EVERBEING INT'L CORP.

Your Partner in Probing Solutions

C-6 Probe Station

Entry level probe station for all your DC and RF requirements

The C series is our entry level probe station product line. It's features fundamental mechanisms for your basic probing needs. This providing repeatable, accurate measurements in both DC and RF applications. :

Features

- Low profile coaxial-driven style stage
- Chuck Up/Down Adjustment
- Back-lash free movement
- Mounting for 12 micropositioners
- Passive Vibration Isolation

Applications

- Basic IV/CV
- RF, Single Broadband Probing
- Photonics

Accessories

- Hot Chuck with Temperature Controller
- Vibration Free Table
- Shielding Box

No. 1 Jinshan 2nd St.
Hsinchu, 30080 Taiwan, R.O.C

www.everbeingprober.com
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C-6 PROBE STATION

Your Partner in Probing Solutions

Station Specifications

Station Footprint	580 mm W x 460 mm D
Station Height	450 mm (to Platen)/700 mm (to Microscope)
Station Weight	40kg
Platen Material	Hard Chrome Plated Steel
Platen Dimension	250 mm Inner, 450mm Outer
Platen Capacity	12 DC or 4 RF 4 DC
Positioner Mount	Magnetic ON/OFF Switch
No. of Vacuum Switches	3
Chuck Material	Stainless Steel
Chuck Stage Type	Coaxial (Large Knob Optional)
Chuck Travel Range	6” x 6”
Chuck Quick Resolution	25 mm/rev
Chuck Fine Resolution	1 µm
Chuck Theta Coarse Travel	360˚
Chuck Z-Motion	6 mm Range
Chuck Z Fine Resolution	1 µm
Coaxial Chuck Movement	Bevelled Gear and Rack 0.8mm Pitch
Chuck Fine Theta Resolution	0.001˚
Chuck Size	6” (150 mm)
Chuck Planarity	±3 µm
Chuck Rigidity	15 µm / 10 N @ edge
Chuck Vacuum Grooves	Center, 1”, 3” ,5” (Individually Controlled)
Chuck Bias Capacity	Up to 1 kV
Chuck Isolation	2 GΩ
DUT Size Range	2 mm - 150 mm
Microscope Stage Travel Range (C-6D Version)	2” x 2”
Microscope Stage Resolution (C-6D Version)	1 µm

*Other microscropes are available in our supply. For more questions, please contact us directly

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C-6 PROBE STATION

Micropositioner Options

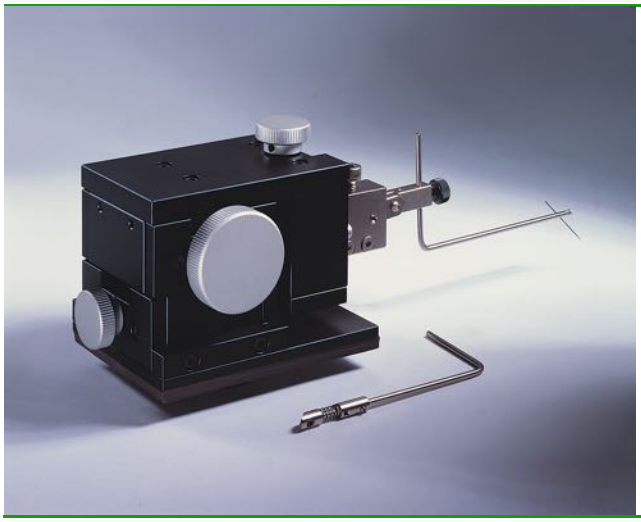
All micropositioners offer X-Y-Z linear-motion travel with no backlash with mounting options including magnet, vacuum or magnet switch

EB-050

Resolution: 0.8 µm
Screw Resolution: 212 µm
Travel Range: Linear 12 mm X-Y-Z
Dimensions: 52 mm W x 96 mm D x 76 mm H
Weight: 550 g
Use For: DC/RF Capable

EB-700

Resolution: 2 µm
Screw Resolution: 630 µm
Travel Range: Linear 12 mm X-Y-Z
Dimensions: 38 mm W x 62 mm D x 45 mm H
Weight: 200 g
Used For: DC Only



EB-005

Resolution: 0.3 µm
Screw Resolution: 125 µm
Travel Range: Linear 12 mm X-Y-Z
Dimensions: 90 mm W x 130 mm D x 90 mm H
Weight: 1000 g
Used For: DC/RF Capable

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C-6 PROBE STATION

Accessory and Options

C-6RF Option

The RF Option includes additional U-shaped chuck with auxiliary for contact and calibration substrates, and a fine theta screw to assist in aligning devices with probes.

VFT-3636

Dimension: 36” W x 36” D x 36” H
Vertical Natural Frequency: 1.5 Hz
Isolation Efficiency: @ 5 Hz 85%
Horizontal Natural Frequency: 1.2 Hz
Isolation Efficiency: @ 5 Hz 91%
Air Requirement: 80 psi
Net Load: 200 kg
Material: Stainless Steel TableTop

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Specification
Sheet

Motic®
MORE THAN MICROSCOPY

MOTICAM Series

MOTICAM 1080

Motic®
MORE THAN MICROSCOPY

MOTICAM Series - Tablet Solutions

MOTICAM 1080

Sensor type	CMOS
Sensor size	1/2.8"
Imaging area	5,346mm x 3,003mm
Capture resolution	Still Image: 8.0MP (3840 x 2160) I Video: Full HD (1920 x 1080p)
Live display mode (through USB)	1920 x 1080 (Full HD)
Live display mode (through HDMI)	1920 x 1080 (Full HD)
Pixel size	2.8µm x 2.8µm
Scan mode	Progressive
Data transfer	HDMI (1080p) and USB 2.0
Max. Frames per second (fps*)	USB: 1920 x 1080 (Full HD) @ 30 fps I HDMI: 1920 x 1080 (Full HD) @ 60 fps
Exposure time	0.06ms ~ 40ms with Auto Exposure mode (0.06ms ~ 999ms with Manual Exposure mode)
Operating temperature	From -10 to +60 Degrees Celsius non condensing
Max. signal to noise ratio	40dB
Dynamic range	71dB
Sensitivity	0.51V (Typical at 1/30 sec)
Slot	SD Card (max 32Gb)
Buttons	On / Off
Support device	Twain and Direct Show Driver
Supported OS	Microsoft Windows XP SP3/Vista/7/8/10 and MAC OSX & Linux
Minimum computer requirements	2GHz dualcore I RAM memory 2GB I Video memory min. 512 MB
Lens mount	C-Mount
Focusable lens	12mm
Software	On-board software Standard tools: still image capture, live image record, zoom in & out, magnifier, ROI, mirror, rotation, split, freeze, cross line, gallery. Image adjustments (AE/AWB): Auto/Manual exposure, gain, target brightness setting, light frequency, Auto/Manual white balance Mode. Advanced settings: saturation, contrast, gamma, sharpness, denoise, user settings, system's time setting, language (English, Chinese and Japanese), format SD card.
Power supply	12V (External Power supply)
Package includes	CS Ring Adaptor, HDMI cable, Focusable Lens, USB 2.0 Cable, Calibration Slide, Universal Power Supply, Motic Images Plus 3.0 for PC/OSX/Linux

Motic®

PSM-1000

Laser Ready Modular Microscope

PSM-1000 Features

Ergonomic Design

The design of the PSM-1000 encourages the optimal amount of usability without sacrificing comfort.

Ergonomically constructed for all major forms of image adjustment to be accessible within the span of your hand.

1. *Diopter*
2. *Aperture Diaphragm*
3. *Beam Splitter*
4. *Changeover Turret*
5. *Analyser/Polariser*

Laser Work[1]

The PSM-1000 is standard equipped for laser work covering the spectrums ranging from 355nm [UV] to 532nm [Green] to 1064nm [IR]. Conveniently positioned, the beam splitter switches the PSM-1000 from a visual unit [50:50 split between binocular eyetubes and trinocular port] to a laser work unit. Through the specially coated optical system, the PSM-1000 produces an infrared [1064nm] efficiency of **82%**[2].

Central to the PSM-1000's high laser efficiency and functionality is the changeover turret, which consists of three specialised lenses. 1XUV/VIS for the spectrum of 355nm - 532nm; 1XIR/VIS for the 532nm - 1064nm spectrum; and a 2XVIS magnifier to achieve optimal magnification of 2000X [with 100X objective]. The turret base design provides the convenience of rapid switching between spectrums to complete the task.

With safety in mind, the PSM-1000 includes a laser safety pin to shut down the laser to avoid accidents, as well as shims to securely mount and hold the laser provider's safety filter.

Focusing Block

Rated for load weights up to 45lbs., image focal planes can be adjusted at 1µm resolutions within the total 50mm stroke. Reversible for space conscious applications in additional to extra mounting slots for placement on other manufacturers' microscopes, adaptability is the key with the PSM-1000 focusing block.

Adjustable Nosepiece

Forward facing and equipped for four M26 x 1/36" (0.706) type objectives, the PSM-1000's nosepiece is dovetail mounted for moulding to different types of research and usage. Complementing the versatility of the nosepiece is Motic's hassle-free parcentration. With the standard centering keys [pictured on the right], parcentration of individual ports can be achieved while remaining focused on the sample.

1. *Motic assumes no responsibility whatsoever for the performance and/or safety of the laser system used with the Motic PSM-1000 microscope. See laser manufacturer for proper operation.*
2. *Tested by New Wave Research (Fremont, California, USA). For detailed information, contact your local Motic supplier.*

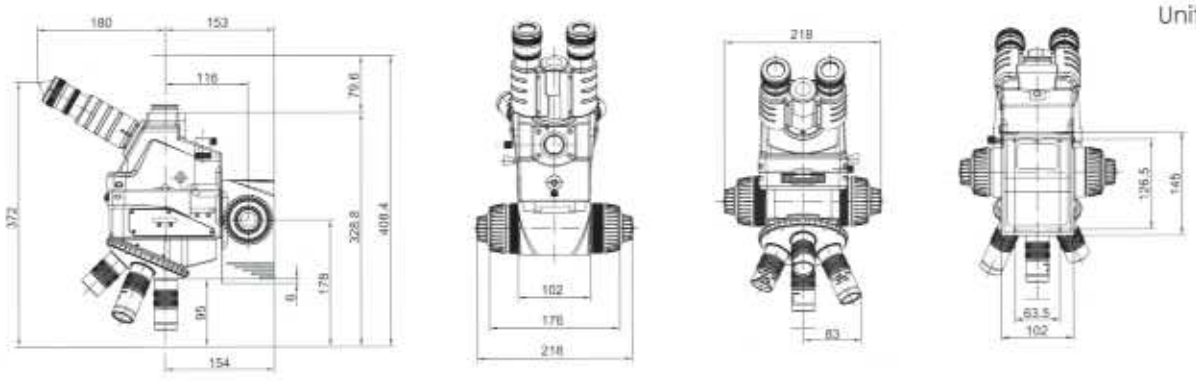
SPECIFICATION OF LASER READY MODULAR MICROSCOPE PSM-1000

Purpose	Quick and Surface Inspection, Quality Control, Laser Repairs and Device Research
Observation Tube	Widefield trinocular tube, 50 : 50 and 0 : 100 optical observation angle
	Siedentopf infinity, 55 - 70mm Interpupillary distance
Eyepiece	Widefield High-eyepoint, Infinity Corrected 10x/24mm
	Accepts Ø25mm reticules
Turret	3-lens changeover turret
	1x IR tube lens, 1x UV tube lens, 2x Visible magnifier
Laser Work	Pull out beam splitter, Laser Safety Pin, Shims
Wavelengths Coverage*	355nm [UV] to 532nm [Green] to 1064nm [IR]
Nosepiece	Quadruple, outward-facing
	Spring-loaded, Adjustable parcentration
	Dovetail mounted for easy removal
Objectives (Optional)	Extra and Ultra Long Working Distance Plan Apochromat objectives
	Range of magnifications from 2x to 100x, M26 x 1/36" (0.706) thread size
	Adjustable parfocality available
Microscope Magnification Range	20x - 2000x
Aperture Diaphragm	Adjustable field of depth and contrast, Adjustment range : Ø0.8 - Ø6mm
Focusing Block	50mm Stroke
	Coaxial operation system
	Coarse 4mm per rotation
	Fine 0.1mm per rotation
	1 µm resolution
	45 lbs. Mountable weight
Illumination	Reflective illumination for brightfield
Optional Contrast	Polarisation
	Spectrum range: 400nm - 700nm
	Adjustable Polariser available
Fiber Optic Illumination (Optional)	Switchable power input [115V - 220V]
	150W / 21V output
	1,600,000 lux
	Colour Temperature Range: 500K - 3700K
	Flexible light guide with Ø15mm distal end
Weight [Head only]	16lbs.
Dimensions	372mm (h) x 218mm (w) x 333mm (d) - with focusing block

** Designed around the New Wave Research line of lasers*

PSM-1000 DIMENSIONS

Unit : mm



Eyepieces

Employing adjustable, high-eyepoint, Widefield 10x/24mm eyepieces, the PSM-1000 ensures the optimal amount of visual inspection. Each eyepiece can have diopter adjustments of ±5°. An additional versatility is the acceptance of reticules [Ø25mm].

Reticule
360° : 10°
SG060314

Reticule
14mm : 0.2mm
SG060320

Reticule
14mm : 0.1mm
SG060315

Plain Cross
Hair Reticule
SG060342

WF15x and 20x eyepieces

Plan Apochromat Objectives

Motic's Plan Apochromat objectives provide the working distances at the numerical aperture values needed. Covering magnification ranges from 2x to 100x, the Plan Apochromat objectives are also available with the unique option of parfocality adjustment. The mounting thread is M26 x 1/36" (0.706) for integration to existing systems. Please refer to Motic's Plan Apochromat catalogue for further information.

Digitalisation

Utilising a Moticam digital application camera with the corresponding optional camera adapters, the PSM-1000 becomes an analysing, documentation, teaching, and training system.

0.3x
Camera Adapter
[1/3" chip sensors]

0.4x
Camera Adapter
[1/2" chip sensors]

0.5x
Camera Adapter
[2/3" chip sensors]

1x
Camera Adapter
[1" and 2/3" chip sensors]

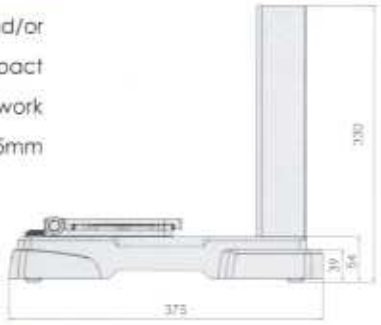
PSM-1000 with Moticam 3000 attached

Tilting Head

With 300mm wafer fabrications coming online in addition to ergonomic requests, the PSM-1000 is offered with an optional tilting head format. The tilting head has an observation angle adjustment of 3° to 30° as well as being laser ready. A further beneficial option is the ability to retrofit existing PSM-1000s with a tilting head without the requirement of a factory return. Schematic diagram is located below.

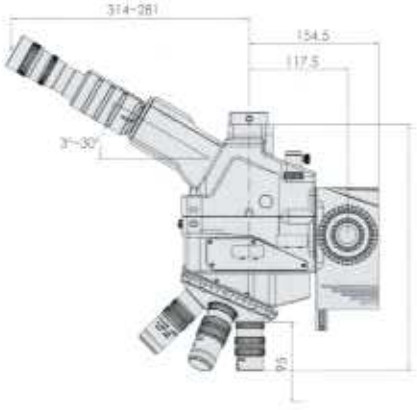
Stand/Stage

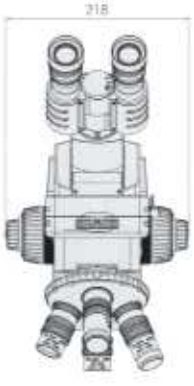
Equipping the PSM-1000 for simple and quick inspection, and/or laser work is achieved by opting for the stand/stage. The compact footprint allows for installation into space conscious work environments. The mechanical stage has a travel range of 75mm [X-axis] and 50mm [Y-axis].



PSM-1000 Tilting Head Dimensions

Unit : mm





PSM-1000 Applications

Failure analysis of wafers

Measuring microscope applications with addition of reticules

Digital documentation, analysis, and/or device testing

Modular Surface Inspection utilising parcentering nosepiece and parfocality adjustable objectives

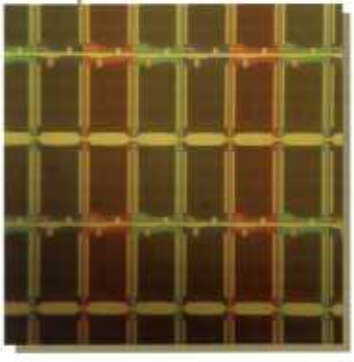
Beam Splitter allows for Emission microscopy setup

Medical Research Applications with long working distance Plan Apochromat objectives

Polarisation with universal adaptable cassette sliders for device research

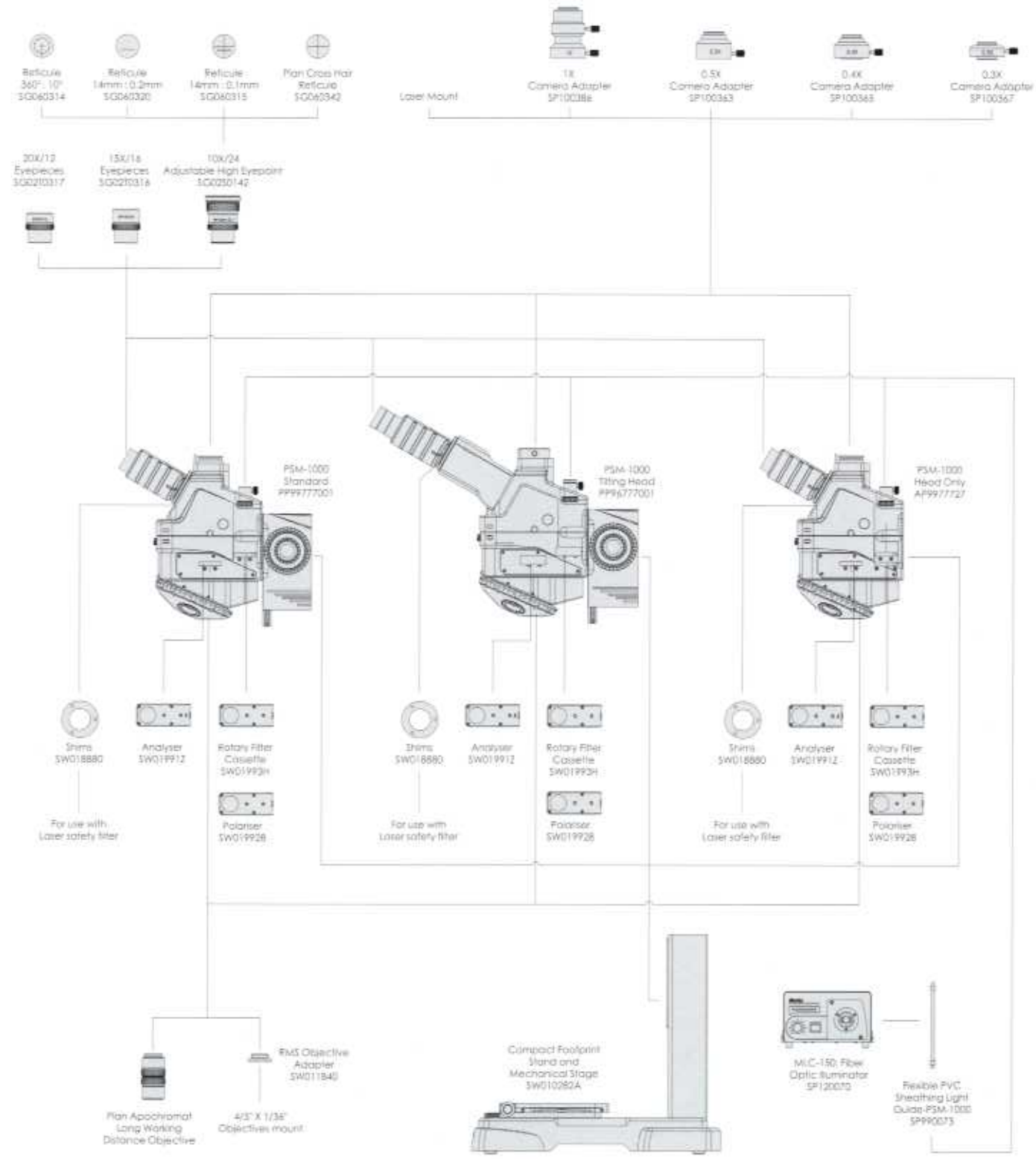
Engineer station for quick inspection

FPD laser repairs and laser machining



High magnification inspection

System Diagram



Motic® Microscopes

Motic®

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Design Change: The manufacturer reserves the right to make changes in instrument design in accordance with scientific and mechanical progress, without notice and without obligation.

CE

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Code No: SP010823D