PRODUCT SHEET
MP8-MIC-MOT-K1

Microprobing Platform Kit (8-Bot) with a Microscope and Motorized Wafer Chuck

Designed for semi-automated electrical characterization of micron and submicron components on wafers up to 4'' (10 cm). Ideally suited for MEMS, semiconductor devices and optoelectronic elements (LEDs, photovoltaics, etc.) Fully integrated turnkey solution with a compact footprint.

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.

Semi-automated wafer-scale measurements

A module for automated measurements enables rapid characterization of entire wafers or large arrays of identical devices. Built-in reporting function provides the data immediately in a convenient format.

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.

User-friendly control interface

All our solutions are easy to learn and to use. With our intuitive software suite Precisio™, users can easily control and set up the system and streamline their workflow.

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

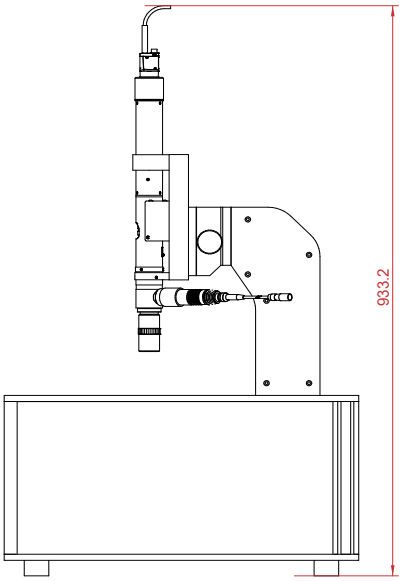
All products of Imina Technologies are designed and assembled in Switzerland, according to the highest standards of precision engineering and manufacturing, and meticulous attention to detail.

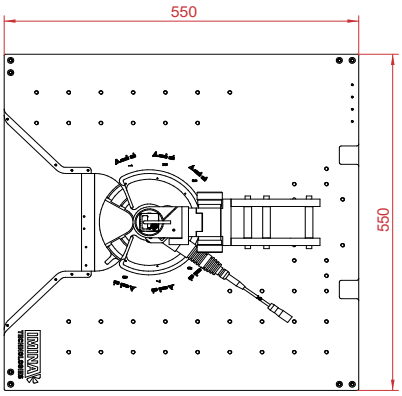
Platform kit

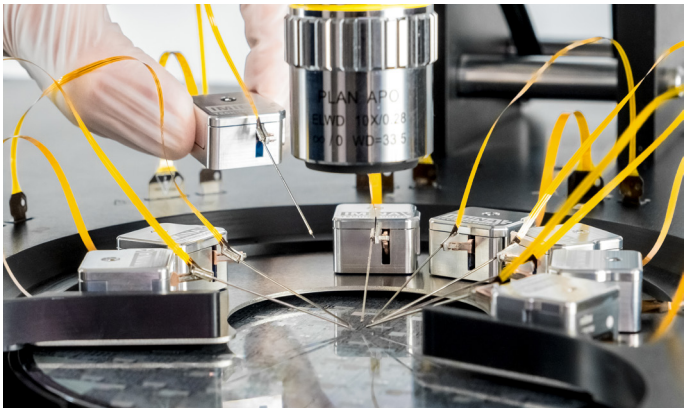
Microscope	Optical resolution: approx. 1.1 µm Overall magnification: 2.8x to 35.5x adjusted with motorized zoom (objective mag: 10x) Working distance: 33.5 mm Coaxial illumination (LED) with adjustable intensity Camera: 1920 x 1200 pixels, USB 3.0, pixel size: 5.86 x 5.86 µm^2 Focus adjustment by sub-micrometer screw (range: 28 mm)
Sample positioning	Motorized stage with travel range: 110 mm x 110 mm Resolution: <1 µm
Sample size	Ø 100 mm (4”)
Electrical probing	Interface: 4 coaxial (BNC) connectors Voltage range: ± 100 V Current range: 1pA – 100mA Resistance: approx. 3.5 Ω From probe tip to BNC connectors
Dimensions	Width: 550 mm, Depth: 550 mm, Height: 993.2 mm Dimensions without cables and control electronics

Motorized probes

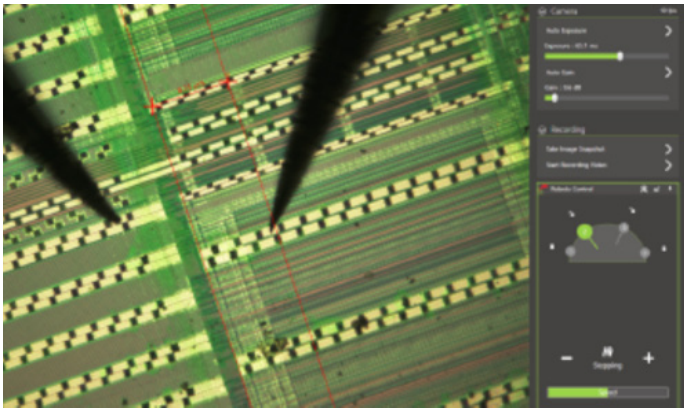
Number of probes	Up to 8 miBot™
Degrees of freedom	4 independently driven per probe (X, Y, R, Z)
Motion	Positioning resolution down to 100 nm in the MICRO configuration Option to improve the resolution down to 0.02nm available upon request
Probe tips	Compatible with probe tips with 0.51 mm (0.020”) shank diameter and various tip radii (5 nm - 10 um)
User interface	Precisio™ software application (Microsoft® Windows) with microscopy module







MP8-MIC-MOT-K1 loaded with 8 miBots and performing microprobing on a semiconductor wafer.



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

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