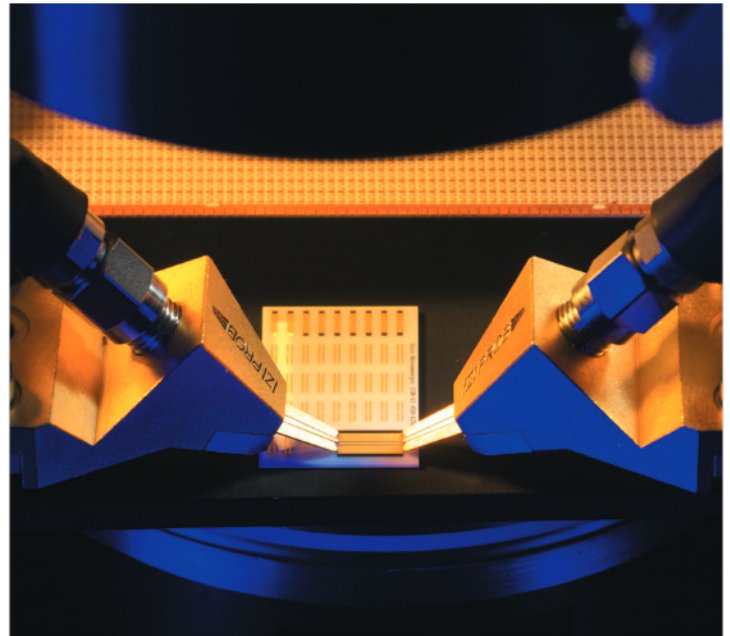
# IZI Probe PCB

High-frequency Probe for PCBs, ICs and Ceramic

## > Overview

The Cascade IZI Probe PCB is an inexpensive alternative to costly test fixtures and it is especially suitable for production test. A revolutionary tip enables an extremely precise and safe contact with a planar-planar contact on PCBs, ICs and ceramic substrates up to 4 GHz. Custom probes can be supplied up to 20 GHz. Fully 50  $\Omega$  impedance matched, the HF transmission is totally isolated by air, ensuring the lowest possible insertion loss. A robust design makes the IZI Probe PCB easy to handle and guarantees a long working life. No other probe can withstand such high voltages and power (up to 30 watts).

Used in conjunction with a manual HF prober including positioners and calibration substrates, the IZI Probe PCB becomes the ultimate tool for all RF circuit probing needs. Flexibility is the key to efficient testing. The IZI Probe PCB is simple to align and handle and does not require special RF launchers. The planar tip of the IZI Probe PCB has parallel and separate contact springs which move independently of one another, allowing a precise, quick and reliable contact with the DUT.



## > Features and Benefits

For tests up to 4 GHz directly on PCB boards, IC-pins and ceramics. Up to 20 GHz on request

Easy to use and quick to set up

First probe with recalibrated coaxial-planar transition and real planar-to-planar board contact

Lowest insertion loss through air isolated transition

Extremely high-power throughput probing (30 watts)

Replaces expensive test fixtures

Robust design ensures long life span

Excellent electrical performance

Low DC-resistance and high voltage

Ceramic and PCB CalKits available

## ➤ Mechanical Specifications

### Electrical Characteristics (50 GHz GSGSG)

• Characteristic impedance	50 Ω
• Frequency range	DC to 4 GHz (20 GHz on request)
• Return loss	≤ -27 dB DC to 4 GHz
• Insertion loss	≤ -0.25 dB DC to 4 GHz
• RF maximal power	30 W
• Contact resistance on Au	≤0.1Ω

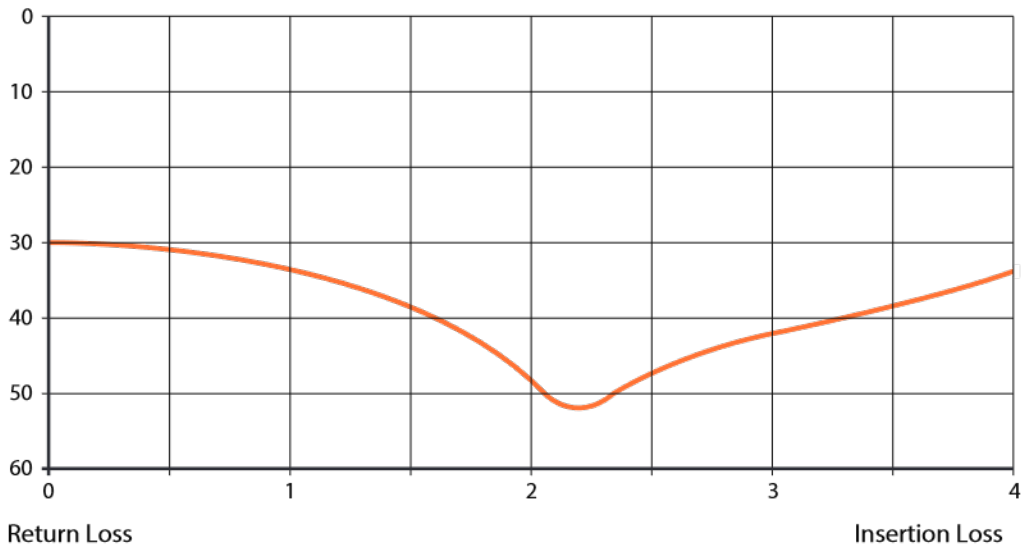
### Mechanical characteristics

• Contact Material	Stainless steel with gold plating
• Insulator	PEEK
• Contact cycles	≥ 50,000
• Contact width	0.2 mm
• Contact pressure (GSG)	3 N (Recommended)
• Contact pressure (GS)	2 N (Recommended)
• Standard pitches	500 μm, 650 μm, 800 μm, 1000 μm, 1250 μm, 1500 μm, 2000 μm, 2500 μm (others on request)
• Type	PC 3.5, female
• Coupling torque	0.8 to 1.1 Nm (Recommended)
• Outer contact	Stainless steel
• Center contact	CuBe with Au plating
• Insulator	PS

### Environmental Data

• Temperature range	-65°C to 125°C
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Return loss (S11) of IZI Probe PCB, 04 P3S GSG 500



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