PRODUCT SHEET
MP4-MIC-MAN-K1

Microprobing Platform Kit (4-Bot) with a Microscope and Manual Sample Stage

Compact turnkey solution for electrical characterization of micron/sub-micron scale components of MEMS, semiconductor devices and optoelectronic elements on small dies and wafers up to 1''.

Versatile applications

Our MICRO solutions can be used to characterize semiconductor, photonic, optoelectronic, MEMS and bioelectronic devices, as well as for other applications in nanotechnology, materials science and energy storage.

Intuitive and safe probing

All MICRO solutions are easy to learn and to use. miBots are controlled via a gamepad and Precisio software, which allows users to easily set up the system and to streamline their workflow.

Turnkey and fully integrated

Our plug-and-play microprobing setup has everything for the measurements: microscope, sample stage and the source-measure unit.

Light, compact and portable

This microprobing setup can be easily moved around the lab and stored when not in use, helping to save valuable lab space.

Safe, reliable and precise measurements

miBots™ are driven by piezo actuators with nm-scale positioning resolution. Thanks to that, the probes can safely land on fragile samples or small features and establish electrical contact without damaging the samples.

Satisfied users

Our setups are installed in more than 200 labs around the world. Most of our users would recommend Imina tools to their colleagues or buy them again if they changed the lab. Our users praise miBots for their precision, flexibility, efficiency and ease to use, and comprehensive documentation.

Swiss quality

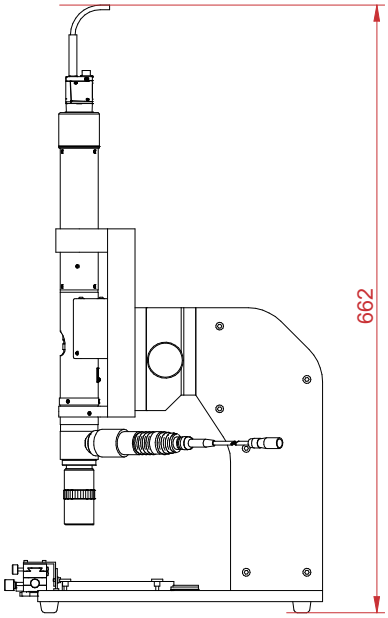
All products of Imina Technologies are designed and assembled in Switzerland, according to the highest standards of precision engineering and manufacturing, and meticulous attention to detail.

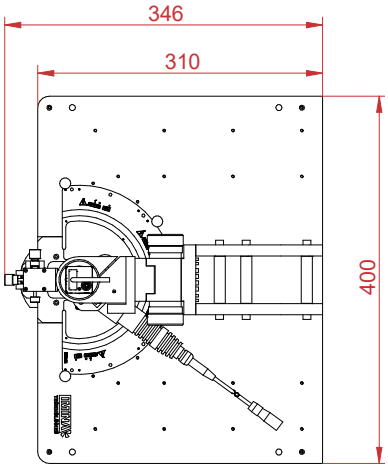
Platform kit

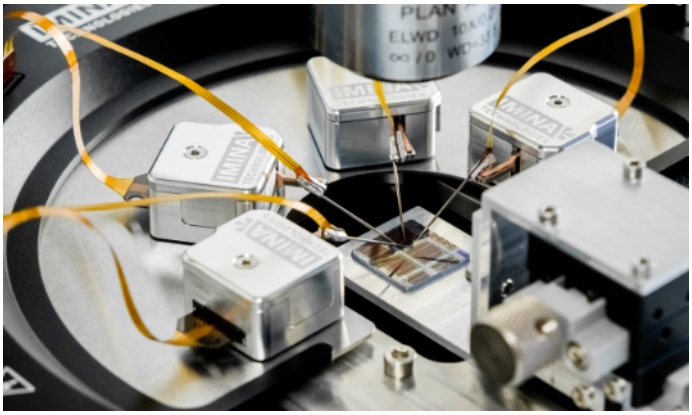
Microscope	Optical resolution: approx. 1.1 µm Overall magnification: 2.8x to 35.5x adjusted with motorized zoom (objective mag: 10x) Working distance: 33.5 mm Coaxial illumination (LED) with adjustable intensity Camera: 1920 x 1200 pixels, USB 3.0, pixel size: 5.86 x 5.86 µm² Focus adjustment by sub-µm screw range: 28 mm
Sample positioning	Manual stage with XY travel range : 10 x 10 mm Resolution: 0.5 mm/rev
Sample size	Ø 1”
Electrical probing	Interface: 4 coaxial (BNC) connectors Voltage range: ± 100 V (DC / AC Peak) Current range: 1pA – 500mA (DC / AC RMS) Resistance: approx. 3.5 Ω From probe tip to BNC connectors
Dimensions	Width: 400 mm, Depth: 346 mm, Height: 662 mm Dimensions without cables and control electronics

Motorized probes

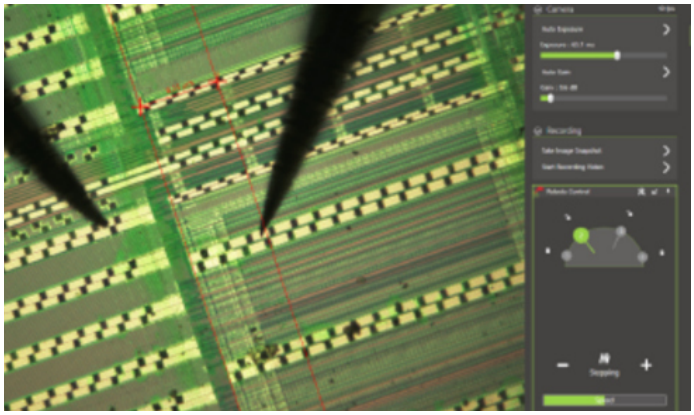
Number of probes	Up to 4 miBot™
Degrees of freedom	4 independently driven per probe (X, Y, R, Z)
Motion	Positioning resolution down to 100 nm in the MICRO configuration Option to improve the resolution down to 0.02 nm available upon request
Probe tips	Compatible with probe tips with 0.51 mm (0.020”) shank diameter and various tip radii (5 nm - 1 um)
User interface	Precisio™ software application (Microsoft® Windows) with microscopy module







Four miBots performing microprobing on a semiconductor die.



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

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