

# PROBE SYSTEM FOR LIFE



## MINI PS4L DATA SHEET

### m4-PS4L-4 (100 mm) Semiautomatic Probe System

The SemiProbe Mini-PS4L family of probe systems are built using the same design concepts as our patented Probe System for Life (PS4L) Architecture. The Mini-Series is designed to address the requirements of small sample testing using a small footprint.

The Mini-PS4L family of configured probe systems addresses basic research and characterization applications that require probing on samples that are 100 mm and less in size. Our conventional family of probe systems - Lab Assistant and Probe System for Life (PS4L) are an overkill in size, capabilities, and cost for small sample testing applications.

#### The Mini-PS4L addresses the following applications:

- Basic Research and Device Characterization on small samples - die, partial wafers, PCB, substrates, and packaged parts
- Ideal for universities, government labs and corporations requiring simple testing capabilities
- Small Footprint - easily fits on a bench, desk, cart or in a glovebox
- Flexibility - multiple system and accessory configurations are available
- Field Upgrade Path - new modules and accessories can be added when required

The Mini-PS4L Series of probe systems are sold as a kitted configuration. Everything you need to start probing is included in the kit - prober, accessories, and installation manual. It is designed to be fully operational within 30 minutes after opening the box. This unique modular design enables customers to acquire test capabilities that precisely match their requirements and budget. More important, as the environment or test conditions change, the Mini-PS4L can be field-upgraded to add new capabilities or completely exchanged for a larger PS4L system at full credit. With this design philosophy, customers realize substantial time and cost savings over traditional probe systems because they do not need to invest in a new platform when wafer size, levels of automation or test requirements change.



#### m-PS4L-4 Kit Features & Benefits

- 100 mm Vacuum chuck
- Two complete MA-8005 manipulators with adjustable probe arm faceplates, coaxial probe arms, magnetic bases, and probe tips
- Fixed Platen - fits up to four manipulators
- Motorized/Programmable Stage - X,Y & Z
- Adjustable Optics (Z)
- Accessories - manipulators, probe arms, probe tips, optics, CCTV System, Packaged Part Holders
- 100% Credit to PS4L Purchase - entire mini purchase price credited to PS4L purchase

#### Major Applications/Markets Served

Device Characterization, MEMS, Optoelectronics, HF/Microwave, Failure Analysis, Photovoltaic, Research, Material & Life Science and more

## SPECIFICATIONS

Dimensions	432 mm x 392 mm x 300 mm (17.0" x 15.4" x 12") (W,H,L) - with optics Base is 300 mm x 300 mm (12" x 12")
Weight	10 Kg (22 lbs.)
Chuck Stage X-Y-Z Movement	Motorized/Programmable - flexibility to control stage via joystick or send remote commands via PC - Travel: X & Y = 25 mm, Z = 10 mm, feature resolution is 1 um, velocity is 0-950 mm/sec, step resolution (X,Y,Z) is 0.2 um/step - chuck is mounted to the stage
Chucks	Vacuum, round with concentric vacuum rings, or High Frequency (vacuum holes with calibration substrate holders). Chucks will handle die, partial wafers, and wafers up to 75 mm. In addition, substrates, PCBs, packaged parts, wafer packs, and more can be held in place Other Chuck Options - 50 mm, 75 mm Nickel plated steel with concentric vacuum rings (standard), other plating materials available Planarity: +/- 8 µm
Platen:	Aluminum with stainless steel top Manipulator fixation - magnetic (standard), vacuum (optional with vacuum manifold kit) and bolt down (with holes)
Platen Movement	Fixed
Microscope Mounting/Movement	No movement in X and Y, Adjustable in Z
Microscope (Optics)	Digital Camera or Compound Zoom Tube
Utilities	Power: AC 110/220V AC 50-60 Hz 20A Vacuum: 23 Hg or -0.8 bar

Note: Data, specifications and pictures vary depending on probe system configurations and accessories

## PHYSICAL DIMENSIONS

