

# LAB ASSISTANT



## DATA SHEET

### LA-100 HF

The LA-100 HF is an economical, small footprint 100 mm (4") probe system for R & D centers and Universities with the stability and flexibility you need for your work. It is configured as a complete system and is installed by the customer and operational within an hour out of the crate.

The SemiProbe Lab Assistant family of probe systems is specifically designed to address the requirements of research personnel - simplicity and ease of operation, portability, affordability and modularity. The Lab Assistant provides features and options that are typically only available in much more expensive systems – multiple stages, chucks, optics and manipulators. Numerous accessories can be added at a later date to enhance the system functionality.



## FEATURES AND BENEFITS

- Small footprint – fits on a desk, small bench, in a glove box or dark box
- Sold as a completely configured system
- Interchangeable components - can be used as a single or multiple application system
- Modular – numerous accessories can be added for additional capability
- DC, HF/Microwave & Kelvin versions available

## CONFIGURATION INCLUDES:

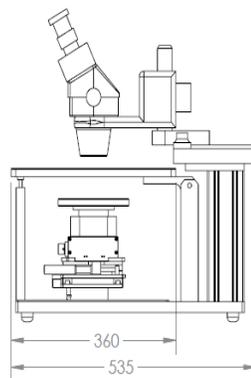
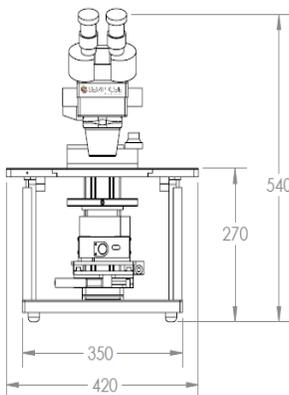
- Rigid aluminum base with rubber vibration isolation feet
- Coarse and fine wafer stage adjustment with interchangeable stage options - packaged part or thermal
- Fine stage movement using precision micrometer control - X (25 mm), Y (25 mm) & Z (>20 mm)
- Coarse (360 degrees) and fine (10 degrees) theta adjustment
- 100 mm (4") chuck with isolation adapter and vacuum control system
- Aluminum with stainless steel plated platen with removable front wedge
- Precision micrometer driven platen Z lift (13 mm)
- Two (2) DC MA-8000 manipulators with magnetic bases and HF West/East probe arms (standard)
- Microscope post with coaxial and linear microscope X, Y movement of 50 mm x 75 mm
- 6.7:1 zoom (130x magnification) trinocular stereo zoom microscope with 100 mm working distance

## SPECIFICATIONS

Dimensions	420 mm X 540 mm X 535 mm (16.5" X 21.3" X 21.1") (W,H,L) – with Optics
Weight	32 kg (70 lbs.)
Base	Solid Aluminum rigid base on rubber vibration isolation feet
Chuck Stage X-Y Movement	Adjustable magnetic slide for coarse adjustment (> 100 mm) Fine micrometer adjustment – 25 mm (X, Y) Entire stage easily removed via magnetic base
Chuck stage Z movement	Z travel: 20 mm (0.78") with micrometer driven contact/separation
Theta Movement	Travel: 360 degrees (coarse) and 10 degrees (fine) with theta locking knob
Chucks	Vacuum or mechanical clamping, round or square, HF, ambient, thermal and custom Handle die, waffle packs, sawn wafers on frame, broken wafers and wafers up to 100 mm Nickel plated steel with concentric vacuum rings (standard), other materials available
Platen	Aluminum with stainless steel top and removable front wedge for easy wafer handling Manipulator fixation – magnetic (standard), vacuum (with optional vacuum manifolds)
Platen Movement	Micrometer driven platen Z adjustment
Microscope Mounting	Rigid aluminum post (standard) or boom available
Microscope Movement	Manual coaxial and linear fine microscope movement - 50 mm (X) and 75 mm (Y) (2"x3")
Optics	Trinocular stereo zoom microscope (standard), compound or zoom tube (optional)
Utilities	Power: AC 110/220V AC 50-60 Hz 20A Vacuum: 23 Hg or -0.8 bar
Options & Accessories	CCTV Systems (camera, monitor and adapter) and stand (shown in picture page 1) Manipulators, Probe Arms, Probes, Cables – Coaxial, Triaxial, Kelvin, HF, Optical Probe Card and Package Part Holders Vibration Isolation Tables, Dark Box Stages – wafer, packaged part, thermal

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

## PHYSICAL DIMENSIONS



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