MPI TS50 | 50 mm Manual Probe System

For accurate and reliable DC/CV and RF measurements

FEATURES / BENEFITS

Flexible Platform

- Designed for research, development and academic use in IC engineering, single die probing
- Ideal platform for load pull and high frequency noise measurement

Ergonomic Design

- Solid and stable platform in small footprint (300 x 300 mm) design
- Rigid platen accommodates up to 6 DC or 2 RF positioners
- Simple operation for stage and microscope positioning

Upgradability

- Available with various chuck options and wide range of accessories such as DC/RF/mmW MicroPositioners, Optics, microscopes and EMI shielded dark box to support various application requirements

SPECIFICATIONS

Chuck XY Stage (Standard)

Travel	100 x 75 mm (3.9 x 3.0 in)
Resolution	5.0 µm (0.2 mils)
Planarity	< 10 µm
Theta travel (standard)	360°
Theta travel (fine)	± 5.0°
Theta resolution	7.5 x 10^{-3} gradient
Movement control	Guided rail with instant lock mechanism
Fine adjustment	Micrometer

PROBE PLATEN

Specifications

Material	Steel
Dimension	250 mm (Inside), 408 mm (Outside)
Chuck to platen height	min. 5 mm
Max. No of MicroPositioners	6 DC and 2 RF
Platen Z-height movement	High resolution screw for fine control
Z-height adjustment range	Max. 25 mm (1 in)
DC positioner mounting	Magnetic
RF positioner mounting	Magnetic with guide rail

NON-THERMAL CHUCKS

Standard Wafer Chuck

Diameter	56 mm
Material	Stainless steel
Supported DUT sizes	Shards or wafers 25 mm (1 in) through 50 mm (2 in)
Vacuum ring diameter	4, 16, 30, 44 mm
Vacuum ring actuation	Multizone control - All connected in meander shape, center hole 0.5 mm diameter
Chuck surface	Planar with centric engraved vacuum grooves
Surface planarity	≤± 5 µm
Rigidity	< 15 µm / 10 N @edge

RF Wafer Chuck

Diameter	50 mm with 1 integrated AUX area
Material	Stainless steel with HF/OPTO surface (flat with 0.5 mm holes)
Supported DUT sizes	Main - Single DUTs down to 3 x 5 mm size or wafers 25 mm (1 in) through 50 mm (2 in)
Vacuum hole sections (diameter)	4, 16, 30, 44 mm (four holes in center with 4 x 4 mm distance)
Vacuum holes actuation	Mechanically selected
Chuck surface	Planar with 0.5 mm diameter holes in centric sections
Surface planarity	≤± 5 µm
Rigidity	< 15 µm / 10 N @edge

Auxiliary Chuck

Quantity	1 AUX chuck
Position	Integrated to rear side of main chuck
Substrate Size (W x L)	Max. 25 x 25 mm (1.0 x 1.0 in)
Material	Ceramic, RF absorbing material suitable for mmW applications
Surface planarity	≤± 5 µm
Vacuum control	Controlled independently, separate from chucks

Electrical Specification (Coax)

Operation voltage	Standard - In accordance with EC 61010, certificates for higher voltages available upon request
Isolation	> 2 GΩ

FACILITY REQUIREMENTS

Power	Not required (Base machine without accessories)
Vacuum	-0.5 bar
Compressed air	4 bar

REGULATORY COMPLIANCE

- Certification: CE

WARRANTY

- Warranty*: 12 months
- Extended service contract: contact MPI Corporation for more information

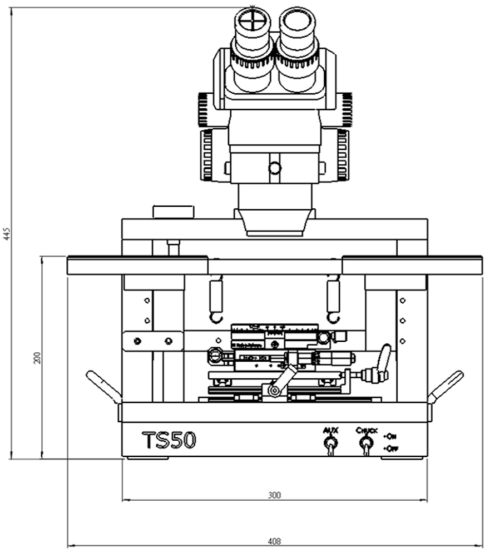
*See MPI Corporation's Terms and Conditions of Sale for more details

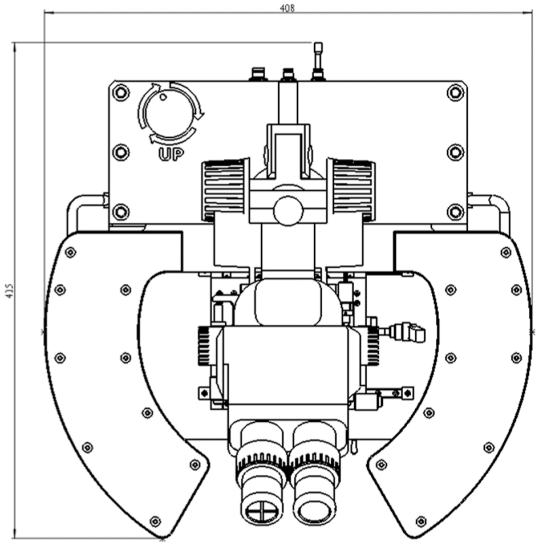
PHYSICAL DIMENSIONS

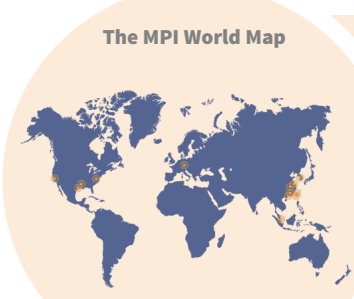
Station Platform with Bridge*

Station dimensions (W x D x H)	408 x 435 x 445 mm (16.1 x 17.1 x 18.1 in)
Weight	~60 kg (132 lb.)

**Station accessories, such as dark box, cameras or laser cutters, may increase the total height to up to 794 mm (31.3 in).*







Direct contact:
Asia region: ast-asia@mpi-corporation.com
EMEA region: ast-europe@mpi-corporation.com
Amercia region: ast-americas@mpi-corporation.com

For local support please visit our homepage: www.mpi-corporation.com

E-Mail: info@mpi-corporation.com • Web: www.mpi-coporation.com