

# PROBE SYSTEM FOR LIFE



## DATA SHEET

### M4 – 100 mm Manual Probe System

The SemiProbe M4 is the most modular and flexible 100 mm manual probe system available today. It is built using our patented Probe System for Life (PS4L) architecture which provides unsurpassed flexibility and significant capital equipment savings. With the PS4L, customers can purchase a manual 100 mm system that meets their precise specifications and requirements.

The Probe System for Life (PS4L) family of wafer probing systems is designed based on SemiProbe's patented adaptive architecture. Unlike traditional probe systems, all foundation modules – bases, stages, chucks, microscope mounts, microscope movements, optics, manipulators and more - are interchangeable, making the PS4L the consummate solution for many different applications and budgets. This unique modular design enables customers to acquire test capabilities that precisely match their requirements. More important, as the environment or test conditions change, the PS4L can easily be field-upgraded to meet these new demands. With this design philosophy, PS4L 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.



A complete line of accessories is available for the M4 system including probe card holders, manipulators, manipulator arms & bases, probe tips, lasers, optics, CCTV systems, vibration isolation tables, dark boxes and much more.

## FEATURES AND BENEFITS

- 100 mm manual system with upgrade path to 150/200 mm manual system
- 100 mm manual system with upgrade path to 150/200 mm semiautomatic system
- All key components are interchangeable which enables the system to easily be configured to meet applications and budgets – present and future
- Software and hardware modules provide a perpetual field upgrade path

### Major Applications/Markets Served

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

## SPECIFICATIONS

<b>Dimensions</b>	750 mm x 650 mm x 750 mm (29.5" x 25.4" x 29.5") (W,H,L) - with optics
<b>Weight</b>	70 Kg (155 lbs.)
<b>Chuck Stage X-Y Movement</b>	Several stages to select from to meet performance and budget requirements Travel: 105 mm x 105 mm Planarity: +/- 7.5 µm over travel range Resolution: 5 µm Independent X and Y linear movement
<b>Chuck Stage Z Movement</b>	Z Travel: 10 mm Z Contact/Separation Stroke: 4 mm adjustable
<b>Theta Movement</b>	Travel: 360 degrees
<b>Chucks</b>	Vacuum or mechanical clamping, round or square, ambient, thermal and custom Handle die, wafer packs, sawn wafers on frame, broken wafers and full wafers up to 100 mm Nickel plated steel with concentric vacuum rings (standard), other plating materials available Planarity: 5 µm
<b>Platen:</b>	Aluminum with stainless steel top 360 degree manipulator placement Manipulator fixation - magnetic, vacuum
<b>Platen Movement</b>	Platen Lift: Choice of fixed or adjustable Adjustable: Coarse - 25 mm, Fine - 6 mm
<b>Microscope Mounting/Movement</b>	Mounting - Boom, Post or Bridge Movement - Manual or Programmable - 50 x 50 mm, 50 x 75 mm, 100 x 100 mm
<b>Optics</b>	Stereo Zoom, Zoom Tube, A-Zoom or Compound Microscope
<b>Utilities</b>	Power: AC 110/220V AC 50-60 Hz 20A Vacuum: 23 Hg or -0.8 bar

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

## PHYSICAL DIMENSIONS

