



## LABORATORY MICROPROBING STATION

### Features

- Compact test benchtop size
- RF/Microwave application driven design
  - Stereo zoom microscope 7X-30X
  - Precision ball bearing XYZ
  - Positioners with RF probe mount
  - X-Y stage with z-lift chuck
  - Isolated Vacuum chuck
  - Included vacuum pump
- Stable and rugged for years of consistent repeatable measurements
- Spacious accessory platen for additional (optional) magnetic mount positioners
- Laboratory test station includes storage container.

### Benefits

- Very low cost microwave laboratory microprobing test station
- Rugged and intuitive for rapid and easy setup
- Precision and feature rich enough for professional research.
- Compact size conserves bench space
- Storage container protects between research experiments or lab classes

### Description

A rugged and basic RF and DC probe station for research of advanced active and passive components and also for educational training of university students in the discipline of microwave microprobing. Compatible with magnetic mount ball bearing microprobing positioners and GGB Industries RF microprobes. Binocular and Trinocular stereo

zoom microscope with 7X-30X magnification (included wide field eyepieces) available, LED ring Illuminator, precision x-y stage with vacuum hold down and Z-lift. Vacuum Pump included. Basic probe environment with professional features. Test device movement is independent of probe positioning function for ease of operation. Top Plate can be positioned above chuck for added flexibility in the test of large samples

### Specifications

#### LMS-30

- Overall Size                      depth: 12.0 in.  
   width: 15 in.
- Weight (with positioners)    35 lb.
- Stage size                            2.0 in. sq.
- Stage movement                X-Y: 1.0 in  
   Z-lift: 0.08 in.
- Platen                                10" X 15"  
   Ni plated steel

#### NAT-09Bx

- Binocular Stereo zoom Microscope
  - 7X-30X
  - 4"+ Working distance
- LED ring illuminator            Variable intensity

#### KRN-09S

- Positioner movement            X-Y-Z: 0.50 in.

#### VA-1

- Vacuum Pump Vacuum        13" Hg +



### Stage

The LMS-3009 features a rugged ball bearing stage with 1" of X-Y travel to offer ease of calibration and movement from test device to device in rows or columns. Vacuum clamping and 0.08" 'Z-lift' offer professional functionality for microprobing labs. Useful for the test of passive and active devices. Optional rotating chuck.

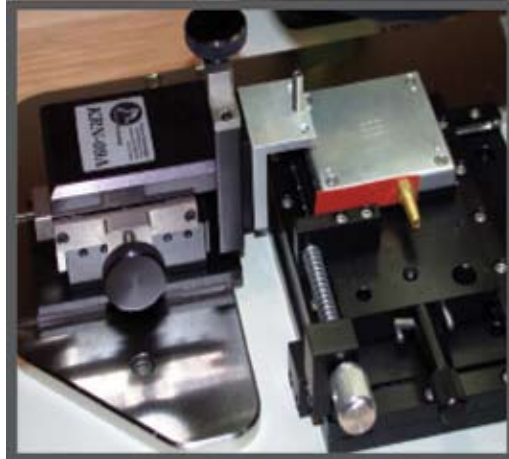
### Applications

- Test fixture for prototype MMIC and MIC components.
- Research Probe Station
  - Semiconductor devices
  - Microwave packages
  - MIC components
  - Material Science
  - Solar Cells

# LMS-3009

## Probe Positioners -

J microTechnology offers a ruggedized three axis positioners specifically for the LMS-3009. These positioners have 0.5 in. of adjustment in both 'X' and 'Y' and 'Z' axis. They are general purpose ball bearing 40 tpi positioners for both 'DC' and microwave/radio frequency measurements. Positioners are magnetic base mounted to the base platten.



Probe Positioners are supplied with RF Probe mounts(three hole), compatible with GGB, Industries or other microwave probes. Probe mounts have 0.75" of 'z' height adjustment in addition to the 0.5" of fine adjustment. GGB Model 7 and Model 10 probes(Style 80)are directly compatible. Optional DC needle holders with tungsten and Paliney7™ needles are available for these positioners. Optional 80 tpi KRN-10S available.

## Optics Package

Optical package include a moveable, left/ right with adjustable height, boom stand mounted variable zoom binocular or trinocular stereo microscope. Adjustable LED ring illuminator supplies shadow free light. Microscope is directly mounted to the base plate, centered on the movable chuck stage. Adjustable illumination LED light is mounted to the objective ring.



Standard zoom objectives are 0.7X-3X. Eyepieces are 10XWF(wide field) offering 7X-30X. The zoom range supplies both a general test sample view and a detailed view of probe pad areas for probe placement accuracy required to make repeatable 40 GHz+ measurements. Working distance is 4.0". Optional NAT-09Tx trinocular stereo zoom microscope with an added camera video port. Optional 25XWF eyepieces for inspection capability.

## RF Microprobes

The LMS-3009 is compatible with industry standard microprobes. GGB Industries, Inc. DC, active and microwave probes are compatible with the LMS-3009. Up to four orthogonal probes can be used in test.



Convenient Storage/Shipping Container

## Ordering Information

SUGGESTED LMS-3009 package configuration is the following:

### Lab Microprobe Station

- LMS-30, Base with stage
- KRN-09S, RF Positioner (2 ea.)
- NAT-09Bx, Stereo 10X/30X  $\mu$ scope
- VA-1, Vacuum Pump(115 V), 13"Hg +

### Options:

- KRN-NM, Needle Holder & Needles
- NAT-09Tx, Trinocular 10X/30X  $\mu$ scope
- NAT-27, Stereo zoom  $\mu$ scope
- GGB Probes, ECP18-GSG-150-DP



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