

Model: TLVP8G12G-360
**Voltage Controlled Phase Shifter
 8-12GHz ,SMA Female**
Feature:

- Frequency Range: 8-12GHz
- High Phase Shift Accuracy
- High Phase Shift Range
- Single Positive Control Voltage

Electrical Specifications:

Parameter	Min	Typ	Max	Units
Frequency range	8-12			GHz
Phase Range		360		°
Insertion Loss		6		dB
Insertion Loss Temperature Coefficient		0.003		dB/ °C
Input Return Loss		10		dB
Output Return Loss		10		dB
Control Voltage Range	0	13		V
Control Current		5		mA
Phase Flatness		±15		°
Input Power for 0.1 dB Compression		25		dBm
Impedance	50			Ohms

Mechanical Specifications:

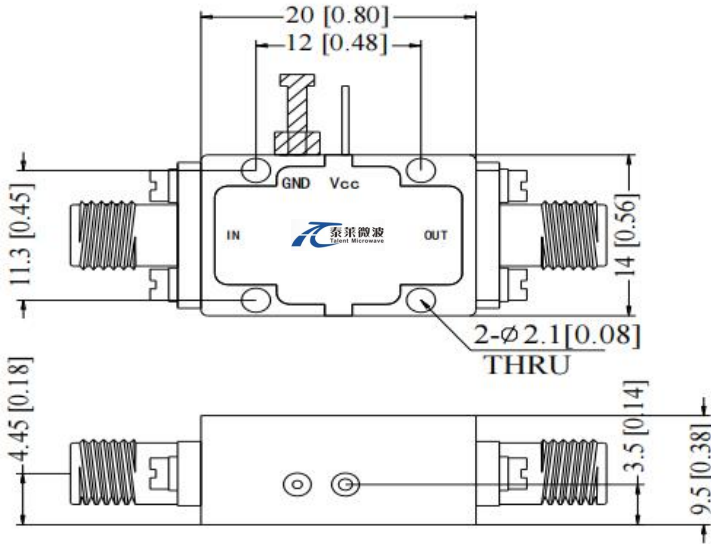
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
Size	20*14*9.5	mm
Weight	/	g

Absolute Maximum Ratings:

Parameter	Value
Control Voltage Range	+15V
RF Input Power No damage	+25dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit: mm



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	30,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msec half sin wave,3 axis both directions			

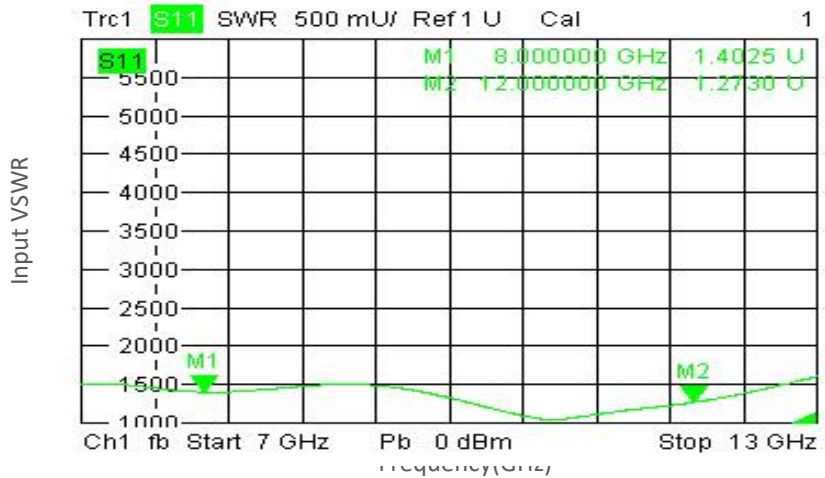
Ordering Information:

Part Number	Description	Revision
TLVP8G18G-360	Voltage Controlled Phase Shifter ,8-18GHz,SMA Female	Rev.1.1

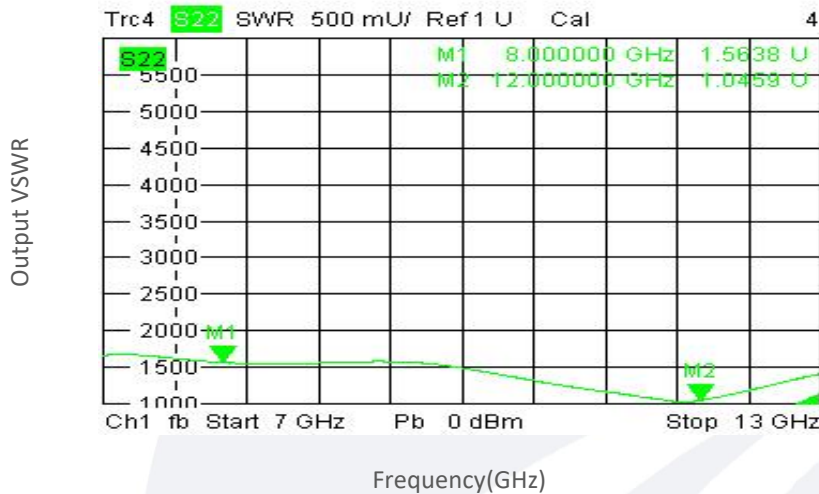
Typical Performance Data:

0V-0°:

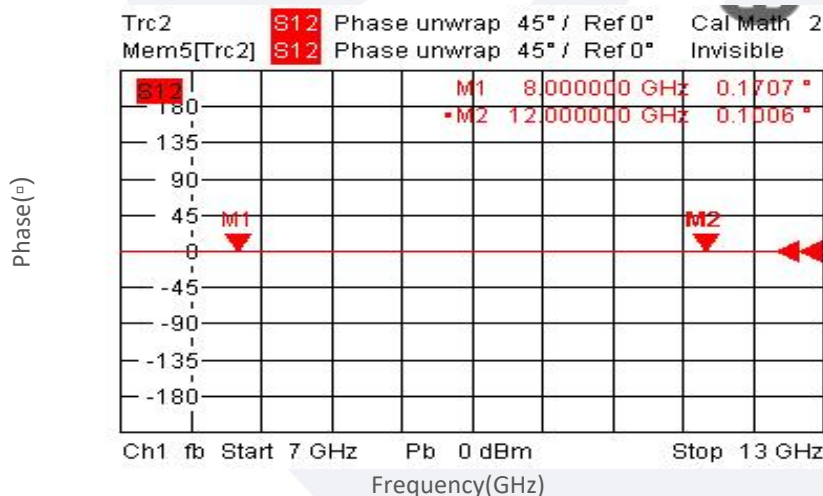
Input VSWR vs Frequency



Output VSWR vs Frequency



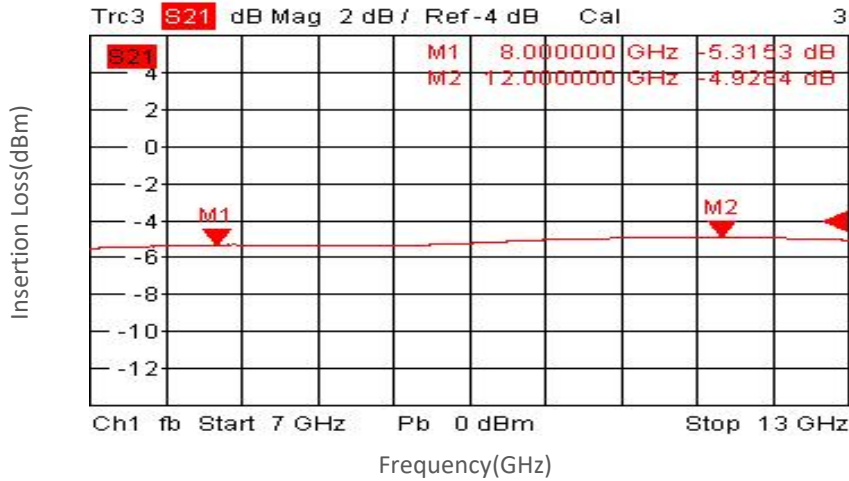
Phase vs Frequency



Typical Performance Data:

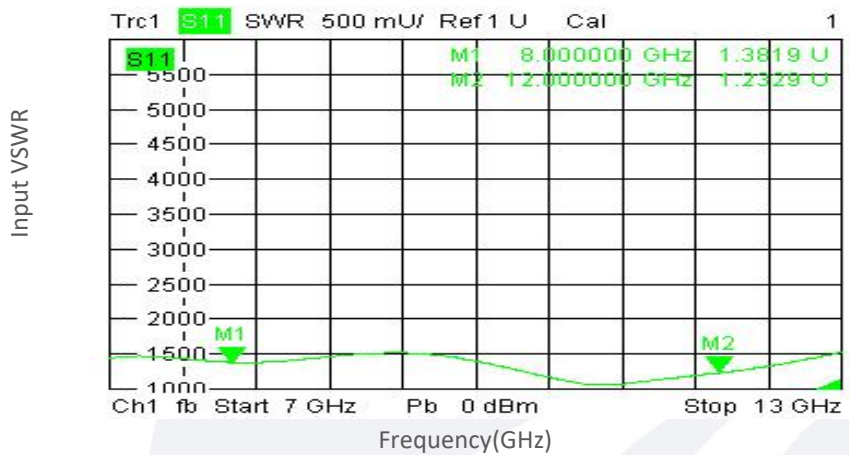
0V-0°:

Insertion Loss vs Frequency

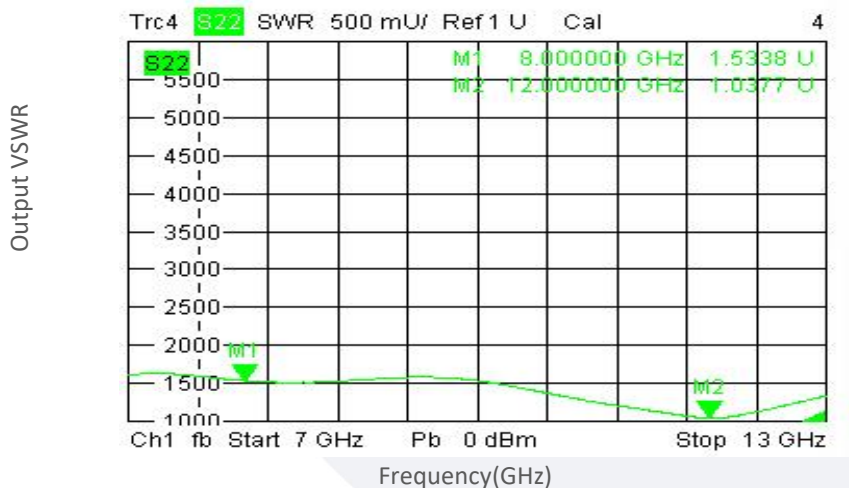


0.12V-12°:

Input VSWR vs Frequency



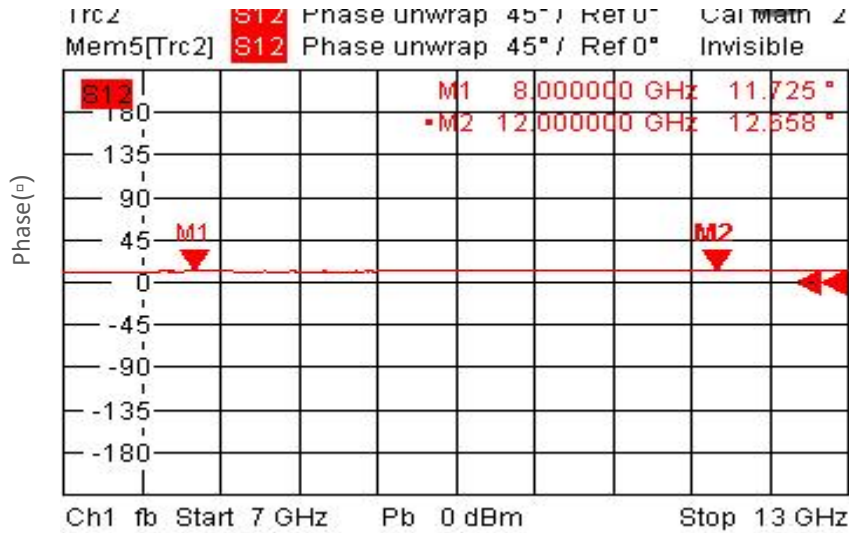
Output VSWR vs Frequency



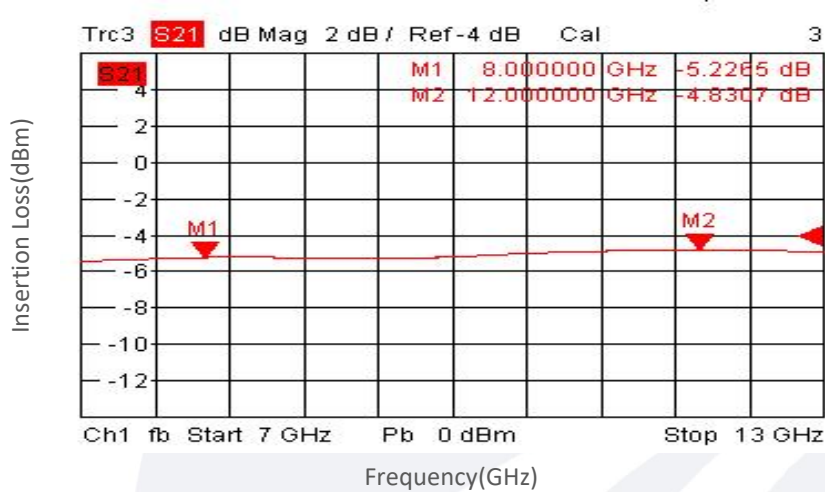
Typical Performance Data:

0.12V-12°:

Phase vs Frequency

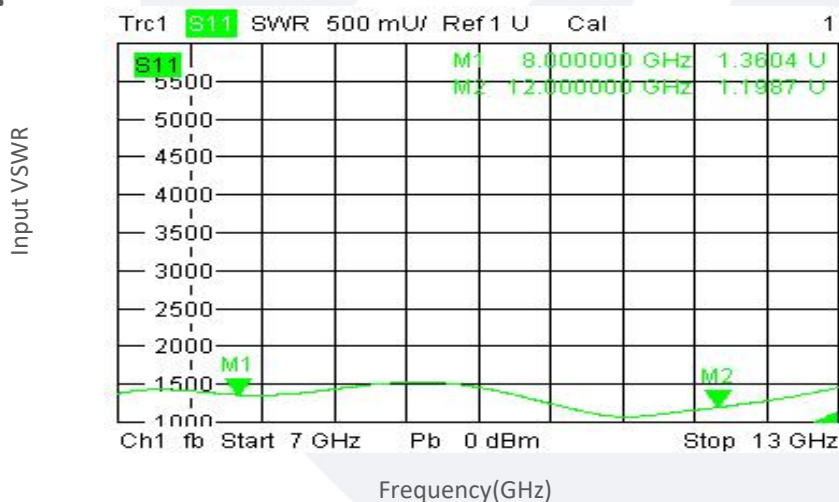


Insertion Loss vs Frequency



0.25V-24°:

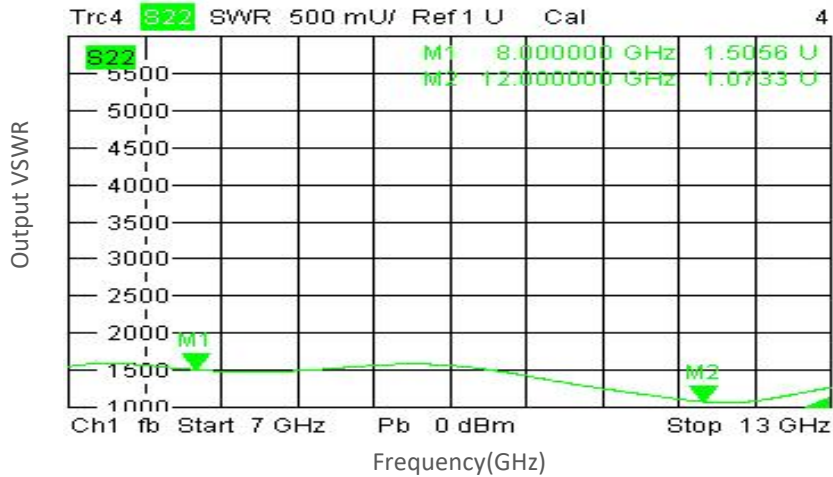
Input VSWR vs Frequency



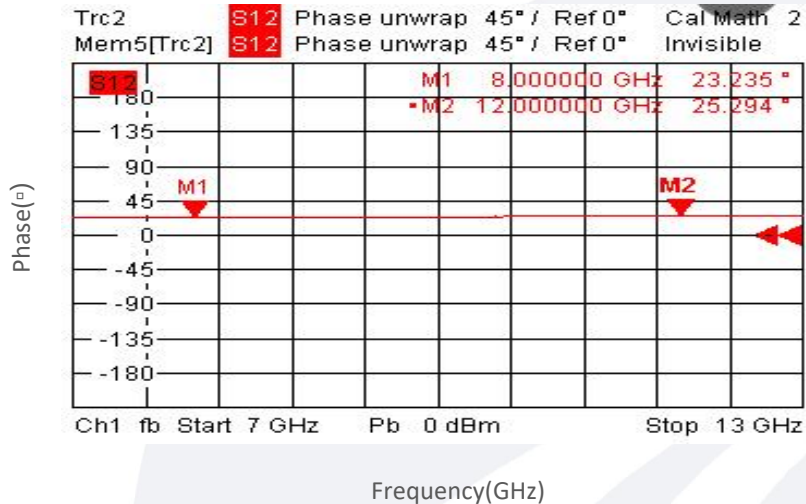
Typical Performance Data:

0.25V-24°:

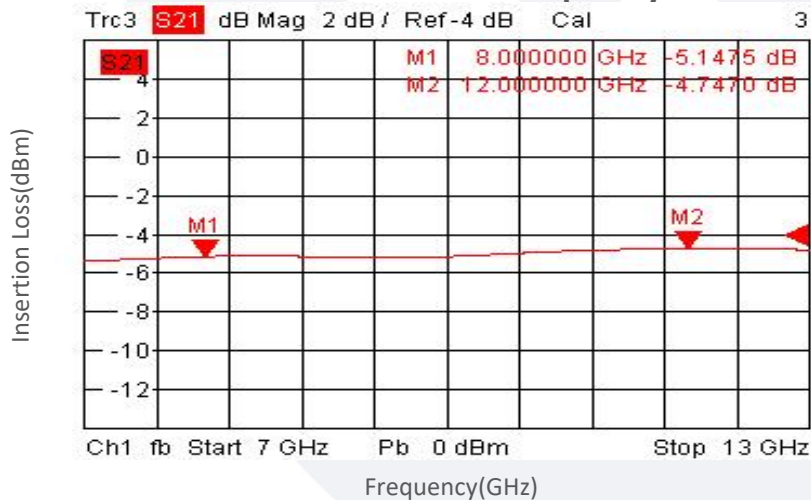
Output VSWR vs Frequency



Phase vs Frequency



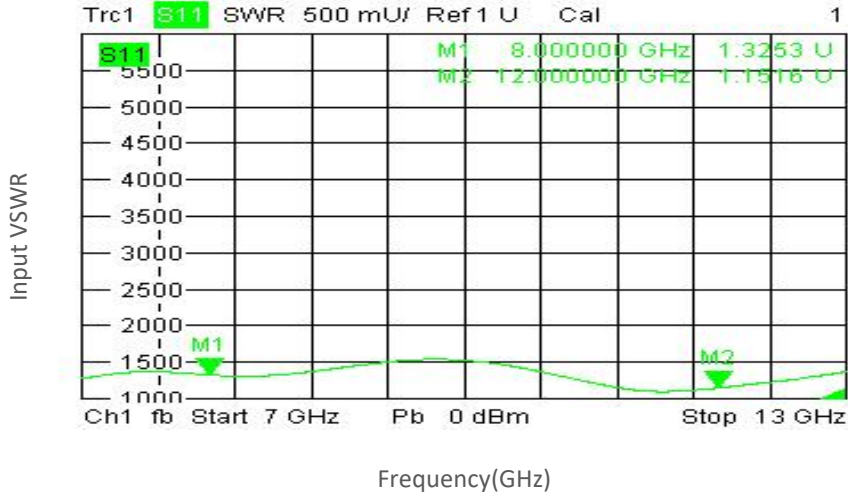
Insertion Loss vs Frequency



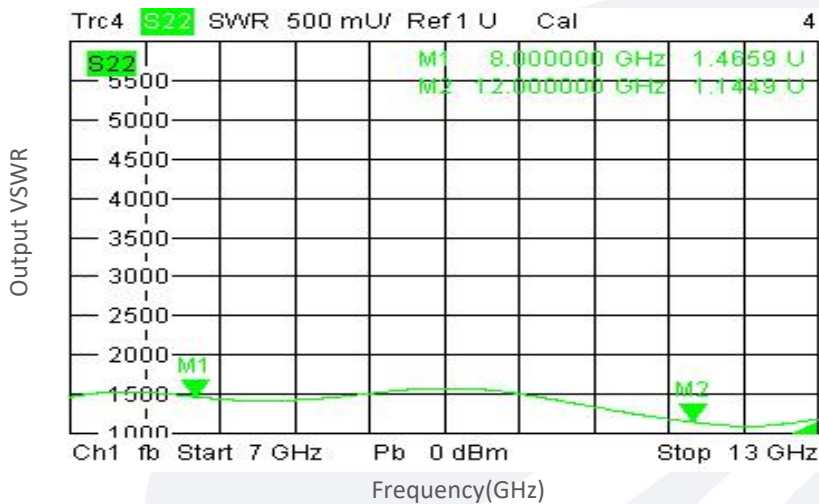
Typical Performance Data:

0.51V-45°:

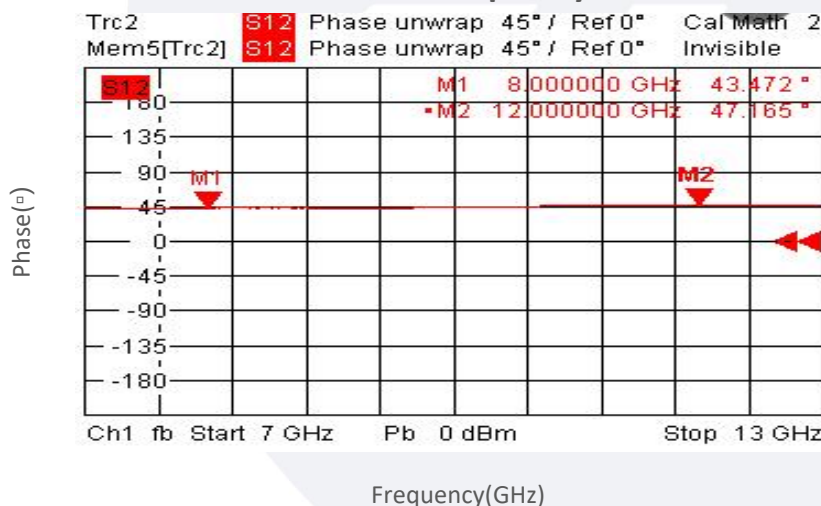
Input VSWR vs Frequency



Output VSWR vs Frequency

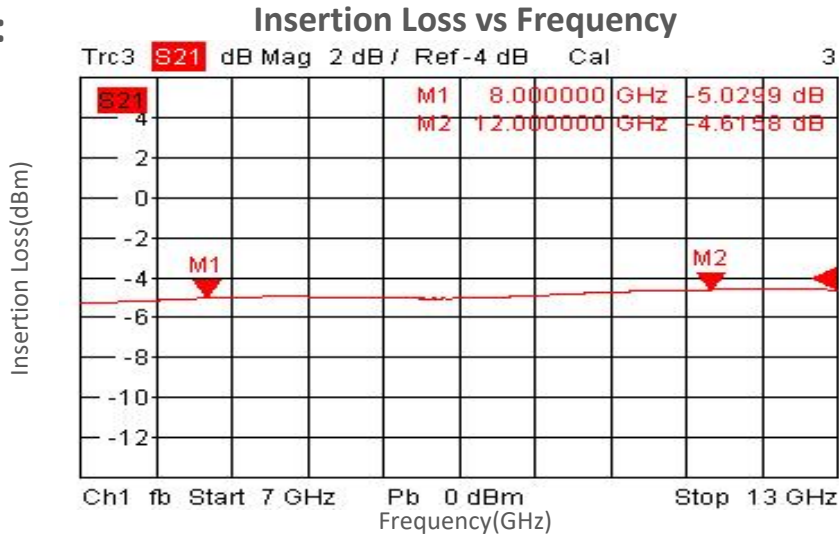


Phase vs Frequency

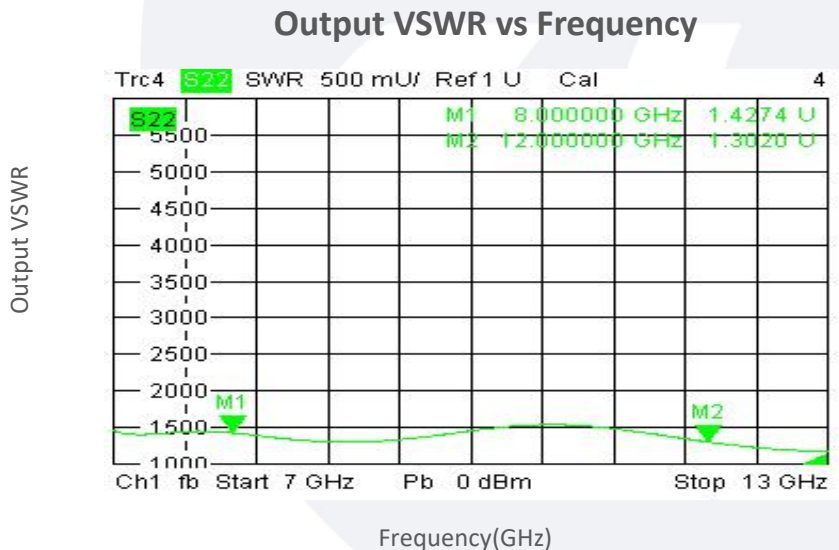
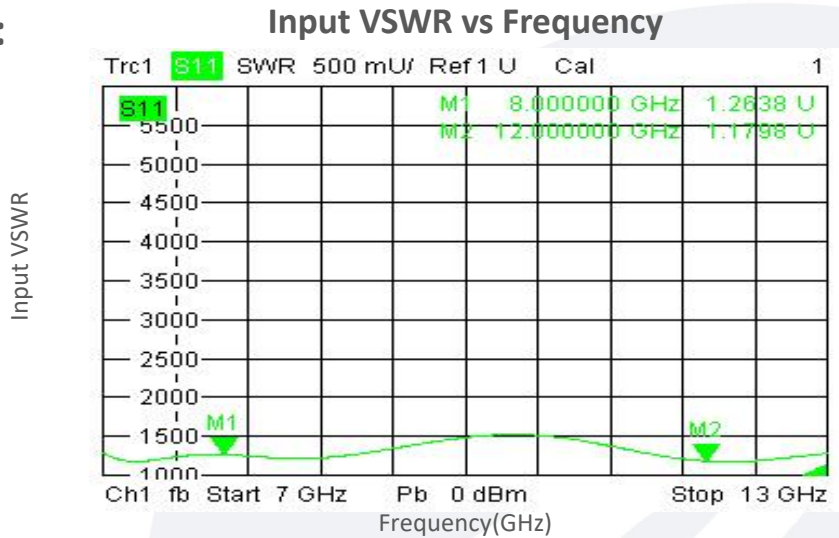


Typical Performance Data:

0.52V-45°:



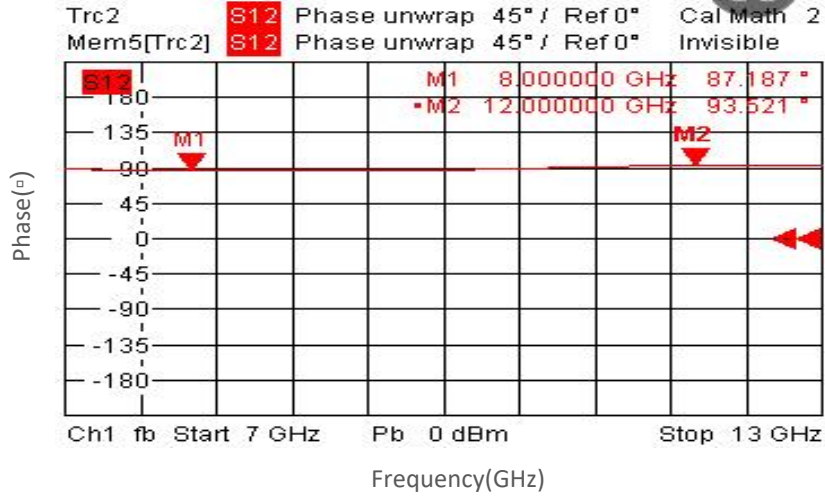
1.22V-90°:



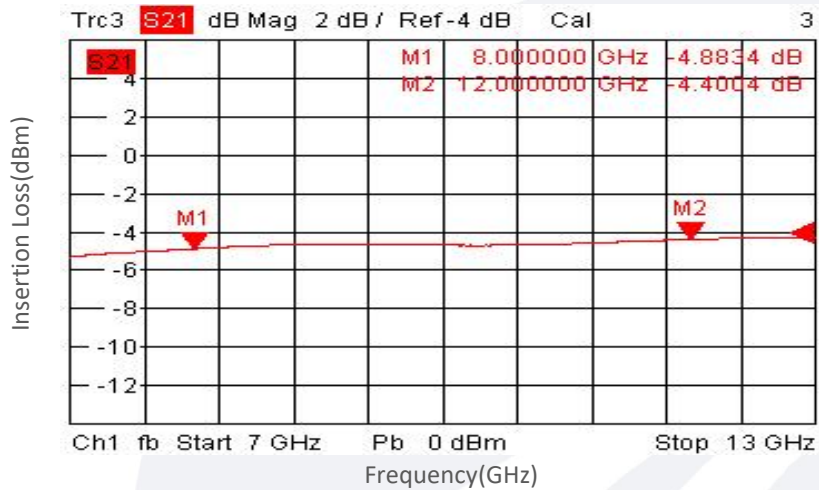
Typical Performance Data:

1.26V-90°:

Phase vs Frequency

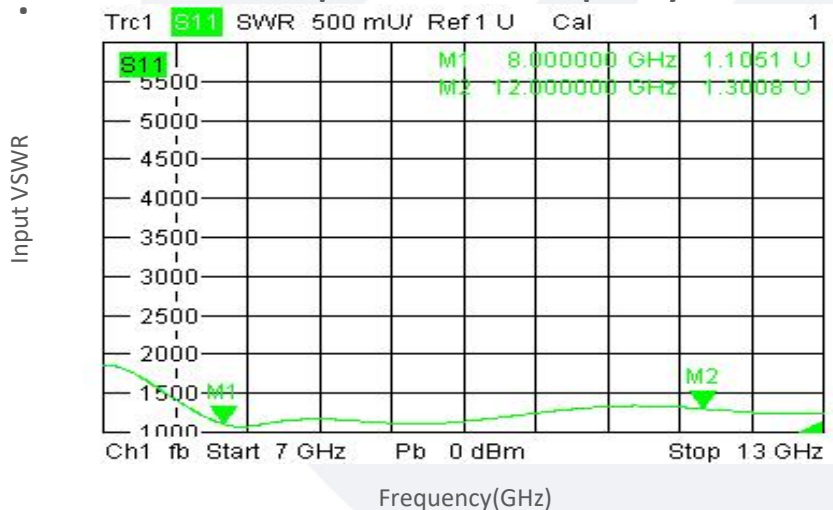


Insertion Loss vs Frequency



3.15V-180°:

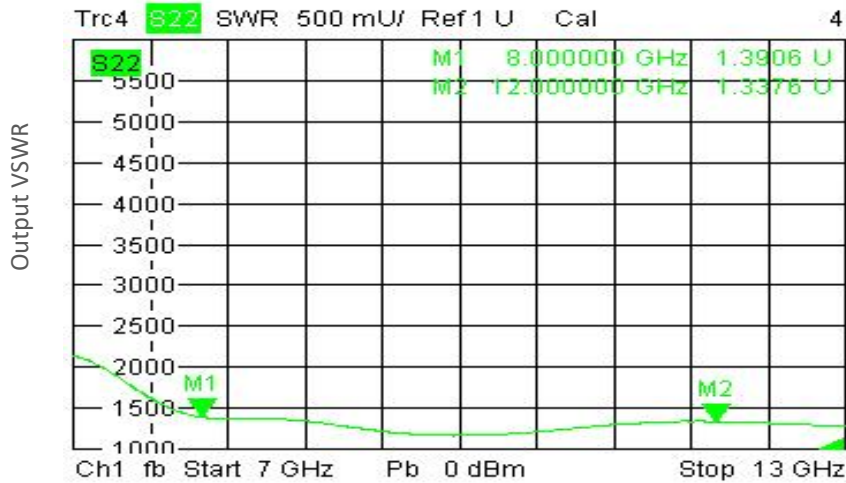
Input VSWR vs Frequency



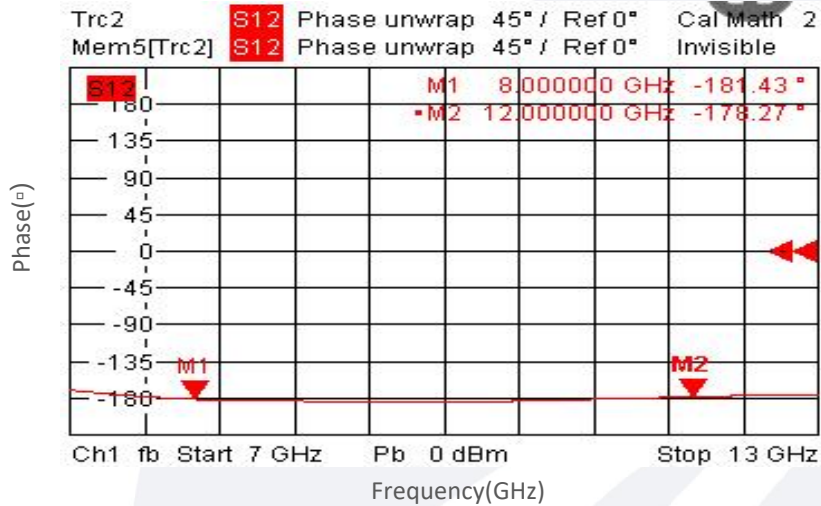
Typical Performance Data:

3.15V-180°:

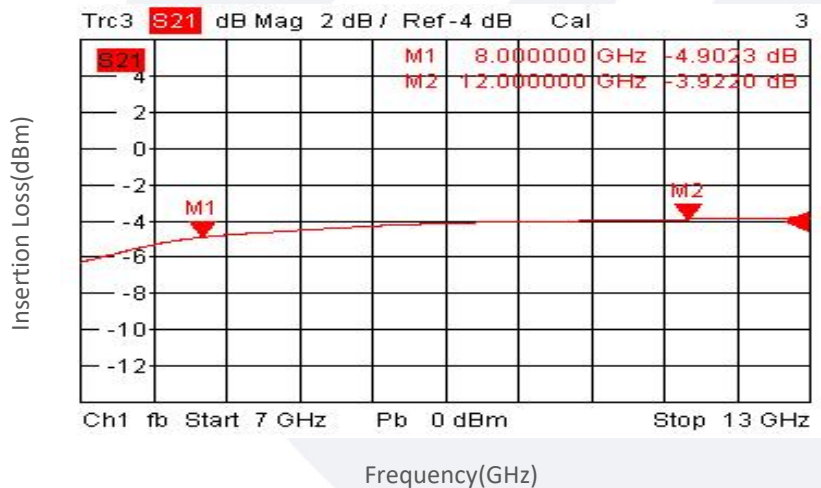
Output VSWR vs Frequency



Phase vs Frequency



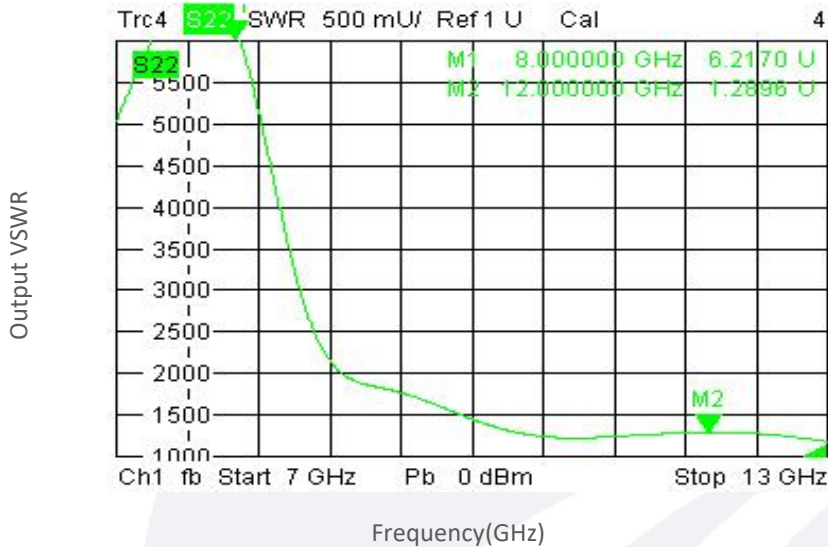
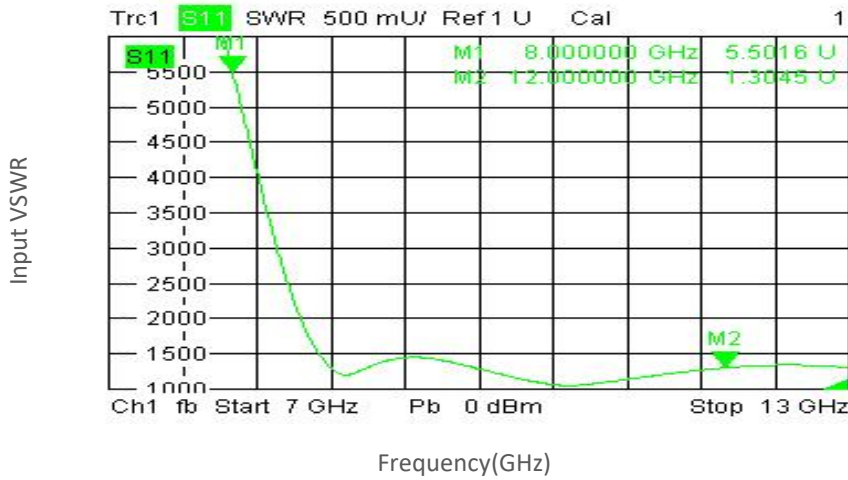
Insertion Loss vs Frequency



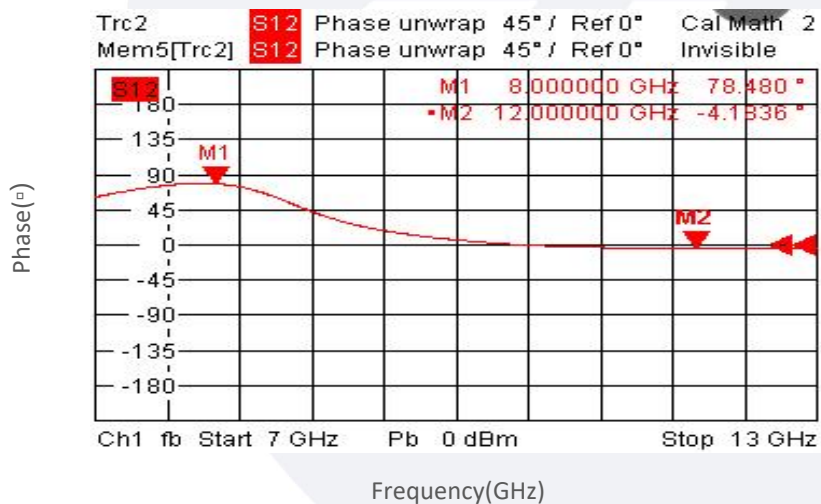
Typical Performance Data:

8.65V-360°:

Input VSWR vs Frequency



Phase vs Frequency



Typical Performance Data:

8.65V-360°:

Insertion Loss vs Frequency

