



Semiautomatic Probing Systems

Leading edge technology at affordable prices!



INNOVATION * QUALITY * MODULARITY * AFFORDABILITY

Semiautomatic

Let us shed
some light on
your toughest
test
challenges!



SA-4

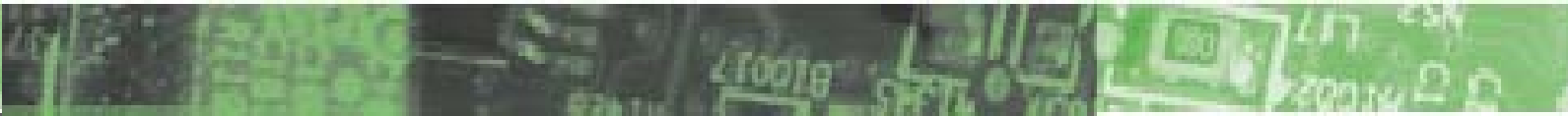
If you had started with a simple PS4L manual system, you can field upgrade to SA-4, SA-6 or SA-8 programmable semiautomatic status. This system utilizes SemiProbe's *PILOT* control software suite which is a powerful yet easy to learn and use graphical user interface. If you start with the SA-4 configuration, conversion to SA-6 or SA-8 can be done quickly and easily at your facility and at a fraction of the cost of buying new larger wafer capable equipment! The SA-4 is ideally suited to III/V compound devices on small wafers. Discrete components, LEDs, OLEDs, MEMS and other optoelectronic devices that often require additional test instrumentation such as integrating spheres are easily accommodated. This cost effective alternative to purchasing old obsolete 100 mm equipment allows you freedom from costly downtime delays and maintenance problems.



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Request a Quote

Request a quote today by E-mailing info@semiprobe.com
or visit our website at www.semiprobe.com



From this

TO

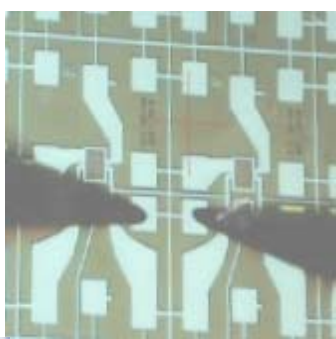


This!

SA-6

For 150 mm (6") wafers and substrates, the SA-6 is an economical replacement for older less reliable high speed probing systems. The SA-6 is only 150 mm system on the market with low temperature chamber capability. The SA-6 has all of the advanced probing features of world's most advanced probers at a price, footprint and reliability standard that makes used and reconditioned equipment uneconomical!

Controlled using the Industry leading *PILOT* software suite, the prober can be controlled locally, via software or via remote commands. High speed servo motors controlled with a closed loop feedback system ensure accurate and repeatable positioning. Each control axis has its own controller and power supply module for easy service and fast repairs should they ever be required. All cabling uses industry standard and labeled plugs to minimize downtime and improve MTBF. This modular motion control system provides easy access to all components and allows for the change out of any component in under an hour!



Individual Probes



Probe Card



Semiautomatic

Lowering your cost of test by...

- ◆ Lower System Cost
- ◆ Higher MTBF
- ◆ Lower maintenance costs
- ◆ Easy to service
- ◆ Easier to run
- ◆ Faster to set-up
- ◆ Faster Probing Speeds
- ◆ Upgrade Path
- ◆ Improved test architecture



SA-8

The PS4L SA-8 is 200 mm (8") probing system that can be configured as a high speed niche production prober or a high precision analytical prober. Ideally suited to MEMS production testing because of its flexible platform, non-electrical stimulation and measurement systems may be easily added with a minimum amount of custom work. The removable front platen panel makes loading and unloading easy while maintaining the ability to do HF/Microwave 4-port measurements or to maximize the number of manipulators utilized. All PS4L systems may be equipped for use with manipulators or probe card holders.



With thermal chuck and the appropriate accessories, this system is capable of probing at temperatures between -65°C and $+300^{\circ}\text{C}$. In addition, this system may be configured with a dark box, acoustic shielding, vibration isolation or an electrical noise isolation system.

Because it is built using the SemiProbe PS4L concept, this system is perpetually upgradeable in the field to add larger stages and chucks to accommodate a change in wafer size, material handling for full automation, or specialized instruments or components for your latest leading edge devices.



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Pilot

A new Standard in Prober Control Software

A DLL based software architecture allows easy communications and allows new features, capabilities and accessories to be added to the system with a minimum of time, money and effort. PILOT offers 3 software control options:



– Navigator Table Control

Using the navigator control table, the user can record and save positions and then move freely between them.



– Ace Point 'n Shoot

Ace Point 'n Shoot allows the user to mouse "click" and position on the video image and the probe station will move to that location.



– Cockpit Command Arrows

Using Cockpit Command Arrows, the user is able to move the device selected in any axis.



Local or remote control (Slave or Master)

The PS4L SA series probing systems can be controlled locally at the machine or remotely as a slave to another instrument or computer.

Touch screen convenience

Using the touch screen panel, all prober commands and software test instructions may be controlled using the convenient touch screen monitor. All control menus and buttons have been enlarged for ease of use.



Joystick control

For local control, the joystick offers simple X-Y-Z motion control for the device selected. 12 buttons allow the user to select the device or function to be controlled. The joystick moves in 3 speeds and can be used in regular motion or index mode.



Wafer Map

Wafer maps are easily created using the software wizard. Using wafer map you can bin, graph and save test results or export the results to MS Excel or to other equipment as a DB, TXT or custom file.



EVA™ Option

With EVA, your wafer, fragment, diced die on stretch frame, or diced die in wafer pack are rapidly scanned and the position of each die is learned. From this, a wafer map is automatically generated.

For More Information call (802) 860-7000

Specifications:

	<u>SA-4</u>	<u>SA-6</u>	<u>SA-8</u>
Dimensions (WHD)	900 X 400 X 900 mm 36" X 16" X 36"	900 X 400 X 900 mm 36" X 16" X 36"	900 X 400 X 900 mm 36" X 16" X 36"
Weight	70 Kg (155 lbs.)	75 Kg (165 lbs.)	85 Kg (187 lbs.)
Stage			
Travel:	100 mm X 153 mm	153 mm X 153 mm	203 mm x 203 mm
Speed:	300 mm/sec (Max)	300 mm/sec (Max)	300 mm/sec (Max)
Resolution:	0.5 um	0.5 um	0.5 um
Accuracy:	± 4 um over 153 mm	± 4 um over 153 mm	±4 um over 203 mm
Repeatability:	± 2.5 microns	± 2.5 microns	± 2.5 microns
Mechanics:	5mm/rev ballscrew and 2500 line incremental squarewave encoder		
Chuck			
Z Travel:	10 mm	10 mm	10 mm
Resolution:	1.0 um	1.0 um	1.0 um
Accuracy:	± 4 um over 10 mm	± 4 um over 10 mm	± 4 um over 10 mm
Repeatability:	± 2.5 um	± 2.5 um	± 2.5 um
Theta:	± 7°	± 7°	± 7°
Theta Resolution:	0.0018°	0.0018°	0.0018°
Platen			
Platen Lift:	Choice of fixed or adjustable		
Contact/Separation Stroke:	200 um	200 um	200 um
Optics			
	May be configured for StereoZoom, Zoom tube, A-Zoom or Compound Microscope		
Microscope Travel			
	Dependant upon Microscope chosen – Boom, fixed, 2 X 2 manual, or programmable		
Utilities			
Power:	AC 110/220V 50-60 Hz 10A	AC 110/220V 50-60 Hz 12A	AC 110/220V 50-60 Hz 15A
Vacuum:	15" Hg.	15" Hg.	15" Hg.

SemiProbe Manipulators



MA-8005
DC/Pad Probe



MA-8000
Universal DC/HF



MA-8022
Precision heavy duty
manipulator for small features
and HF/Microwave



MA-8100
Microfluidic probe for
sub-micron probing