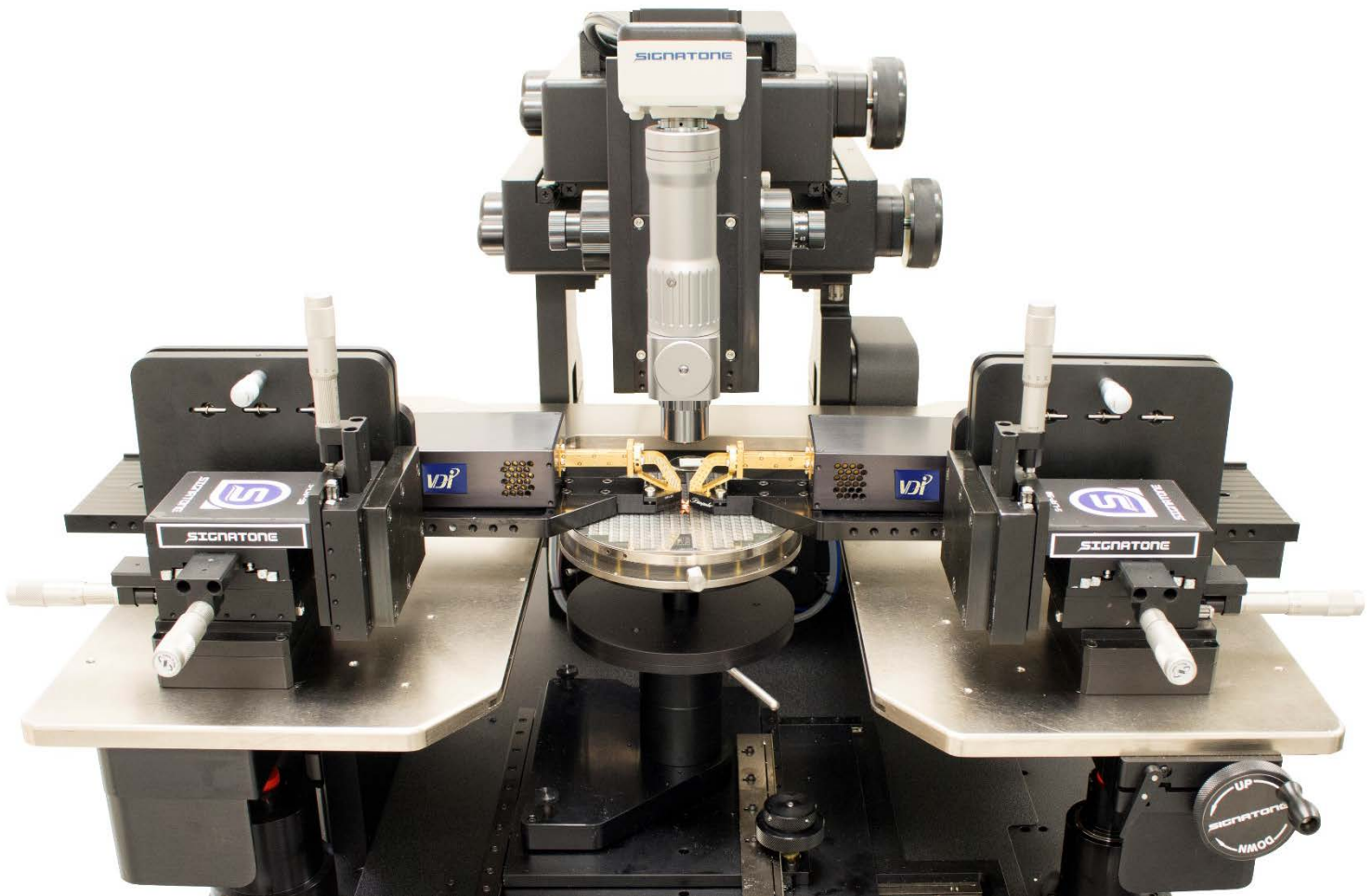


Signatone S-LAP-90 Stable, Large Area RF / mmW Positioner



❖ FEATURES / APPLICATIONS

Signatone offers an extensive line of Micropositioners to address virtually every probing and measurement application, ranging from the very simple to the highly complex sub-micron high-resolution positioners.

The S-LAP90 stable 4-axis Micropositioner is designed To support mmWave frequency extenders and RF Tuner modules.

The smooth motion of the X-Y & Z knobs (at 90°) along with the micrometer driven planarization knob makes the S-LAP90 an integral part of your high frequency test application.

Supports a Variety of Frequency Extenders & Tuners

- Virginia Diode Inc (VDI)
- Rohde & Schwarz
- Keysight
- Anritsu
- OM Labs
- Copper Mountain Test
- Focus Microwaves
- Maury Microwave

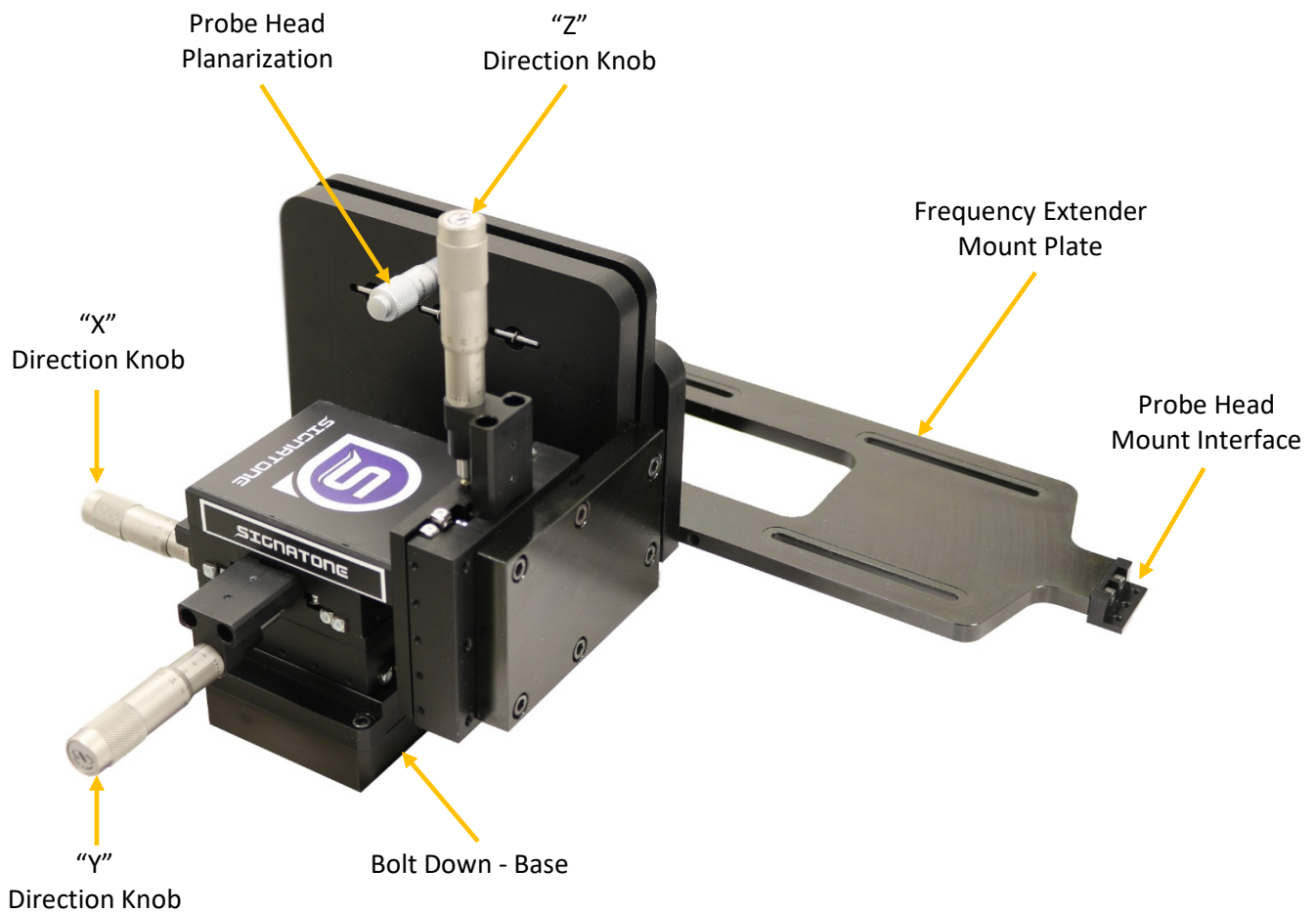
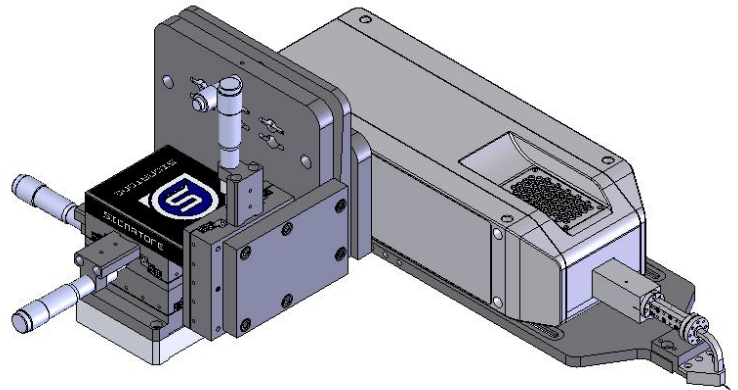
❖ SPECIFICATIONS

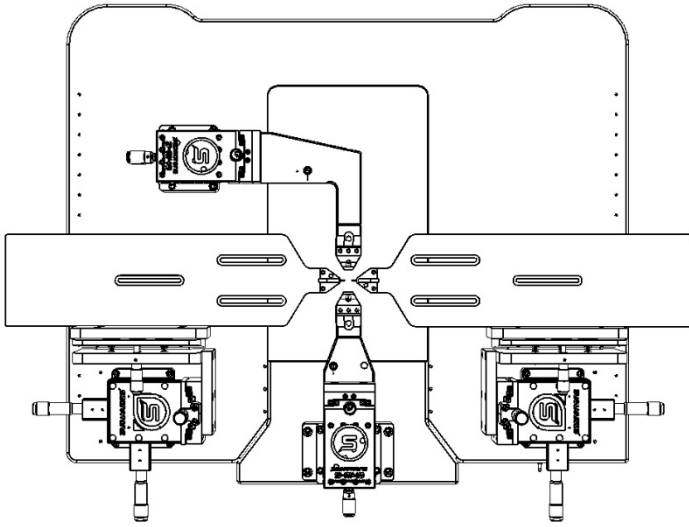
Model S-M90

Travel range	X-Y-Z = 25 mm
Planarization range	6° (0.1° resolution)
Feature resolution	2µm
Mounting	Bolt-down
Orientation -Standard	East-West

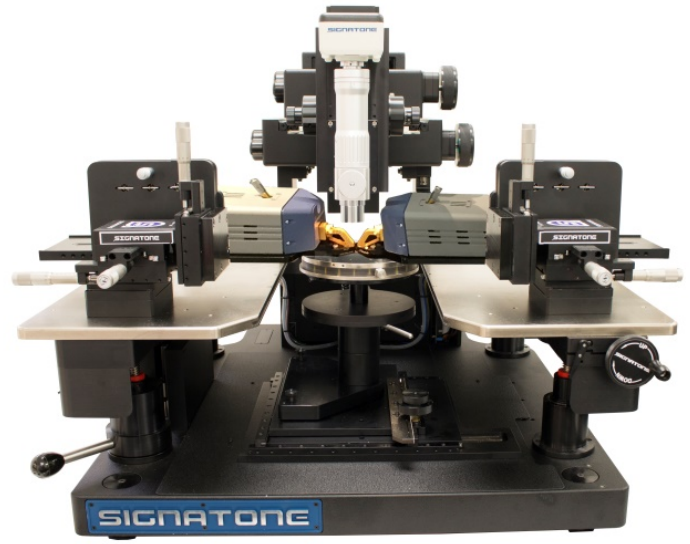
Application

Accurate and stable RF measurements,
Broadband and mmW measurements
Typical: 33GHz -1.1 THz
Frequency Extender and RF Tuner integration

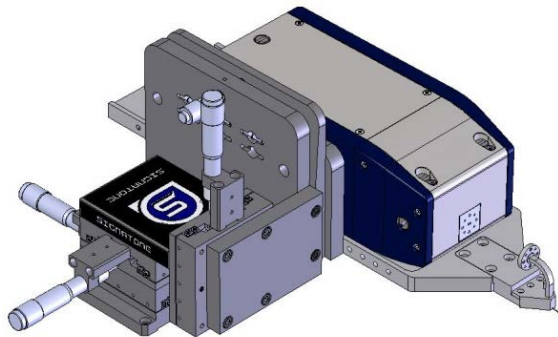




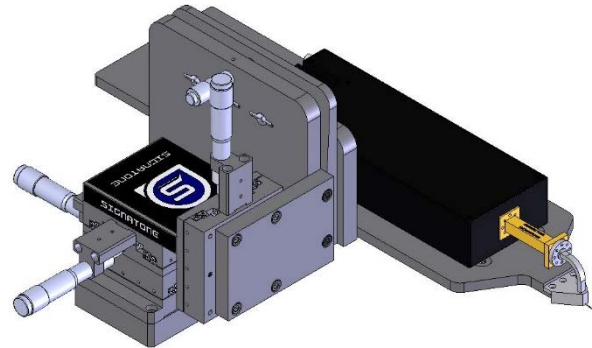
Configured with 2 S-LAP90 and S-M40 Positioners



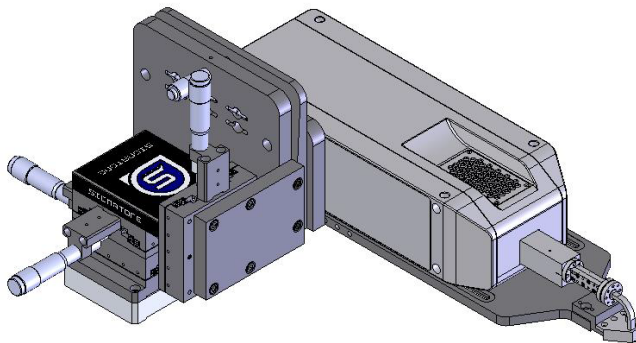
Configured with S-LAP90's and Frequency Extenders



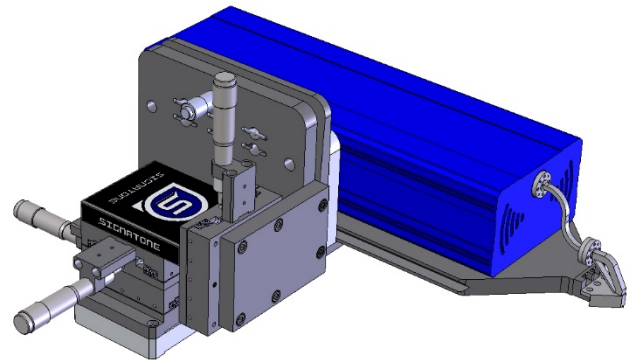
Copper Mountain Technologies Frequency Extender
Mounted on S-LAP90 Positioner



Virginia Diodes Inc. (VDI) Frequency Extender
Mounted on S-LAP90 Positioner

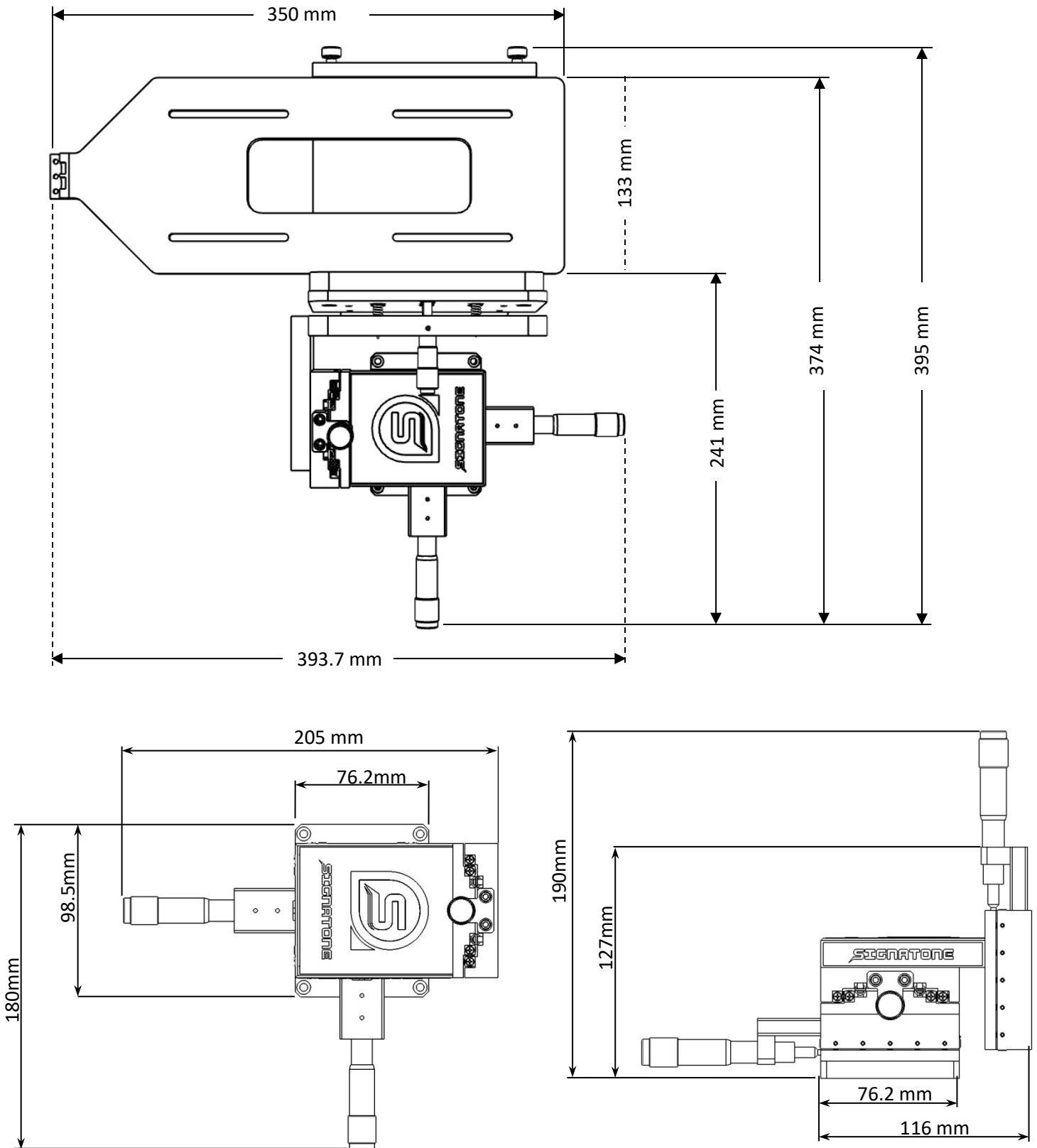


Rohde & Schwarz Frequency Extender
Mounted on S-LAP90 Positioner



OM Labs Frequency Extender
Mounted on S-LAP90 Positioner

❖ **DIMENSIONS S-LAP90 Bolt Down - Hard Mount**



❖ RF /mmW PROBE –SELECTION GUIDE



Waveguide Interface

Model Number	SP-50BT	SP-75BT	SP-90BT	SP-120BT
Frequency	33GHz-50GHz	50GHz-75GHz	75GHZ-90GHZ	75GHz -110GHz
Connector	N/A	N/A	N/A	N/A
Waveguide	WR-22	WR-15	WR-12	WR-10
Bias-T	SMA	SMA	SMA	SMA
Tip Configuration	GS/SG/GSG	GS/SG/GSG	GS/SG/GSG	GS/SG/GSG
Pitch Range	25μ - 1250μ	25μ - 1250μ	25μ - 1250μ	50μ - 450μ
Insertion Loss	<1.0db	<1.25db	<1.5db	<1.75db
Return Loss	>18db	>15db	>15db	>15db



Waveguide Interface

Model Number	SP-140BT	SP-170BT	SP-220BT	SP-325BT
Frequency	90GHz - 140GHz	110GHz - 170GHz	140GHz - 220GHz	220GHz - 325GHz
Connector	N/A	N/A	N/A	N/A
Waveguide	WR-8	WR-6	WR-5	WR-3
Bias-T	SMA	SMA	SMA	SSMC
Tip Configuration	GSG	GSG	GSG	GSG
Pitch Range	50-200	50-175	50-140	25-90
Insertion Loss	<1.85db	2.2db Typ.	2.75db Typ.	2.75db Typ.
Return Loss	>15db	>15db	>15db	>15db



Waveguide Interface

Model Number	SP-500BT	SP-750BT	SP-1100BT
Frequency	325GHz - 500GHz	500GHz - 750GHz	750GHz-1100GHz
Connector	N/A	N/A	N/A
Waveguide	WR-2.2	WR-1.5	WR-1
Bias-T	SSMC	SSMC	SSMC
Tip Configuration	GSG	GSG	GSG
Pitch Range	25-55	25-40	25-30
Insertion Loss	5db Typ.	8db Typ.	12db Typ.
Return Loss	>15db	>20-25db	>20-25db

❖ RF /mmW Calibration Substrate – SELECTION GUIDE



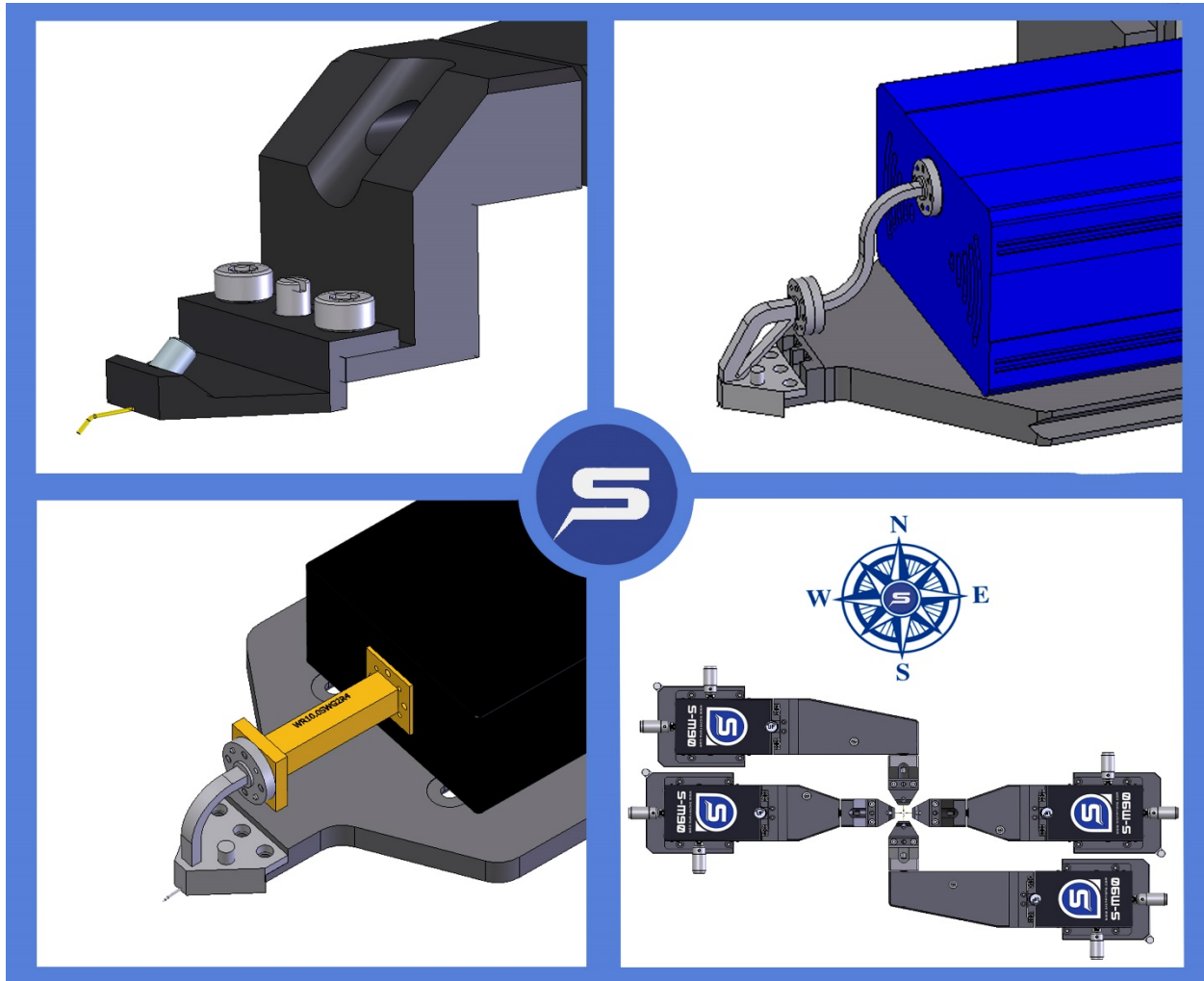
Calibration Substrates

GSG	SP-CS-5	SP-CS-9	SP-CS-10	SP-CS-18
Pad Size	50μ X 50μ	100μ X 100μ	150μ X 150μ	300μ X 300μ
	100μ X 100μ			
	150μ X 150μ			
Pitch Range	75μ - 250μ	250μ - 600μ	600μ - 1250μ	1250μ - 2540μ
GSG > 110GHz	SP-CS-15			
Pad Size	25μ X 25μ			
Pitch Range	40μ - 150μ (SOLT)			
	30μ - 150μ (LRM)			

❖ **WARRANTY**

- 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.



- North America: Sales.NA@signatone.com
- Europe: Sales.Europe@signatone.com
- Asia: Sales.Asia@signatone.com

