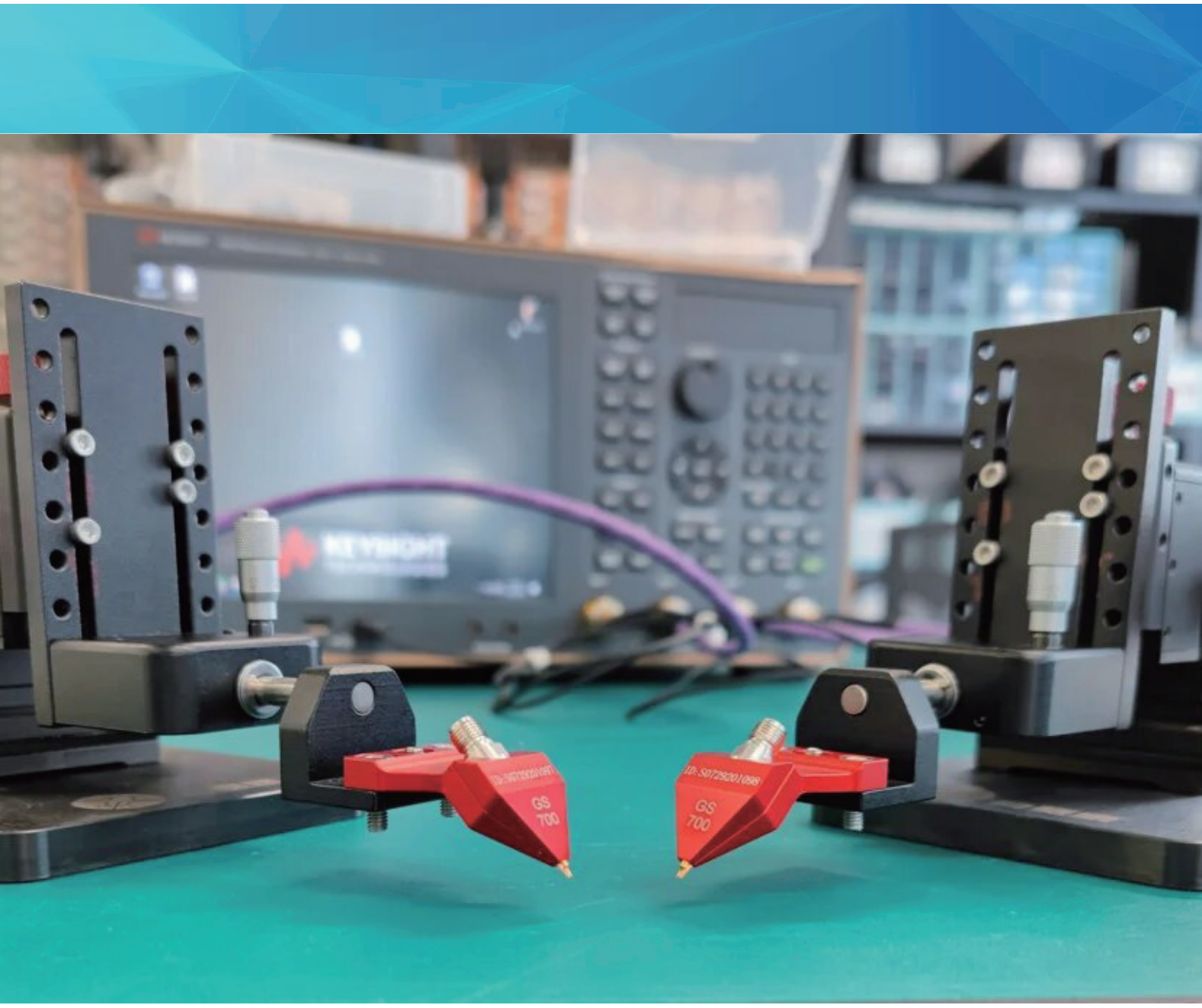
Vinstronics

Probe Selection Guide

High-frequency probe models for wafer, package, and board-level characterization.



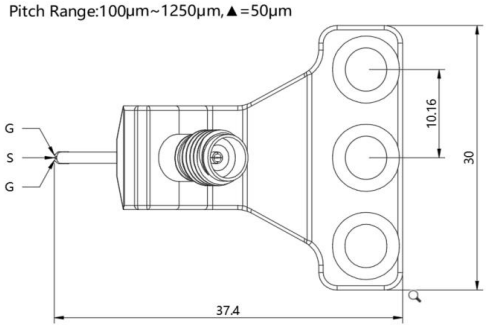
40GHz Probe Model:VST-40G-GSG-XXX



Typical Electrical Characteristics

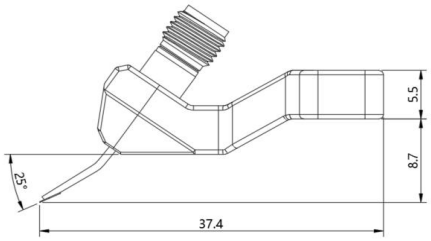
Frequency range	DC-40GHz
Insertion loss	Spec:<0.6dB
Return loss	Spec:>18dB
Impedance	50Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w

Pitch Range:100μm~1250μm,▲=50μm

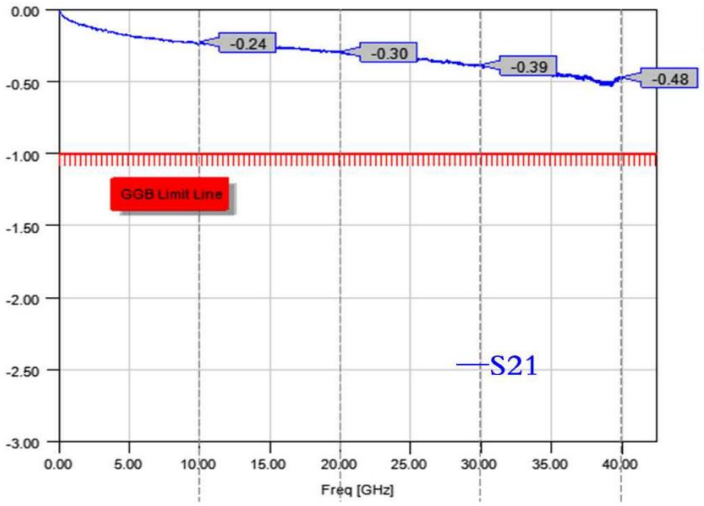


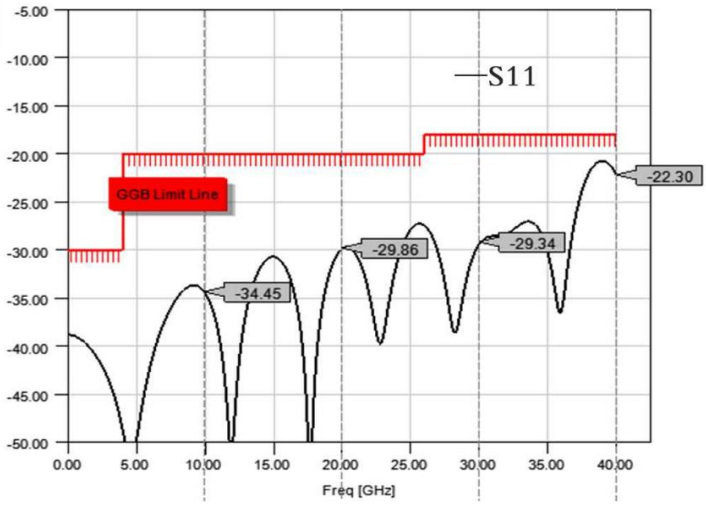
Mechanical Characteristics

Connector	2.92mm Female
Tip configurations	GSG
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um



Typical Electrical Characteristics: 40 GHz GSG Probe，150 micron pitch





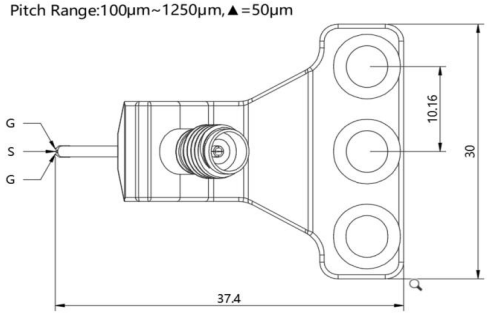
40GHz Probe Model:VST-40G-GSG-XXX-DF

Typical Electrical Characteristics

Frequency range	DC-40GHz
Insertion loss	Spec:<0.6dB
Return loss	Spec:>18dB
Impedance	50Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w

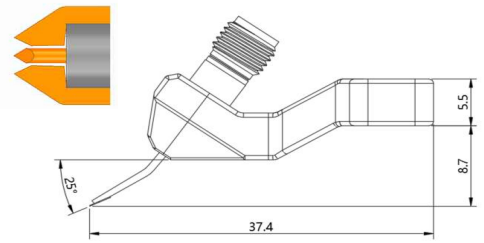


Pitch Range:100μm~1250μm,▲=50μm

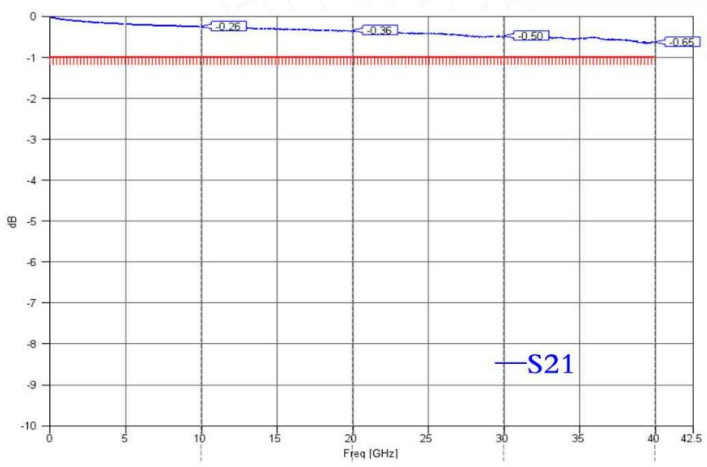


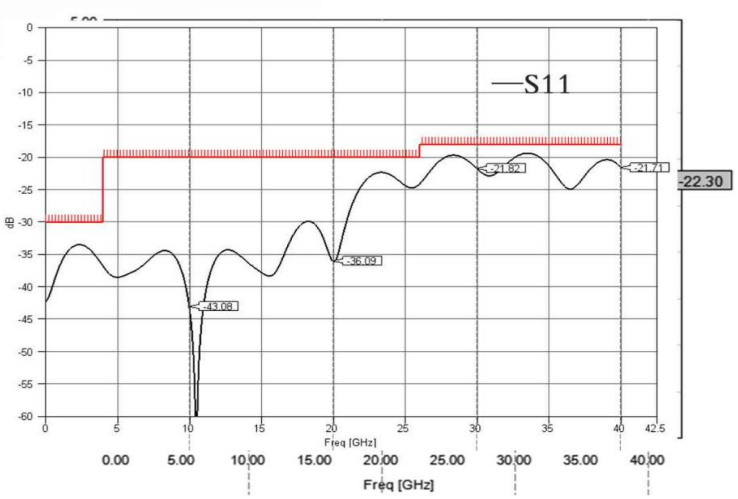
Mechanical Characteristics

Connector	2.92mm Female
Tip configurations	GSG
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um



Typical Electrical Characteristics: 40 GHz GSG Probe，150 micron pitch





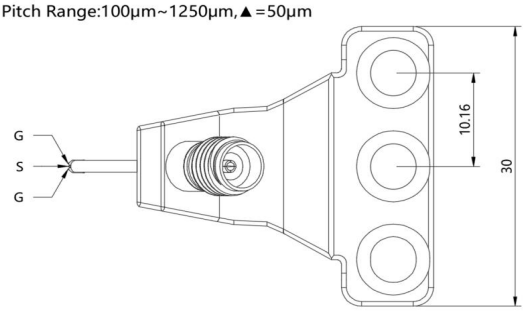
40GHz Probe Model:VST-40G-GSG-XXX-LL

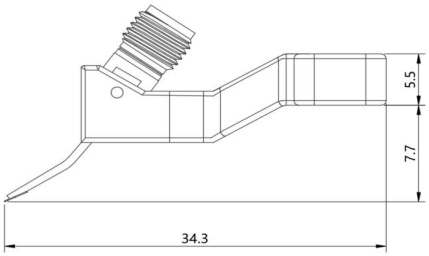


Typical Electrical Characteristics

Frequency range	DC-40GHz
Insertion loss	Spec:<0.4dB
Return loss	Spec:>18dB
Impedance	50Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w

Pitch Range:100μm~1250μm,▲=50μm

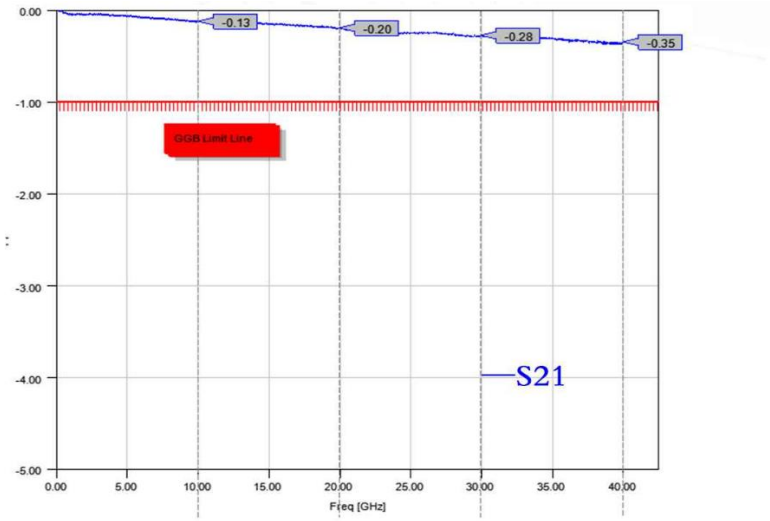


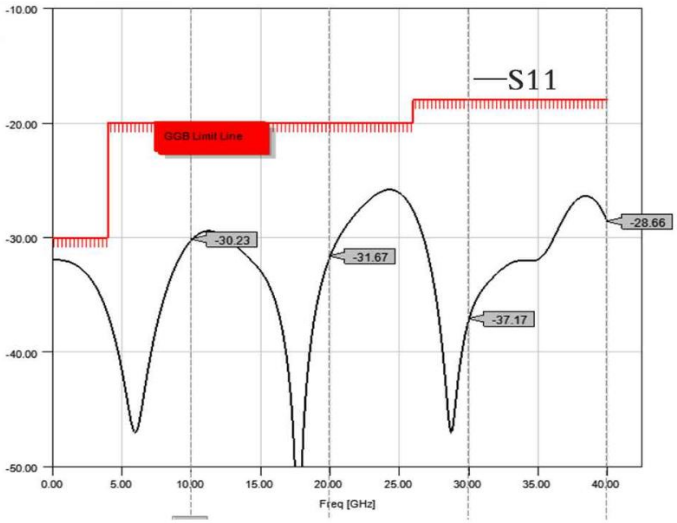


Mechanical Characteristics

Connector	2.92mm Female
Tip configurations	GSG
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um

Typical Electrical Characteristics: 40 GHz GSG Probe，175 micron pitch

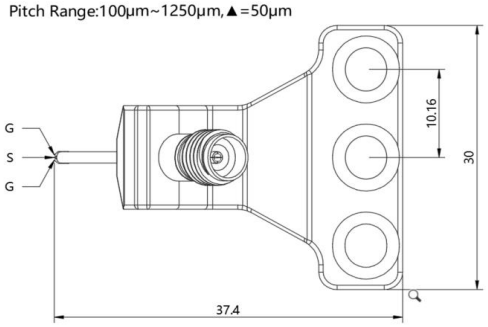


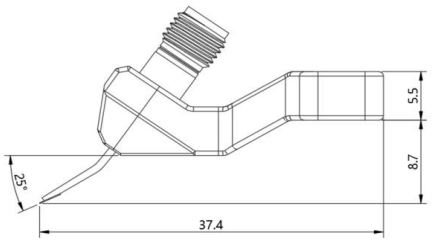


67GHz Probe Model:VST-67G-GSG-XXX



Pitch Range:100μm~1250μm,▲=50μm





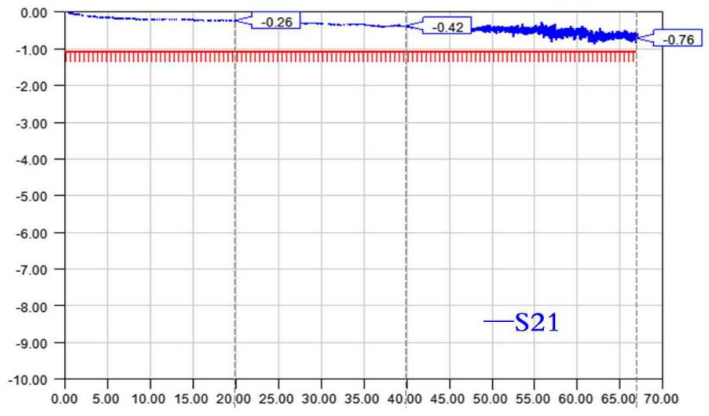
Typical Electrical Characteristics

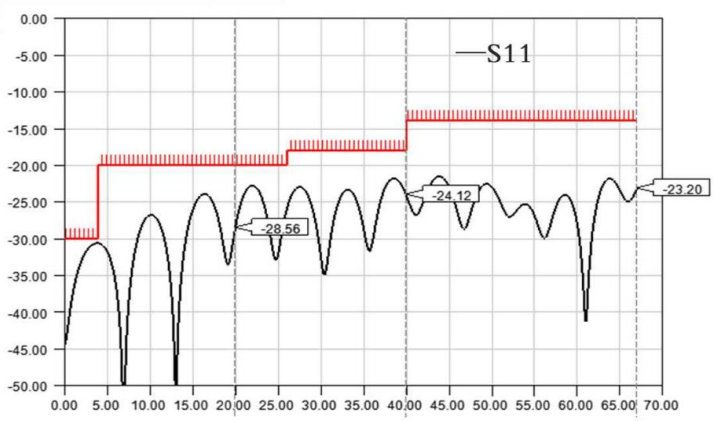
Frequency range	DC-67GHz
Insertion loss	Spec:<1.1dB
Return loss	Spec:>14dB
Impedance	50Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w

Mechanical Characteristics

Connector	1.85mm Female
Tip configurations	GSG
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um

Typical Electrical Characteristics: 67 GHz GSG Probe，150 micron pitch





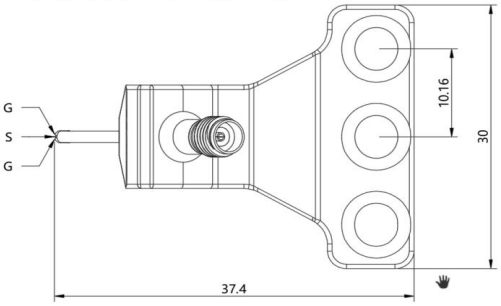
110GHz Probe Model:VST-110G-GSG-XXX



Typical Electrical Characteristics

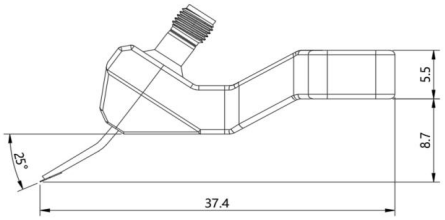
Frequency range	DC-110GHz
Insertion loss	Spec:<2.2dB
Return loss	Spec:>12dB
Impedance	50Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w

Pitch Range:100μm~1250μm,▲=50μm

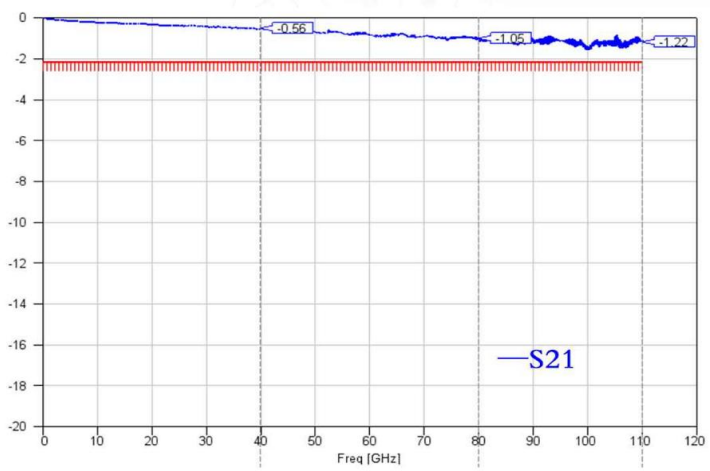


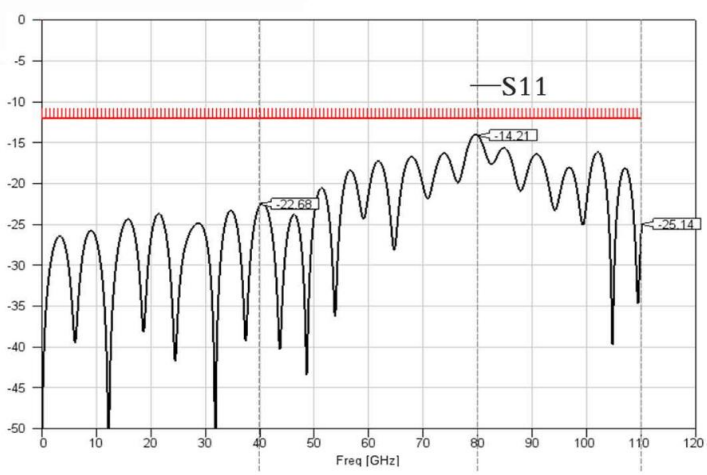
Mechanical Characteristics

Connector	1.0mm Female
Tip configurations	GSG
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um



Typical Electrical Characteristics: 110 GHz GSG Probe，150 micron pitch



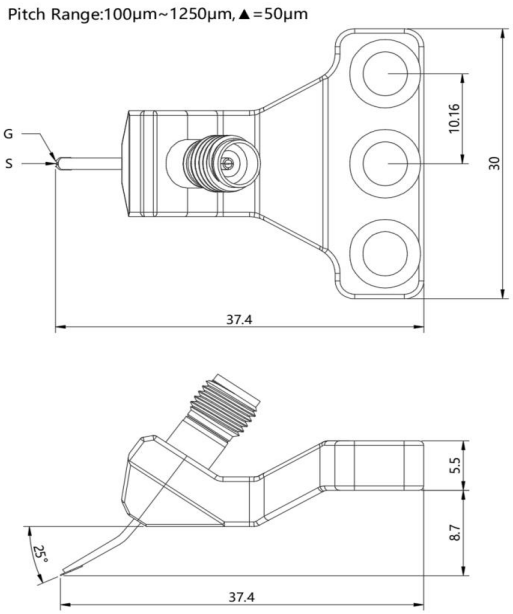


40GHz Probe Model:VST-40G-GS-XXX



Typical Electrical Characteristics

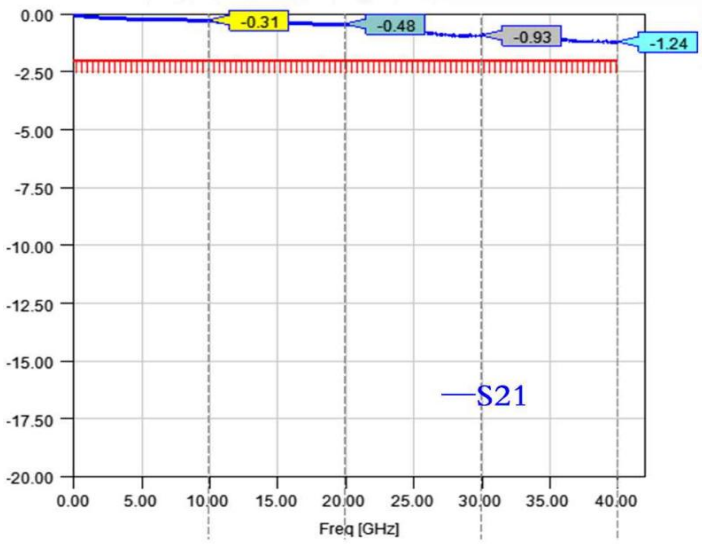
Frequency range	DC-40GHz
Insertion loss	Spec:<2.0dB
Return loss	Spec:>12dB
Impedance	50Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w

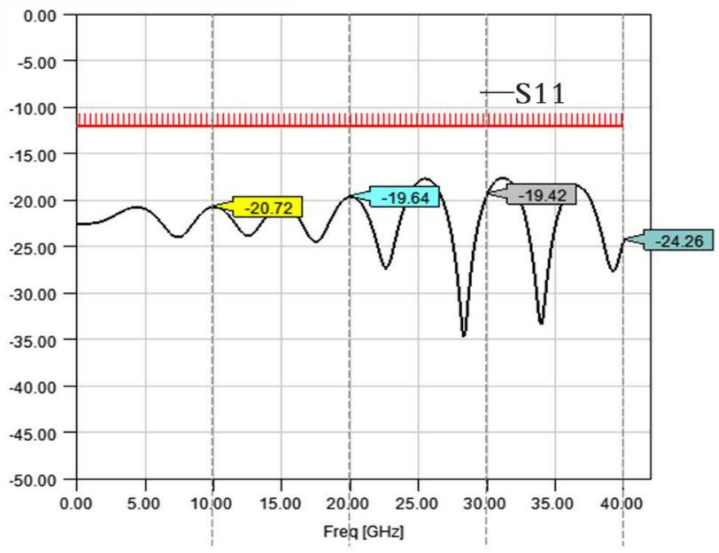


Mechanical Characteristics

Connector	2.92mm Female
Tip configurations	GS/SG
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um

Typical Electrical Characteristics: 40 GHz GS Probe，150 micron pitch



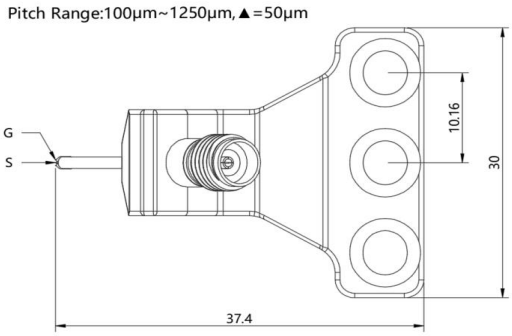


67GHz Probe Model:VST-67G-GS-XXX



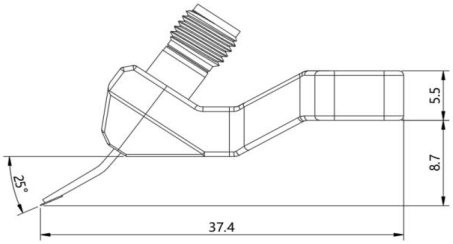
Typical Electrical Characteristics

Frequency range	DC-67GHz
Insertion loss	Spec:<3.0dB
Return loss	Spec:>12dB
Impedance	50Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w

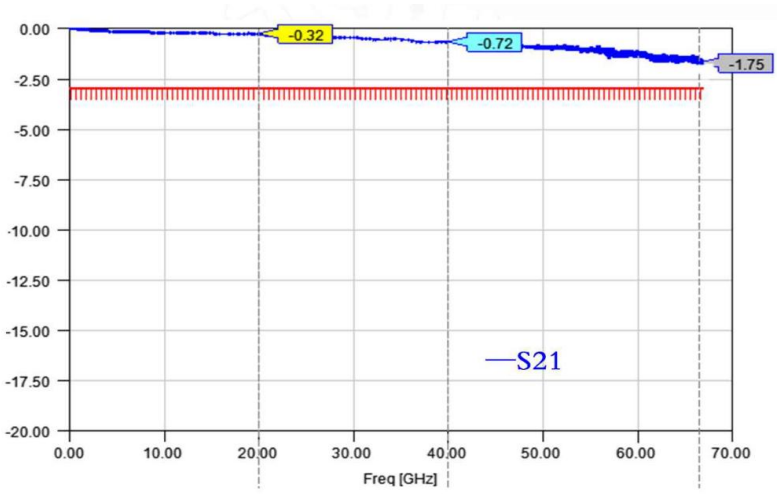


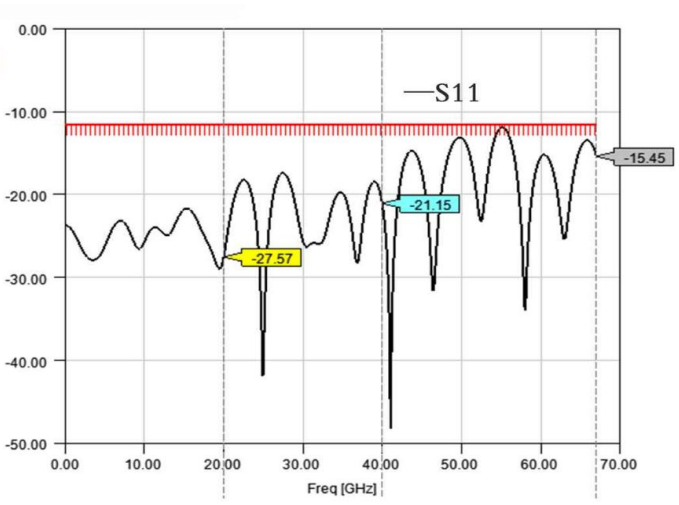
Mechanical Characteristics

Connector	1.85mm Female
Tip configurations	GS/SG
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um



Typical Electrical Characteristics: 67 GHz GS Probe，150 micron pitch





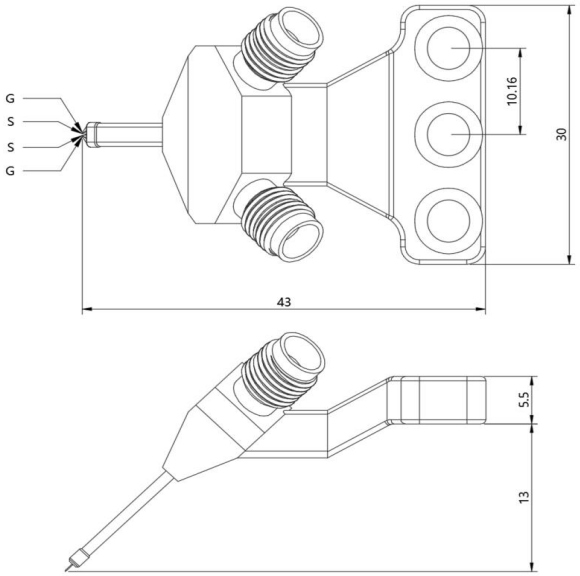
40GHz Probe Model:VST-40G-GSSG-XXX



Typical Electrical Characteristics

Frequency range	DC-40GHz
Insertion loss	Spec:<2.0dB
Return loss	Spec:>12dB
Impedance	100Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w

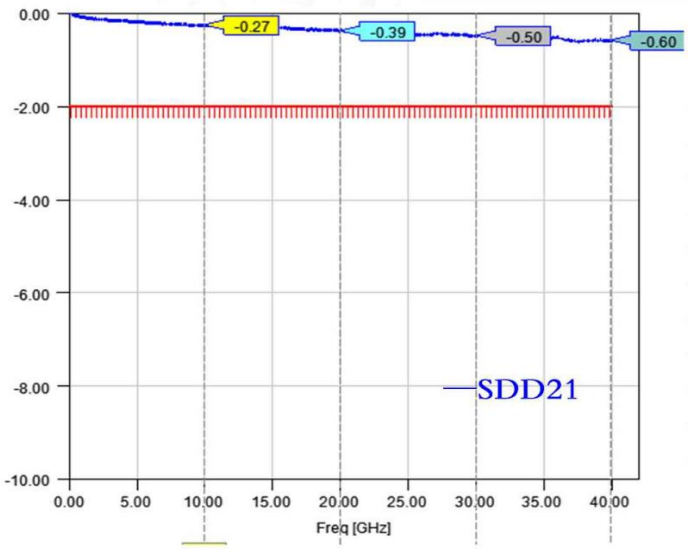
Pitch Range:150μm~1250μm,▲=50μm

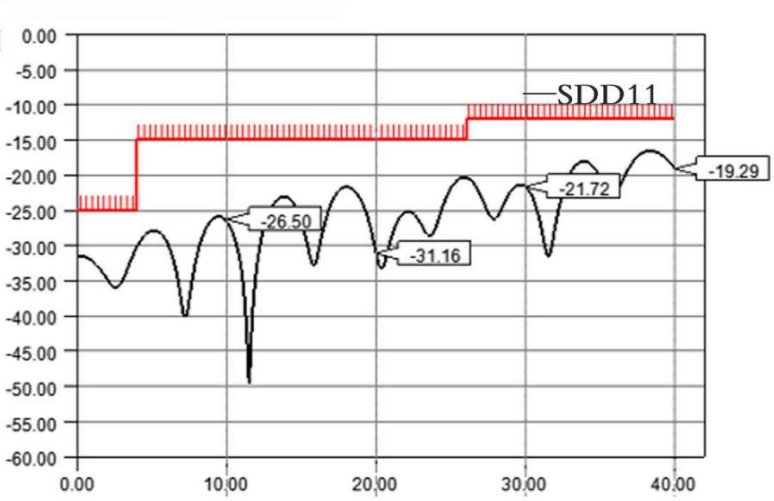


Mechanical Characteristics

Connector	2.92mm Female
Tip configurations	GSSG
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um

Typical Electrical Characteristics: 40 GHz GSSG Probe，150 micron pitch



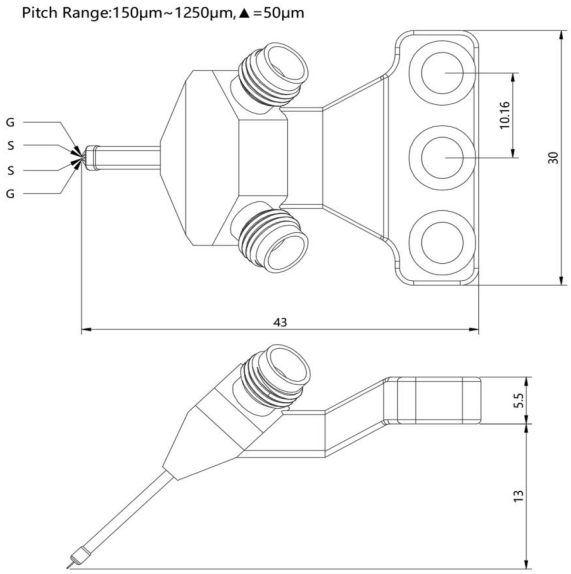


67GHz Probe Model:VST-67G-GSSG-XXX



Typical Electrical Characteristics

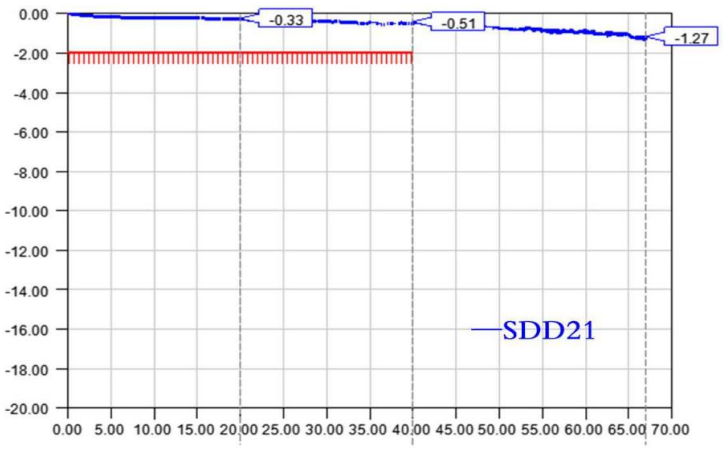
Frequency range	DC-67GHz
Insertion loss	Spec:<2.0dB
Return loss	Spec:>12dB
Impedance	50Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w

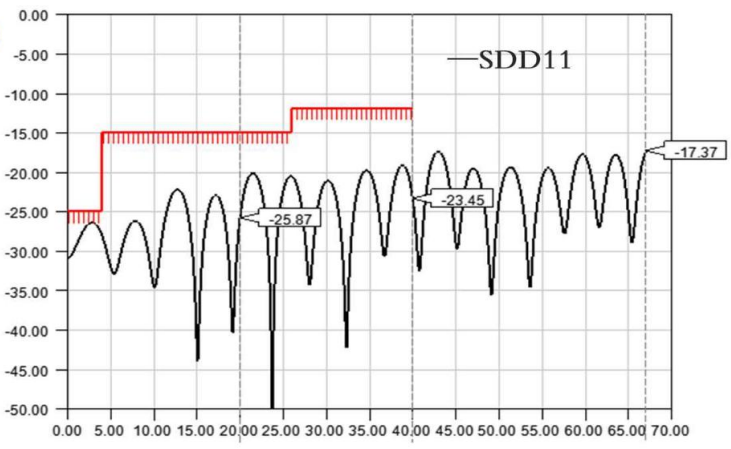


Mechanical Characteristics

Connector	1.85mm Female
Tip configurations	GSSG
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um

Typical Electrical Characteristics: 67 GHz GSSG Probe，150 micron pitch



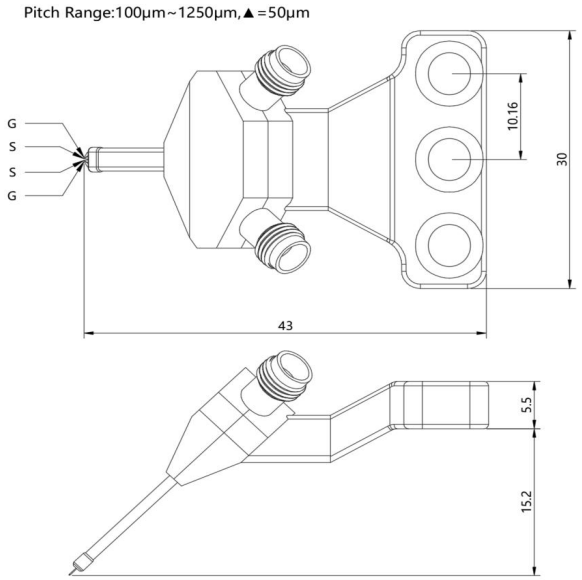


110GHz Probe Model:VST-110G-GSSG-XXX

Typical Electrical Characteristics

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

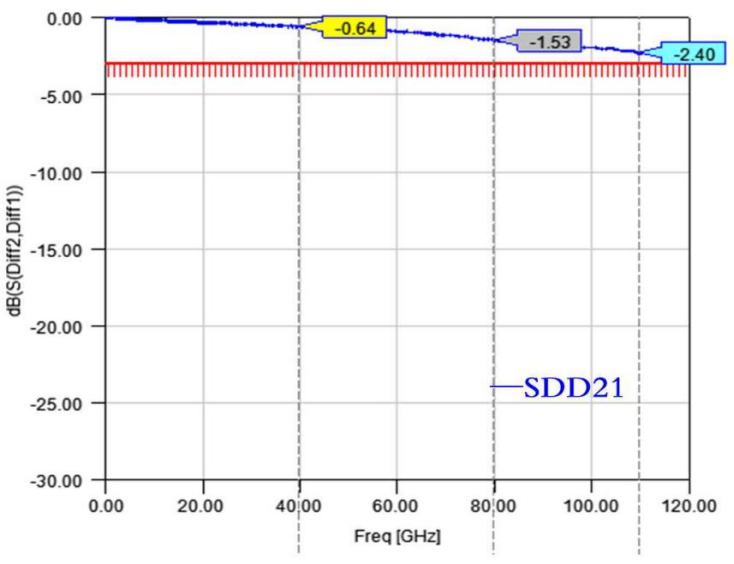


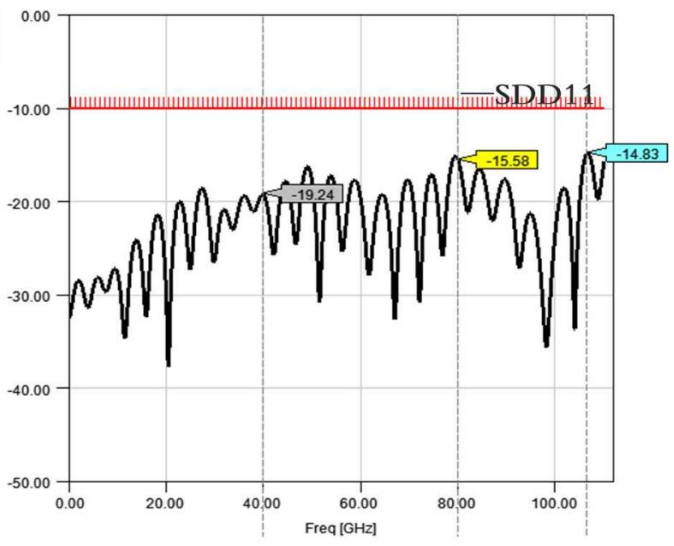


Mechanical Characteristics

Connector	1.00mm Female
Tip configurations	GSSG
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um

Typical Electrical Characteristics: 110 GHz GSSG Probe，150 micron pitch

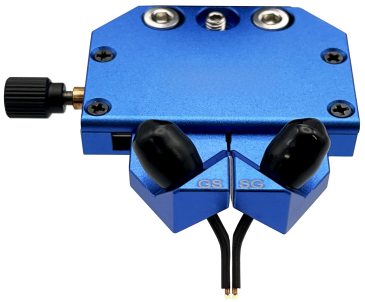


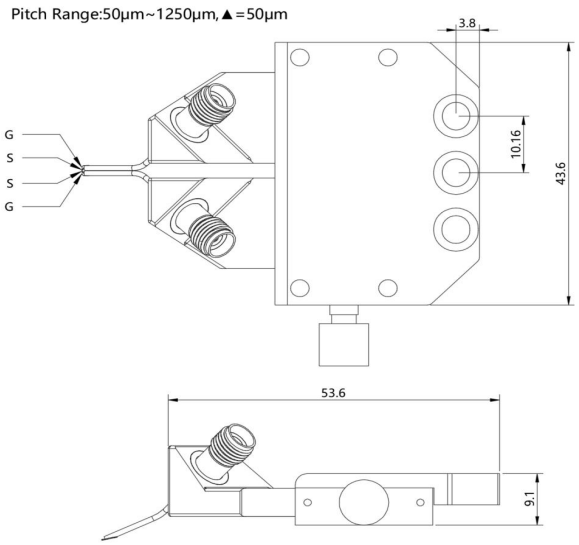


40GHz Probe Model:VST-40G-GSSG-XXX-AJ

Typical Electrical Characteristics

Frequency range	DC-40GHz
Insertion loss	Spec:<2.0dB
Return loss	Spec:>12dB
Impedance	100Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w

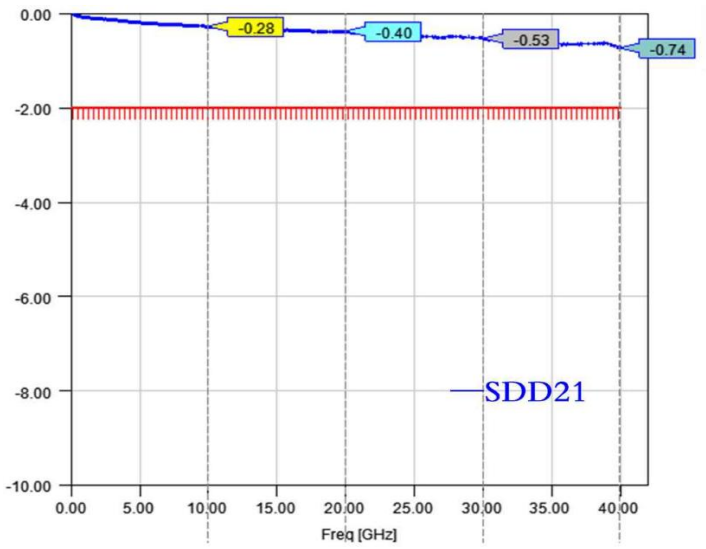


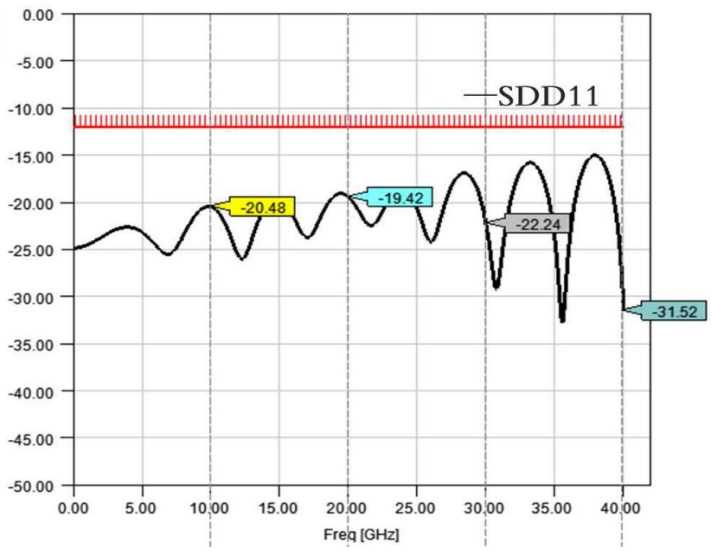


Mechanical Characteristics

Connector	2.92mm Female
Tip configurations	GSSG-AJ
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um

Typical Electrical Characteristics: 40 GHz GSSG Probe-AJ

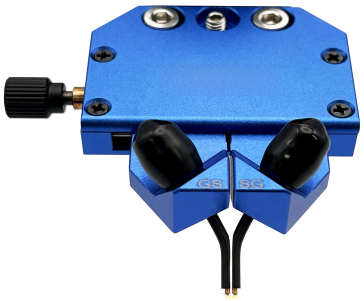




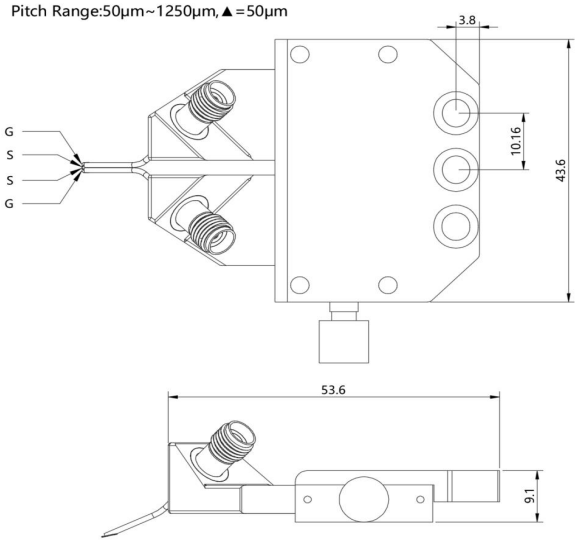
67GHz Probe Model:VST-67G-GSSG-XXX-AJ

Typical Electrical Characteristics

Frequency range	DC-67GHz
Insertion loss	Spec:<2.0dB
Return loss	Spec:>12dB
Impedance	100Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w



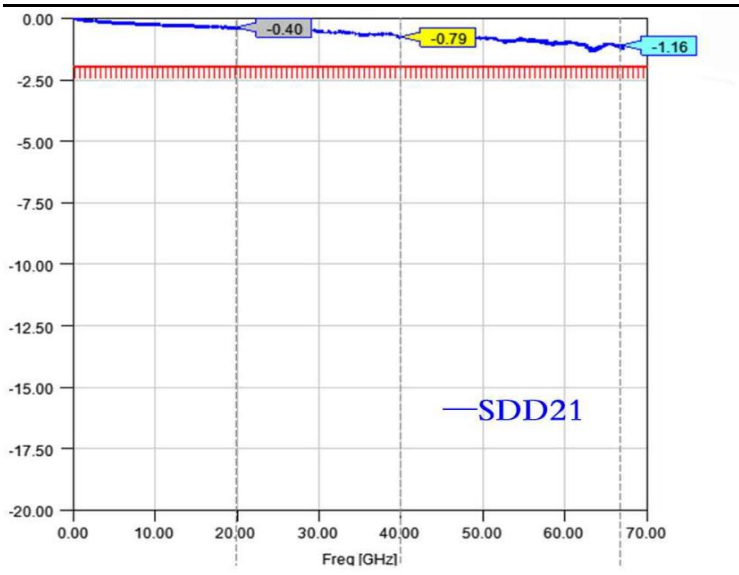
Pitch Range:50μm~1250μm,▲=50μm

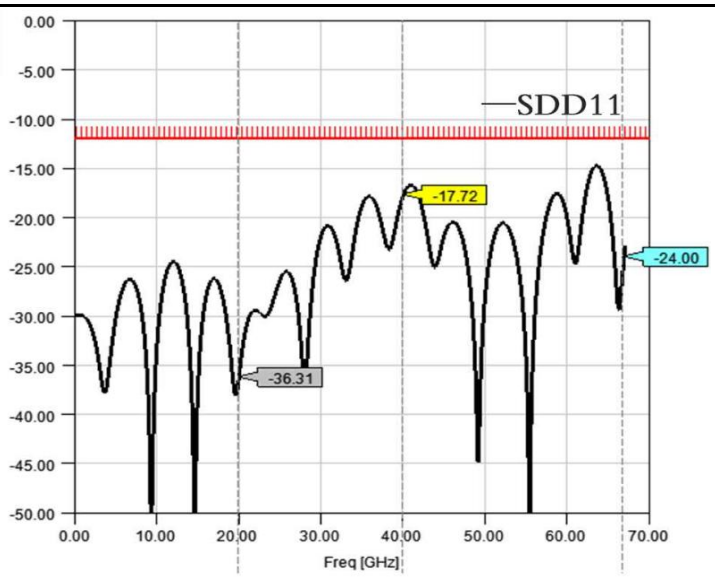


Mechanical Characteristics

Connector	1.85mm Female
Tip configurations	GSSG-AJ
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um

Typical Electrical Characteristics: 67 GHz GSSG Probe-AJ

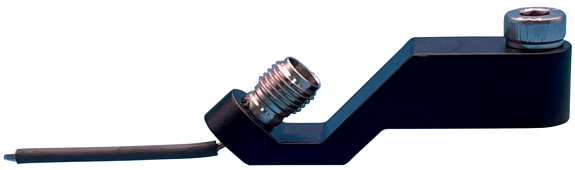


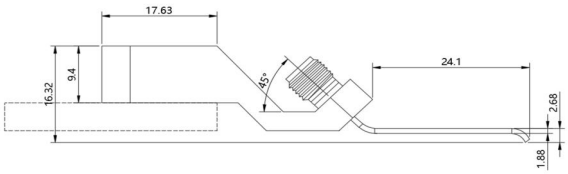


40GHz Probe Model:VST-40G-GSG-XXX-SH

Typical Electrical Characteristics

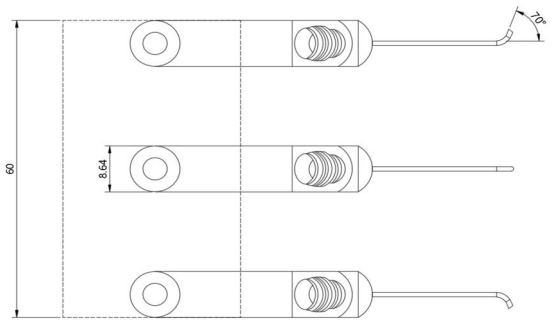
Frequency range	DC-40GHz
Insertion loss	Spec:<0.6dB
Return loss	Spec:>18dB
Impedance	50Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w



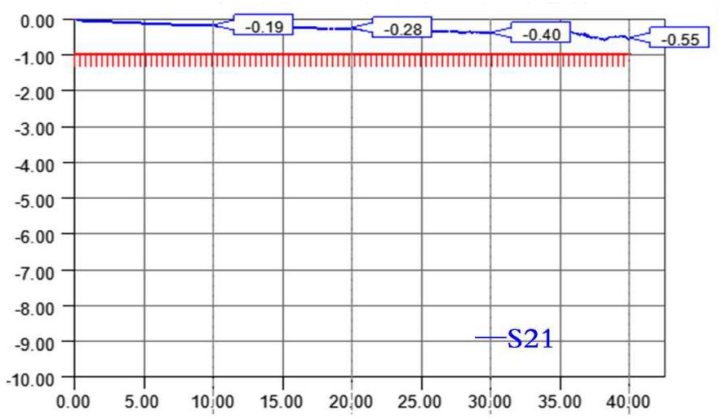


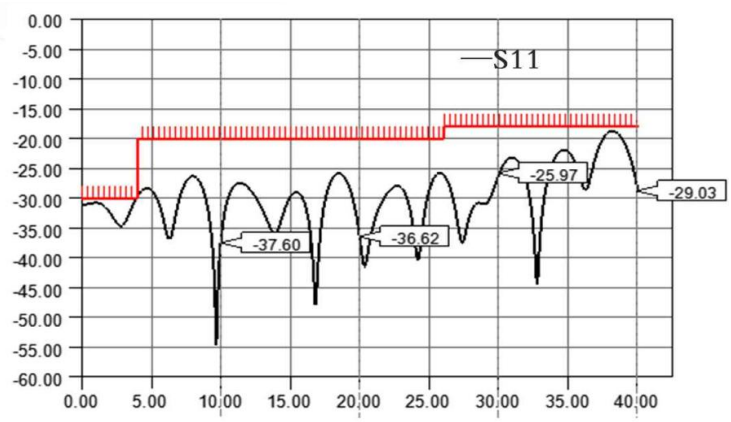
Mechanical Characteristics

Connector	2.92mm Female
Tip configurations	GSG
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um

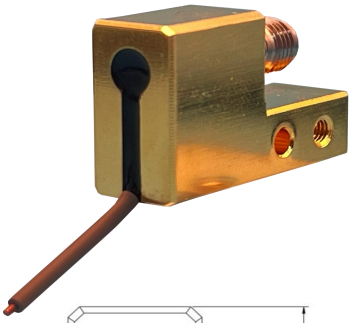


Typical Electrical Characteristics: 40 GHz GSG Probe



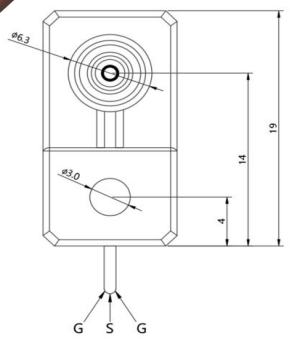


40GHz Probe Model:VST-40G-GSG-XXX-MW/TU2



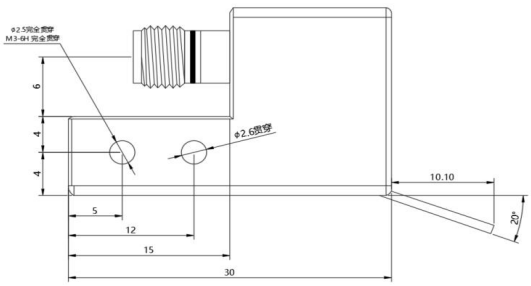
Typical Electrical Characteristics

Frequency range	DC-40GHz
Insertion loss	Spec:<0.6dB
Return loss	Spec:>18dB
Impedance	50Ω
DC current	≤1A
DC voltage	≤100V
RF power	≤5w

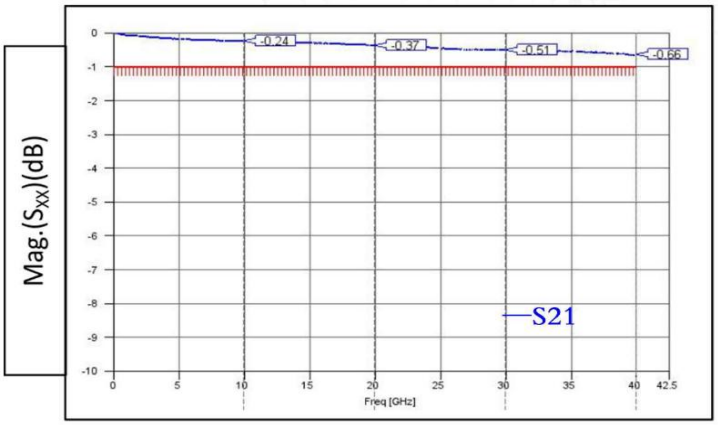


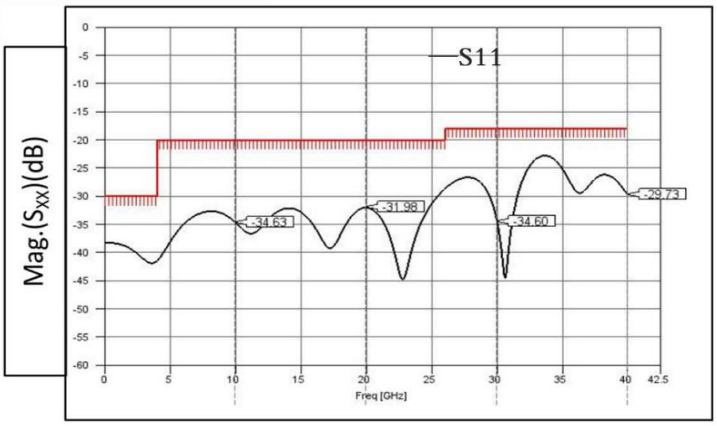
Mechanical Characteristics

Connector	2.92mm Female
Tip configurations	GSG-DC
Connector angle	45-degree
Pitch range	40μm-3mm
Standard pitch step	50um
Tip size:	
from 100 um to 250 um	25um
from 300 um to 1250 um	50um



Typical Electrical Characteristics: 40 GHz GSG Probe

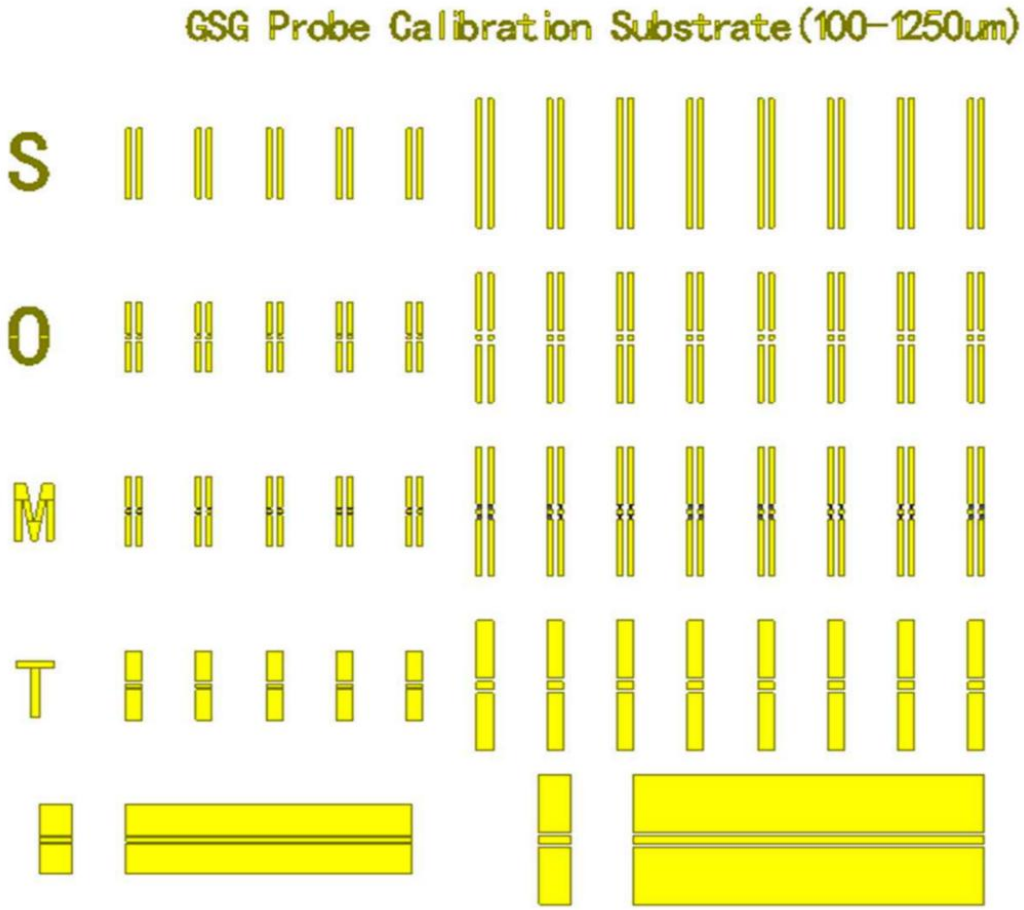




VST-GSG-Probe Calibration Substrate(100-1250um)

Material	Alumina
Elements design	Coplanar
Supported calibration methodse	SOLT
Thickness	635 μm
Size	20x20mm
Nominal line characteristic impedance	50 Ω
Nominal resistance of the load	50 Ω
Typical load trimming accuracy error	± 0.3 %
Open standard	Au pads on substrate
Calibration verification elements	Yes

Probe Configuration	GSG
Supported probe pitch	100-1250μm
Number of SOLT standard groups	
from 100 um to 150 um	10
from 150 um to 1250 um	16



Website

For more information refer to our website
https://vinstronics.com/rf-probe/

Vinstronics

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