

# Probe Station

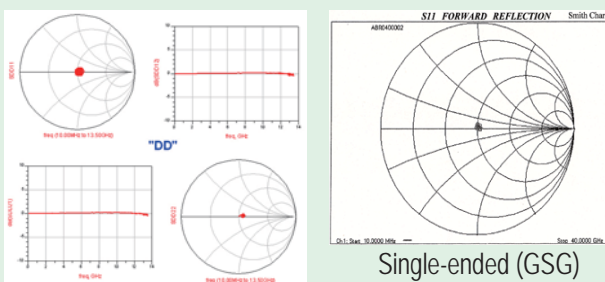
AGPS501-002



Challenge for  
rapid development  
using measurements  
and calibrations

## Special Equipment

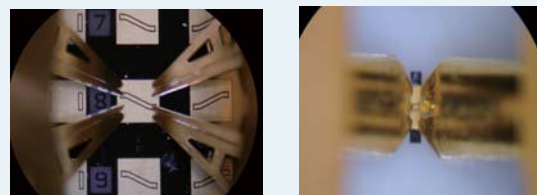
### Matching



Differential (GSSG)

Probing results of calibration kits are displayed on the Smith charts. They show that matchings were made between 10MHz - 13.5GHz(left) and 10MHz - 40GHz(right) successfully.

### Calibration Kits



Calibration kits for needle point, and design and manufacture of a TRL/LRM are provided.

### Application

Evaluation for :  
High-speed transmission line, differential transmission line, RF module, wafer, CSP, LGA, MMIC, MCM, etc.



ADVANCED ELECTRONICS TECHNOLOGY

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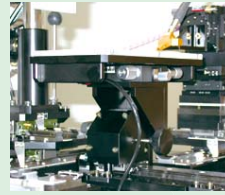
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# Probe Station

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From a semiconductor wafer to a RF circuit, accurate probing can be performed.

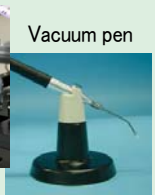
The probe stage position can be adjusted on the X-Y-Z-theta directions. A sample can be held in place by vacuum suction for stable measuring. The measurement table can be customized to any size. A vacuum pen can hold and release small samples, and keep it from getting dirt. An air valve switch can select vacuum suction to a table or a vacuum pen.



Probe stage



Vacuum pump



Vacuum pen



Probe fixture

Vacuum pump

Micro positioner and Positioner table

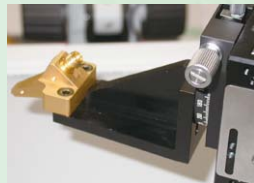
Probe stage

Vacuum pen

Air valve switch



Micro positioner and Positioner table



Probe and Probe fixture

The micro positioner and the positioner table are designed to latch on using a powerful magnet, so it provides the flexibility of extending the measuring plane by shifting the location of the positioner. Probe fixtures can be custom-designed to be either an air coplanar, semi-rigid, or a differential active probe.

Frequency	Depending on specifications of probes
Probe stage	(Coarse adjustment) Movement direction X: fixed Y: 125mm (slide) Z: up-and-down (Fine adjustment) Movement direction Z: $\pm 6.5\text{mm}$ ( $10\mu\text{m}$ scale intervals) $\theta$ : $\pm 5$ degrees Measurement table size: Variable, Sample size for measurement: up to 190mm x 100mm
Micro positioner	(Fine adjustment) Movement direction X: $\pm 6.5\text{mm}$ Y: $\pm 6.5\text{mm}$ Z: $\pm 6.5\text{mm}$ ( $10\mu\text{m}$ scale intervals) $\theta$ : $\pm 3$ degrees
Positioner table	Movement direction X: 105mm Y: 52.5mm (2.5mm per ratchet step) Z: fixed
Probe type	Air coplanar, semi-rigid or differential active probe
Stereomicroscope	Olympus Model: SZ61 Magnification: 0.67 - 4.5X, Zoom ratio: 6.7, Operational distance: 110mm, Eyepiece: WHSZ10 x —H
Vacuum pump	Ultimate vacuum: $-33.3\text{kPa}$ ( $-250\text{mmHg}$ ), Air flow capacity: 5 $\ell$ /min, Rated voltage: AC100V Power consumption: 15/14W, Current: 0.35/0.3A, Rated time: continuous
Vacuum pen	Pad diameter: $\phi 6\text{mm}$ , Suction: 90g max.
Probe station Size and Weight	600mm (W) x 400mm (D) x 550mm (H) 27kg

\*Specifications and/or appearance are subject to change without prior notice for further improvement. Please confirm details with our sales department before placing an order.



AET, Inc. also provides measuring equipments such as a network analyzer as an option. AET, Inc. contracts a solution partner with Agilent Technologies.