

## High Performance Microwave Probes for RF probing

### ❖ Model SP-500BT

- Durable
- 325 GHz to 500 GHz
- Insertion loss 4 db typ
- Return loss 15 db typ.
- Individually spring loaded contacts
- Bias T option available
- Rugged Coaxial design

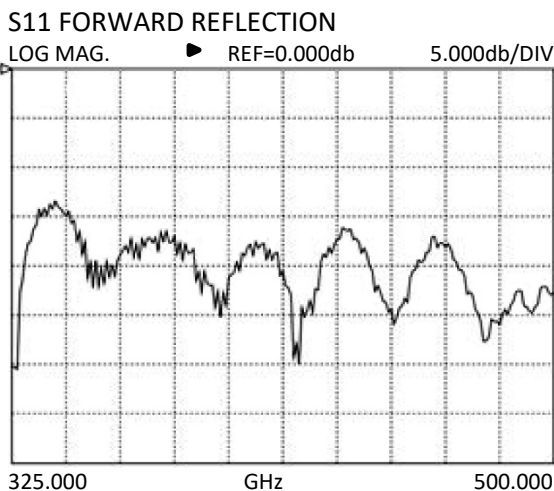


Model SP-500BT (with bias T)

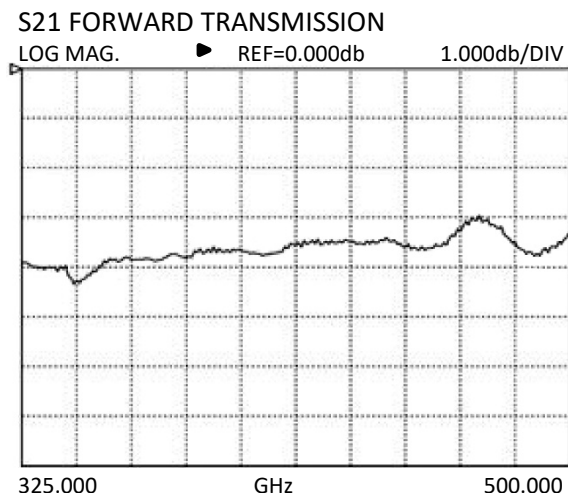
### ❖ Flexible Tips for Flexible Probing

The Picoprobe Model SP-500BT sets new® standards in microwave probing performance. Benefiting from coaxial techniques, which have inherent low loss and low dispersion characteristics, the Model SP-500BT achieves an insertion loss of less than 4.0 db and a return loss of greater than 15 db over its frequency range (see accompanying data).

With its individually spring loaded, Beryllium-Copper tips, the Model SP-500BT provides reliable contacts, even when probing non-planar structures. This reliable low resistance contact is one of the keys to providing highly repeatable measurements. The Model SP-500BT also allows direct viewing of the probe tips for accurate positioning. Any pitch (tip spacing) is available, however 25 to 55 microns is recommended. The probe can be configured with Ground-Signal-Ground (G,S,G), Ground-Signal (G,S), or Signal-Ground (S,G) tip foot-prints. We recommend a G,S,G footprint for best performance.



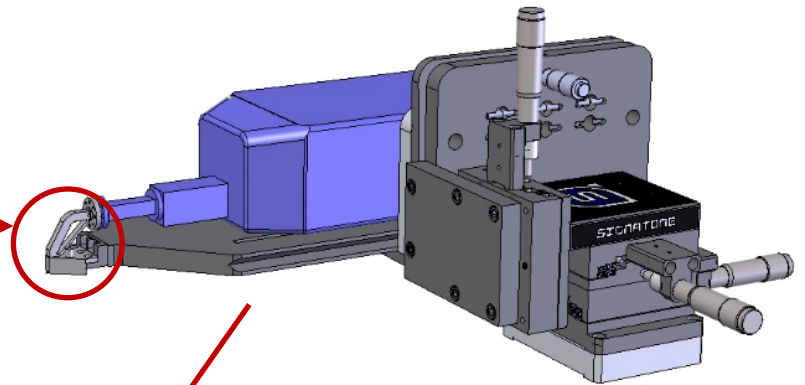
Typical uncalibrated performance of a Model SP-500B-GSG-50 while touching a 50 ohm load on our CS-15 calibration substrate.



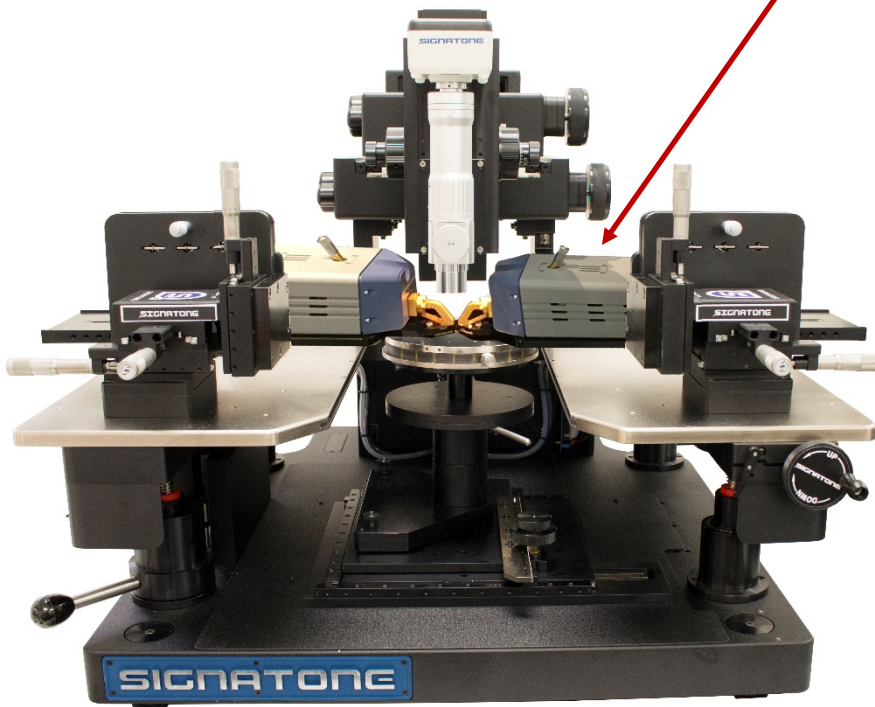
Typical insertion loss of a Model SP-500BT-GSG-50

❖ **Probe Mounting and Dimensions**

Model SP-500BT  
325GHz -500GHz  
Microwave Probe



Signatone S-LAP-90 Large Area Positioner for mounting 50-1100GHz probes directly to the Frequency Extender with wave guide.

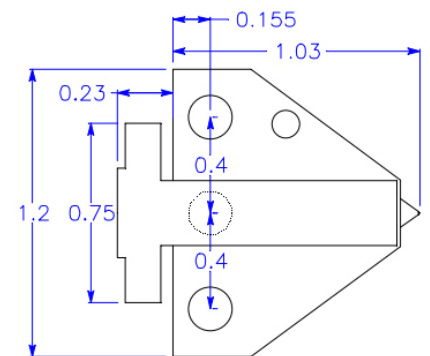
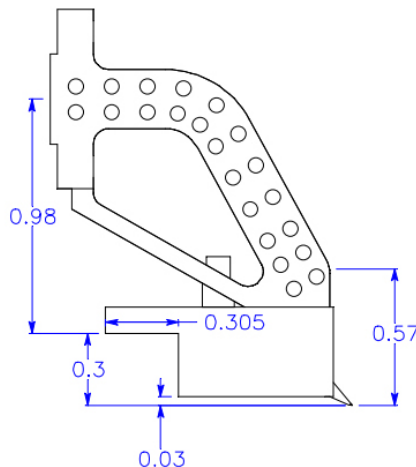


Micropositioners are available to hold virtually all the current models of Frequency extenders and tuners modules so that the module and the probe are moved and positioned as a unit (together). In this way, total ease of positioning can be achieved with minimum insertion loss.

Image Left: Shows WaveLink 170-THZ probe station with East & West S-LAP-90 Positioners, 325 GHz probes attached to Frequency Extenders.

The Model SP-500BT bias T provides a direct low resistance DC path for supplying up to 250 mA to a device under test. The bias T also has special circuits which add loss at frequencies below the waveguide cut off frequency.

The probes have a 3 hole mounting adaptor which will fit standard microwave Positioners.



Model SP-500BT Waveguide Dimensions

## ❖ WARRANTY

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- Standard Warranty 12 months \*
- For Extended Warranty and Service Contracts : Contact Signatone Corp. for more information

\* See *Signatone Corporate Terms and Conditions of Sale* for further details.

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