

EverBeing Int'l Corp. Catalogue

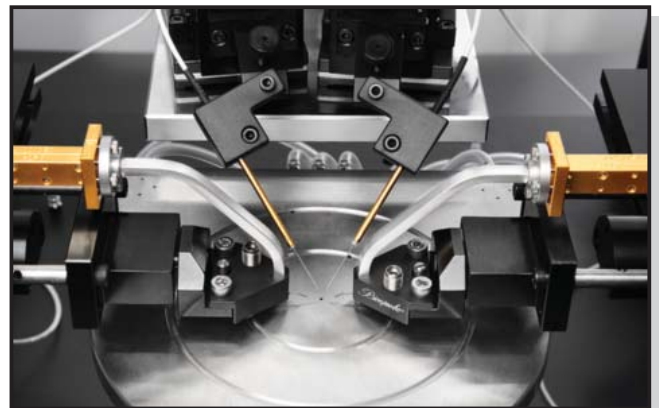
Probing your market with innovative technology



Founded in 1993, **EverBeing Probing Solutions** offer standard or custom made probe stations to meet your budget. Lambda's application engineers can tailor a complete system to meet your needs. **EverBeing** have probe stations for 2" to 8" wafers with hot and cold chuck, matched with a large inventory of micropositioners, probing tips, tip holders, cables, coaxial and triaxial adapters, USB and stereo microscopes. With wafer, organic, cryogenic, LED/LD/PD, RF, mmWave, LCD, Hall Effect probe stations, and 25 years' experience in the probing technology area, **Lambda Photometrics** and **EverBeing** can work with you to cost-effectively realise your measurement solution.

Product lines include:


- RF & mmWave Probe Station
- Custom Built Probe Station
- Wafer Inspection 200x, 400x and 800x
- Surface Resistivity / 4 Point Prober
- Wafer Probe Station
- LCD Probe Station
- LED Probe Station
- LD/PD Probe Station
- PCB Probe Station
- Micropositioner (Micromanipulator)
- Stereo and USB Microscope
- Hot Chuck
- Cold Chuck
- Cryogenics Chuck
- Four Point Probe
- Vibration Free Table
- Shielding Box / Dark Box
- Probing Accessories



Test & Measurement Equipment Specialists


Applications

- Solar cell
- Cryogenics
- Super High Temp
- RF Microwave
- RF DC Bias PGP
- Power Measurement
- Low Current
- Low Capacitance
- High Voltage
- High Current (Power IC)
- AC Signal
- Field Signal
- Pulse IV
- Curved Wafer
- Nano Technology
- Biochips
- Leads of Tiny Packaged IC
- Design House
- Motorised Probing
- Sheet Resistivity
- Hall Effect
- Pressurised Environment
- Light Intensity & Wave Length LED/LD/PD
- Specific Gas Environment
- PCB RF Microwave
- Time Domain Reflectometry (TDR)
- FPC RF Microwave
- Flat Panel Display LCD, OLED
- Flexible AMLCD, AMOLED



Picoprobe®
BY GGB INDUSTRIES INC.

GGB Industries, Picoprobe® line of DC to microwave probes have been the first choice for the semiconductor industry. With a line of high impedance trouble shooting probes, precision coaxial microwave probes with 50 ohm coplanar flexible tips and high performance W-band millimetre heads.



Our probe stations can be using with any brand of Source Measure Unit SMU. **Lambda** have partnered with **AIM-TTi** to offer the best value probing solution. The new 4 quadrant SMU4001 has a 4.3" colour touchscreen display LCD display, numeric and graphical results and rangeless ± 210 V, ± 3.5 A, ± 10.5 A (pulsed), 0.1uv, 1pA



Affordable Probe Station

The EverBeing C-2 model is a portable probe station equipped with the same features as EverBeing full-size probe stations. It is ideal for DC and RF applications for samples of 2" or less.

Components such as the raised platen, coaxial X-Y stage and digital microscope mount are included with the system. It is the smallest and most affordable EverBeing probe station.

Features:

- Portable and light
- Affordable price
- Ideal for wafers of less than 2"
- IV/CV measurement applications
- RF probing (East/West/North/South configuration)
- Same coaxial stage as fitted on full size probe stations
- Single knob design for fine and quick positioning as well as X-Y single hand operation
- Low gravity centre for stability
- Fits into glove box

Specifications:

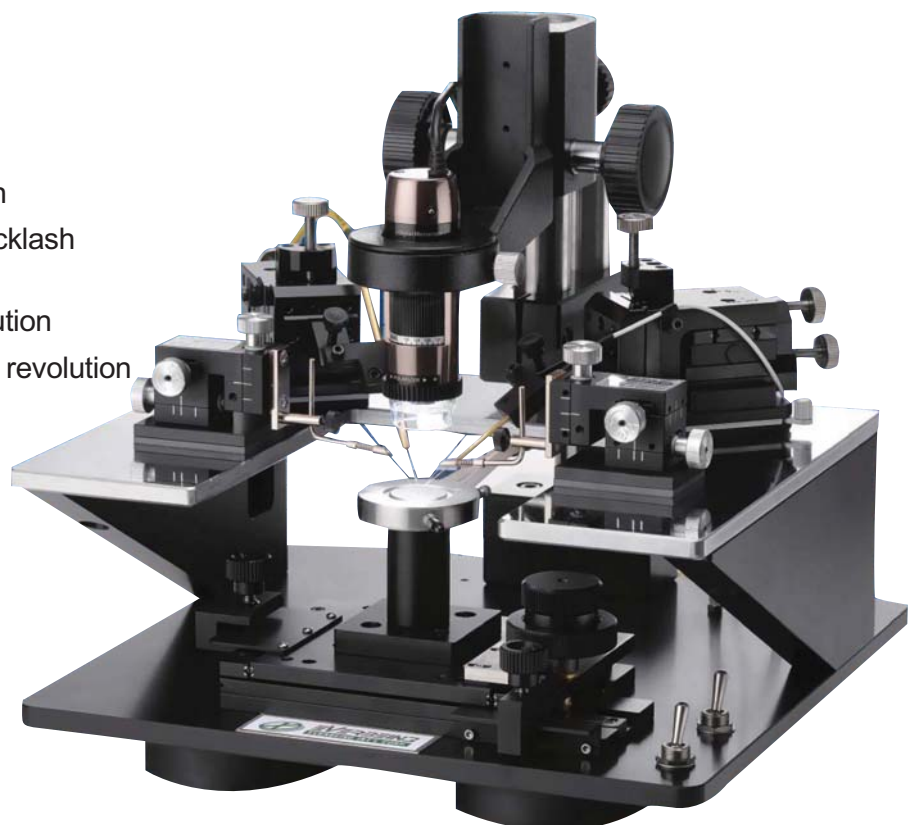
- 2" steel chuck with vacuum switch
- Coaxial stage with 2"-2" linear backlash free travel
- Fine position at ~10 micron resolution
- Quick motion at ~25mm drive per revolution
- Chuck theta at 15° backlash free

Accessories:

- Digital camera up to 300x magnification
- RF probe/cables
- Low current/capacitance probe
- High voltage probe

Dimensions:

- 320mm W x 320mm D x 320mm H
- 15kg with digital camera and 4 positioners



EverBeing C Series

Analytical Probe Station

Features:

- 4", 6" & 8" chuck sizes
- Linear X-Y stage, 2"-2", 3"-3", 4"-4"
- Linear backlash free coaxial X-Y stage
- Compact size, lightweight
- Excellent value
- IV/CV measurement applications
- RF probing (East/West configuration)
- Suitable for research & clean room
- Anti-vibration foot mounts
- More stable with lower gravity centre
- One hand grips both X-Y knobs
- One stage for fine and quick positioning

Accessories:

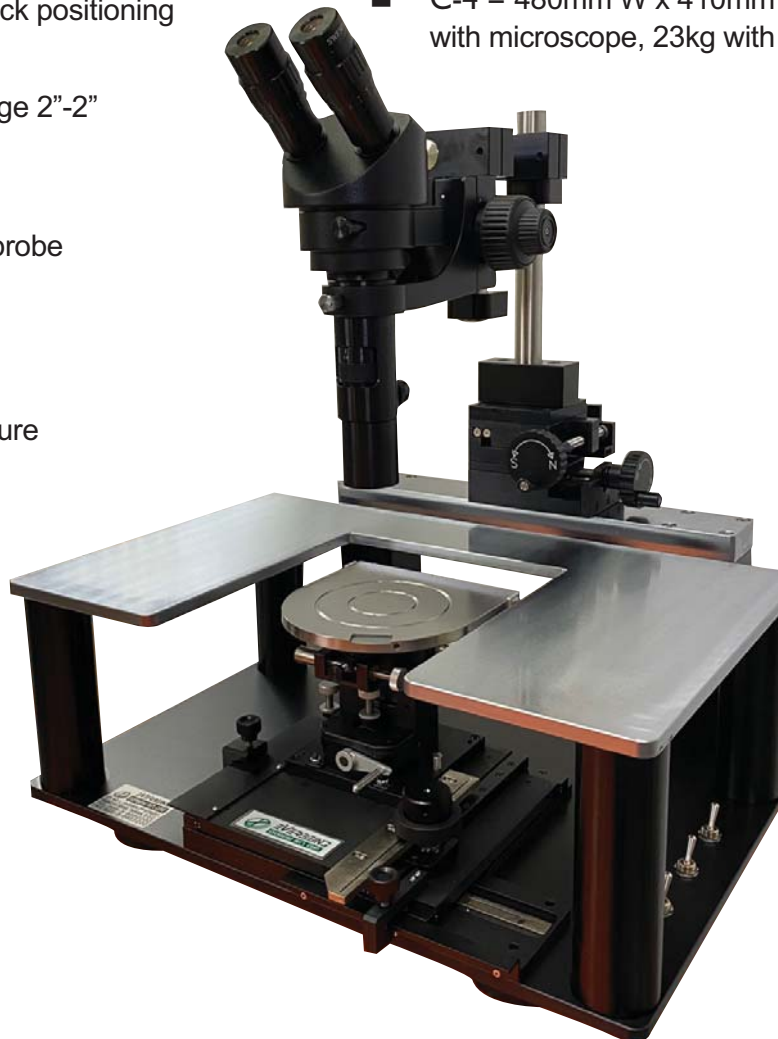
- Microscope stage X-Y stage 2"-2"
- RF probe/cables
- Digital camera
- Low current/capacitance probe
- High voltage probe
- Hot chuck
- Vibration free table
- Shielding box/dark enclosure

Specifications:

- Chuck up/down 4mm
- Steel chuck with individual vacuum switches
- Linear backlash free X-Y travel
- Fine position at ~10 micron resolution
- Quick motion ~25mm drive per revolution
- Chuck theta at 15° backlash free
- Hard chrome plated platen

Dimensions:

- C-6 = 515mm W x 410mm D x 550mm H with microscope, 23kg with microscope
- C-4 = 480mm W x 410mm D x 550mm H with microscope, 23kg with microscope



EverBeing EB Series

Analytical Probe Station

Features:

- 4", 6", 8" & 12" chuck
- Coaxial-driven chuck stage
- RF probing field upgradeable
- 20X-4000X magnification
- Backlash free movement
- Choice of microscope (tilt) up/down for E-Z revolving objectives

Specifications:

- 6" stainless steel vacuum chuck
- Chuck stage 6"x6" travel
- Chuck theta 0-30°
- Chuck up/down 4mm adjustable
- 12 micropositioner platen
- 1"x1" travel microscope stage

Dimensions:

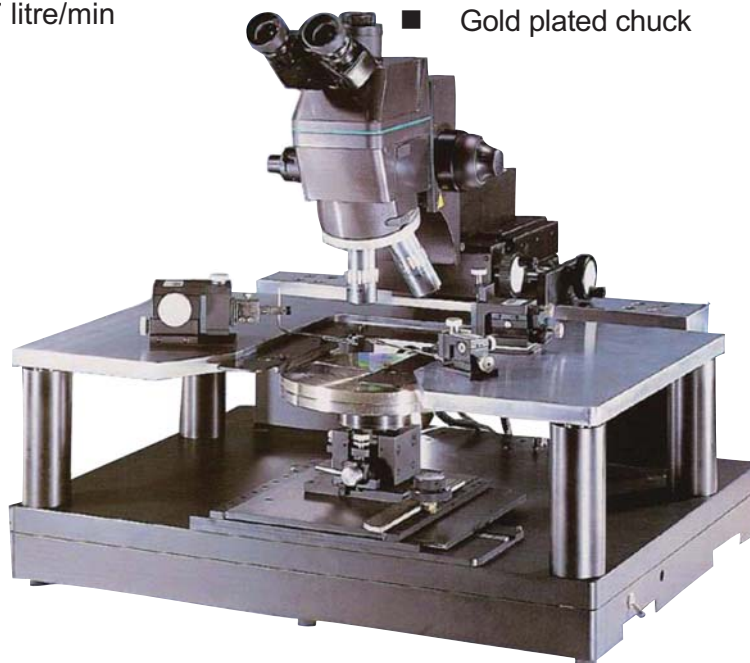
- 660mm W x 660mm D x 700mm H with microscope
- 60kg with microscope

Requirements:

- Electrical 110VAC, 60Hz, 220VAC, 60Hz
- Vacuum -250mm Hg, 7 litre/min

Accessories:

- RF probe/cables
- Active probes
- Low current/capacitance probe
- High voltage probe
- Laser cutter
- Ultrasonic cutter
- CCTV
- Photomicrographics
- Probe card holder
- Packaged device holder
- PCB holder
- Thermal chuck
- Liquid crystal kit
- Vibration free table
- Shielding box
- Test bench
- Instrument case with caster
- Microscope quick lift
- Dark field/normarski inspection
- Chuck vacuum pattern
- Gold plated chuck



EverBeing C-2-RF

Mini Probe Station

The EverBeing C-2-RF model is the worlds smallest probe station equipped with the same features as EverBeing full-size probe stations. It is ideal for DC and RF applications for samples of 2" or less up to 70GHz.

Components such as the raised platen, coaxial X-Y stage and digital microscope mount are included with the system. It is the smallest and most affordable EverBeing probe station. Suitable for 4 port measurement North, South, East, West plus two DC bias probes.

Features:

- U-chuck holds DUT plus calibration substrate
- Affordable price
- Ideal for wafers of less than 2"
- IV/CV measurement applications
- RF probing (East/West/North/South configuration)
- Same coaxial stage as fitted on full size probe stations
- Single knob design for fine and quick positioning as well as X-Y single hand operation
- Low gravity centre for stability
- Fits into glove box

Specifications:

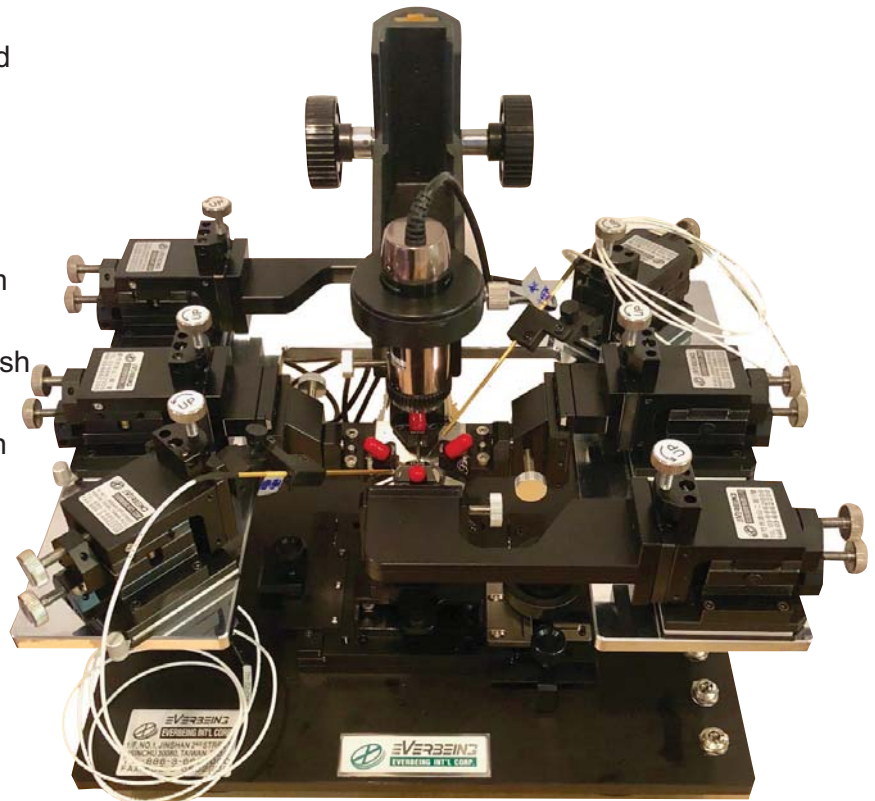
- 2" steel D-shaped chuck with vacuum switch
- Coaxial stage with 2"-2" linear backlash free travel
- Fine position at ~10 micron resolution
- Quick motion at ~25mm drive per revolution
- Chuck theta at 15° backlash free

Accessories:

- Digital camera up to 300x magnification
- RF probe/cables
- Low current/capacitance probe
- High voltage probe

Dimensions:

- 360mm W x 330mm D x 320mm H
- 22kg with digital camera and 4 positioners



EverBeing EB-6A

Millimeter Wave Probe Station

The EB-6A is a proven solution developed closely with Anritsu. The new precision EB-AN-1235 micropositioner has been designed specifically to be used with the Anritsu frequency extender range.

Features:

- Customised positioners specifically designed for Anritsu broadband mmWave modules
- Intergrated heatsink and mount for mmWave modules
- Precise integration allows direct link to probes
- 20X-4000X magnification
- Backlash free movement
- 4.5inch probe card holder compatible
- Double sided mmWave probing option
- Coaxial style high precision stage revolving objectives
- High voltage probe
- Laser cutter
- 4.5inch Probe card holder
- Packaged device holder
- PCB holder
- Thermal chuck
- Vibration free table
- Shielding/dark box
- Instrument case with caster
- Microscope quick lift
- Chuck vacuum pattern
- Gold plated chuck

Specifications:

- 6" stainless steel vacuum chuck
- Chuck stage 6"x6" travel
- Chuck theta 0-30°
- Chuck up/down 4mm adjustable
- 12 DC or 4 RF & 4 DC micropositioner platen

Dimensions:

- 760mm W x 660mm D x 700mm H with microscope
- 80kg with microscope

Accessories:

- RF probe/cables
- Active probes
- Low current/capacitance probe



EverBeing EB-6V

Millimeter Wave Probe Station

The EB-6V is a market proven solution for mmWave research. It has been developed with VDI, OML, Keysight, R&S mmWave Modules. The new precision EB-KRF micropositioner has been designed specifically to be used with all the main manufactures to precisely position the RF head and module onto the DUT to 0.8um accuracy.

Features:

- Customised positioners specifically designed for mmWave modules from VDI, OML, Keysight and Rohde & Schwarz
- Intergrated heatsink and mount for mmWave Modules
- Precise integration allows direct link to probes
- 20X-4000X magnification
- Backlash free movement
- 4.5inch probe card holder compatible
- Coaxial style high precision stage
- 4.5inch probe card holder
- Packaged device holder
- PCB holder
- Thermal chuck
- Vibration free table
- Shielding/dark box
- Instrument case with caster
- Microscope quick lift
- Chuck vacuum pattern
- Gold plated chuck

Specifications:

- 6" stainless steel vacuum chuck
- Chuck stage 6"x6" travel
- Chuck theta 0-30°
- Chuck up/down 4mm adjustable
- 12 DC or 4 RF & 4 DC micropositioner platen

Dimensions:

- 760mm W x 660mm D x 700mm H with microscope
- 80kg with microscope

Accessories:

- RF probe/cables
- Active probes
- Low current/capacitance probe
- High voltage probe
- Laser cutter



EverBeing EB-700

5µm Micropositioner

The EB-700 Micropositioner from EverBeing has 3-axis (x-y-z) movement, with a permanent magnet base. It is machined for demanding probing applications with the ability to control 5µm movement in all three axes. The EB-700 micropositioner is precision built for micro positioning, featuring linear motion, and provides a precise level of control suitable for many different probing applications.

Features:

- Low cost solution
- Linear motion
- I/O pad probing
- Electro-optics probing
- Space saving
- Choice of triaxial/coaxial tip holder

Specifications:

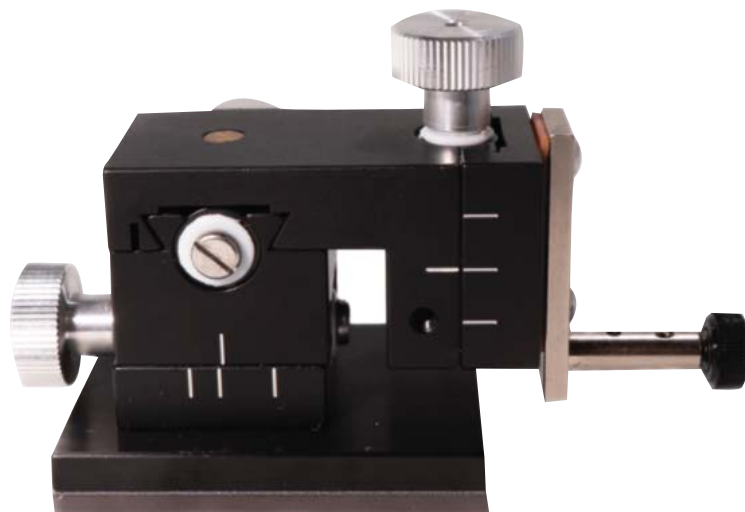
- X-Y-Z 12mm x 12mm x 12mm
- Linear motion
- Lead screw 40 TPI thread/inch
- Resolution 5 micron

Dimensions:

- 38mm W x 62mm D x 45mm H
- Weight 200g

Accessories:

- Triaxial tip holder
- Coaxial tip holder
- Types of base: Vacuum (V), Permanent magnet (M), Magnet on/off (E)
- Left or right handed options
- Soft probing tilting mechanism
- Active probes
- Ultrasonic cutter
- Low current/capacitance probes
- High voltage probes



EverBeing EB-050

1um Micropositioner

The EB-050 Micropositioner from EverBeing has 3-axis (x-y-z) movement, with a magnetic base that can be switched on/off using a slider at the rear of the assembly. It is machined for demanding probing applications with the ability to control 1um movement in all three axes. The EB-050 micropositioner is precision built for micro positioning, featuring linear motion, and provides precise level of control for many different probing applications.

Features:

- True linear motion in X-Y Z axis
- I/O pad probing
- Circuit probing
- RF probing
- Space saving, in-line X-Y knob
- Choice of triaxial/coaxial tip holder

Specifications:

- X-Y-Z 12mm x 12mm x 12mm linear motion
- Lead screw 80 TPI thread/inch
- Resolution 1 micron

Dimensions:

- 52mm W x 96mm D x 76mm H
- Weight 550g

Accessories:

- Triaxial tip holder
- Coaxial tip holder
- Types of base: Vacuum (V), Permanent magnet (M), Magnet on/off (E)
- Left or right handed options
- Soft probing tilting mechanism
- Active probes
- RF probes
- Ultrasonic cutter
- Low current/capacitance probes
- High voltage probes



EverBeing EB-005

0.35um Micropositioner

The EB-005 has 3-axis (x-y-z) movement, with a magnetic base that can be switched on/off using a slider at the rear of the assembly. It is machined for demanding probing applications with the ability to control 0.35 um movement in all three axes. Precision built for micro positioning, featuring linear motion, and provides precise level of control for many different probing applications.

Features:

- Sub-Micron internal circuit probing
- Linear motion
- Choice of triaxial/coaxial tip holder
- Four-sided RF probe positioner East/West/South/North
- DC to 40GHz-120GHz
- Multi contact wedge DC to 40GHz or 67GHz
- Calibration substrate with software
- 45° cable connection, no need for elbow connector
- 30° E-Z probing inclination
- Repairable probe head
- Tungsten tip available
- Positioner with cable holder
- Backlash-free movement

Specifications:

- X-Y-Z 12mm x 12mm x 12mm linear motion
- Lead screw
- Resolution 0.35 micron

Dimensions:

- 90mm W x 130mm D x 90mm H
- Weight 1000 grams

Accessories:

- Types of base: Vacuum (V), Permanent magnet (M), Magnet on/off (E)
- Left or right handed options
- Triaxial tip holder
- Coaxial tip holder
- Magnet, vacuum & locking screw based
- Soft probing tilting mechanism
- RF Theta mechanism
- Semi-rigid cables
- Active probes
- Ultrasonic cutter
- Low current/capacitance probes
- High voltage probes



EverBeing CG-196

Cryogenic Probe Station

The EverBeing CG-196 Cryogenic Probe Station allows probing at cryogenic temperatures where the wafer needs to be inside a vacuum chamber. The Everbeing CG-196 can also handle high temperatures of 400, 500, 600 & 700°C inside the vacuum chamber.

Features:

- Compact size
- Lightweight
- Affordable price
- IV/CV measurement applications
- RF probing (East/West configuration)
- Suitable for university labs
- Ideal for wafer 6" and less
- Coaxial chuck X-Y stage
- Linear backlash free motion
- More stable with lower gravity centre
- One hand grips both X-Y knobs
- One stage both for fine and quick positioning

Specifications:

- 6" steel chuck with individual vacuum switches
- 6" or less wafers
- Coaxial chuck X-Y stage
- Linear backlash free travel 6"x6"
- Fine position at ~10 micron resolution
- Quick motion at ~25mm drive per knob revolution
- Chuck theta at 15° backlash free
- Rectangular inner shaped platen with hard chrome plated
- Chuck up/down 4mm

Dimensions:

- 515mm W x 410mm D x 550mm H
- 29kg
- 480mm W x 410mm D x 550mm H
- 25kg

Accessories:

- Option chuck stage 4"x4" travel
- Microscope stage XY stage 2"-2"
- RF probe/cables
- Digital camera
- Low current/capacitance probe
- High voltage probe
- Hot chuck
- Vibration free table
- Shielding box



EverBeing SR Series

Resistivity Four Point Probe Stand

Features:

- True vertical up/down
- Individually contact spring loaded pin
- Constant pin spacing
- Ultimate repeatability
- Probe head E-Z changeover
- Probing Z position adjustable on top
- Sturdy feed thru panel at rear side
- Feedthru choice Banana/BNC/Triaixial Female
- Chuck quick move available
- Hot chuck available
- Shielding box available
- 4", 6", 8" Dia. choice
- Other probe heads available

Specifications:

- Chuck 4", 6", 8" dia. Teflon
- Head up/down 10mm
- Probing Z resolution 1 micron
- Probe pin material Tungsten Carbide
- Probe pin spacing 40 mil, 50 mil, 62.5 mil
- Probe pin spring 45g, 85g, 180g
- Probe pin radius 40.6 micron

Applications:

- Sheet resistivity
- Slice resistivity
- Doping quality
- Metallisation thickness
- P/N typing
- V/I measurement

Requirements:

- Current source
- Voltage meter

Dimensions:

- 220mm W x 420mm D x 250mm H
- Weight 20kg

Accessories:

- Hot chucks
- Vacuum chucks
- Chuck quick move available
- Shielding box
- Test bench
- Instrument case with caster



EverBeing Accessories

Probe Tips & Holders

Mechanical detail:

Screw-type:

Uses a small screw in a threaded hole to grip the probe tip, which is located at 45°.

Screw-nut type:

Uses a knurled screw to tighten and grip the probe tip, located at 45°.

Spring-type:

Uses a loaded spring to hold the probe tip, when released, the probe tip is 45°.

Tubular type:

Uses a copper tube to hold the probe tip and to make the electrical shielding. There is an insulator between the tip holder tube and the shielding tube. Choose coaxial or triaxial types.

Electrical detail:

All our tip holders are available in three formats:-

Regular tip holder:

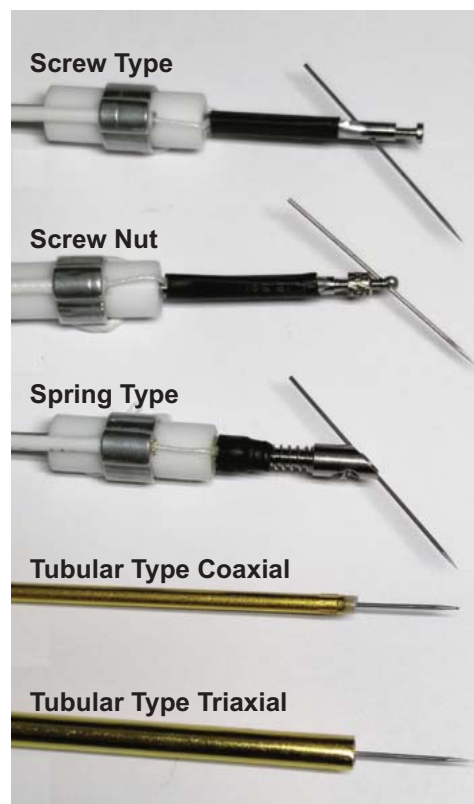
No cable, uses a 2mm banana plug for higher current.

Coaxial tip holder:

Uses a 1.2m coaxial cable, terminated with a BNC male connector. This can measure current levels down to 100pA with good quality shielding.

Triaxial tip holder:

Uses a 1.2m triaxial cable, terminated with triaxial male connector. This can measure current levels down to 10fA with high quality shielding.



Probe Tips (supplied straight or with single/double bend)

Part No.	Description	Material	Box Qty
T20-4	0.4 micron dia. 0.5mm shank 32mm long	Solid Tungsten	10
T20-10	1 micron dia. 0.5mm shank 32mm long	Solid Tungsten	10
T20-50	5 micron dia. 0.5mm shank 32mm long	Solid Tungsten	10
T20-100	10 micron dia. 0.5mm shank 32mm long	Solid Tungsten	10
T20-150	15 micron dia. 0.5mm shank 32mm long	Solid Tungsten	10
T20-200	20 micron dia. 0.5mm shank 32mm long	Solid Tungsten	10
T20-1000	100 micron dia. 0.5mm shank 32mm long	Solid Tungsten	10
T20-2000	200 micron dia. 0.5mm shank 32mm long	Solid Tungsten	10
BC20-150	15 micron dia. 0.5mm shank 32mm long	Solid BeCu	10
BC20-250	25 micron dia. 0.5mm shank 32mm long	Solid BeCu	10
TW20-4	Cat-whisker 0.4 micron dia. 0.125mm shank 32+5mm	Tungsten Tip	5
TW20-7	Cat-whisker 0.7 micron dia. 0.125mm shank 32+5mm	Tungsten Tip	10

Vibration Free Table

Lambda are able to offer a range of active air height vibration free air cushions systems in both table and table top formats. Available in 200, 400 and 800Kg loads.

Part No.	Description	Dimension
VT-EB4	Vibration free table for EB-4	
VT-PE4	Vibration free table for PE-4	
VT-3630	Probe station vibration isolation table	36" x 30"
VT-4836	Probe station vibration isolation table	48" x 36"
VT-6036	Probe station vibration isolation table	60" x 36"
VY-7236	Probe station vibration isolation table	72" x 36"

Shielded Box

Our shielding boxes/dark enclosures are an ideal can sit on any table top or be mounted to our anti-vibration tables. Each enclosure has cut-outs for 8 BNC/triaxial feedthru, 1 vacuum valve, 2 empty hole for the valve. The enclosures are available in six sizes from 400x400x400mm to 1200x1200x1200mm.

Hot Chuck

We are able to offer a range of hot chucks suitable for use with our probe stations.

- Available in 2",4",6" and 8" chuck sizes and in four temperature ranges from room temperature to 200/300/400/600°C.
- Chuck planarisation 10 Micron. 0.5°C temperature accuracy.
- PID controller 4 digit LED readout, 0.1°C resolution.
- Cooling buffer to protect stage underneath.

USB Microscopes and Cameras

Working in conjunction with Dino-Lite we are able to create the best solution to meet your budget. Our standard system allows 140x times magnification which can be enhanced to 400x. We also offer coaxial lighting systems for wafer inspection up to 800x magnification.

Test & Measurement Equipment Specialists



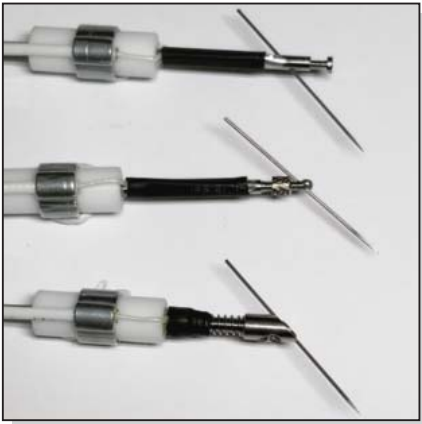
Vacuum Pump



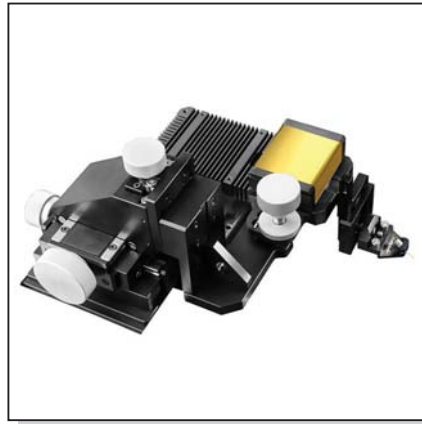
Vibration Table



RF/Triaaxial/BNC Adapters



Probe Tips and Tip Holders



mmWave Micro Positioner



Hot Chuck



Shielding Box



USB Microscopes & Cameras



Vibration Free Tabletop

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