

## HF/Microwave

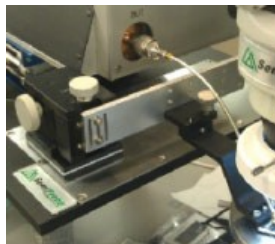


### Introduction

Probing at high frequency has always been more challenging than standard DC probing applications. It takes different equipment, knowhow and instrumentation. Throughout the design and development process, accurate measurements are required to meet market opportunities on time, at minimum cost, and with reliable products.

### Load Pull

SemiProbe has pioneered new large scale load pull manipulators for the large tuners used at lower frequencies.



With smaller tuners associated with higher frequencies, our precision controlled manipulators guide your probes to a secure and precise landing while minimizing the distance from tuner to probe.

### Manipulators



No other application requires the rigidity, precision and stability that successful HF/Microwave probing requires.

SemiProbe has a family of manipulators designed for this application. Our HF arms allow planarization from the top of the arm away from optics and other probes. Our switchable magnetic bases allow rapid positioning, movement and provide a secure firm base without tools or vacuum.



### HF/Microwave Applications

- ❖ DC to >500 GHz
- ❖ Aerospace & Defense
  - Radar/EW Test
  - Communications
  - GPS/Navigation
- ❖ Wireless Connectivity
  - 802.11
  - Bluetooth
  - WiMAX
  - ZigBee
- ❖ RFID
- ❖ Automotive
- ❖ Cellular
- ❖ Device Characterization
  - S Parameters
  - X Parameters
  - Interconnect
- ❖ Optical/Photonic
- ❖ Components
- ❖ Design Verification
  - MMIC
  - PCB
  - Modules
  - Packages

*Let us help you with your next HF/Microwave application.*

## Sub-THz measurements

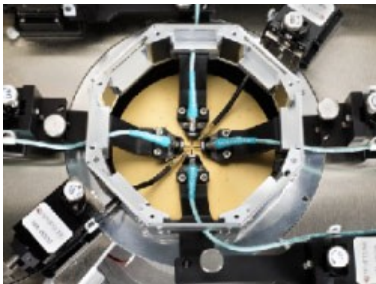


As researchers push the threshold of devices towards the THz threshold, a new level of probing capabilities is required. The prospect of future products capable of identifying harmful materials from a safe distance is just one of the many applications this exciting new technology is exploring. SemiProbe's Probe

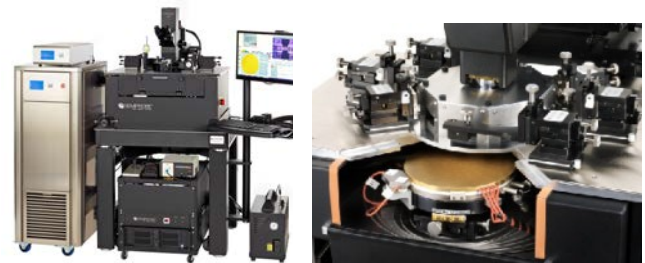
System for Life™ (PS4L) is meeting this challenge on extremely tight R & D/University budgets while maintaining technical capabilities and allowing for future system upgrades. (Shown here is an R & D 325 GHz. System.)

## Localized Environmental Chamber (LEC)

Because of the environment many of these devices are being designed for, rigorous testing across wide temperature ranges is required. Automotive, aerospace, military, all have specific temperature test requirements.



Accomplishing this at wafer level is easy using the LEC. The chamber provides a dry gas atmosphere to prevent device frosting, provides electrical isolation and a dark environment. This chamber is available on manual or semiautomatic systems and is field upgradable on existing SemiProbe PS4L systems.



## Automation

SemiProbe can provide fully automatic systems from the factory or field upgrade existing PS4L semiautomatic probe systems to fully automatic systems. Our fully automatic systems handle a variety of devices – wafers thinned to 90 um or up to 300 mm in size, T/R modules, MMICS, trays of die or wafers mounted and sawn on frames.

