

Picoprobe[®] and Harmonic Drive[®] Kit PHD-3001A

Advanced TLP/HMM Solutions

1 Features

- Pulse force and pulse sense RF probing solution for TLP/VF-TLP/HMM on-wafer measurements
- High peak current capability >50 A (30 ns)
- DC - 7 GHz bandwidth
- Isolated probe-head ground shield for high pulse sense common mode signal rejection
- True coaxial high-resolution 80:1 rotary probe-head for accurate probe tip adjustment

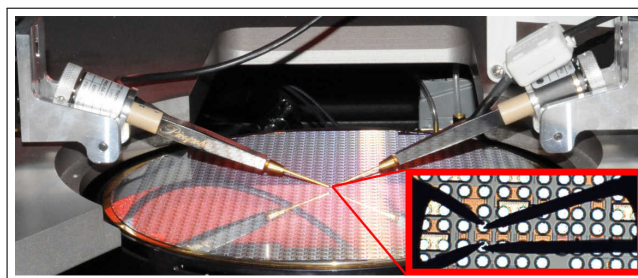


Figure 1: Configuration for 150/200 mm wafer prober

2 System Description

The Picoprobe[®] and Harmonic Drive[®] Kit PHD-3001A enables wafer-level TLP/VF-TLP/HMM measurements in a quasi-Kelvin pulse-force and pulse-sense configuration for high measurement accuracy and high time resolution (Fig. 1). The measurement bandwidth of the probing system is DC - 7 GHz for detailed investigation of turn-on and snapback characteristics of the device under test at high currents beyond 50 A. For high common mode rejection of the pulsed signals at high current levels the probe-head ground shield is isolated from the chuck ground.

Fig. 2 shows the assembly drawing of the PHD-3001A kit. For 300 mm wafer prober a customized probe head extension can be used. All parts of the kit are listed in the part list. The standard kit is configured for the Suss PH110 micromanipulator but will be modified for other micromanipulators on request.

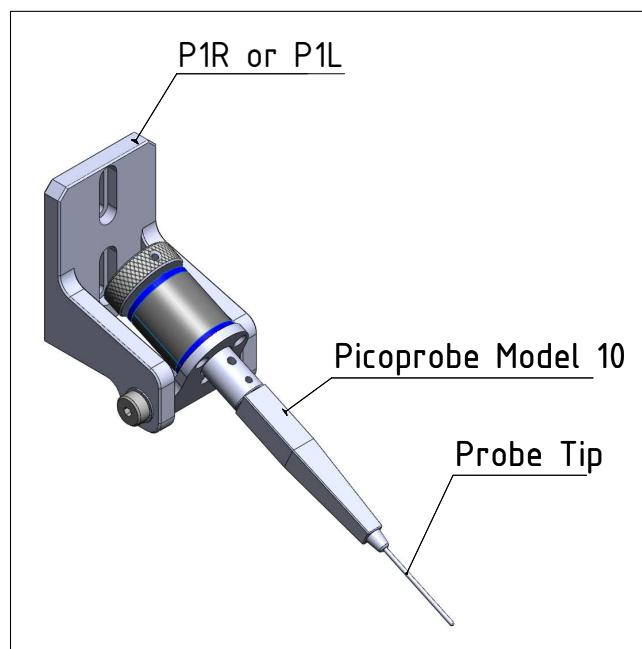


Figure 2: PHD-3001A Picoprobe[®] and Harmonic-Drive[®] Kit, customizable for various micromanipulators

3 List of Parts

The Picoprobe[®] and Harmonic Drive[®] Kit PHD-3001A consists of the following parts (see Fig. 2):

Qty.	Description	Part No.
1	Micromanipulator interface (right sided)	PHD-3001A-P1R
1	Micromanipulator interface (left sided)	PHD-3001A-P1L
2	Picoprobe [®] Model 10 including SMA 50 Ω cables	PHD-3001A-PM10
1	Replacement probe tip 50 Ω, right, 100 μm pad pitch	10-50/30-125-W-2-R-100
1	Replacement probe tip 50 Ω, right, 200 μm pad pitch	10-50/30-125-W-2-R-200
1	Replacement probe tip 2.5 kΩ, left, 100 μm pad pitch	10-2.5k-125-W-2-L-100
1	Replacement probe tip 2.5 kΩ, left, 200 μm pad pitch	10-2.5k-125-W-2-L-200

4 Ordering Information

Pos.	Description	Part No.
01	Picoprobe [®] and Harmonic-Drive [®] Kit PHD-3001A	PHD-3001A

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