

Model: TLSP16T0.4G18GA-PM

Absorptive, Broadband PIN Switch 0.4-18 GHz, SP16T, SMA

Feature:

- Ultra Wide Band: 0.4-18 GHz
- Low Insertion Loss: 7.5 dB
- Power Handling : 24 dBm
- High Isolation
- Switch Type: Absorptive



电气特性 Electrical Specifications:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	0.4-18			GHz
插损 Insertion Loss		7.5	8.5	dB
隔离 Isolation	55	60		dB
切换速度 Switch Speed		50	100	ns
输入驻波 Input VSWR		1.5	2.2	:1
输出驻波 Output VSWR		1.5	2.2	:1
耐功率 Power Handling			27	dBm
重复切换幅度一致性 Repetitive amplitude switching consistency			0.01	dB
重复切换相位一致性 Repetitive phase switching consistency			0.1	°
最大使用寿命 Maximum service life	5 million			cycles
控制电平 Control Logic TTL		0/+3.3		V DC
直流电压 DC Voltage		+5		V DC
直流电流 DC Supply Current		600		mA
开关类型 Switch type	Absorptive			
阻抗 Impedance	50			Ohms

机械特性 Mechanical Specifications:

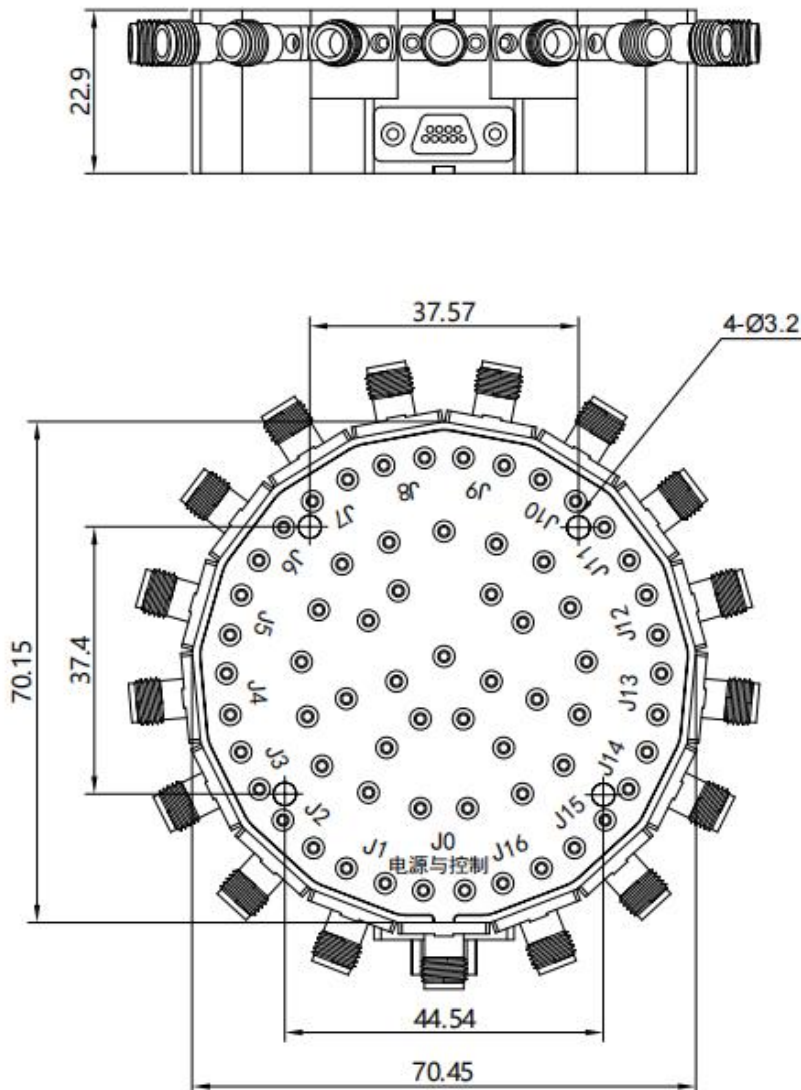
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/ SMA Female	
直流控制接口 Control Bias	J30J-9ZKP	1~4: C1~C4; 6~7: +5V; 5,8,9: GND;
尺寸 Size	70.45*70.15*22.9	mm
重量 Weight	/	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	$\pm 5\%$
输入功率 RF Input Power	27 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形尺寸 Outline Drawing:

Unit: mm



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

真值表 Truth Table:

真值表 Truth Table				
TTL Control Input				Signal Path State
C4	C3	C2	C1	
0	0	0	0	J0-J1
1	0	0	0	J0-J2
0	1	0	0	J0-J3
1	1	0	0	J0-J4
0	0	1	0	J0-J5
1	0	1	0	J0-J6
0	1	1	0	J0-J7
1	1	1	0	J0-J8

真值表 Truth Table				
TTL Control Input				Signal Path State
C4	C3	C2	C1	
0	0	0	1	J0-J9
1	0	0	1	J0-J10
0	1	0	1	J0-J11
1	1	0	1	J0-J12
0	0	1	1	J0-J13
1	0	1	1	J0-J14
0	1	1	1	J0-J15
1	1	1	1	J0-J16

TTL Control Voltages & VDD	
Stage	Bias Condition
VDD	+5V ($\pm 5\%$)
Low (0)	0 to 0.8Vdc
High (1)	2.0 to +5.0Vdc

温度环境 Environmental Conditions:

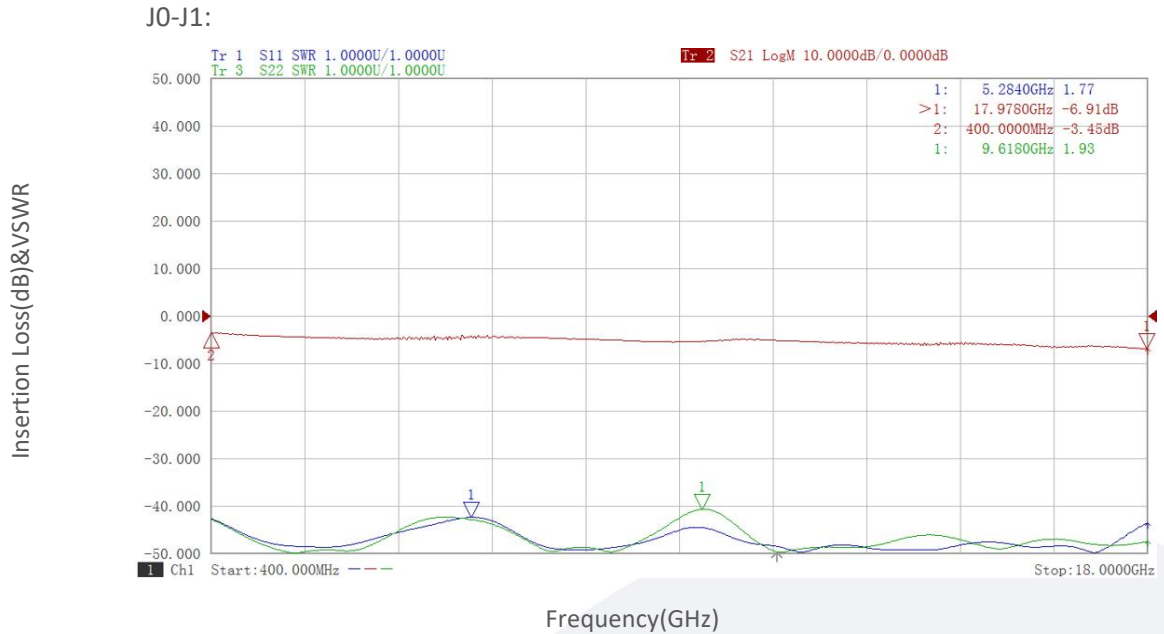
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-25		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave, 3 axis both directions			

订货信息 Ordering Information:

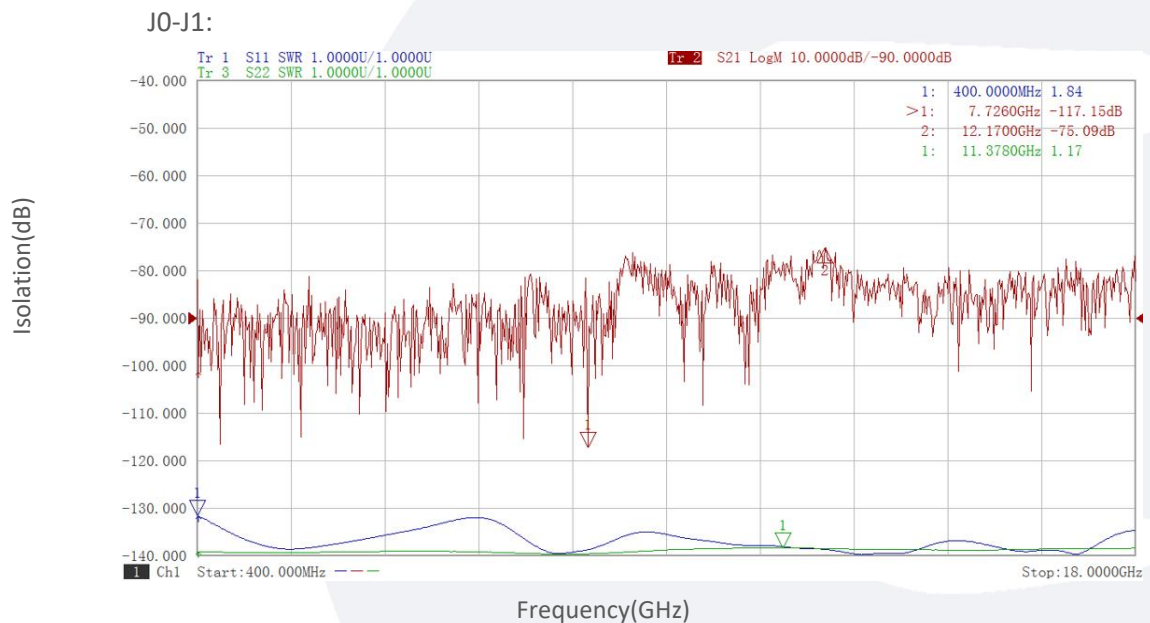
标准型号 Part Number	描述 Description	版本号 Revision
TLSP16T0.4G18GA-PM	Absorptive, Broadband PIN Switch 0.4-18 GHz, SP16T, SMA	Rev.1.1

典型曲线 Typical Performance Data:

Insertion Loss&VSWR vs Frequency



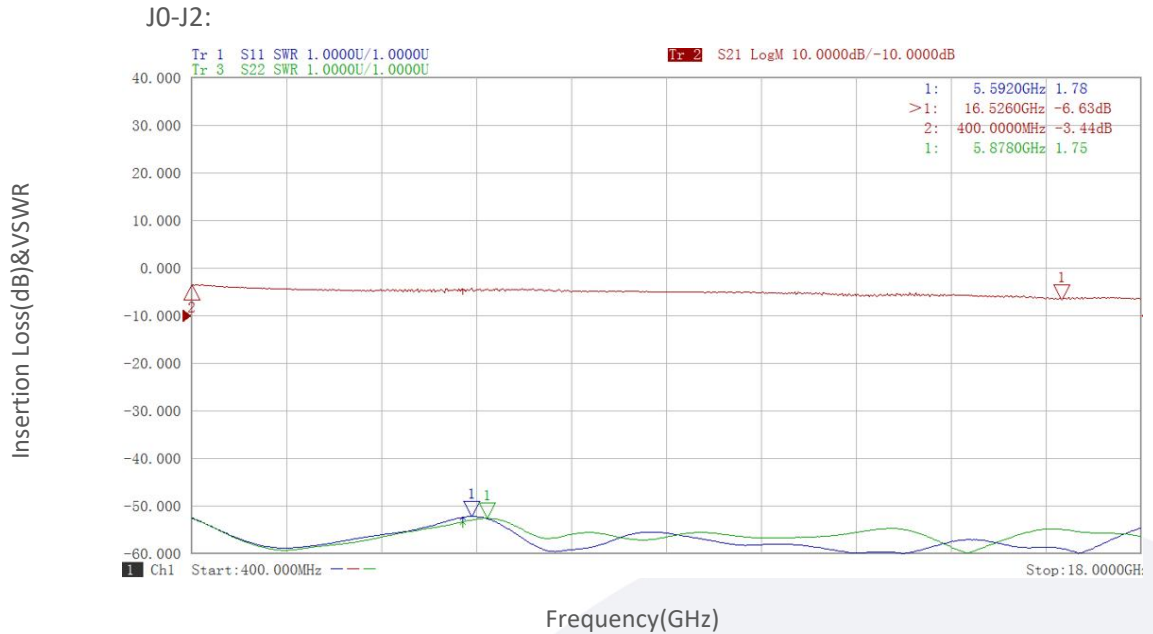
Isolation vs Frequency



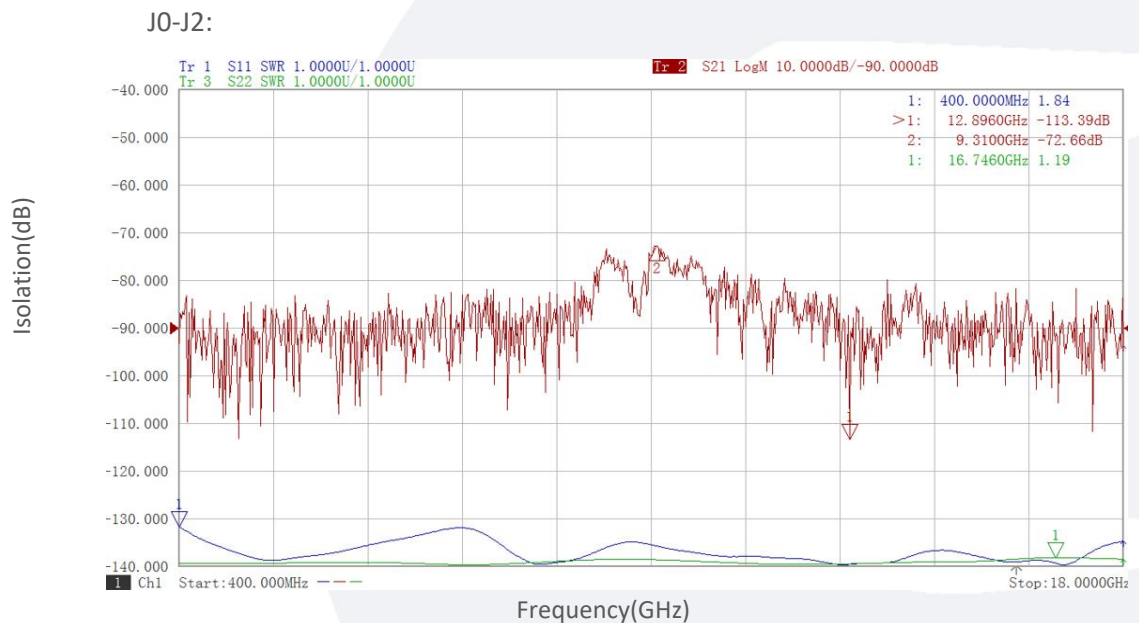
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

Insertion Loss&VSWR vs Frequency



Isolation vs Frequency

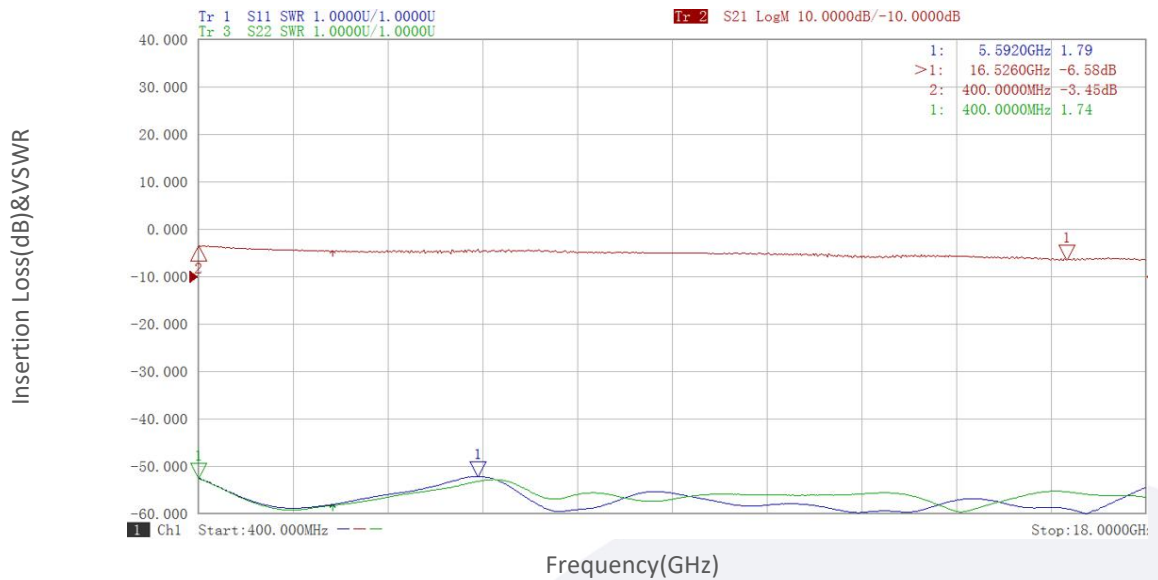


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典型曲线 Typical Performance Data:

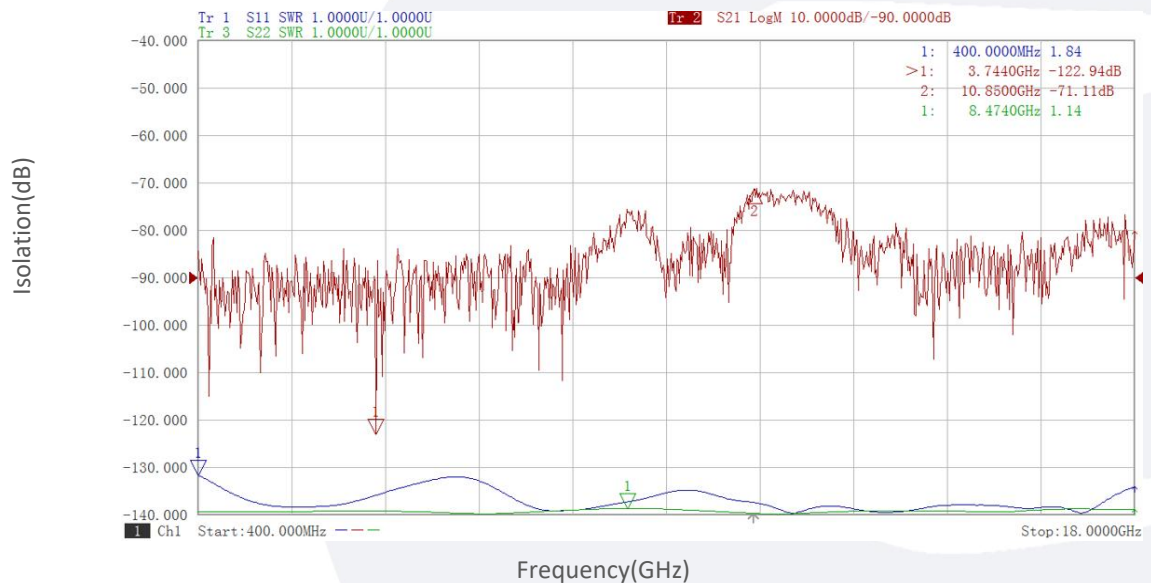
Insertion Loss&VSWR vs Frequency

J0-J3:



Isolation vs Frequency

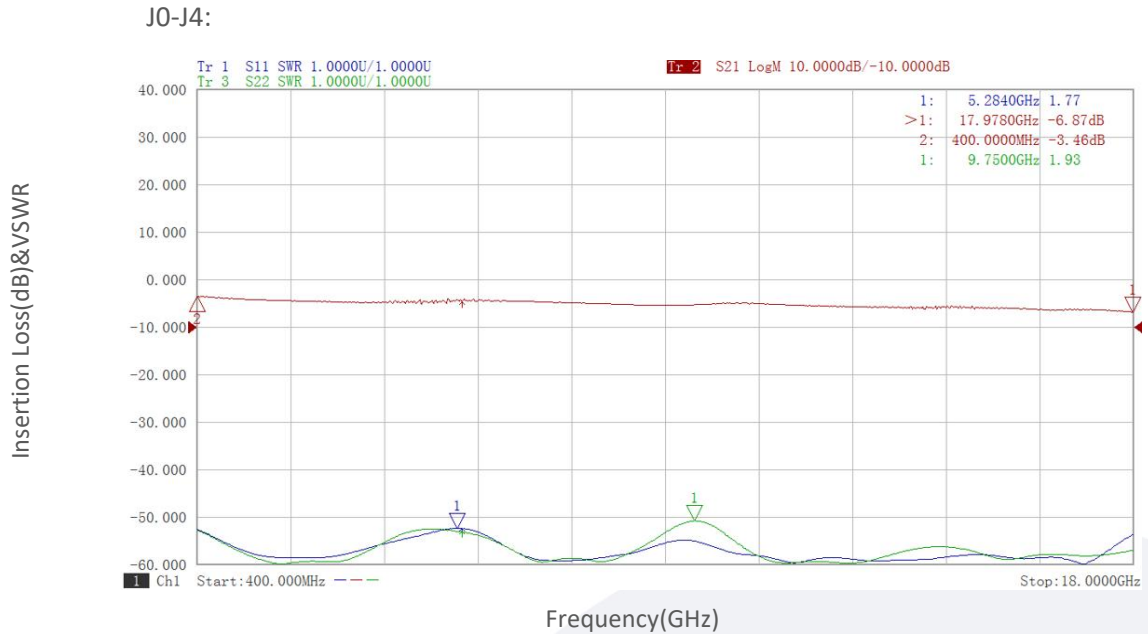
J0-J3:



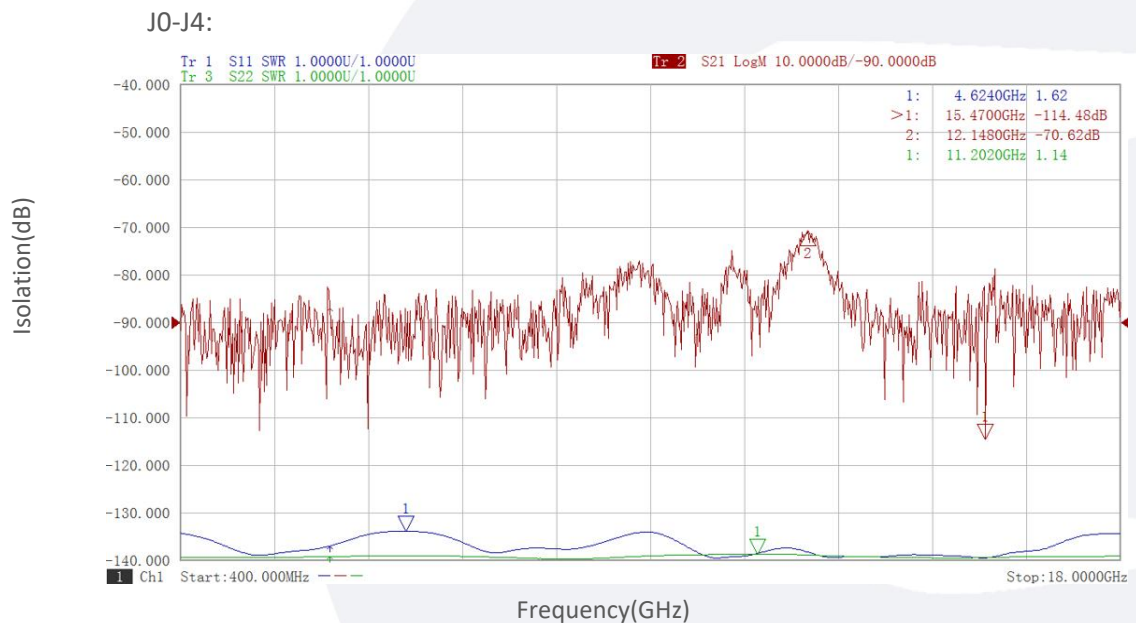
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典型曲线 Typical Performance Data:

Insertion Loss&VSWR vs Frequency



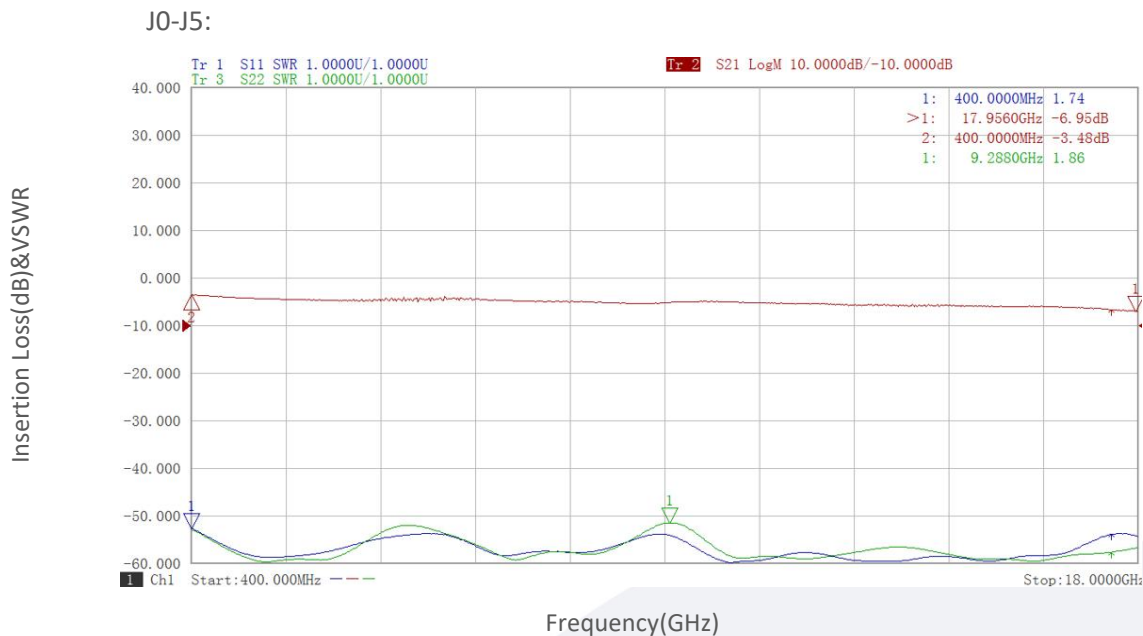
Isolation vs Frequency



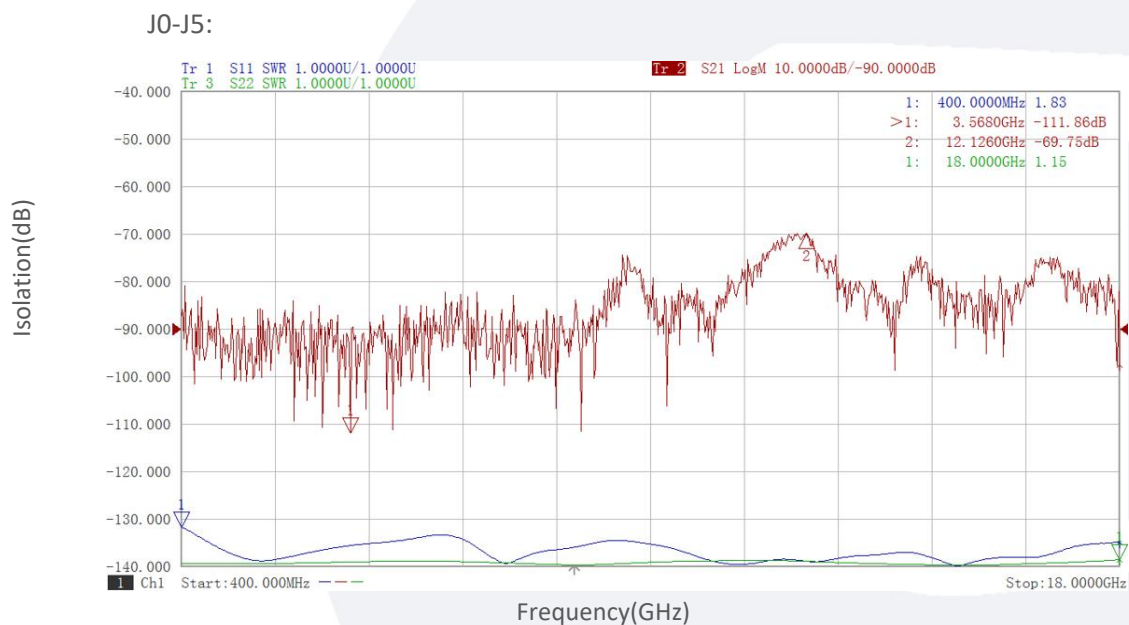
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典型曲线 Typical Performance Data:

Insertion Loss&VSWR vs Frequency



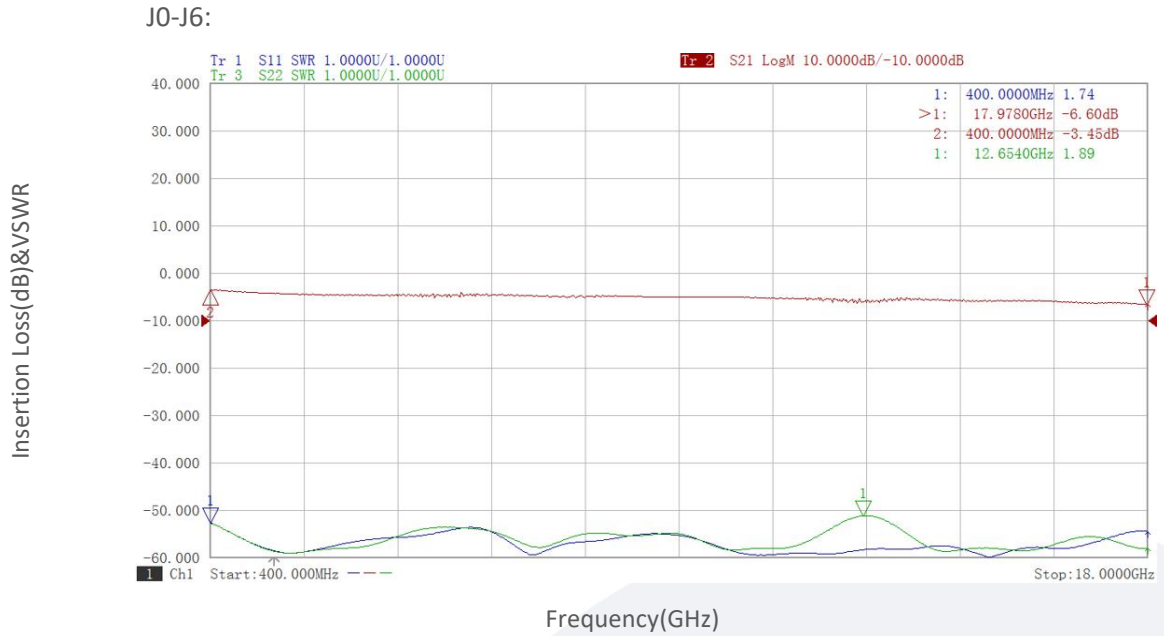
Isolation vs Frequency



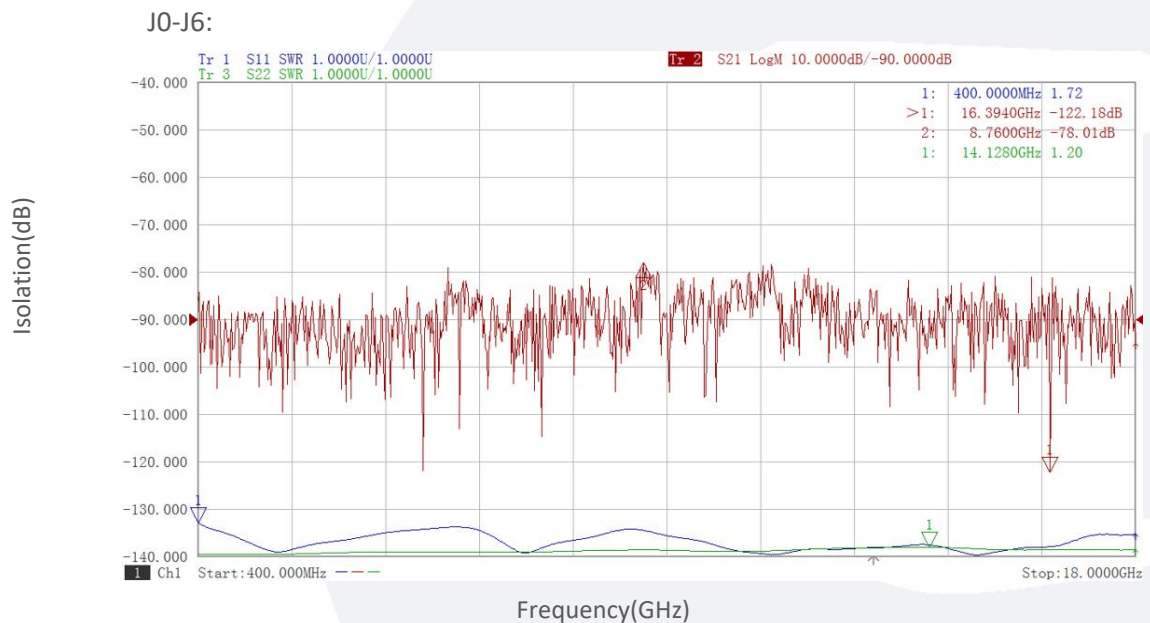
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典型曲线 Typical Performance Data:

Insertion Loss&VSWR vs Frequency



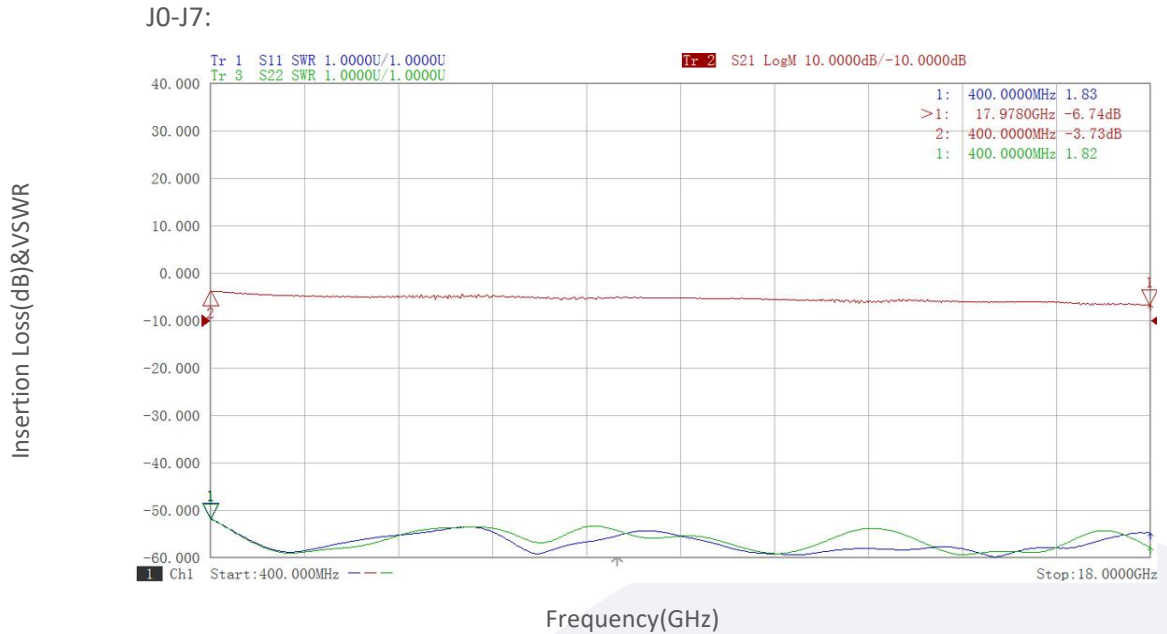
Isolation vs Frequency



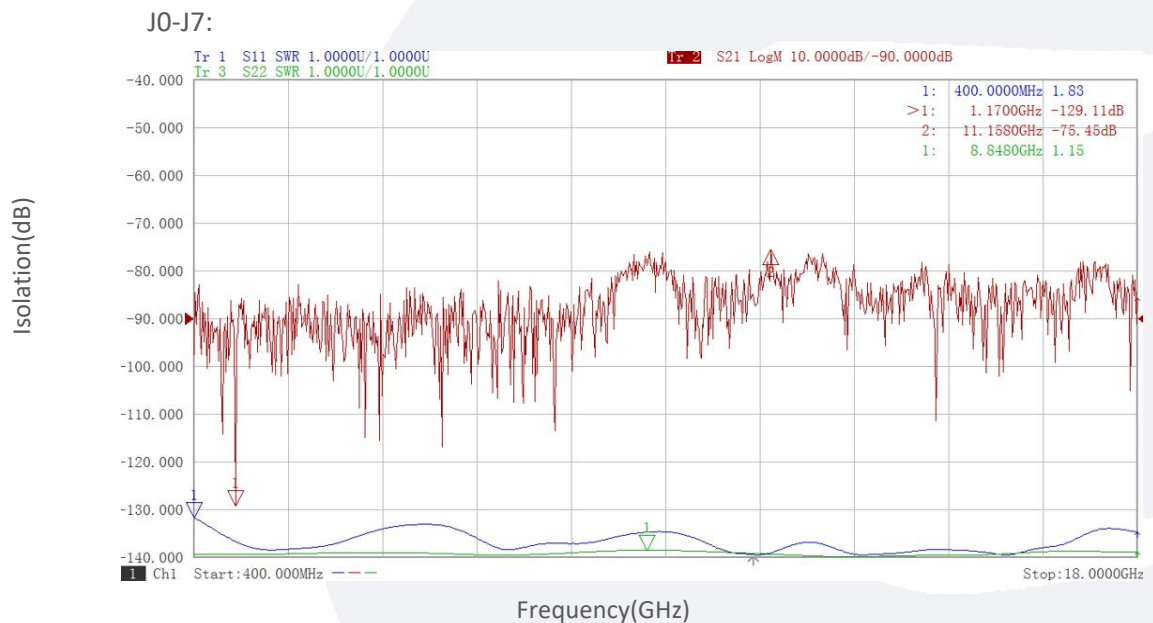
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典型曲线 Typical Performance Data:

Insertion Loss&VSWR vs Frequency



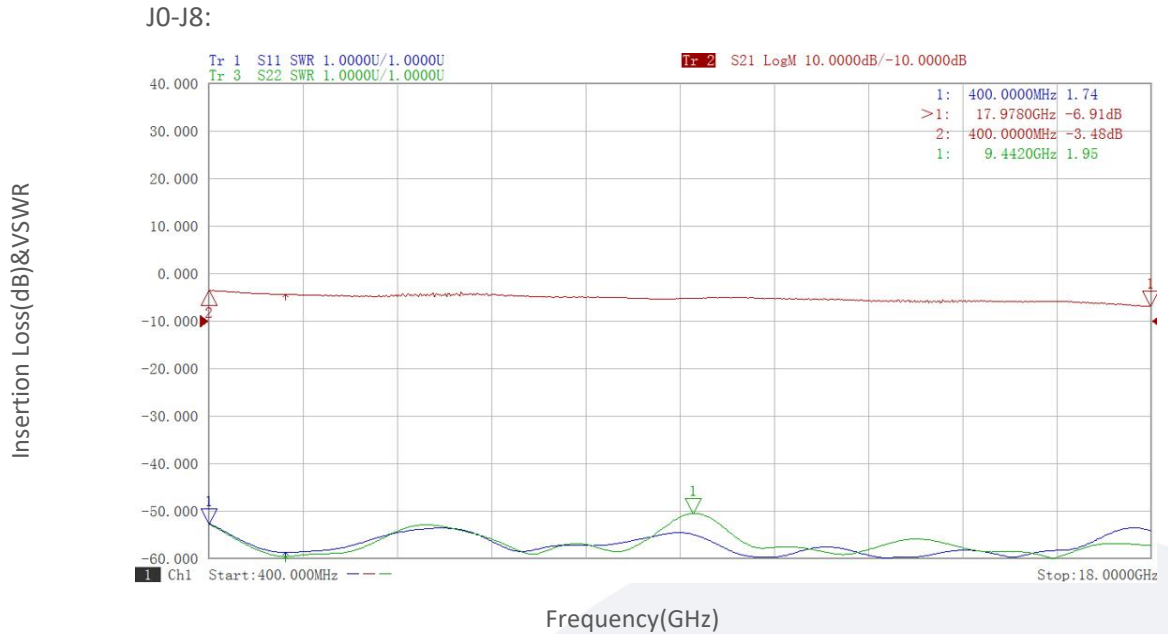
Isolation vs Frequency



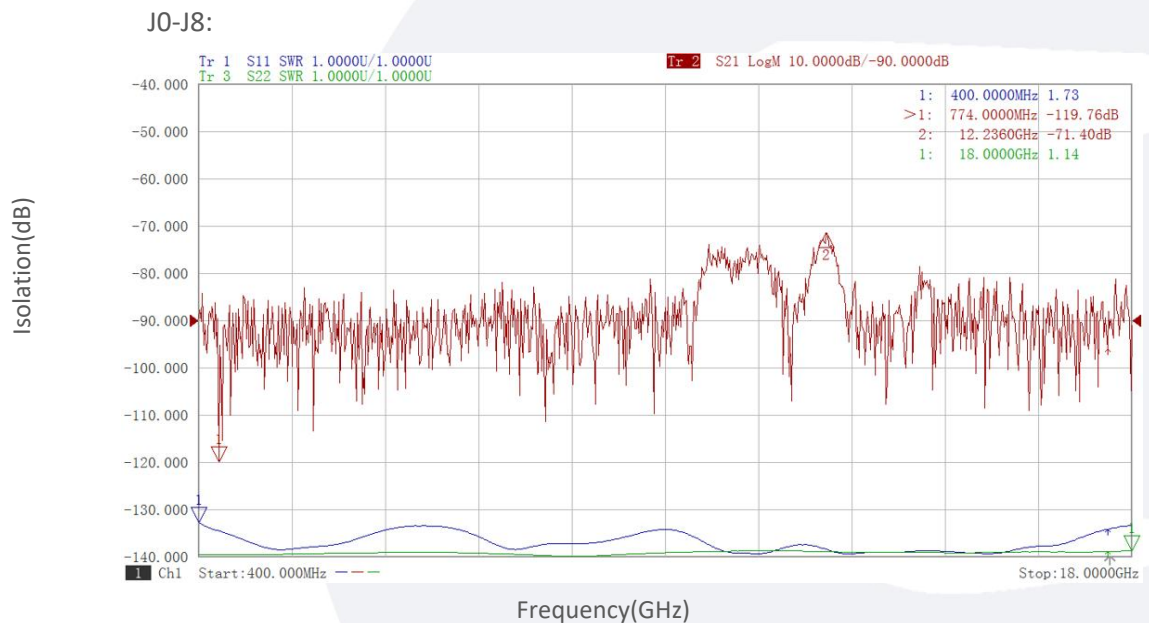
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典型曲线 Typical Performance Data:

Insertion Loss&VSWR vs Frequency



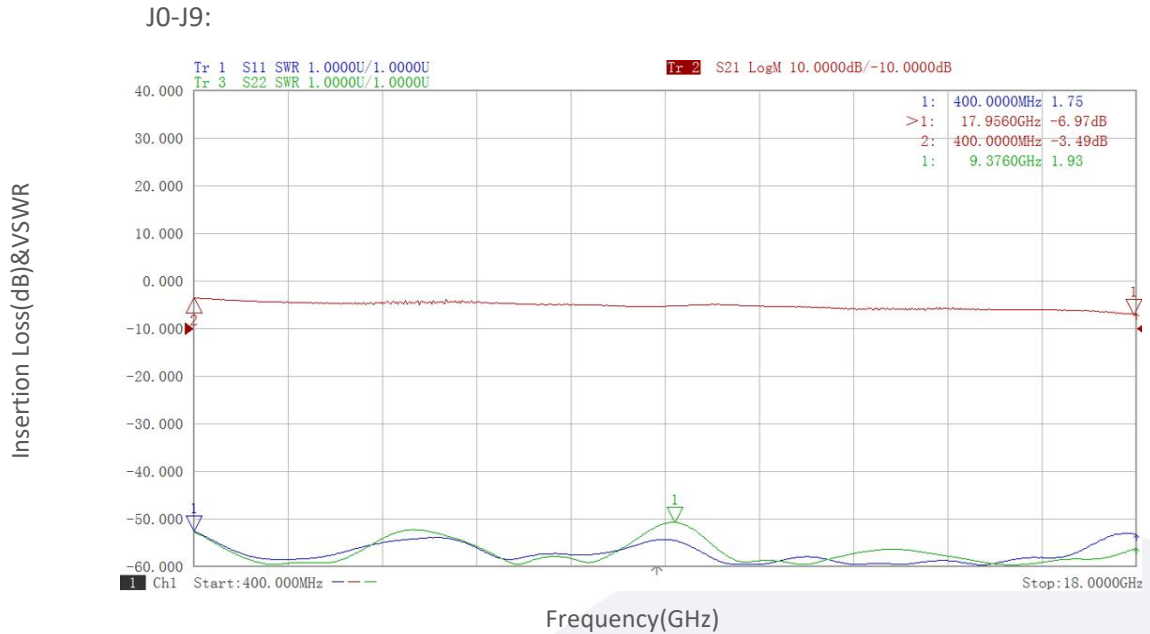
Isolation vs Frequency



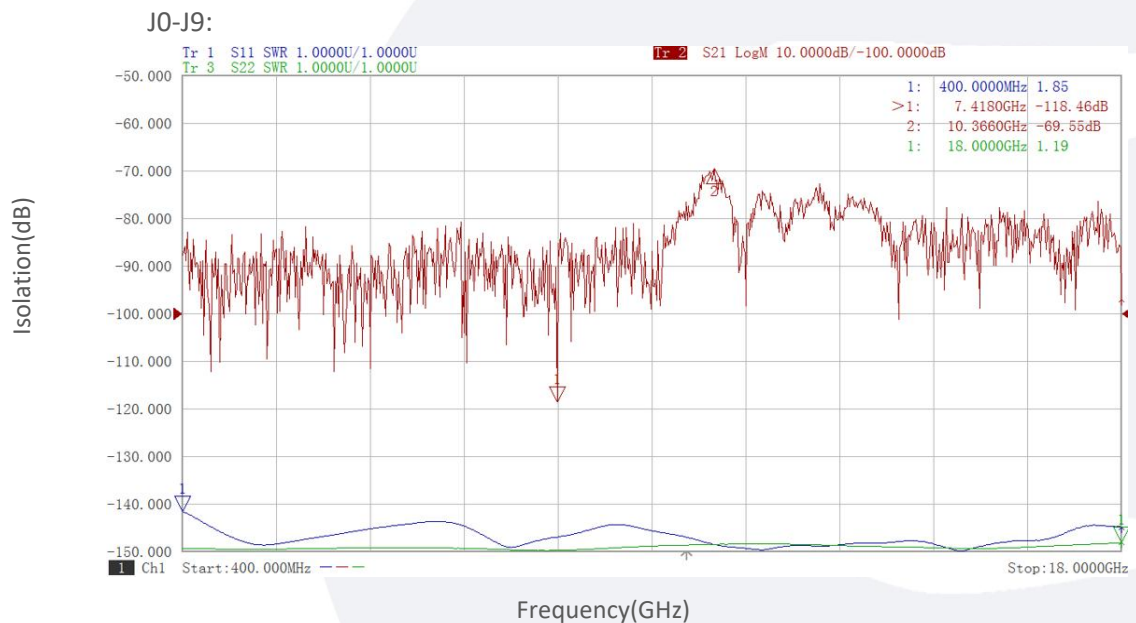
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典型曲线 Typical Performance Data:

Insertion Loss&VSWR vs Frequency



Isolation vs Frequency

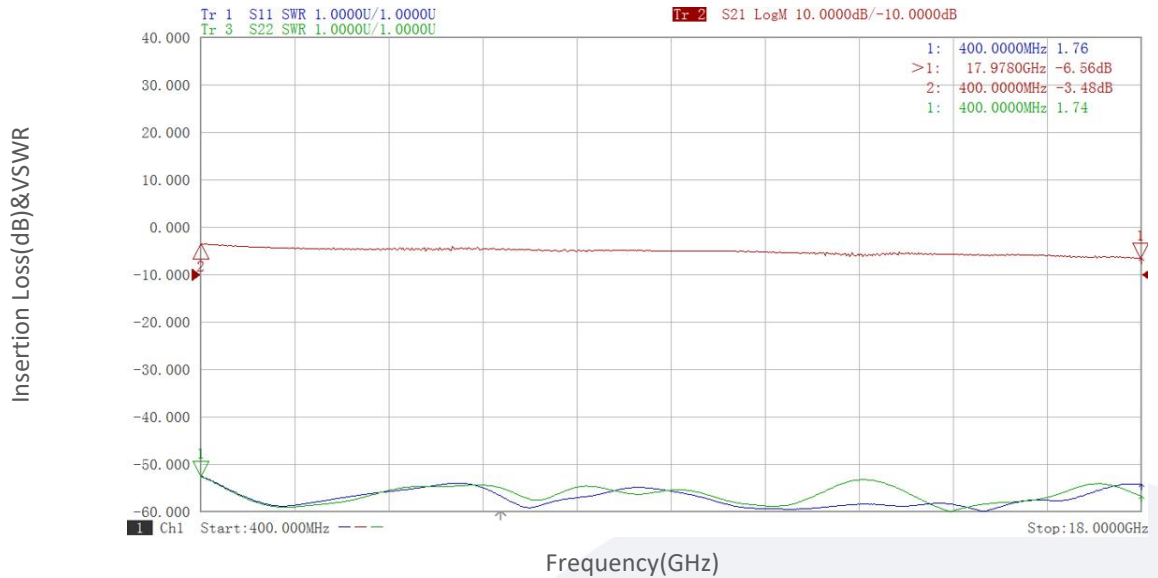


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典型曲线 Typical Performance Data:

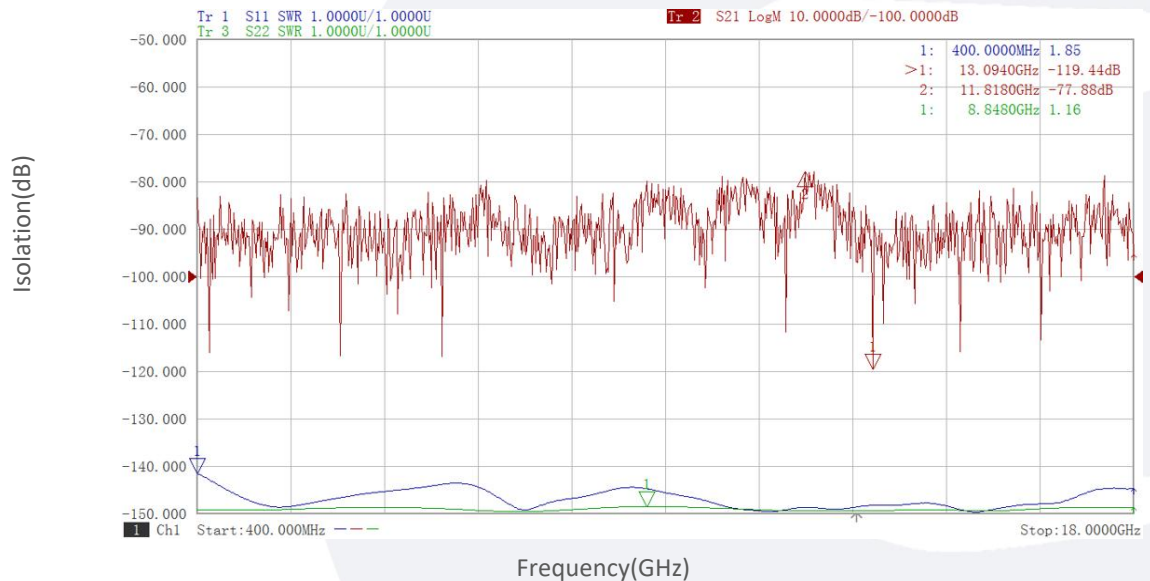
Insertion Loss&VSWR vs Frequency

J0-J10:



Isolation vs Frequency

J0-J10:

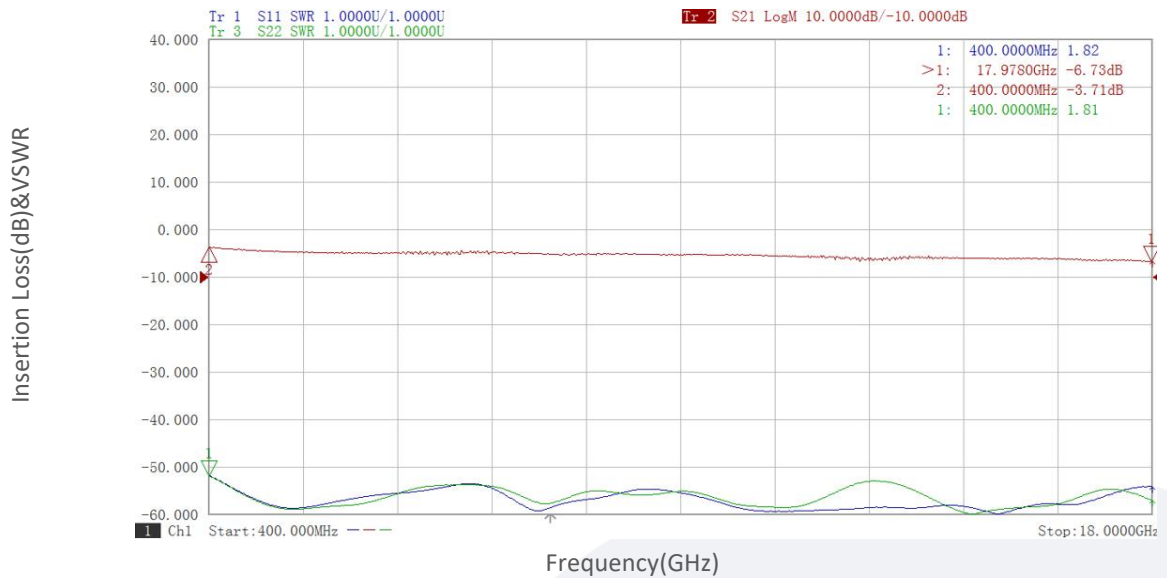


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典型曲线 Typical Performance Data:

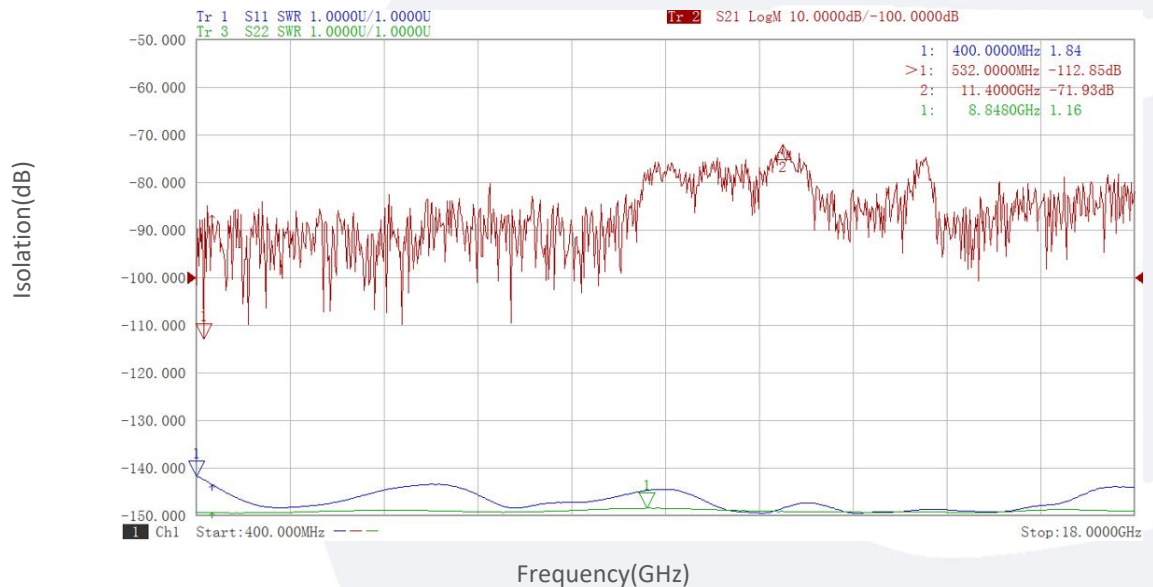
Insertion Loss&VSWR vs Frequency

J0-J11:



Isolation vs Frequency

J0-J11:

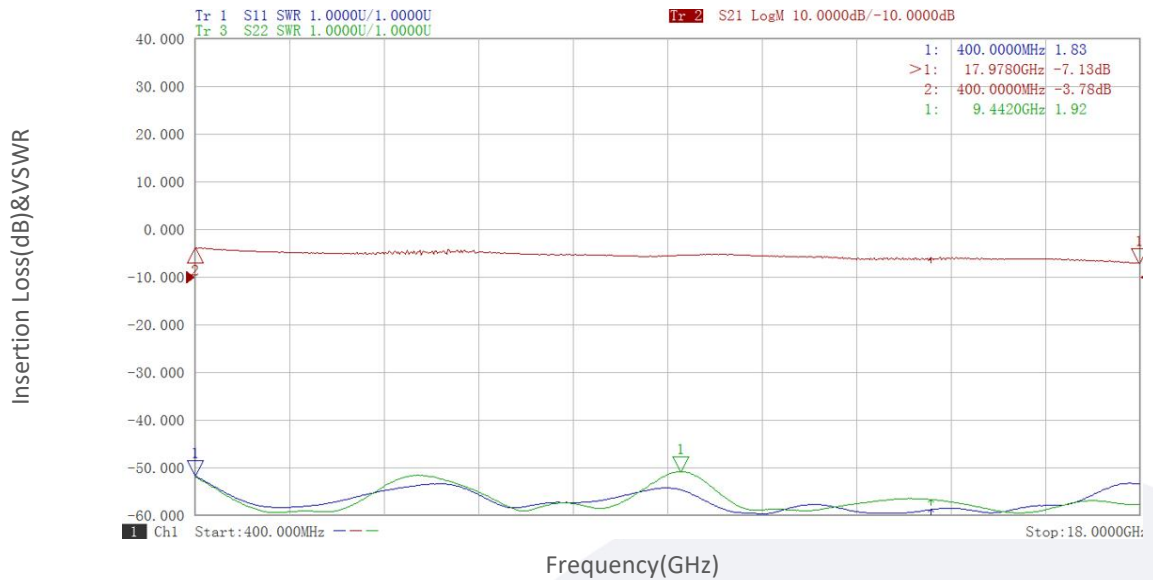


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

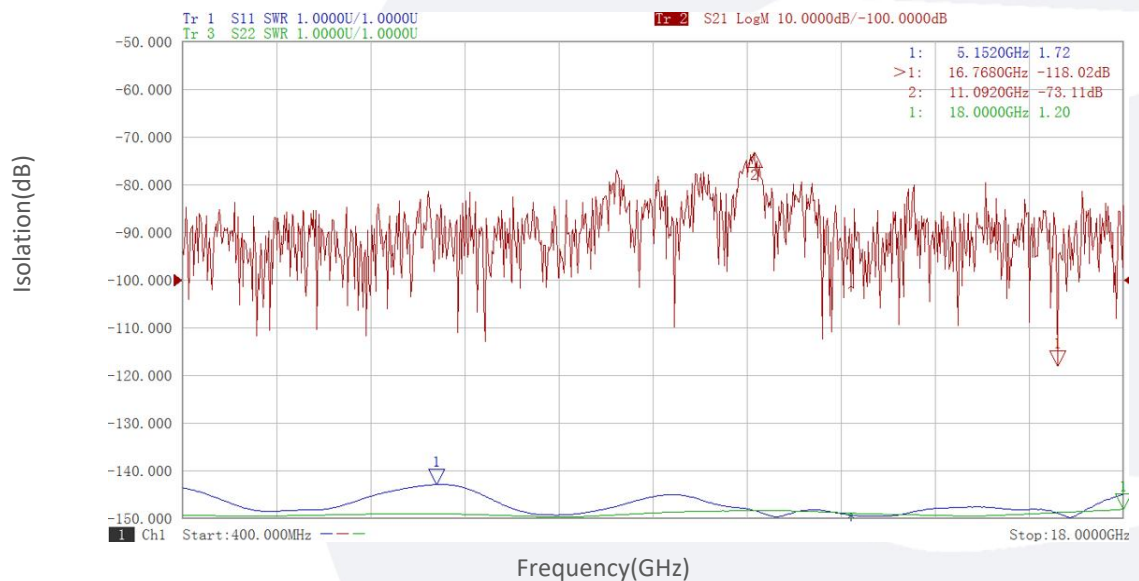
Insertion Loss&VSWR vs Frequency

J0-J12:



Isolation vs Frequency

J0-J12:

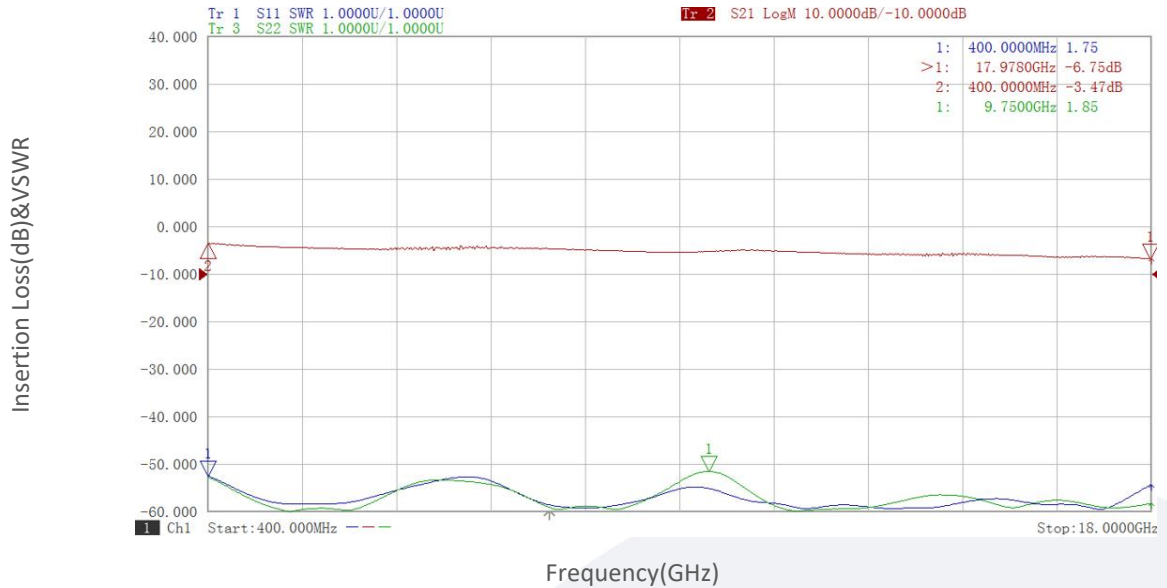


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典型曲线 Typical Performance Data:

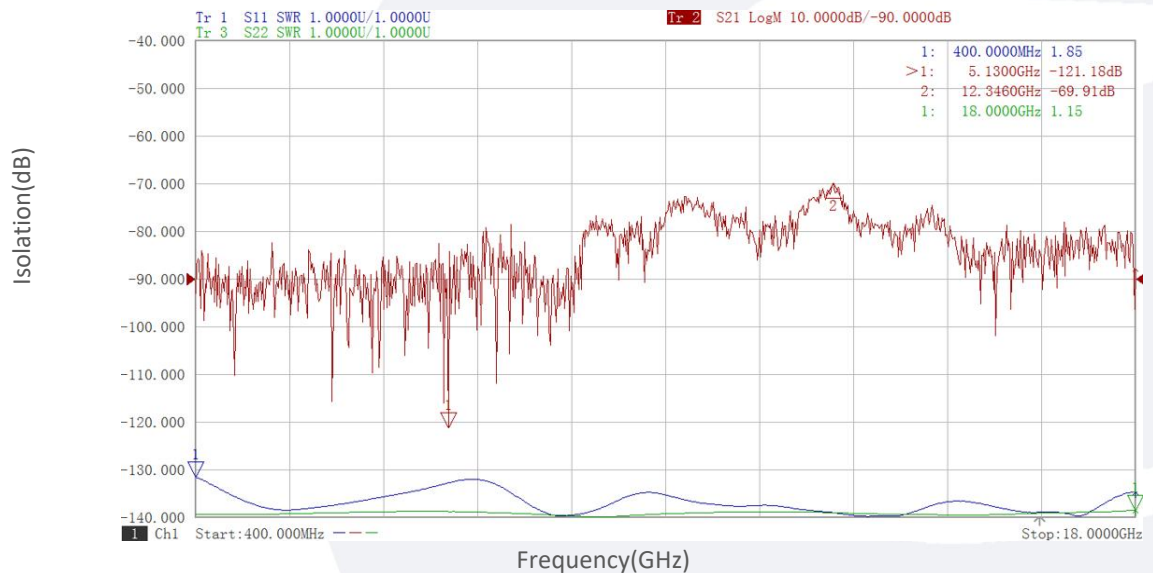
Insertion Loss&VSWR vs Frequency

J0-J13:



Isolation vs Frequency

J0-J13:

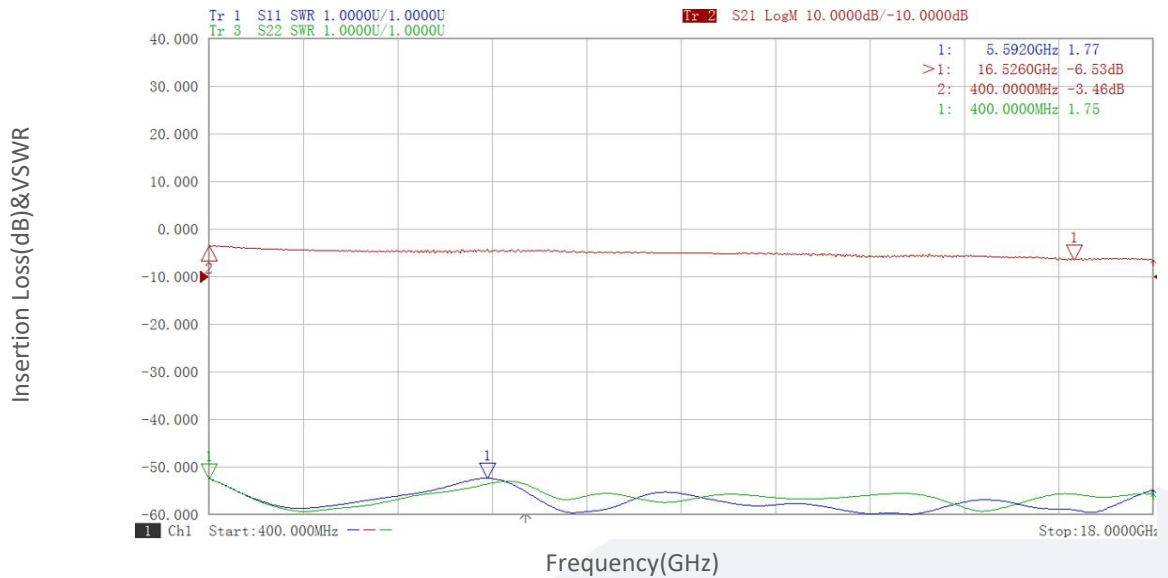


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典型曲线 Typical Performance Data:

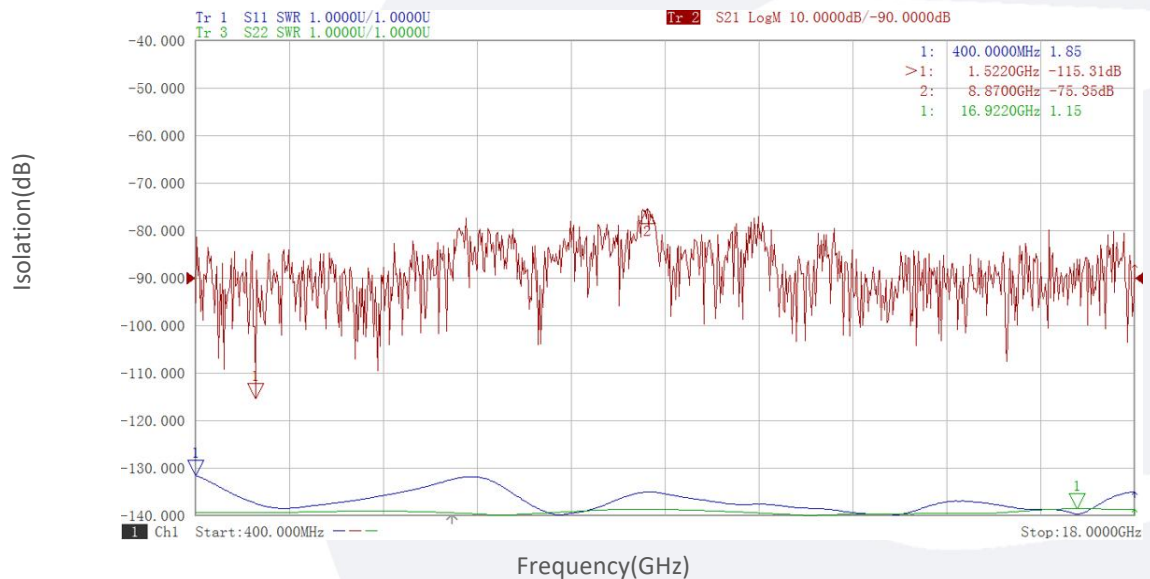
Insertion Loss&VSWR vs Frequency

J0-J14:



Isolation vs Frequency

J0-J14:

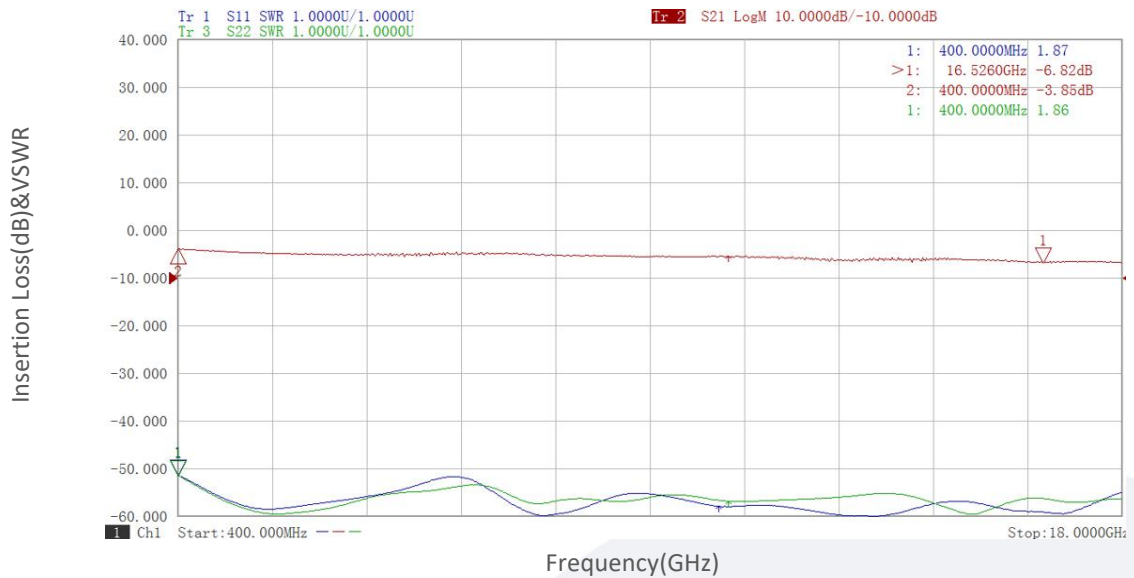


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典型曲线 Typical Performance Data:

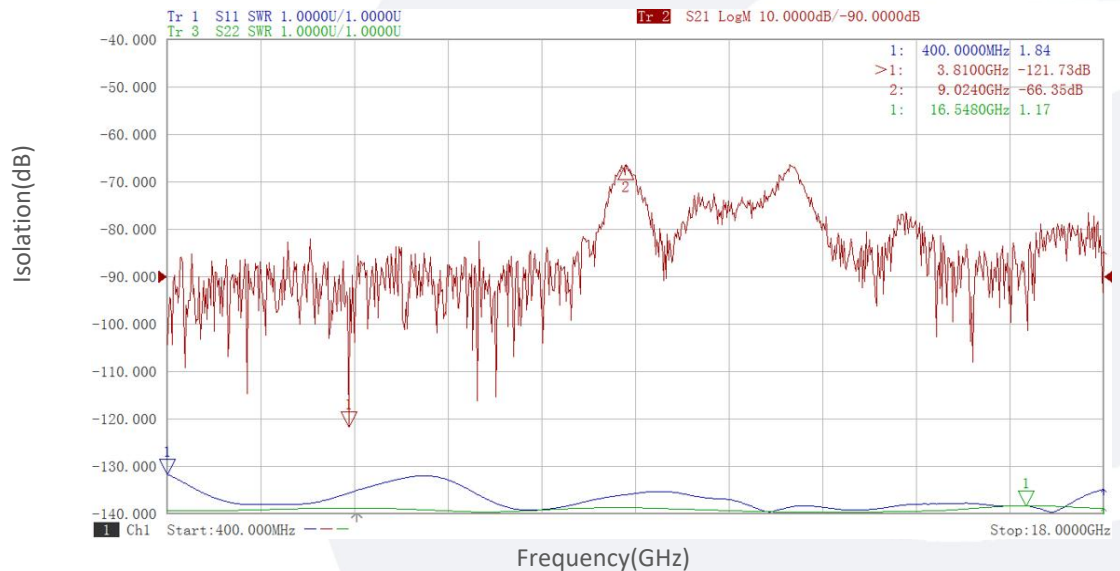
Insertion Loss&VSWR vs Frequency

J0-J15:



Isolation vs Frequency

J0-J15:

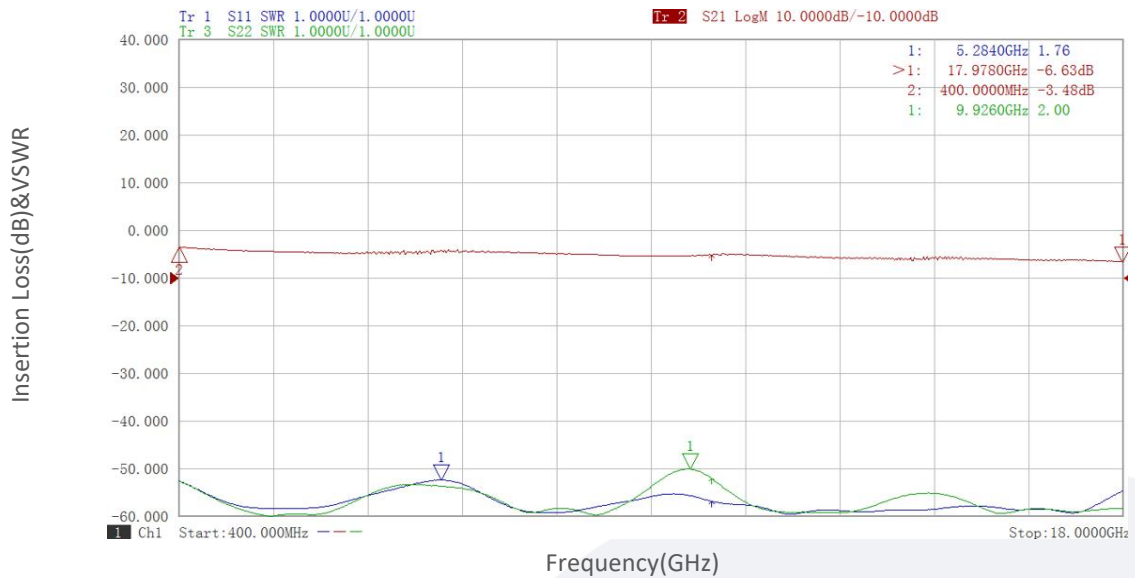


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典型曲线 Typical Performance Data:

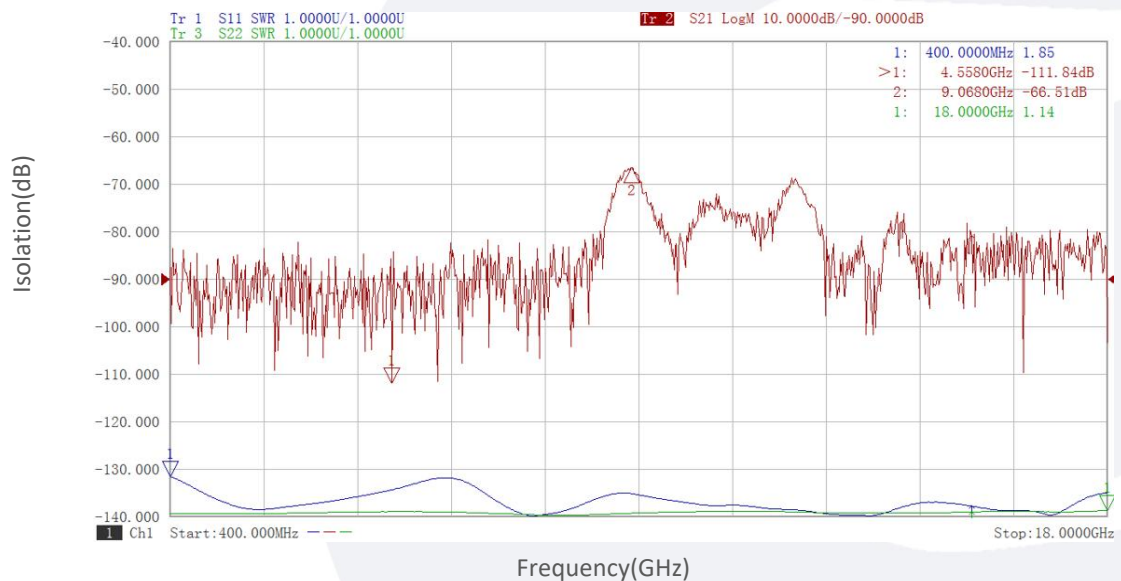
Insertion Loss&VSWR vs Frequency

J0-J16:



Isolation vs Frequency

J0-J16:



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