

## Micro Probe Station

Perform electrical characterization of samples and test devices at micron scale with an easy-to-use computer assisted probing system.

### Fast, precise and stable

Imina Technologies *Compact Solution Packages (PC15-4B)* feature 4 ultra-small size miBot™, our piezo-actuated mobile robots, to independently position electrical probes over millimeters with sub-micron resolution.

### Versatile and portable

Components of the solution have been designed to minimize their footprint on experimental setups and get seamlessly installed under upright and inverted light microscopes, vacuum chambers, probe stations, AFM, optical breadboards, etc.

### Turnkey

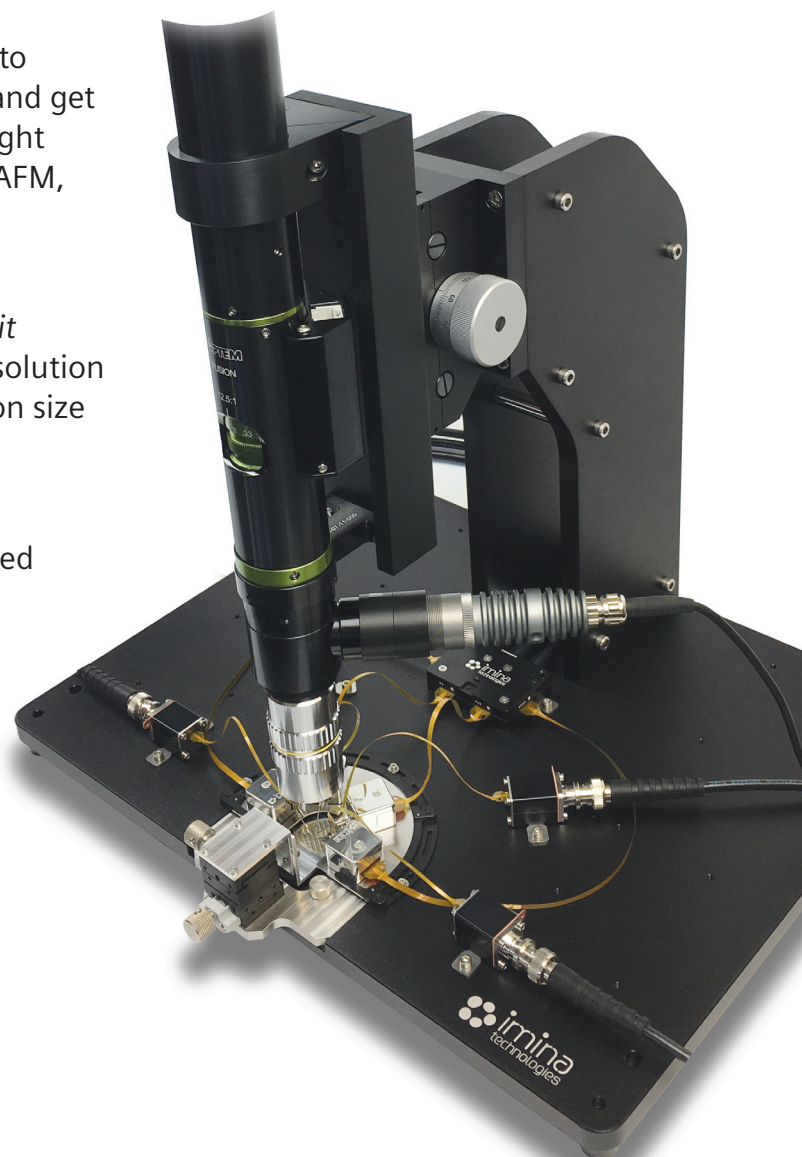
Integrated with Imina Technologies *Microscopy Kit (MK18-MAN-4B)*, the system becomes a turnkey solution for electrical testing and characterization of micron size samples and devices.

### Intuitive and safe

The miBot™ are intuitively parametrized and moved with a control pad from Precisio™ software application, making the experiment at micron scale a breeze and reducing the risk of damaging sensitive samples.

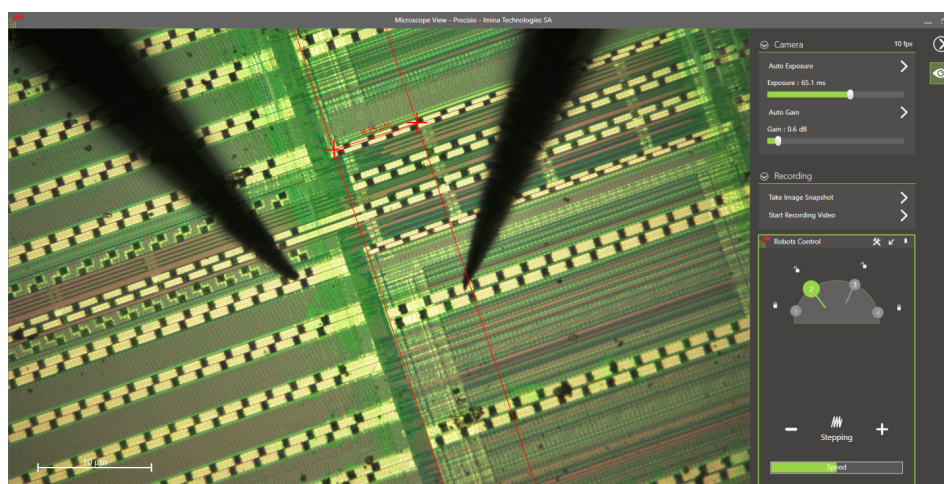
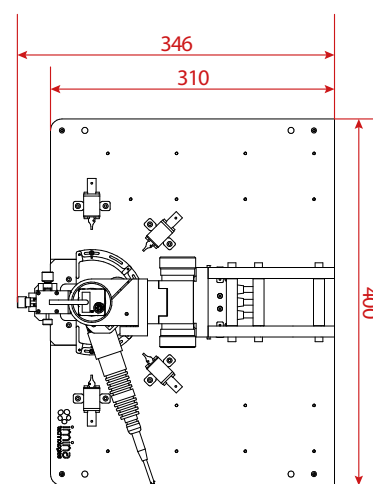
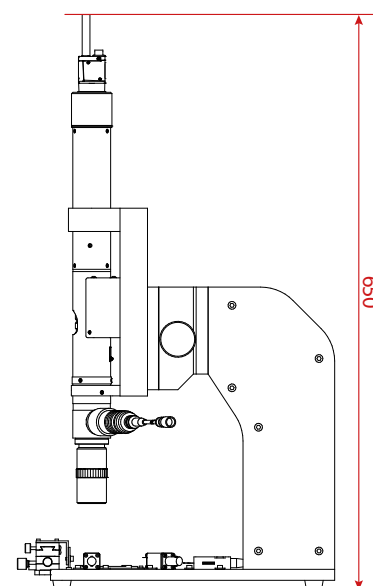
### Fully integrated

Precisio™ software *microscopy* module provides common hardware settings like brightness, gain and zoom and functionalities like image snapshot and annotation, dimensional measuring, and video recording.



## System

<b>Microscope</b>	Optical resolution: approx. 1.1 $\mu\text{m}$ Overall magnification: 2.8x to 35.5x adjusted with motorized zoom (objective mag: 10x) Working distance: 33.5 mm Coaxial illumination (LED) with adjustable intensity Camera: 1920 x 1200 pixels, USB 3.0 Focus adjustment by sub-micrometer screw (range: 28 mm)
<b>Sample Positioning</b>	Manual X-Y stage with travel range: 10 mm x 10 mm Resolution: 0.5 mm/rev
<b>Sample Size</b>	$\varnothing$ 25.4 mm (1")
<b>Electrical Probing</b>	Interface: 4 coaxial (BNC) connectors Voltage range: $\pm 100$ V Current range: 1 pA – 100 mA Resistance: approx. 3.5 $\Omega$ <i>From probe tip to BNC connectors.</i>
<b>Dimensions &amp; Weight</b>	Width: 400 mm, Depth: 346 mm, Height: 650 mm Weight: 10 kg <i>Dimensions without cables and control electronics.</i>
<b>User Interface</b>	Precisio™ software application (Microsoft® Windows) with microscopy module and control pad
<b>Motorized Probes</b>	
<b>Number of Probes</b>	4 miBot™ (BT-14)
<b>Degrees of freedom</b>	4 independently driven per probe (X, Y, $\theta_z$ , Z)
<b>Motion</b>	Piezo mode: stepping Max. speed: 2.5 mm/s (X,Y), 150 mrad/s (Z) Range: 20 x 20 mm <sup>2</sup> (X,Y), $\pm 180^\circ$ ( $\theta_z$ ), 42° (Z) Positioning resolution: 50 nm (X, Y), 120 nm (Z) <i>Measured at robot end-effector.</i>
<b>Probe tips</b>	Compatible with probe tips with 0.51 mm (0.020") shank diameter and various tip radii (5 nm - 10 $\mu\text{m}$ ).



Precisio™ software *microscope* window with controls for imaging parameters, tools for recording, annotation, and dimensional measuring.

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