



## Description

A high value personal and flexible microprobing environment for engineers and scientists. Useful in the electrical test and for analytical evaluation of semiconductor devices, planar passive components and microwave assemblies. The test samples can be clamped with a vacuum assisted stage/chuck. The JR-2727 probe station features an X-Y-Ø,

adjustable 4.5 inch diameter stage. Available microwave microprobing positioners can be mounted on three sides and/or on the four corners. Miniature magnetic or vacuum needle positioners for DC/low frequency probes can be placed around the top plate. Standard optics are a 6.7X-112.5X binocular/trinocular stereo zoom on a moveable boom.

# PERSONAL PROBE STATION

## Features

- Personal test benchtop size
- Friendly application driven design
- Stable and rigid for consistent repeatable measurements
- Manually operated top plate lift
- Integral vacuum accessory manifold
- Vibration isolation
- User definable/configurative stage/chuck
- Probe card holder available
- PCB clamp chuck available

## Benefits

- Low cost, high functionality
- Rapid and easy to setup
- High productivity for individual users
- Compact Size conservers bench space

## Specifications

- Overall Size                      depth: 11 in.  
   width: 10 in.
- Weight                                17 lb.
- Top Plate Size                    10 in. by 10 in.
- Stage/chuck size(std.)        4.5 in.
- Stage Travel                        4.0 in. by 2.5 in.
- Positioner movement  
KRN-08A/09A/10A            KRN-18A KP  
    X: 0.50 in.                    X: 0.85 in.  
    Y: 0.50 in.                    Y: 0.85 in.  
    Z: 0.50 in.                    Z: 0.45 in.



## Stage/Vacuum Chuck

The JR-2727 features a highly maneuverable chuck with greater than 2.5" of travel in 'X', 4" of travel in 'Y' and ± 180° rotation. Custom chuck plates, using vacuum clamping and alignment pins, are available to test devices, microstrip packages and assemblies. Top plate insert to furnish true N,E,W,S probe placement.

## Applications

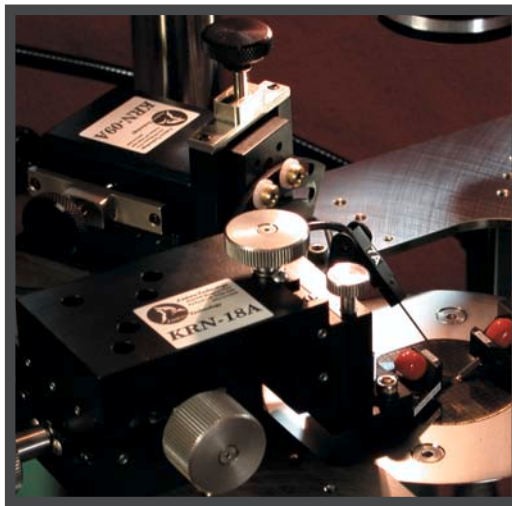
- Test fixture for prototype MMIC and MIC components.
- Personal Probe Station

Semiconductor devices  
Microwave packages  
MIC components  
Small Sample Failure Analysis

# JR – 2727

## Probe Positioners -

J microTechnology offers three versions of application compatible three axis positioners specifically for the JR-27xx SERIES. These positioners have in excess of 0.5 in. of adjustment in both X and Y axis and 0.45 in. of travel in the Z axis. The KRN-01A is a low cost magnetic mount DC positioner. The KRN-09A is a general purpose magnetic mount positioner for 'DC' and RF measurements. The KRN-18A positioners are bolt mounted to the top plate either on three sides and/or the four corners for uncompromising microwave measurement performance.



## KRN-09A 'RF/DC' Positioner

A low cost, magnetic mount positioner with ball bearing slides for DC and RF microprobing use. Features X, Y and Z travel of greater than 0.5 inches. Comes with 5 Pd alloy and 5 tungsten needles.

## KRN-18AKP 'Precise' Positioner

A moderate cost, no compromise precision positioner with cross roller bearing slides for heavy microprobing use. Features a longer X and Y travel of 0.85 in., and positional accuracy of  $\pm 1$  micron and planarity adjustment.

## Optics Package

Optical package include a moveable, boom stand mounted trinocular stereo microscope and a gooseneck mounted variable intensity halogen illuminator. Microscope is vibration isolated from the workbench. Halogen light is mounted to the test fixture and is moveable over the complete working area. Standard objective is 1X, eyepieces are 10XWF and 25XWF with 0.67X to 4.5X body which results in 6.7X to 112.5X. Working distance is 3.8 ".



## NAT-27T

Trinocular 0.67X to 112.5X stereo zoom microscope with halogen illuminator light. Useful for probe alignment and inspection of typical assemblies. Standard equipment includes a 1X c-mount video adapter with independent focus.

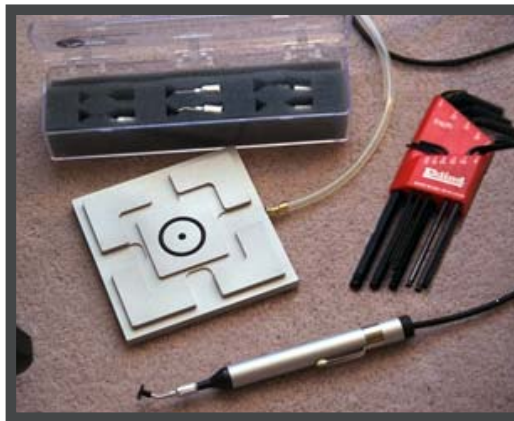
## NAT-27B

Binocular 0.67X to 112.5X stereo zoom microscope.

Options include 1.5X objective, Fiber Optic ring illuminator, Digital Camera Adapters

## ACC-10 Accessory Kit

A standard accessory kit comprised of vacuum tweezers, vacuum release GelPak™ carrier holder, required wrenches and an impact resistant storage transit case is included in this kit. The vacuum tweezer are ESD safe and come with a variety of tip sizes. The GelPak™ holder will accommodate both 2" and 4" vacuum release GelPak™ carriers. The storage case is molded impact resistant plastic with foam cutouts to protect the probe station and optics when not in use or being moved from one location to another.



## Ordering Information

JR-2745 components are available to configure the microprobing test fixture to fit your needs.

## Personal Probe Station

JR-2745 Manual Probe Station

LMS-18 Probe Card Adapter(option)

LMS-05 Insert Plate, South(option)

## Probe Positioner Options

KRN-18AKP, Precise Positioner

KRN-09A, RF/DC Positioner

KRN-01A, DC Positioner

## Optic Packages

NAT-27T, Trinocular Stereo Zoom

Microscope package

NAT-27B, Binocular Stereo Zoom

Microscope package

## Accessory Kit - Included

ACC-10, Accessory Kit

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## Microprobe Compatibility

The Manual Probe Station with KRN-09A and KRN-18A positioners is compatible with most microwave probes. GGB Industries, Inc. offers a large selection of single, dual, and multi-contact wedges, including the popular Model 40A and ECP probes, in the 'DP' style, which offer the most mechanical range with the JR-2745.



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