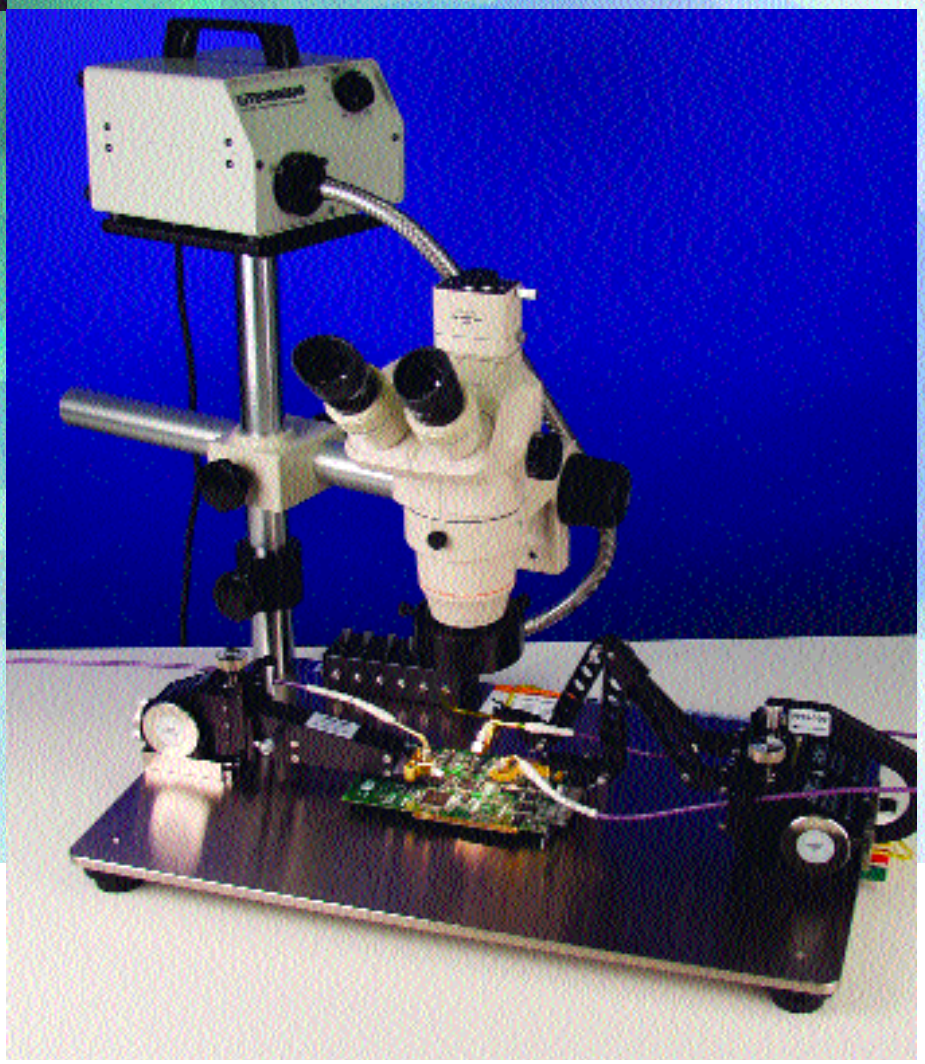
# MTS-1000 Series Module Test Stations





## Affordable, flexible, cost-effective, easy-to use characterization tool

The MTS-1000 Module Test Station is affordable and flexible enough to reside with test equipment on an engineer's personal workbench. The Module Test Station series provides a cost-effective platform for characterizing microelectronic interconnects and measuring active modules.

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## Description

The MTS-1000 series allows you to choose from two Module Test Stations that accommodate different size DUTs. They both feature a large working surface and a quick setup stereo microscope with boom stand and two easily adjustable Microprobe Holders (MPHs).

The device under test (DUT) is held in place by a DUT mount kit and is typically not moved during operation. Probes are held by MPHs with magnetic or vacuum hold down for maximum flexibility and quick setup.

The Stereo Microscope with coaxial illuminator is mounted on an easily adjustable boom arm to cover the entire DUT area of 5 by 14 in. for the MTS-1100, or 8 by 16 in. for the MTS-1200.

## Applications

Packages, MCM substrates, sockets, circuit boards, and connectors can be mounted and characterized using microwave probing and fixturing techniques. These include the use of Fixed-Pitch Compliant Probes (FPC), Surrogate Chip Test substrates (SCK), and Package Test Fixtures (PFX-50). Both time and frequency domain measurements can be made from DC to 20 GHz with 10 picosecond resolution.

A simple method for securely mounting a variety of DUTs is provided. It includes four magnet mounts which can be bolted to large modules and a gel pak kit for small DUTs. The user-configurable power distribution bus allows orderly routing of power supplies. 10x Module Probes (FPA-10x, FPM-10x, FPS-10x) with extremely low 0.06 pF tip capacitance, sub-30 picosecond risetime and 20 GHz bandwidth, are recommended for probing circuits which are sensitive to loads.

## Features

### Base Plate

- Low cost
- Rigid 0.375 inch steel
- Damage-resistant, hard nickel plate
- Precision machined surface
- Power distribution bus
- Vacuum manifold
- Anti-vibration mounts

### Olympus Zoom Stereo microscope

- Coaxial illuminator
- 20 x to 126 x magnification

### Universal Microprobe Holders

- Flexible configurations
- Micrometer planarity adjust
- Small footprint
- Compatible with Cascade Microtech probes

## Benefits

- Provides an affordable solution for an engineer's personal workbench
- Enables reliable, repeatable measurements
- Resists abrasion from ceramic components
- Compatible with vacuum or magnetic base probe positioners
- Minimizes vibrations as low as 60 Hz
- Enables viewing and alignment of probes to microelectronic structures
- Provides precision placement of probes for calibration and for accurate, repeatable measurements
- Accommodates wide variation of probe travel in all three axes
- Allows axial rotation of probe for non-planar substrates
- Mounts up to 8 Microprobe holders

## Dimensions

Base plate:
MTS-1100, 14.0 x 22.0 x 0.375 in. (35.6 x 56 x 0.65 cm)
MTS-1200, 16.0 x 28.0 x 0.375 in. (40.6 x 71 x 0.65 cm)

## Station Details

### MTS-1100 Module Test Station

Accommodates up to 5 x 14 in. (13 x 36 cm) DUTs
Includes the following:
1 MTS-100 Base Plate Assembly
1 Olympus ZoomStereo microscope
1 Microscope boom stand
2 Microprobe holders, recommend:
MPHV-4AR 4in. probe holder, right
MPHV-4AL 4in. probe holder, left

### MTS-1200 Module Test Station

Accommodates up to 8 x 16 in. (20 x 40 cm) DUTs
Includes the following:
1 MTS-200 Base Plate Assembly
1 Olympus ZoomStereo microscope
1 Microscope boom stand
2 Microprobe holders, recommend:
MPHM-6AR 4in. probe holder, right
MPHM-6AL 4in. probe holder, left

### MTS-100 or 200 Base Plate includes:

Vibration isolation feet (60 Hz min.)
Vacuum manifold (5 valved outlets)
Power distribution bus (IO user configurable)
Static protection (station ground connector)
DUT mounting kit (4 magnets and gel pack kit)
Assembly tools and mounting hardware

## Ordering Information

MTS-1100 Module Test Station, 110V 60 Hz . . . . . *MTS-1100*
MTS-1100 Module Test Station, 230V 50 Hz . . . . . *MTS-1100E*
MTS-1200 Module Test Station, 110V 60 Hz . . . . . *MTS-1200*
MTS-1200 Module Test Station, 230V 50 Hz . . . . . *MTS-1200E*
MTS-100 Base Plate Assembly . . . . . *MTS-100*
MTS-200 Base Plate Assembly . . . . . *MTS-200*

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Innovating Test Technologies for better measurements faster

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Data subject to change without notice