

SPS- 1000 Analytical Probe Station for up to 150mm wafer testing

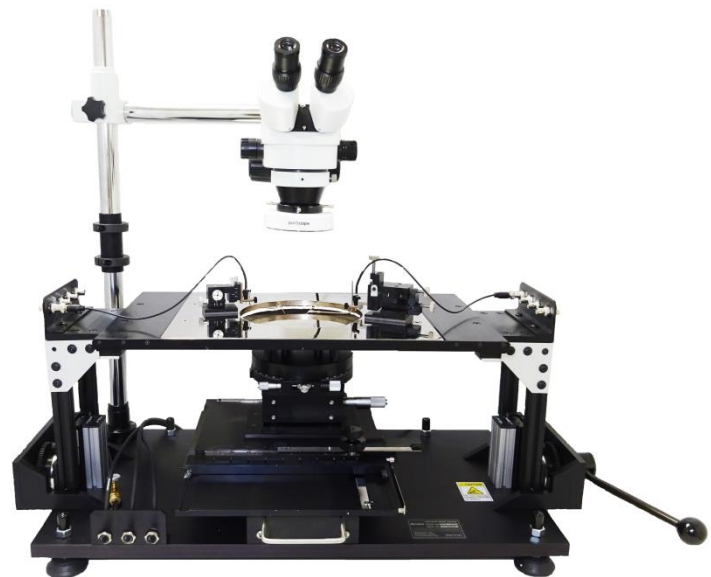
Data Sheet

micro  act, inc.

The SPS-1000 Series adapted for up to 150mm wafer testing is a scaled down, economical version of MicroXact's manual probe stations that still keeps all relevant specifications of the higher priced systems. Small, ergonomic, and convenient to use, this system is ideal for laboratory testing and characterization of semiconductor devices and circuits.

Features

- Fully manual stage assembly contains precision cross roller bearings with a 100mm x 100mm or 150mm x 150mm range of motion (or larger).
- Additional pre-load slide for easy loading and unloading of wafers or included samples
- Convenient manual control of platen with coarse and fine adjustments and range of 12.7mm, 25mm or 40mm
- Smooth magnetic steel platen holds up to 10 magnetic or vacuum-based positioners.
- High quality stereo zoom microscope with up to 200mm working distance and high-intensity LED lighting provide outstanding vision at magnifications ranging from 3.5X to 180X.
- Included camera port
- Isolated feed-through terminals located on both sides of the station for convenient connection to micropositioners can be customized for BNC, Triax, DC pin, or standard RF connections.
- Standard boom mount assembly for full-range XYZ positioning of microscope. XY range of 50mm x 50mm (higher range available)
- Available high resolution micropositioners with up to 100TPI screws for micron-level positioning of probes.
- Vacuum chucks offered with 3-zone adjustable vacuum with large number of vacuum zones available upon request.
- RF options available include customizable RF probes, RF biasable chuck, and shielding enclosures.



Specifications

Wafer Size

Up to 150mm standard, larger capacity available

XY Stage

Travel
Resolution

100mmx100mm or 150mmx150mm standard, larger available
3 μ m standard, 2 μ m optional

Platen

Travel
Adjustment
Planarity
Rigidity

12.7 mm or more
Coarse and fine control, better than +/-1.5 μ m repeatability
<+/-12.7 μ m across 150 mm, <+/-5 μ m across 150 mm optional
<5 μ m for 4.5 kg

Chuck

Vacuum
Flatness
Breakdown Voltage
Isolation
Adjustment
Fie Z adjustment

Three-zone vacuum
+/- 13 μ m standard, down to +/- 3 μ m optional
At least 500 V At Least 500V
At least 1G Ω
360° coarse, +/-6° fine
10mm with 1 μ m or better resolution

Microscope

High quality stereo zoom with up to 200mm working distance and magnification ranging from 3.5X to 180X

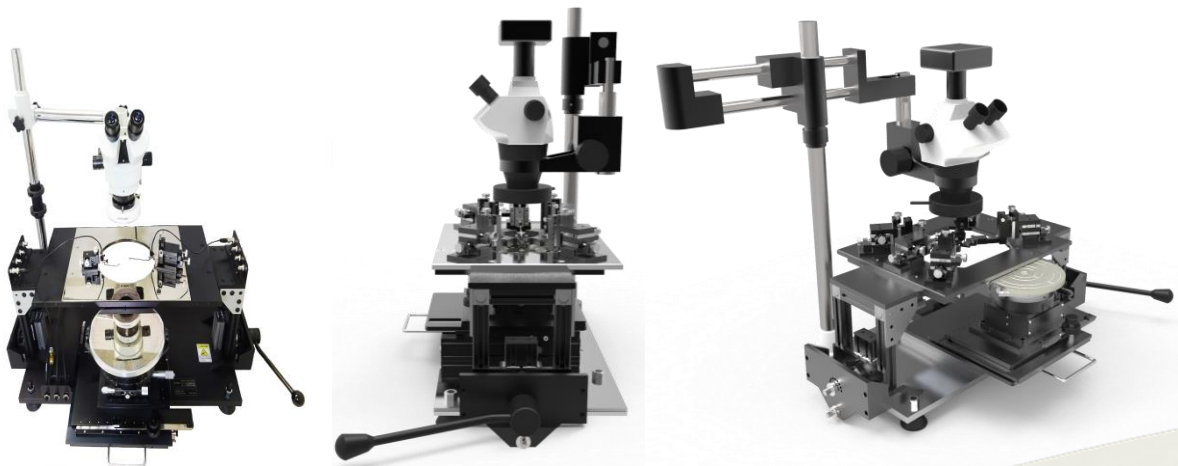
Electrical

Terminals

BNC, Triax, RF, or Banana plug

Facility Requirements

Vacuum: <600 torr.
CDA: 60psi (Note: Only for pneumatic XY stage upgrade)



SPS-1000

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