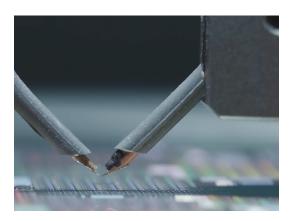
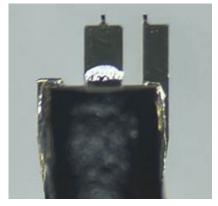
# TITAN™ Probes for High-Performance TLP, VF-TLP, CC-TLP, HMM and HBM Test



MPI Corporation and HPPI have joined forces to set a new benchmark in wafer-level ESD testing with a new family of TITAN™ Probes, specifically tailored for wafer-level ESD characterization. Leveraging HPPI's leading expertise in ESD testing and advanced pulse generator technology together with MPI's industry-leading RF probe know-how, this collaboration enables reliable, repeatable, and accurate testing across the full range of ESD protocols. The new TITAN™ Probe family is engineered to overcome the practical challenges of modern wafer-level ESD testing, ensuring precise contact performance, consistent results and seamless compatibility with ESD protocols such as TLP, VF-TLP, HMM, CC-TLP, and HBM.



Left Probe - Standard 50 Ohm TITAN™ Probe. Right Probe - Special ESD/TLP probe for HPPI test system with series resistor embedded in the signal path.



Close-up view of KG(SG) tips for high-voltage applications.

#### BENEFITS

- Ultra-fast pulse with down to 100 ps minimum rise time
- Up to 1.5kV pulse voltage
- · Precise and consistent tip pitch
- · Unique probe tip visibility and longest lifetime
- Minimal pad damage
- · Full impedance control
- Lowest and consistent contact resistance
- Wideband DC to 26 GHz measurements
- Durable special designed probe tips optimized for high voltage

### CHARACTERISTICS

# **Typical Electrical Characteristics**

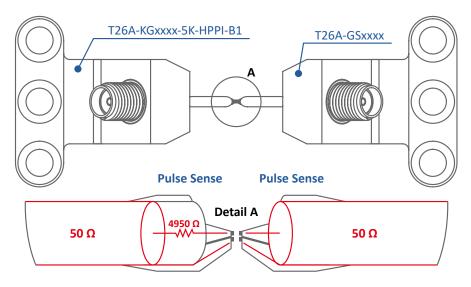
Characteristic Impedance	0.5 kOhm, 1 kOhm, 2.5 kOhm, & 5 kOhm
Frequency range	DC to 26 GHz
Ground & signal alignment error	< +/- 3 μm
Maximal voltage	< 1.5 kV
Contact resistance on Au	< 6 mΩ
Contact resistance on Al	< 45 mΩ
Temperature range	-40 °C+175 °C



### **Mechanical Characteristics**

Tip design	MEMS CPW, optimized for high-voltage and minimal rise time pulses
Connector	SMA, female
Tip material	Ni Alloy
Tip width	40 μm
Pitch range	100 μm to 225 μm in 25 μm steps 250 μm to 1250 μm in 50 μm steps Consult factory on availability.
Tip configuration	GK(GS) or KG(SG)
Connectors style	A-style, 45-degree

Below is a typical high power device measurement scenario utilizing a standard 50 Ohm TITAN™ RF probe (on the right) and a specially developed high impedance high voltage TLP probe (on the left) with a series resistor built into the probe tip path.

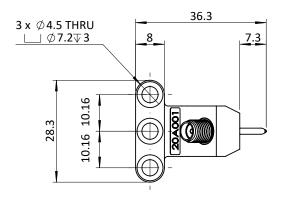


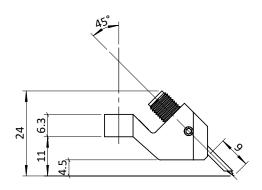
Note:

xxxx ... Pitch in  $\mu m$ 

"0100" means probes with 100 μm pitch

#### MECHANICAL CHARACTERISTICS





## ORDERING INFORMATION

#### T26A-BBXXXX-RR-HPPI-YY

Configuration (BB)	Pitch (XXXX)	Termination (RR)	Version (YY)
GK(GS), KG(SG)	100 $\mu m$ to 225 $\mu m$ in 25 $\mu m$ steps;	(Choose one resistor value.)	(A1 or B1 dictated by pitch.)
K = series resistor	250 μm to 1250 μm in 50 μm steps	0.500 kOhm = 0.500K 1 kOhm = 1K 2.5 kOhm = 2.5K	A1 = 250 $\mu$ m to 1250 $\mu$ m pitch range rated for 1500 Volts.
	Consult factory on availability.	5 kOhm = 5K	B1 = 100 μm to 225 μm pitch range rated for approximately 1000 to 1200 Volts (voltage li- mit due to pitch)

Example: T26A-GK0250-5K-HPPI-A1

T26A-GK0250-5K-HPPI-A1. The TITAN™ Probe for the ESD test with the 5 kOhm series resistor embedded into K terminal and rated up to 1500V when used with HPPI system.

See MPI Corporation's Terms and Conditions of Sale for more details.

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MPI global presence: for your local support, please find the right contact here: mpi-corporation.com/ast/support/regional-sales-contact

