MPI IMPACT™ Test Solutions | ITS25-THZ

25 mm Manual Probe System for accurate and reliable mmW & THZ measurements

HDMI Camera

- 8 MP active resolution, 30 fps
- Versatile 4K HDMI camera
- No requirement of a computer for standard operation and measurement function
- Image can be captured directly onto the included 16 GB micro SD card or a flash drive (not included)
- 4k video can be store onto included 16GB micro SD card or a flash drive (not included)
- On Screen Display UI controlled by mouse
- Ideal for documentation on the MPI manual TS series
- USB 2.0 interface allows using the provided software: includes measurement, annotation, and reporting tools
- Wireless mouse and all necessary cables are included

MPI SuperZoom SZ12 Single Tube Microscope

- Optical zoom factor 0.83x to 10.0x (10:0.83)
- Excellent optical resolution down to 3.4 μm
- Working distance 86 mm
- Including 35 mm fast/fine focus block
- C-mount adapter
- Coaxial LED illumination, external remote control
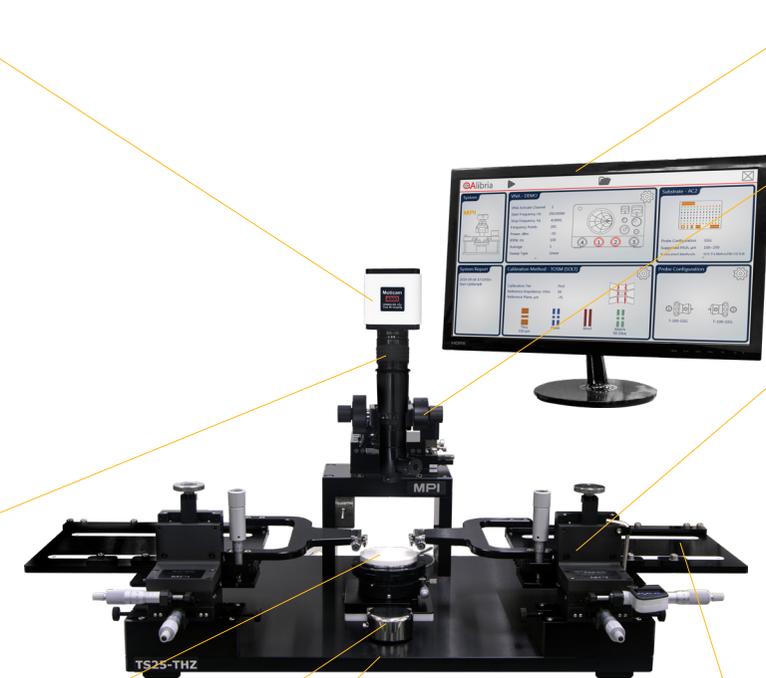
25 MM RF Ceramic Chuck, ambient

- Full ceramics based chuck with vacuum holes
- Designed for placement of DUT or calibration substrate
- Can hold single ICs down to 1 x 1 mm

Chuck-Theta Stage Movement

- Puck controlled with extra wide 140 mm (5.5 in) Y-range for easy loading/unloading
- +/- 5 degree fine chuck Theta rotation

Ultra Small Footprint

- Designed for bench top use
- Comes with vibration absorber base
- Low profile design for maximum usability

21.5 Inch Screen Display

- TV monitor, dimension 21.5", 16:9 ratio
- Resolution 1920 x 1080
- Table stand and VESA interface

Linear Microscope Movement / 50x50 mm

- Precision 50 mm x 50 mm X-Y microscope transport
- Linear movement for independent operation of X & Y
- 90 degree tilt for easy and safety probe replacement or reconfiguration
- Ideal for accurate FOV navigation at higher magnification

MP80 MicroPositioner Set DX

- Two MP80 High-end mmW MicroPositioner for back-lash-free probe positioning
- One on the left with standard micrometers and the second one on the right with Digital Micrometer head with feedback for X navigation & mTRL calibration
- 1 μm resolution allows precise definition of the Line(s) length for accurate TRL calibration
- PRESET, ZERO/ABS, DATA/HOLD and Auto- Power Off functions
- Battery is included
- Standard micrometer crew for accurate and sensitive Y navigation
- 25 mm travel range in XY, 15 mm travel range in Z
- 500 μm high screw resolution in XYZ
- Bold-down on the probe station

MP80 INTEGRATION FOR FREQUENCY EXTENDERS / WAVEGUIDE

- Two universal large area platforms for integration of frequency extenders
- With micrometer screws for fine waveguide probe planarization on the platforms
- Incl. E/W RF probe arm with Z adjustment for frequencies up to 220 GHz, above 220GHz the RF probe can be mount direct on the extender
- Requires FEAD-Adaptation and RF probes

Available Options

TC-25EU-ITS25-THZ	25MM THERMAL CHUCK SYSTEM COAX / 150C / ITS25-THZ UPGR
MZ12U-ITS25-THZ	MEGAZOOM MZ12 / UPGRADE ITS25-THZ PACKAGE
VIP-TS50	VIBRATION ISOLATION PLATFORM TS50
VP-MINI-110/220V	VACUUM PUMP MINI
FEAD-ADAPTATION	& RF PROBES, see page 3

The complete test package includes:

ITS25-THZ MANUAL TEST SYSTEM w/ puck controlled air-bearing stage
- 140 mm (5.5 in) Y stroke for easy loading/unloading
- +/- 5 degree fine chuck Theta rotation
- Stable microscope support
- Vibration absorbing base
- Station requires vacuum only

25 MM RF CERAMIC CHUCK, ambient
- Full ceramics based chuck with vacuum holes
- Designed for placement of DUT or calibration substrate
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LINEAR MICROSCOPE MOVEMENT / 50x50MM
- Precision 50 mm x 50 mm X-Y microscope transport
- Linear movement for independent operation of X & Y
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- Ideal for accurate field of view navigation at higher magnification

MPI SuperZoom SZ12 single tube microscope
- Optical zoom factor 0.83x to 10.0x (10:0.83)
- Excellent optical resolution down to 3.4 μm
- Working distance 86 mm
- Including 32 mm fast/fine focus block
- C-mount adapter
- Coaxial LED illumination, external remote control, 100 - 240 V AC, CE

HDMI CAMERA MOTICAM 4000
- 8 MP active resolution, 30 fps
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21.5 INCH SCREEN DISPLAY
- TV monitor, dimension 21.5", 16:9 ratio
- Resolution 1920 x 1080
- Table stand
- VESA interface, compatible to MPI monitor stands
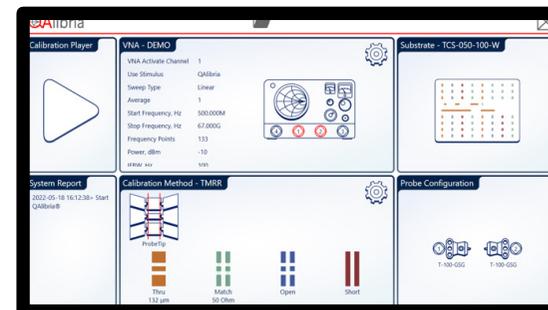
MP80 MICROPOSITIONER SET DX
- Two MP80 High-end mmW MicroPositioner for backlash-free probe positioning
- One on the left with standard micrometers and the second one on the right with Digital Micrometer head with feedback for X navigation & multi-line TRL calibration
- 1 μm resolution allows precise definition of the Line(s) length for accurate TRL calibration
- PRESET, ZERO/ABS, DATA/HOLD and Auto- Power Off functions
- Battery is included
- Standard micrometer crew for accurate and sensitive Y navigation
- 25 mm travel range in XY, 15 mm travel range in Z
- 500 μm high screw resolution in XYZ
- Bold-down on the probe station

MP80 INTEGRATION FOR FREQUENCY EXTENDERS / WAVEGUIDE
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- Requires FEAD-Adaptation and RF probes

QAlibria® SOFTWARE RF TOOLSET (see page 3)
ACCESSORIES, wafer tweezers, L-key set

ITS25-THZ IMPACT™ Test Solution, enables cost effective mmW and THZ testing with the highest possible measurement accuracy

- ITS25-THZ is equipped with dedicated mmW chuck supporting probing of submillimeter-wave MMICs as small as 1 x 1 mm and up to 25 x 25 mm
- The chuck is made completely by ceramics, and supports both the DUT and the calibration standards. Dielectric properties of the chuck material and its design are optimized to suppress possible propagation of higher-order modes providing accurate system calibration and trustable measurement results at THz frequencies
- The set of MP80 MicroPositioners and unique integration of all types of frequency extenders available on the market is designed for direct wafer probe mount and eliminates the need for additional waveguide section. This solution guarantees the best possible measurement directivity of the system in the entire measurement frequency range of up to 1.5 THz
- MPI supports ALL available on the market: Frequency Extenders by unique Adaptation (FEAD), for easy reconfiguration and safety operation

Please select the required FEAD part number (always as a set for East and West) based on your measurement configuration:

Rohde&Schwarz®	Anritsu Broadband	Anritsu ShockLine™	VDI	OML	FARRAN	Keysight Broadband
FEAD-RS-ZCXXX	FEAD-ANR-THZ	FEAD-ANR-SL-THZ	FEAD-VDI	FEAD-OML	FEAD-FARRAN	FEAD-KS-N5290-91A-THZ

All Broadband FEADs supports both single ended or differential set-ups.
Other legacy extenders are supported as well, please contact your local MPI support team.

MPI offers universal platforms with screw holes in metrics (25 mm pitch) or imperial (1-inch pitch) standard for mounting of various mmW components:
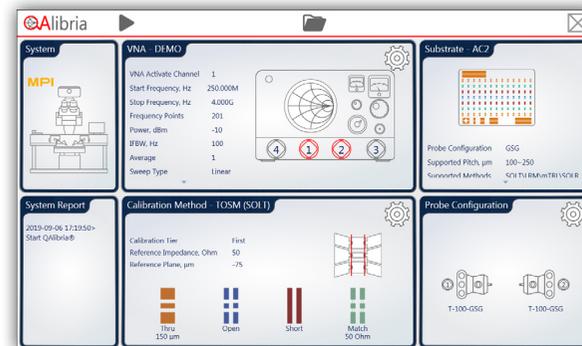
Universal Platforms
e.g. Farran source

FEAD-MM	FEAD-INCH

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QAlibria® - MPIs free RF calibration software is designed to make complex and tedious task of RF system calibration as simple as possible thru the unique multi-touch operation. It offers industry standard and advanced calibration methods and is integrated with NIST StatistiCal Plus calibration packages providing easy access to the NIST multiline TRL metrology-level calibration and uncertainty analysis of calibration and measurement results.

[QAlibria® registration](#)