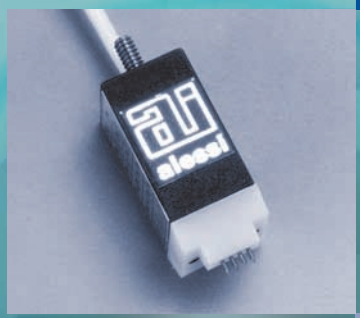
CPS Resistivity Test Fixture and C4S 4-Point Probe Head





Fast, accurate and reliable resistivity testing

Your key to accurate characterization of on-wafer resistance properties, the CPS Resistivity Test Fixture combined with the C4S 4-Point Probe Head provides precise, repeatable measurements for faster, less-costly testing. Available with 6 inch or 8 inch chuck.

CASCADE® MICROTECH

Innovating Test Technologies

CPS Resistivity Test Fixture

Engineered for use with the most common types of digital multimeters and constant current source test instruments, the CPS Resistivity Test Fixture provides faster, more accurate, and less costly testing.

Precision machined and quality constructed, the highly versatile CPS test fixture is designed to handle a variety of sample types, shapes, and forms; and by giving you adjustable control over virtually every movement, it allows you to individually tailor its operation to your needs.

Features

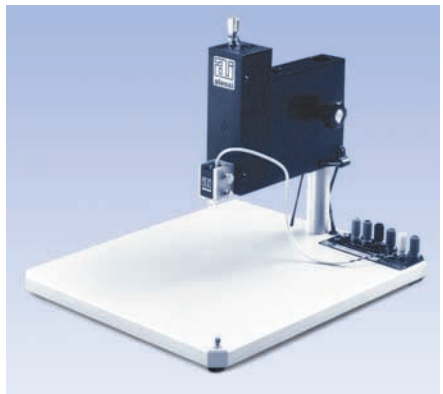
- Easy push-button actuator lowers probe head to make contact with sample
- True vertical advance for exceptional accuracy; no lateral scrubbing displacement
- Instrumentation and power jacks on all models are color-coded and labeled; a jack for instrument ground is provided
- All models are equipped with a microswitch to ensure correct probe tip contact prior to applying the power source

Dimensions

Height: 28 cm (10.5 in.)
Width: 27.3 cm (10.75 in.)
Depth: 33 cm (12.75 in.)

Ordering Information

Basic Contact Probe Test Station (no chuck) *CPS-05*
6 in. Capacity Contact Probe Test Station (vacuum chuck*) . . *CPS-06*
8 in. Capacity Contact Probe Test Station (vacuum chuck*) . . *CPS-08*
**requires vacuum hook-up, 15 in. Hg*



CPS-05 Basic Contact Probe Test Station: actuator and base without chuck

C4S 4-Point Probe Head

Features

- 50,000 accurate, repeatable measurements per probe head, guaranteed (in excess of 100,000 measurements are typically achieved)
- Probe tip pressure is field-adjustable to compensate for wear; greatly extends probe life
- Anodized-aluminum body electrically shields all active internal components
- Built-in main compression spring through a semi-rigid spacer ensures equalized tip pressure even on uneven wafer surfaces
- Unique composition nosepieces ensure smooth tip travel; outlast jeweled bearings
- Available with full range of probe spacing, tip material and radii, and spring pressure choices
- Interface with most Resistivity Fixtures/Bases in common use

Specifications

Max. side deflection of probe: 1.25 µm (0.05 mils)
Max. vertical stroke of probe: 2.54 mm (100 mils)
Spacing Accuracy: ±1%
Displacement Accuracy: 0.1%
Instrumentation interface: 38.1 cm (15 in.) color-coded leads
Weight: 28.35 gms (1 ounce)

Dimensions

Width: 16 mm (5/8 in.)
Height: 50.8 mm (2 in.)
Depth: 19.1 mm (3/4 in.)

Recommendations

The following table illustrates typical recommendations for tip material, tip radii, and spring pressure for resistivity measurements of various materials:

Material to be measured	Tip material	Tip radii	Spring measure
Silicon slices Silicon ingots	Tungsten carbide	50 µm 2 mils	70 to 180 gms per tip
Semiconductor sheet resistance	Tungsten carbide or osmium	50 and 125 µm 2&5 mils	40 to 70 gms per tip
Thin metallic films	Osmium	125 & 50 µm 5&10 mils	40 to 70 gms per tip
Gallium arsenide Gallium phosphide Arsenide	Tungsten carbide	17.5 µm 0.7 mils	70 to 180 gms per tip

Ordering Information

Resistivity 4-point Probe Head *C4S-XY/WZ*

Where:

X = Spacing
- 4 = 1.25 mm (0.04 in.)
- 5 = 1 mm (0.05 in.)
- 6 = 1.55 mm (0.0625 in.)

Y = Pressure
- 4 = 40 - 70 gms (1.41 - 2.47 oz)
- 7 = 70 - 180 gms (2.47 - 6.35 oz)

W = Radii
- 7 = 17.5 µm (0.7 mils)
- 0 = 50 µm (2 mils)
- 5 = 125 µm (5 mils)
- 1 = 250 µm (10 mils)

Z = Material
- 0 = Tungsten carbide
- S = Osmium

Four point probes are consumable items and are not included under standard warranty.

CASCADE® MICROTECH

Innovating Test Technologies for better measurements faster

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CPSC4S-1200
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