

Precision
DC probe holder
for advanced
on-wafer process
and device
characterization

The DCP 100-Series probe holder delivers the measurement accuracy needed for advanced on-wafer process and device characterization, as well as state-of-the-art reliability testing. With superior guarding and shielding, these probes overcome the performance limitations of non-coaxial needle probes.



Innovating Test
Technologies

Features

- Unsurpassed performance
- High-quality construction with low-noise electrical performance
- Kelvin version for convenient 4-point measurements
- Choice of tip radii
- Precision, industry-standard SSMC 50 connectors
- Optimized for use with Cascade's parametric probing systems
- Replaceable coaxial probe tips - the only system that guarantees fully-guarded measurements in femtoamp and femtofarad levels
- Tips replace easily in minutes

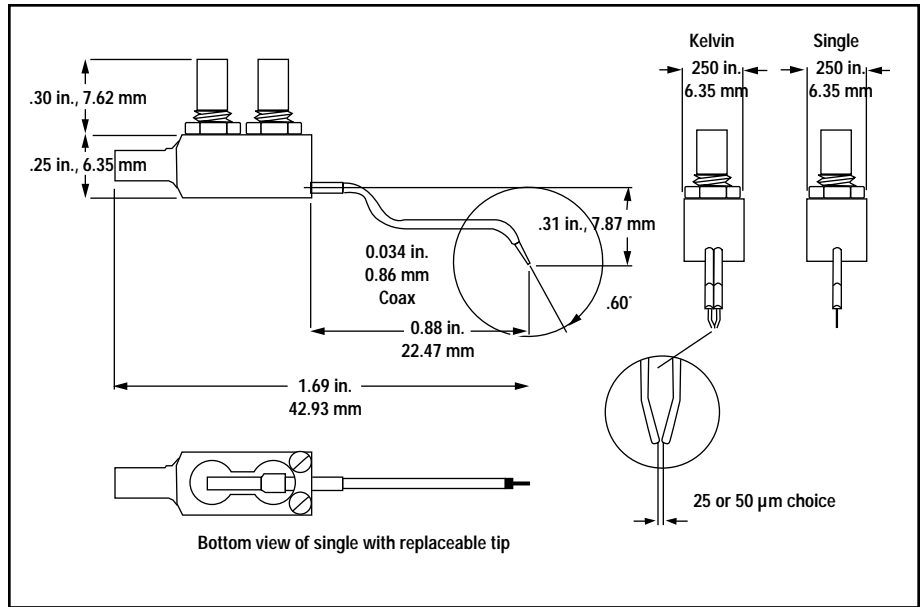
Benefits

- Ultra-low, fA-level current and fF-level capacitance measurements
- Full electrical guarding to probe tip
- Electrically superior to needle probes, allowing full utilization of semiconductor parametric instrumentation performance
- Integrally designed as part of Cascade's complete measurement solution
- Highly reliable, stable, and repeatable

Gain Full Test Performance

For full triaxial current/voltage measurements using combined signal, guard and shield cables, the DCP 100-series should be used with Cascade's parametric probing systems that incorporate the MicroChamber™ environment.

The MicroChamber system provides full EMI shielding around the wafer chuck and the probes, offering a fully-shielded, guarded, dark measurement environment. The triaxial connections from DC parametric semiconductor test instruments are then extended to the probe tip.



Dimensions for the DCP 100 Probe Holder.

When the MicroChamber system is combined with low-noise cables and DCP 100-Series probes, you gain full access to the measurement potential of your parametric test instruments.

Specifications

Breakdown voltage: >500 V
 Isolation resistance: > 1 x 10¹³ ohms
 Frequency response (3 dB): 150 MHz
 Temperature range: -65°C to 150°C
 Characteristic impedance: 50 ohms
 Tip material: Tungsten
 Body material: Gold plated
 Connector type: SSMC

Ordering Information

Single-tip coaxial probeholders with replaceable tips

Probeholder, dual SSMC input with single replaceable 0.5 μm radius probe tip *DCP-105R*
 Probeholder, dual SSMC input with single replaceable 1.5 μm radius probe tip *DCP-115R*

Probeholder, dual SSMC input with single replaceable 5 μm radius probe tip *DCP-150R*

Replaceable probe tips

Replacement tips, 0.5 μm tip radius, quantity of 10 *107-159*
 Replacement tips, 1.5 μm tip radius, quantity of 10 *107-157*
 Replacement tips, 5 μm tip radius, quantity of 10 *107-158*

Dual-tip Kelvin coaxial probes (non-replaceable tips)

Probe, dual SSMC input, dual 5 μm radius probe tips, 25 μm pitch *DCP-150K-25*
 Probe, dual SSMC input, dual 5 μm radius probe tips, 50 μm pitch *DCP-150K-50*

(For more detailed information refer to the *DC/CV Parametric Probing Configuration Guide* and the *Summit Station Configuration Guide*)



Innovating Test Technologies for better measurements faster

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