DC~110 GHz GSGSG Probe

Model: VST-110G-GSGSG-XXX

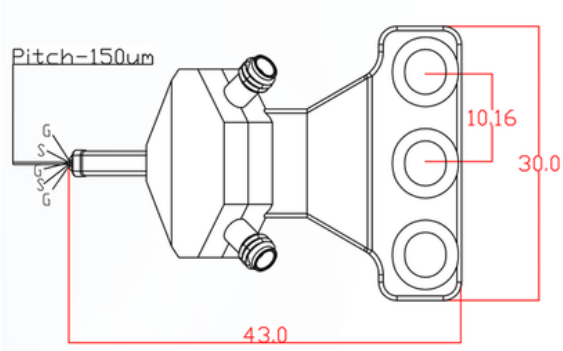
Product Overview

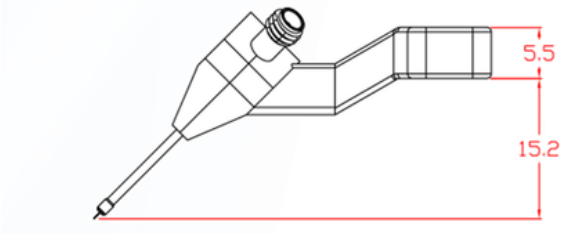
The Vinstronics VST-110G-GSGSG-XXX is a W-band differential RF probe designed for demanding high-frequency measurements up to 110 GHz. Its GSGSG contact geometry places a dedicated ground between the two signal paths, helping control return currents, improve signal isolation, and reduce unwanted coupling for accurate differential and mixed-mode characterization.



Key Features

- **Interleaved Ground Architecture**: Central ground separation between signal paths helps improve isolation and suppress high-frequency coupling.
- **Controlled Return Paths**: GSGSG geometry provides dedicated ground references for stable differential and mixed-mode measurements.
- **High-Frequency Signal Fidelity**: Designed to preserve measurement integrity through W-band frequencies.
- **Precision Pad Access**: Configurable pitch supports dense differential pad layouts across wafer, package, and device-level test structures.
- **Stable Probe Contact**: Designed for repeatable probing and consistent electrical performance in demanding measurement environments.
- **W-Band Test Integration**: 1.0 mm RF interfaces support integration with high-frequency VNA and probe-station setups.





Typical Applications

- 224 Gbps PAM4 SerDes and high-speed differential interconnect characterization
- W-band and 6G differential RFIC/MMIC characterization
- Co-packaged optics and advanced package signal integrity evaluation
- 77–81 GHz automotive radar IC and front-end testing

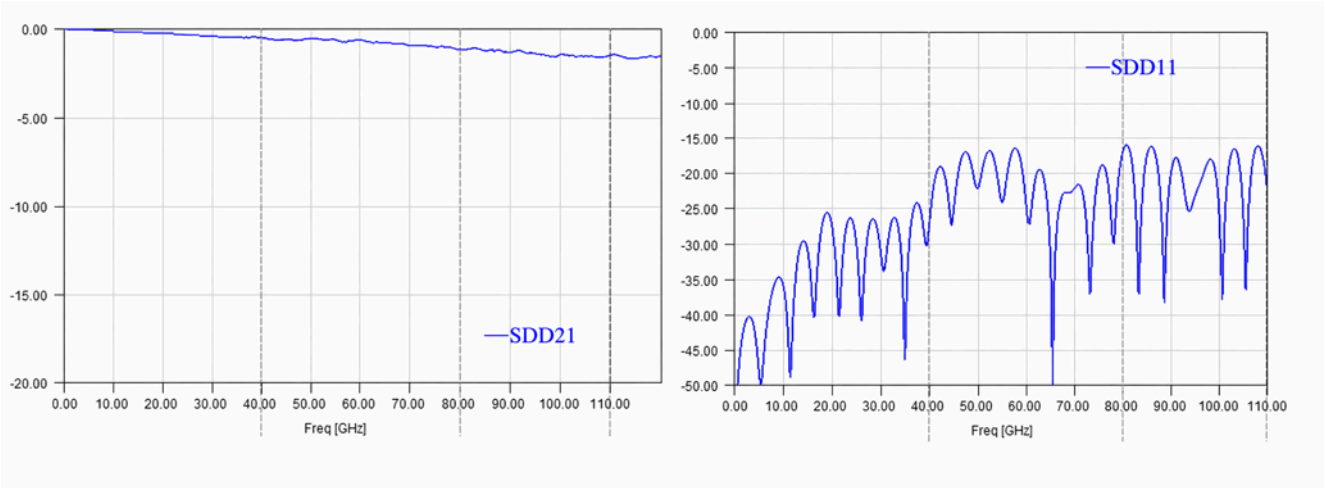
Electrical Specifications

Frequency range	DC-110 GHz
Insertion loss	Spec:<3.5 dB
Return loss	Spec:>10 dB
Impedance	100 Ω
DC current	≤1 A
DC voltage	≤100 V
RF power	≤5 W

Mechanical Characteristics

Connector	1.00 mm Female
Tip configurations	GSGSG
Connector angle	45-degree
Pitch range	100μm-1250μm or customized
Standard pitch step	50μm
Tip size	
from 100 um to 250 um	25μm
from 300 um to 1250 um	50μm

Typical Performance: DC~110 GHz GSGSG Probe



Ordering Information

Model format

VST-[Frequency]-[Tip Configuration]-[Pitch]

Where:

- **Frequency** = maximum operating frequency, e.g. 40G, 67G, 110G
- **Tip Configuration** = GS, SG, GSG, GSSG, GSGSG, SS, etc.
- **Pitch** = nominal probe-tip pitch in micrometers

Example:

VST-67G-GSSG-150

(67 GHz GSSG probe with 150 µm pitch)

Custom versions are available upon request (special pitch, angle, or connector).

Recommended Accessories

- Calibration substrates (SOLT / LRM compatible)
- RF cables and adapters
- Probe positioners and probe stations
- Cleaning kits and spare tips

Handling & Usage Notes

- Always perform calibration at the probe tip for best accuracy
- Avoid excessive force to preserve tip alignment
- Keep contact surfaces clean to maintain low contact resistance
- Store probes in protective cases when not in use

Contact & Support

For quotations, technical support, or customization requests:

Vinstronics

Email: sales@vinstronics.com

Website: www.vinstronics.com/rf-probe/