

Prober Shuttle with four Probes (PS4)

The ultra-compact Prober Shuttle platform can be fitted with up to four next generation MM4 micromanipulators as well as a three-axis substage.



ACTUAL SIZE

Each of the 15 axes can be positioned with extremely high precision. The probes' Z drives swing up by 90° for easy access to the sample as well as for quick tip exchange.

Each micromanipulator is equipped with a low noise triax connector for measuring low currents.

The entire platform can be introduced into the SEM's or SEM/FIB's vacuum chamber via a 4" load lock resulting in very short cycle times and high sample throughput.

The Prober Shuttle is complemented by the (optional) Advanced Probing Tools Suite which provides a host of additional functionalities for high-end probing applications.

Technical specifications

Dimensions Prober Shuttle Platform

- Diameter 100 mm
- Height 10 mm

Substage

- Travel X and Y 9 mm
- Travel Z 0.7 mm

Probers

- Travel X 9 mm
- Travel Y 5 mm
- Travel Z 90 deg

All axes

- Resolution
 - Linear axes < 0.05 nm
 - Rotational axes < 0.5 nm
- Speed up to 1 mm/s
- Drift < 1 nm/min
- Cartesian movement
- No backlash or reversal play
- Coarse and fine displacement in one drive

Low Current Measurement

- Noise: 20 fA @ 1 Hz
- Insulation leakage current (probes): < 50 fA/V
- Insulation leakage current (sample): < 150 fA/V
- Signal conductor resistance: < 5 Ω
- Maximum voltage: 100 V
- Maximum current: 100 mA

System features

- Probing at FIB tilt for circuit edit applications
- Non-magnetic design
- Load lock compatible for fast cycle times

Further information

- Contact us at info@kleindiek.com
- Find your local agent at www.kleindiek.com