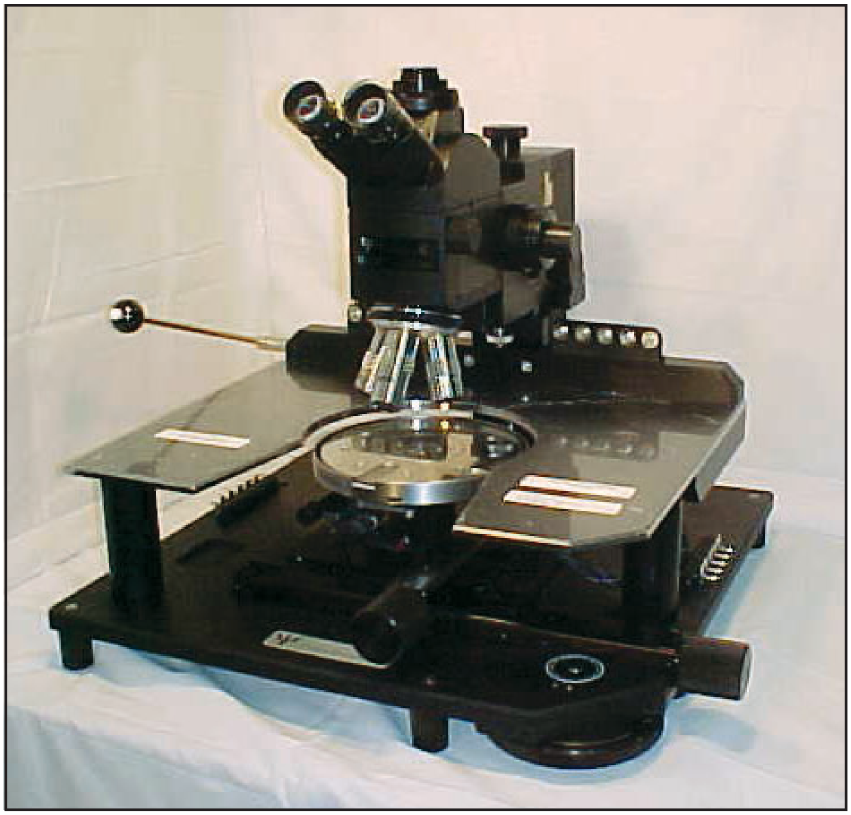
Ψ Probing Solutions Inc.

PSI 400LS / 410LS™

The PSI 404LS / 414LS™ Manual Wafer Probe Station is a powerful, yet economical 6" / 8" easy to use an analytical wafer probe station. This probe station is ideally suited for a wide range of engineering applications. These include Design Analysis, Failure Analysis, Production Process Analysis, ESD effect, Electromigration, High Voltage, Low current / Low Noise, Microwave, CV / IV. A truly versatile "Shouldn't be without" Manual Analytical Lab Tool for small feature probing.

PRECISION POSITIONING



EASY TO USE

NEVADA U.S.A.

Features Include

The **Precision Lead Screw** X-Y manual stage controls are easily operated with one or both hands while positioning the Wafer, Manipulators and looking through the Microscopes. The manual 400LS Station has a Probing Target Capability of 5 mill pads to Submicron lines and Design features.

The Vacuum Wafer Chuck is selectable as 6" or 8" diameter either of which is capable of accepting smaller 5", 4", 3" Wafers. Wafer Slices, individual Die or Hybrid Substrates are accommodated on 6" or 8" Chucks using an accessory VAC-PUC vacuum concentrator on the chuck surface. Vacuum Wafer Chucks are available for Ambient, Hot and Cold Temperature, Coaxial, Triaxial and Low Current / Low Noise versions with Gold Plated or Stainless Steel Wafer surfaces.

Microscope Lift Delay adjustment which allows the Probes to be raised from the wafer independent of the microscope, without changing their individual positioning and avoiding any possible collision with microscope objectives. When returned to the *platen down* position, the Probes return to their original positions and the microscope to its *"In Focus"* position and analysis can resume undisturbed.

The **PSI 400LS Series PLATEN "Z" LIFT** has vertical Locking Position.
The **PSI 410LS Series Microscope "Z" LIFT** has 12 selectable vertical Ratchet Positions: 3 inches (76mm)

High magnification **US MICROSCOPE CO.** Scientific, Analytical, 2X Zoom, Trinocular Microscopes with 10X Eyepieces, 2X, 10X, 20X plan apochromatic Objectives offer the highest visual acuity optically available today. Microscope accessories also available are 50X SLWD (22.5mm), 100X SLWD (13mm), Wide Field CCD Camera adapters, Higher Magnification, Eyepieces, Polarizers, Tiltheads and much more.

MODULAR DESIGN: the 400 Series Wafer Probe Stations are designed as a platform on which to build on as the Engineering Analytical analysis task expands with design discipline as feature size shrinks. A wide variety of system accessories and upgrades are readily available to fit changing needs.

SPECIFICATIONS PSI 400LS / 410LS™

PLATEN

243 square inches accepts 10 or more manipulators. Magnetic stainless-steel with ground-grained surface 3 point belt driven support/lift provides excellent stability. Optional manifolds: BNC, TRIAX, TRIAX/BNC and KELVIN.

Fine"Z" Lift Control
True planar vertical motion with micron precision
Relative "Z" position indicator (selectable)
Large 6" (152mm) diameter "Z" control dial
Resolution: 2 microns per degree of revolution
Range: 1" (25.4mm)

Fast "Z" Lift Control
Platen lift with three lock up positions
Platen range: 1" (25.4mm)
Adjustable microscope delay: 0" to 1" travel
Raises microscope from 1.25" to 3.0"

VACUUM CHUCK OPTIONS

6" (152mm) for 4" to 6" wafers or 8" (200mm) for 6" to 8" wafers
Stainless-steel for low contamination, or gold plated brass
Flatness ± 0.0005" (± 12 microns)
Electrical isolation exceeds 5 Teraohms
Electrically wired to BNC connector on platen
Thermal chucks also available

FACILITY REQUIREMENTS

Power: 110V/60Hz standard, 220V/50Hz optional (2 amps)
Vacuum: 20" of mercury vacuum stage, vacuum based manipulators

DIMENSIONS, FINISH AND WEIGHT

23.5" (60cm) D x 37" (94cm) W x 32" (87cm) H
Grained black anodized aluminum, stainless-steel for long life
162 lbs. (74kg)

SHIPPING INFORMATION

39" (99cm) D x 37" (94cm) W x 32" (81cm) H, with pallet
Shipping weight 220 lbs. (100kg) approximate

Visit our website at:
www.probingsolutions.com

MICROSCOPE POST AND MICROSCOPE OPTIONS

X-Y translation: 2" x 2" (50.8mm x 50.8mm)
Optional model 404: 4" x 4" (101.6mm x 101.6mm)
PSI 400LS: Hinged Dependent Vertical lift; 1.25" to 3.0"
PSI 410LS: Independent Vertical Lift/Lock 12 selectable positions; 3" range
Focus (Z) motion 2" (50.8mm) standard; up to 4" (100mm) option
Coaxial coarse/fine focus control knobs
USMC-STD-2Z-V1/V2 with 2:1 zoom in body recommended
  3 long working distance objectives (2X, 10X and 20X)
  Adjustable 4-Port nosepiece
  Optional 50X and 100X objectives
  Trinocular head with camera port, 10X objectives
  Coaxial fiber optic illuminator (150W)
  Optional Tilthead; your choice of flip mirror or prism
Optem A-Zoom available
Meiji EMZ-TR Stereo Microscope available

X-Y STAGE OPTIONS

Precision X-Y screw drive / STG-MIC
6" x 6" (152mm x 152mm) or 8" x 8" (200mm x 200mm)
Stage and chuck planarized at factory
Theta rotation control: ± 7.5 microns (100 T.P.I. leadscrew)
Proven ball and rail contrstruction

SOCKET STAGE ADAPTER OPTIONS

Hold PCB zero insertion socket cards for probing packaged part devices
Adapters: 4.5" x 4.5" to 6" wide cards

PROBE CARD HOLDER - PCH OPTION

Holds probe cards for wafer probing
PCH: 4.5" or 4.5" to 6" wide/adjustable

Local Sales Representative