

# MPI MicroPositioner

MPI offers a huge variety of backlash-free MicroPositioners to address every operational and measurement condition, varying from small footprint to micrometer driven high-resolution positioners for RF and mmW applications.

Unified Z-direction, ergonomic operation, and a strong magnetic base enable fine probe placement for high contact quality, producing unsurpassed measurement results. MPI MicroPositioners are designed with universal interface compatible to all probe arms for ease of application specific adaptations.

Design varieties allow operators to choose MicroPositioners which fit their operational familiarity, thus providing immediate proficiency.

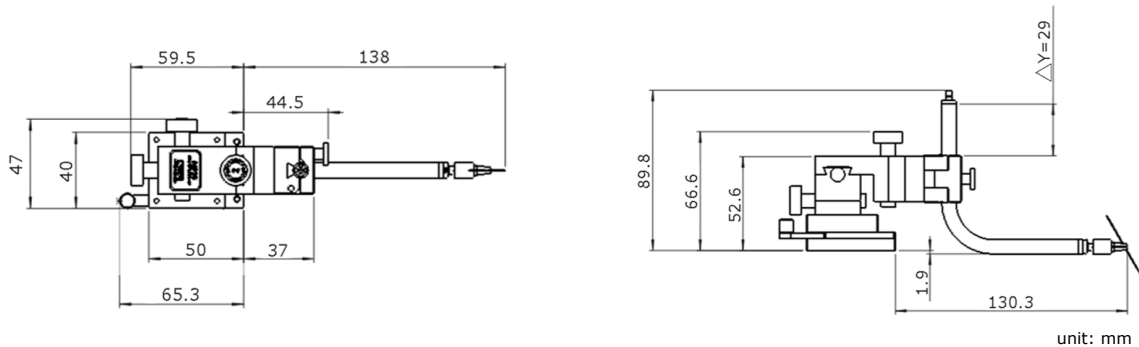
The MPI self-developed MicroPositioners are designed without compromise. The full carbon-steel structure enables stable contact over long periods of time and superior positioning accuracy.

## MP25 MicroPositioner: The Small One

Feature resolution:	< 4 $\mu\text{m}$
Travel range (X/Y/Z):	10 / 10 / 10 mm
Screw resolution (X/Y/Z):	500 / 500 / 500 $\mu\text{m}$
Mounting:	Magnetic
Base stage size:	25 mm
Footprint:	55 mm x 40 mm
Versions:	Right or left
Application:	IV/CV coaxial and ultra-low current triaxial measurements



### Dimensions - DC arm and tip

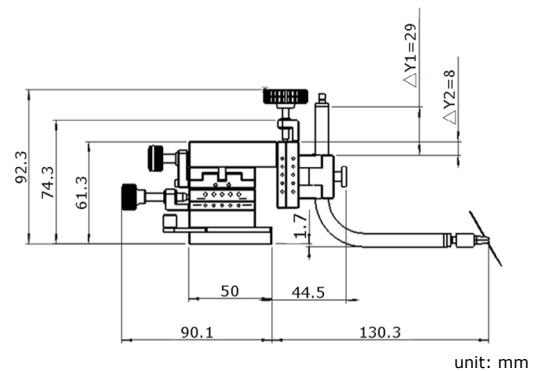
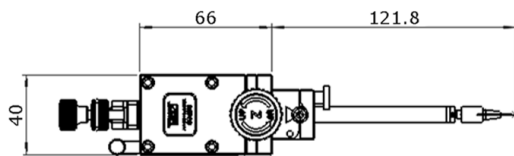


## MP40 MicroPositioner: The Universal One

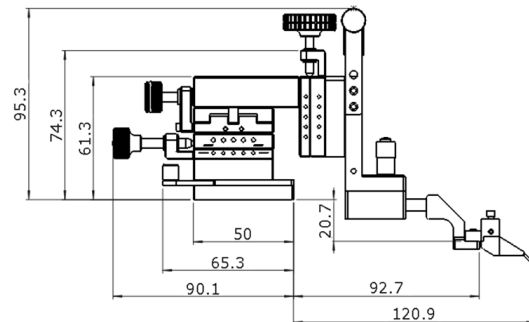
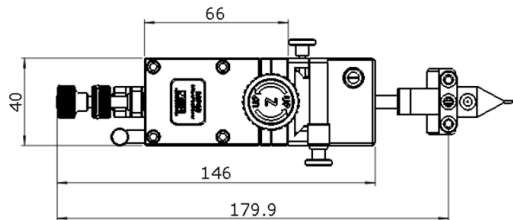
Feature resolution:	< 3 $\mu$ m
Travel range (X/Y/Z):	13 / 13 / 13 mm
Screw resolution (X/Y/Z):	500 / 500 / 300 $\mu$ m
Mounting:	Magnetic
Base stage size:	40 mm
Footprint:	65 x 40 mm
Versions:	Unidirectional
Application:	Accurate IV/CV coaxial, ultra-low current triaxial and RF measurements



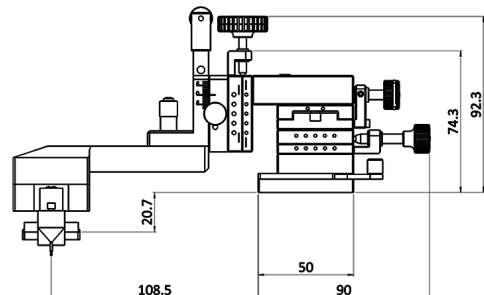
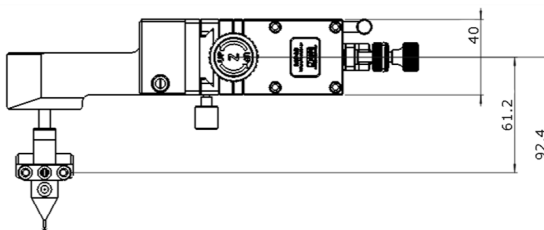
### Dimensions - DC arm and tip



### Dimensions - RF arm (E/W) and TITAN™ probe



### Dimensions - RF arm (N/S) and TITAN™ probe

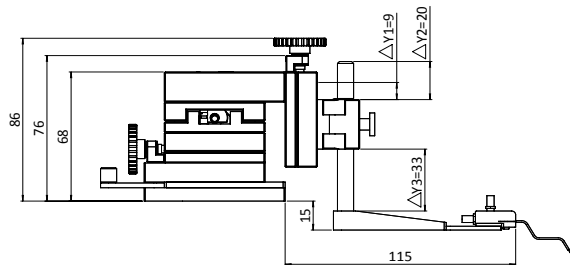
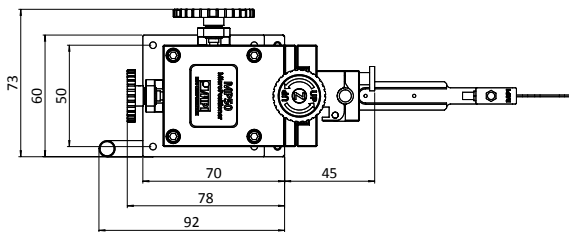


## MP50 MicroPositioner: The Kelvin One

Feature resolution:	< 2 $\mu\text{m}$
Travel range (X/Y/Z):	13 / 13 / 13 mm
Screw resolution (X/Y/Z):	250 / 250 / 250 $\mu\text{m}$ or 500 / 500 / 500 $\mu\text{m}$
Mounting:	Magnetic
Base stage size:	50 mm
Footprint:	86 x 60 mm
Versions:	Right and left
Application:	Extreme accurate IV/CV coaxial, ultra-low current triaxial measurements, internal node probing



### Dimensions - DC arm and tip



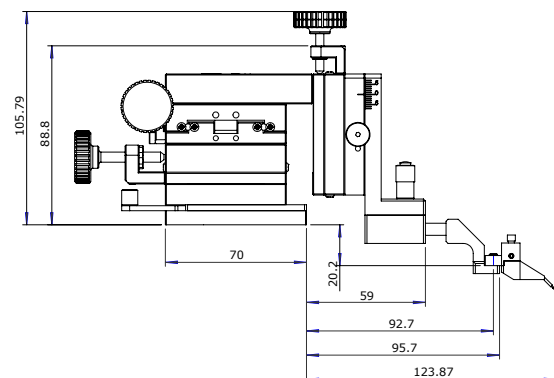
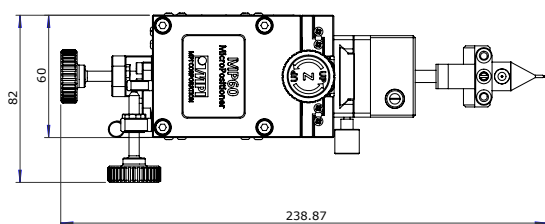
unit: mm

## MP60 MicroPositioner: The RF One

Feature resolution:	< 2 $\mu\text{m}$
Travel range (X/Y/Z):	13 / 13 / 13 mm
Screw resolution (X/Y/Z):	250 / 250 / 300 $\mu\text{m}$ or 500 / 500 / 300 $\mu\text{m}$
Mounting:	Magnetic
Base stage size:	60 mm
Footprint:	89 x 60 mm
Versions:	Right and left
Application:	Accurate and stable RF measurements

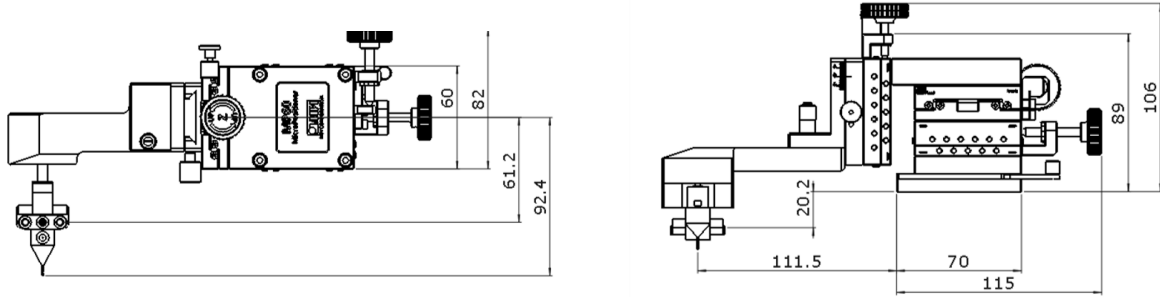


### Dimensions - E/W arms and TITAN™ probe



unit: mm

Dimensions - N/S arms



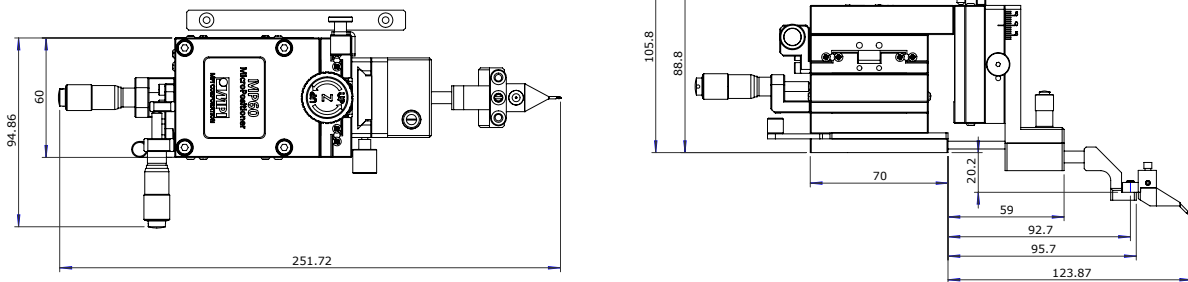
unit: mm

**MP60-MR MicroPositioner: The Micrometer One**

Feature resolution:	< 2 $\mu$ m
Travel range (X/Y/Z):	13 / 13 / 13 mm
Screw resolution (X/Y/Z):	500 / 500 / 300 $\mu$ m
Mounting:	Magnetic
Base stage size:	60 mm
Footprint:	89 x 60 mm
Versions:	Right and left
Application:	Accurate and stable RF measurements



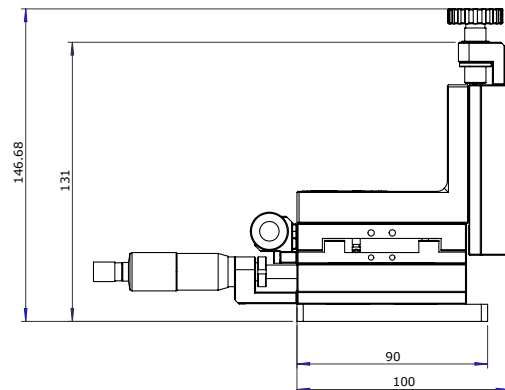
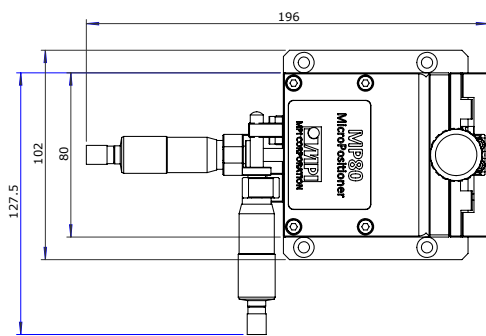
Dimensions - E/W arms and TITAN™ probe



unit: mm

### MP80 MicroPositioner: The mmW One

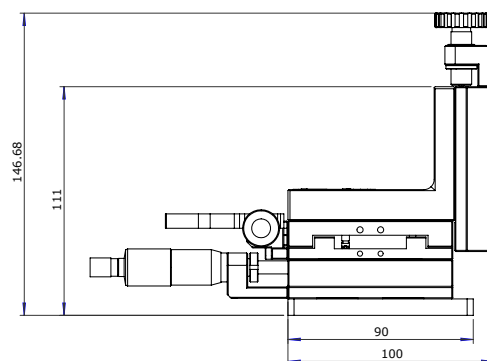
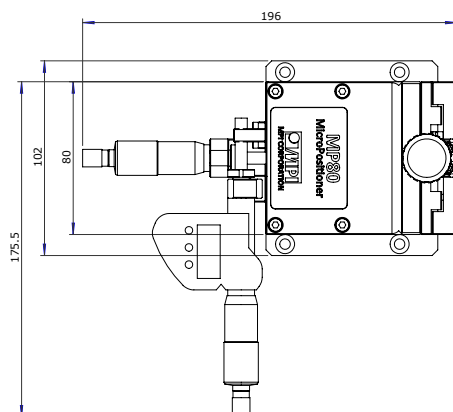
Feature resolution:	< 2 $\mu$ m
Travel range (X/Y/Z):	25 / 25 / 15 mm
Screw resolution (X/Y/Z):	500 / 500 / 500 $\mu$ m
Mounting:	Bolt-down
Base stage size:	80 mm
Footprint:	100 x 80 mm
Versions:	Right and left
Application:	Accurate and stable RF measurements, broadband and mmW measurements



unit: mm

### MP80-DX MicroPositioner: The multi-line TRL

Feature resolution:	< 2 $\mu$ m
Travel range (X/Y/Z):	25 / 25 / 15 mm
Screw resolution (X/Y/Z):	500 / 500 / 500 $\mu$ m
Mounting:	Bolt-down
Base stage size:	80 mm
Footprint:	100 x 80 mm
Versions:	Right and left
Application:	Accurate and stable RF, broadband and mmW measurements. Ideal for multi-line TRL calibration



unit: mm

### MicroPositioner – Application Matrix

Application / Positioners	Stage (mm)	TPI	IV / CV Coax	Low-level, IV, Triax	IV/CV/PIV Kelvin	RF	Broadband mmW	High Power HC / HV
MP25	25	50	●	●	-	-	-	- / ○
MP40	40	50	●	●	●	●	-	● / ○
MP50 MP50-HR	50	50 100	●	●	●	-	-	- / ○
MP60 MP60-HR	60	50 100	○	○	-	●	-	● / ○
MP60-MR	60	50	○	○	-	●	-	● / ○
MP80 MP80-DX	80	50	-	-	-	○	●	-

\* ● = recommended ○ = available

### MicroPositioner – Probe System Platform Matrix

Platform / Positioners	TS50	TS150	TS150-THZ	TS200 TS2000/D/DP	TS200-SE/HP TS2000-SE/HP	TS300
MP25	●	●	●	●	○	●
MP40	●	●	●	●	●	●
MP50 MP50-HR	●	●	○	●	●	●
MP60 MP60-HR	○	●	●	●	●	●
MP60-MR	○	●	●	●	●	●
MP80 MP80-DX	-	●	●	●	●	●

\* ● = recommended ○ = available

### Probe Arms – MicroPositioner Matrix

Probe Arms / MicroPositioners	Coax	Coax 10kV	Triax	Triax 3kV	Kelvin	RF	HC	Dedicated mmW
MP25	●	-	○	○	-	-	-	⊕
MP40	●	●	●	●	●	●	●	⊕
MP50 MP50-HR	●	●	●	●	●	-	-	⊕
MP60 MP60-HR	○	○	○	○	-	●	●	⊕
MP60-MR	○	○	○	○	-	●	●	⊕
MP80 MP80-DX	-	-	-	-	-	○	-	●

\* ● = recommended ○ = available ⊕ = DC biasing

# MPI Accessories

MPI offers a complete portfolio of accessories including coaxial, triaxial, RF probe arms, high-temperature Kelvin and high-current probes up to 400 A.

## Kelvin Arms

The MPI Kelvin probe holder has a unique vertical self-leveling probe tip which is isolated as close as possible to the DUT up to 300 °C. They are the new benchmark for accurate ultra-low noise, impedance or pulsed-IV measurements. Making a novice user able to perform fast and accurate measurements, Kelvin probes provide easy reconfiguration for 4TP-connection or/and splitting the ground for pulsed-IV tests. Clear labeling for Force/Sense or High/Low potentials is available.



## RF Arms

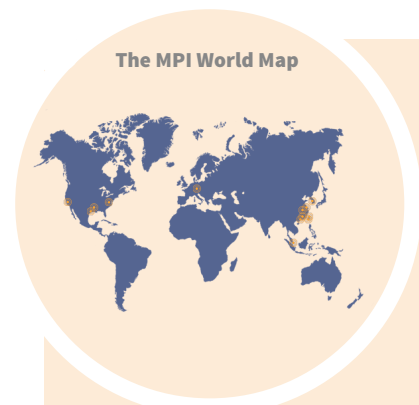
RF probe arms enable easy and very convenient probe leveling. The fast and toolless vertical height adjustments with built-in mm-scale is a small example of great usability by working with different RF probe technologies.

## Accessories

Extensive selection and dedicated design of vibration isolation platforms, tables with integrated racks for computer, keyboard tray, a dual monitor stand, EMI-shielded DarkBoxes, probe cards and PCB test holders, vacuum pumps and air compressors are a few examples for the variety of accessories completing the common MPI Test Solution Systems.

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