泰莱微波
Talent Microwave

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Absorptive,Broadband PIN Switch

10MHz-8GHz/SP16T/SMA Female

Model: TLSP16T10M8GA

The TLSP16T10M8GA is an absorptive PIN diode based switch with a TTL driver that operates between 10MHz and 8GHz. The SP16T switch offers 55 dB port-to-port isolation with a typical switching speed of 100 ns. The input and output connectors of the switch are SMA female.

Features:

- Frequency range: 10MHz-8GHz
- Low Insertion Loss: 5.0 dB
- Power Handling : 25dBm
- High Isolation
- Switch Type: Absorptive

Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	10MHz		8GHz	
插损 Insertion Loss		6		dB
隔离 Isolation		55		dB
切换速度 Switch Speed		100		ns
输入驻波 Input VSWR		1.8		:1
输出驻波 Output VSWR		1.8		:1
耐功率 Power Handling			25	dBm
控制电平 Control Logic TTL		+5		V DC
直流电流 DC Supply Current		50		mA
开关类型 Switch type	Absorptive			
阻抗 Impedance	50			Ohms

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绝对最大值 Absolute Maximum Ratings :

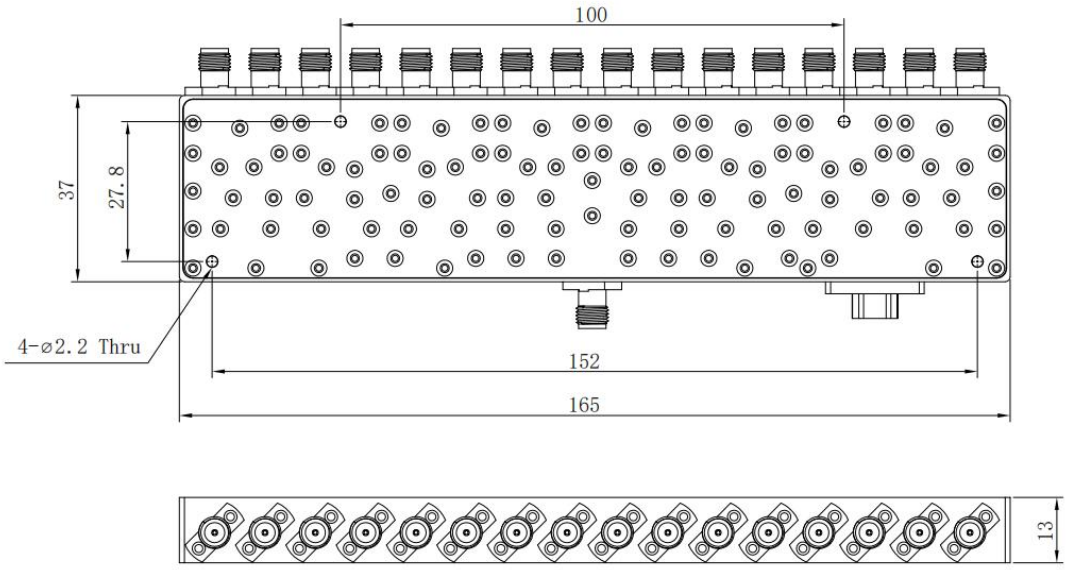
描述 Description	参数 Parameter	单位 Units
供电偏置电压 Supply Bias Voltage	+6	V
射频输入功率 RF Input Power	25	dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V	

机械特性 Mechanical Specifications:

描述 Description	参数 Parameter	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
直流控制接口 Control Bias Connector	J30J-9ZKP	
尺寸 Size	TBD	mm

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

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引脚定义 Pin Definitions :

真值表 Truth Table				
TTL Control Input				Signal Path State
C1	C2	C3	C4	
0	0	0	0	J0-J1
0	0	0	1	J0-J2
0	0	1	0	J0-J3
0	0	1	1	J0-J4
0	1	0	0	J0-J5
0	1	0	1	J0-J6
0	1	1	0	J0-J7
0	1	1	1	J0-J8
1	0	0	0	J0-J9
1	0	0	1	J0-J10
1	0	1	0	J0-J11
1	0	1	1	J0-J12
1	1	0	0	J0-J13
1	1	0	1	J0-J14
1	1	1	0	J0-J15
1	1	1	1	J0-J16

J30J-9ZKP	
针 Pin	单位 Units
1	C1
2	C2
3	C3
4	C4
5	GND
6	GND
7	GND
8	+5V
9	+5V

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	℃
存储温度 Non-operating Temperature	-55		+125	℃
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 Base Number	描述 Description	版本号 Revision
TLSP16T10M8GA	Absorptive,Broadband PIN Switch 10MHz-8GHz,SP16T,SMA	Rev.1.1

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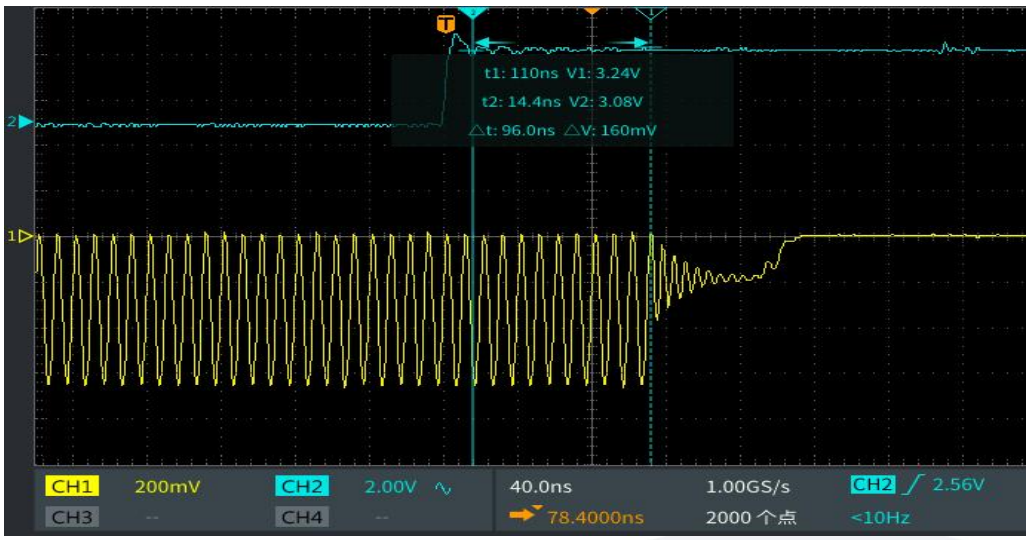
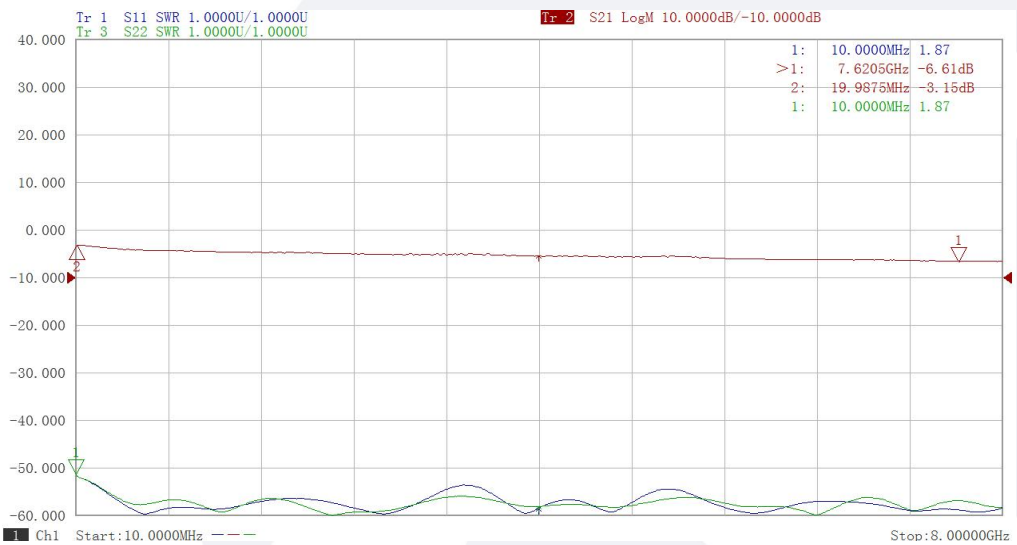
典型曲线 Typical Performance Data:

Switch Speed



Insertion Loss&VSWR vs Frequency

J0-J1:



Insertion Loss(dB)&VSWR

Frequency(GHz)

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.

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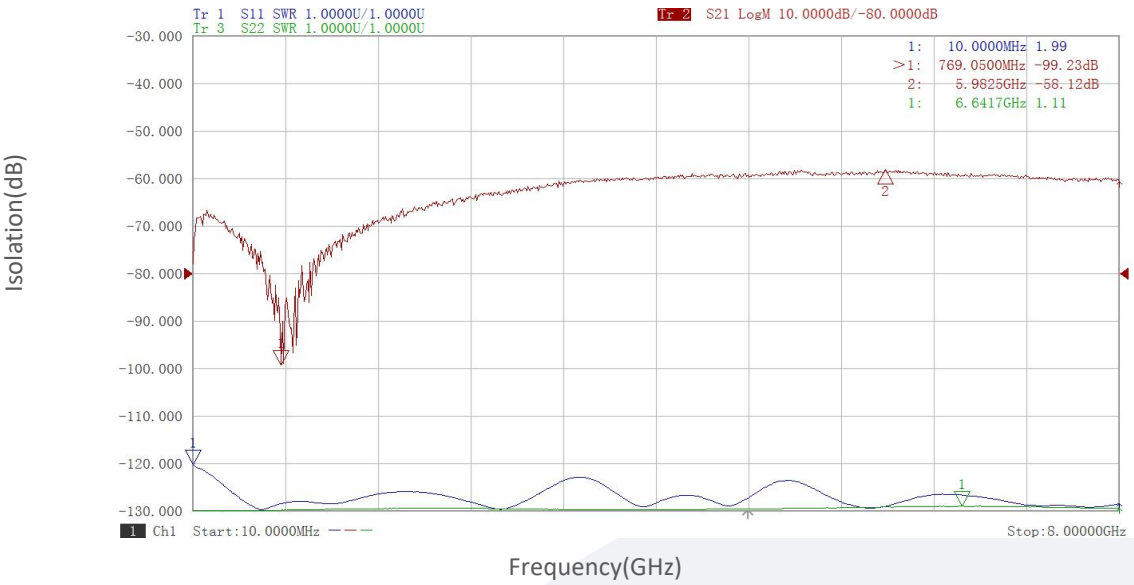
典型曲线 Typical Performance Data:

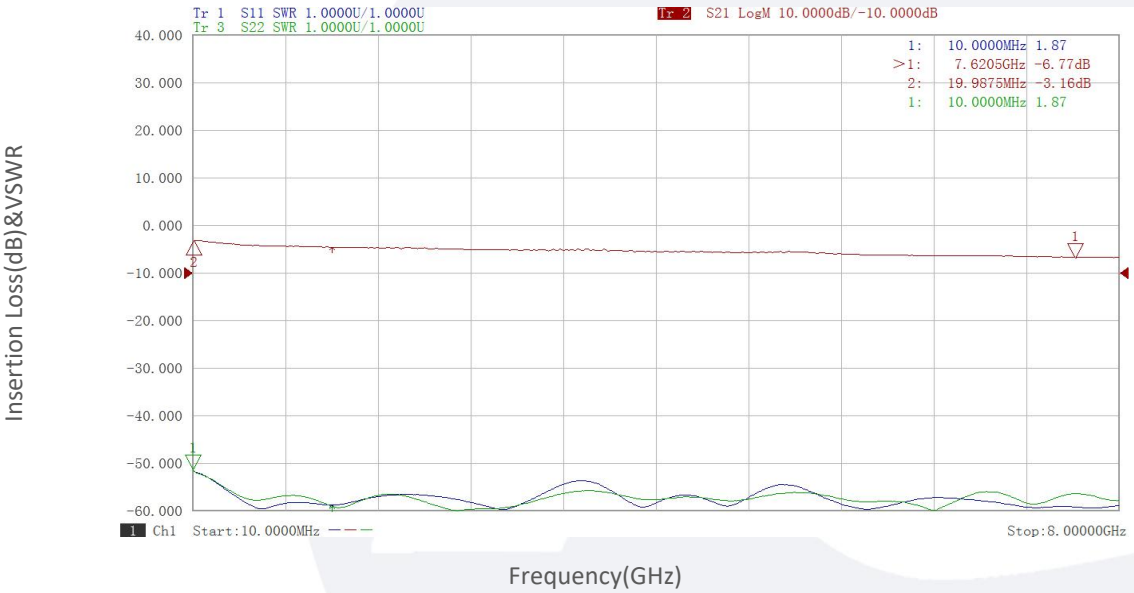
Isolation vs Frequency

J0-J1:



Insertion Loss&VSWR vs Frequency

J0-J2:



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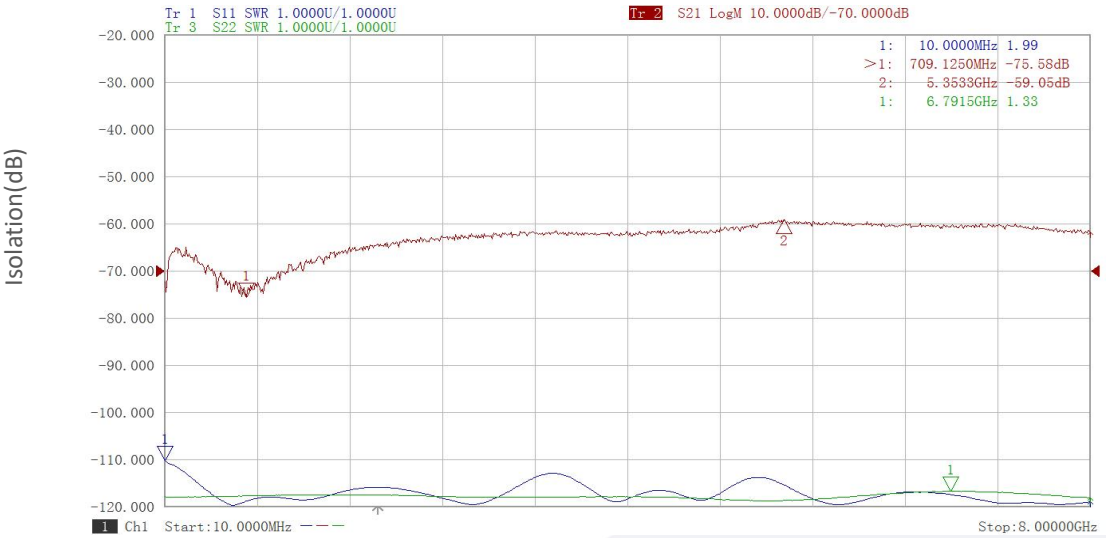
典型曲线 Typical Performance Data:

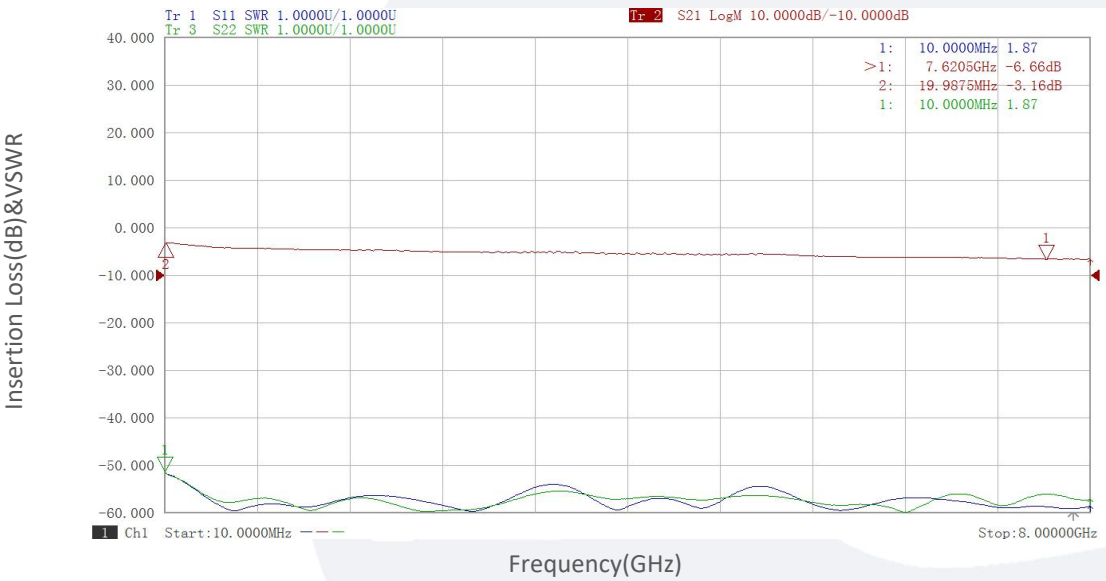
Isolation vs Frequency

J0-J2:



Insertion Loss&VSWR vs Frequency

J0-J3:



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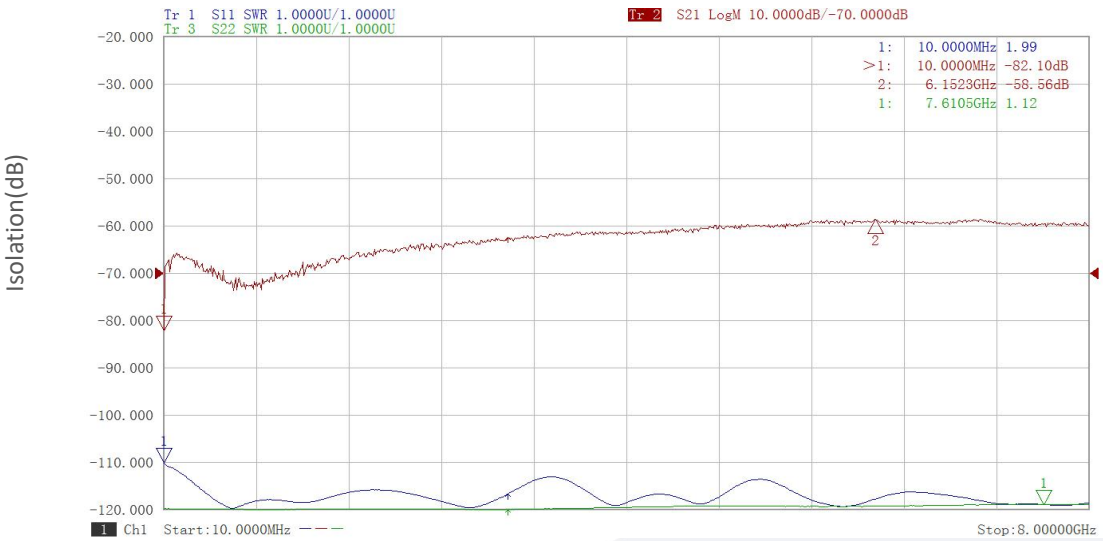
典型曲线 Typical Performance Data:

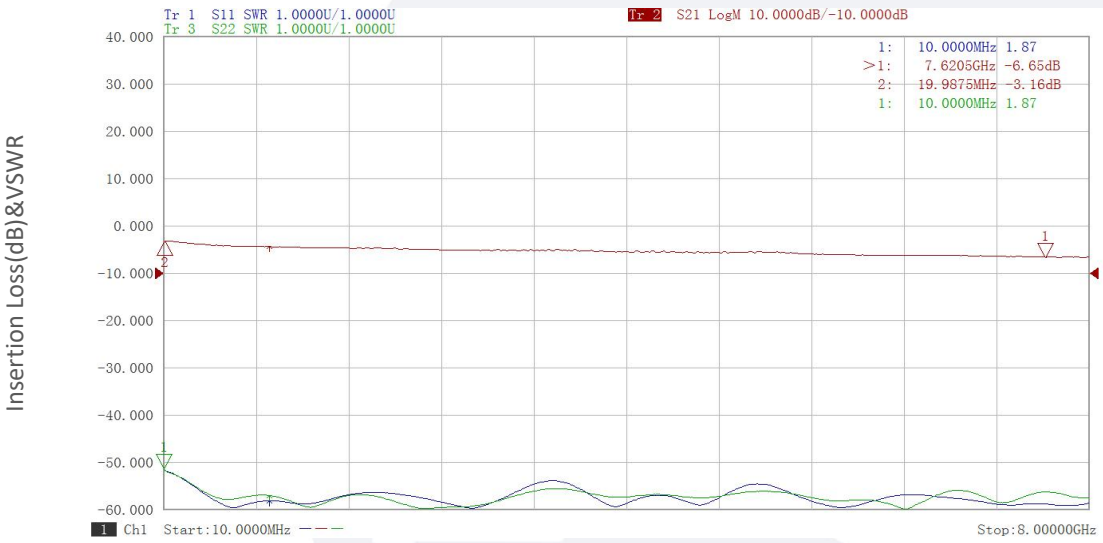
Isolation vs Frequency

J0-J3:



Insertion Loss&VSWR vs Frequency

J0-J4:



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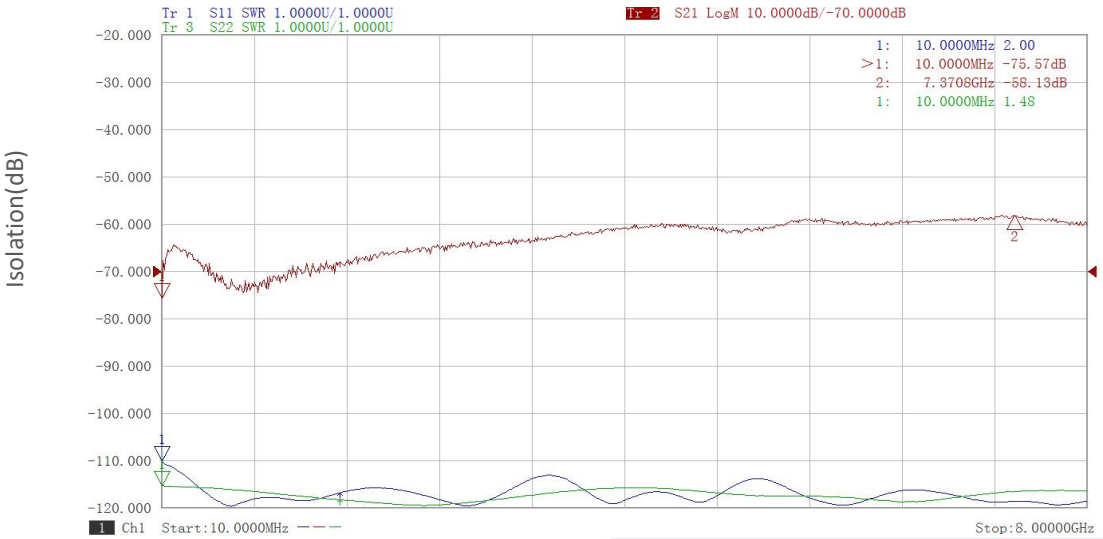
典型曲线 Typical Performance Data:

Isolation vs Frequency

J0-J4:



Isolation(dB)

Frequency(GHz)

Insertion Loss&VSWR vs Frequency

J0-J5:

Insertion Loss(dB)&VSWR

Frequency(GHz)

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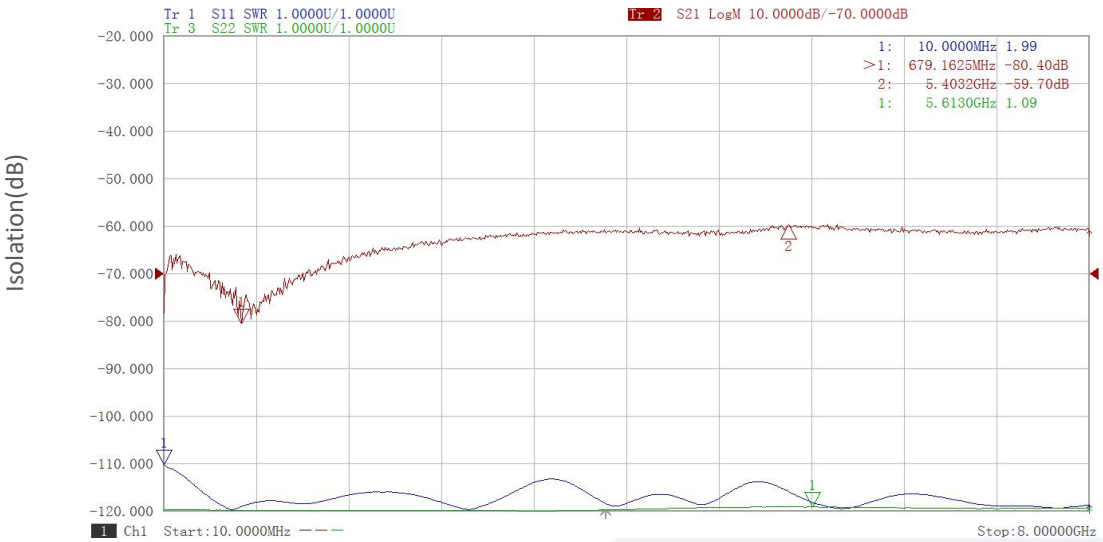
典型曲线 Typical Performance Data:

Isolation vs Frequency

J0-J5:

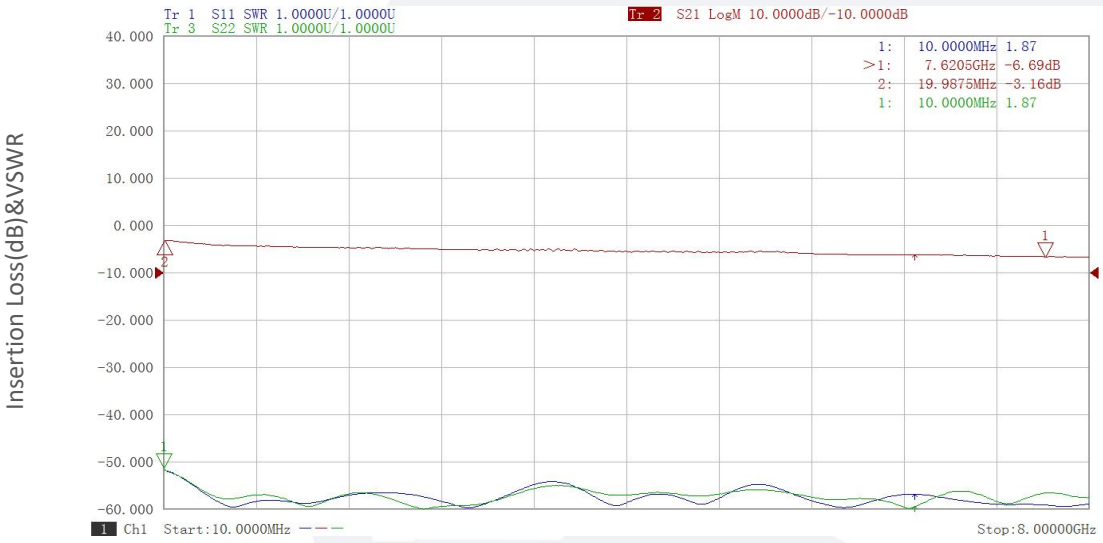


Isolation(dB)

Frequency(GHz)

Insertion Loss&VSWR vs Frequency

J0-J6:



Insertion Loss(dB)&VSWR

Frequency(GHz)

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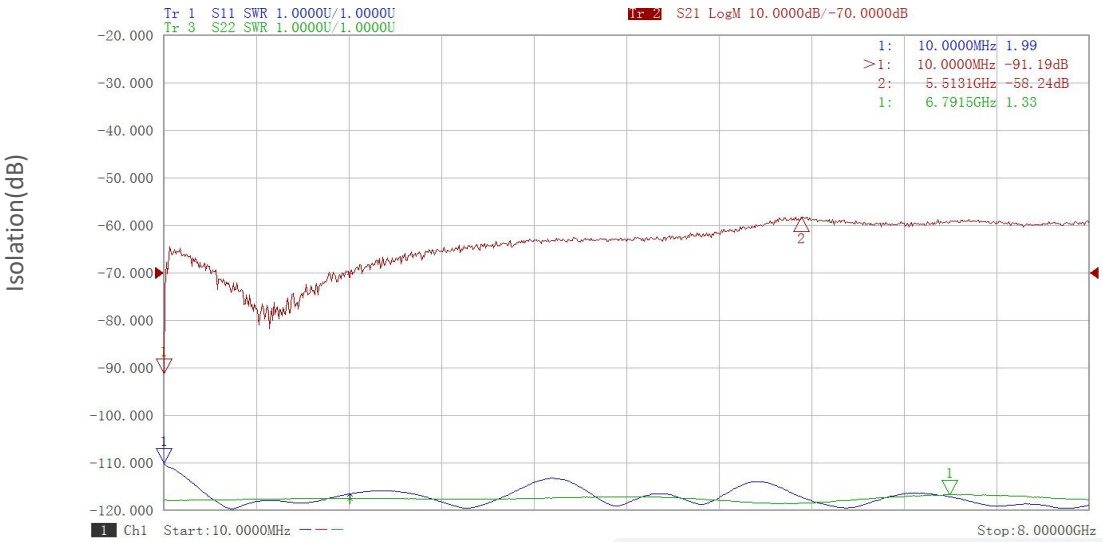
典型曲线 Typical Performance Data:

Isolation vs Frequency

J0-J6:

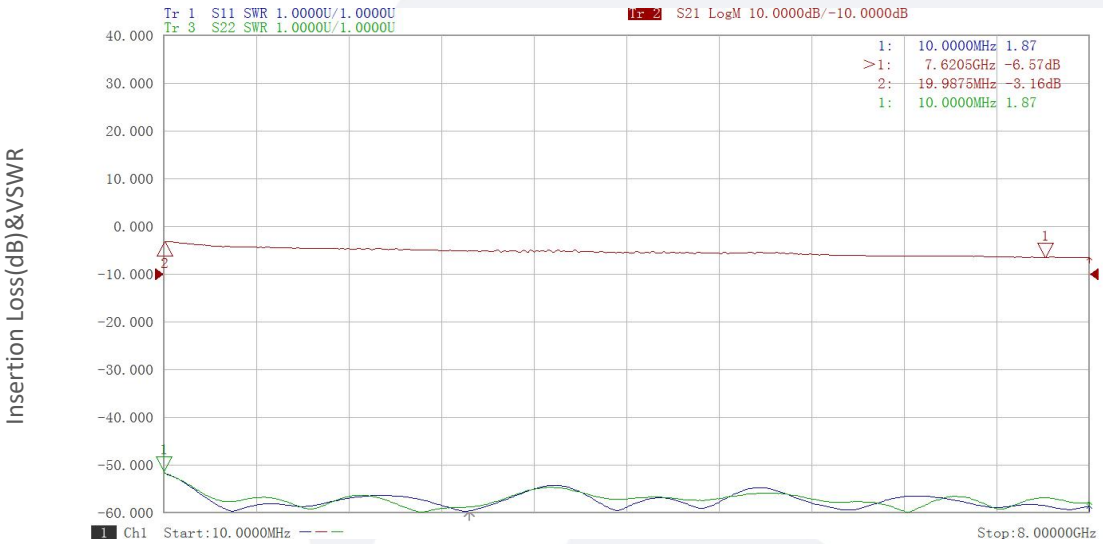


Isolation(dB)

Frequency(GHz)

Insertion Loss&VSWR vs Frequency

J0-J7:



Insertion Loss(dB)&VSWR

Frequency(GHz)

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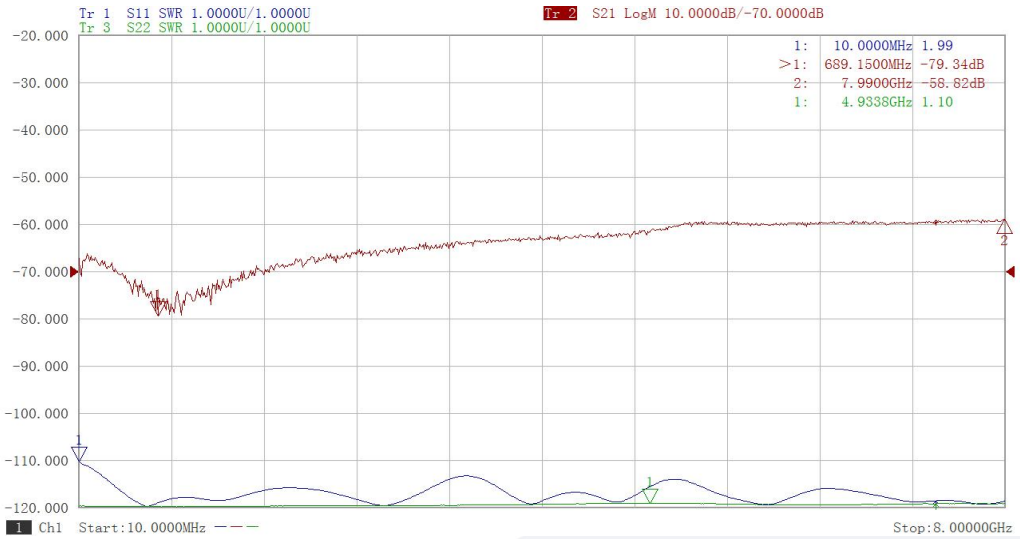
典型曲线 Typical Performance Data:

Isolation vs Frequency

J0-J7:

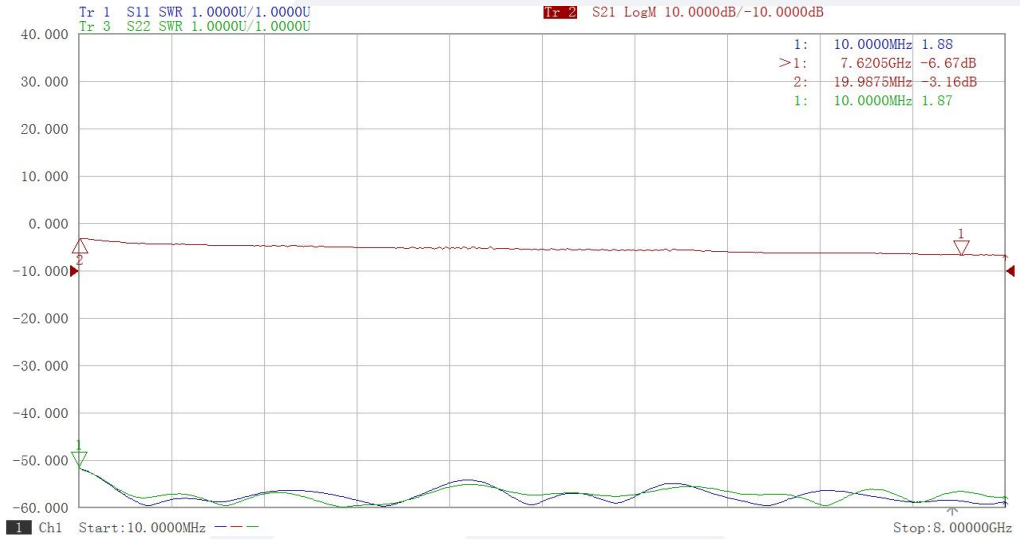


Isolation(dB)

Frequency(GHz)

Insertion Loss&VSWR vs Frequency

J0-J8:



Insertion Loss(dB)&VSWR

Frequency(GHz)

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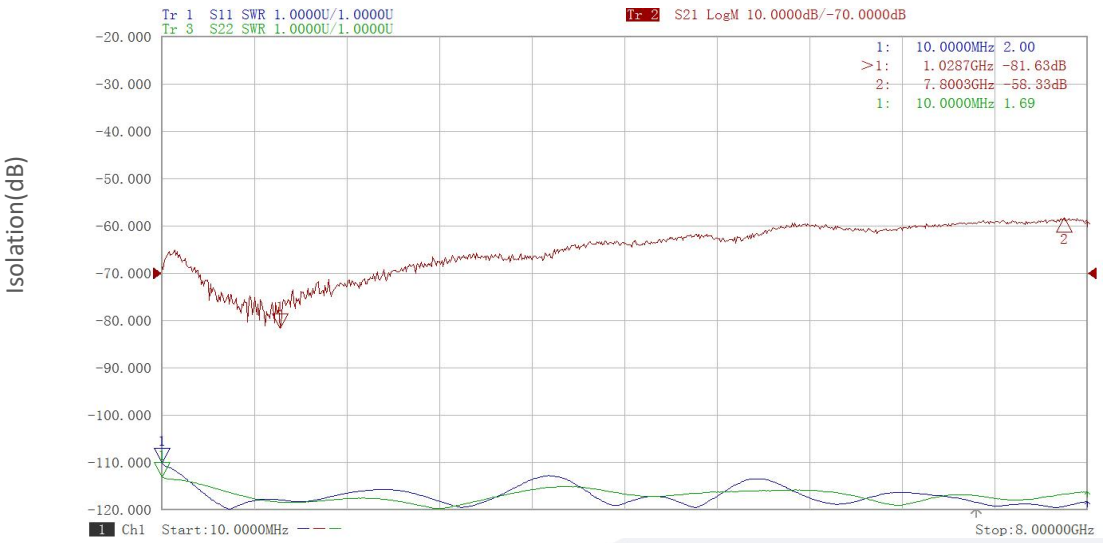
典型曲线 Typical Performance Data:

Isolation vs Frequency

J0-J8:

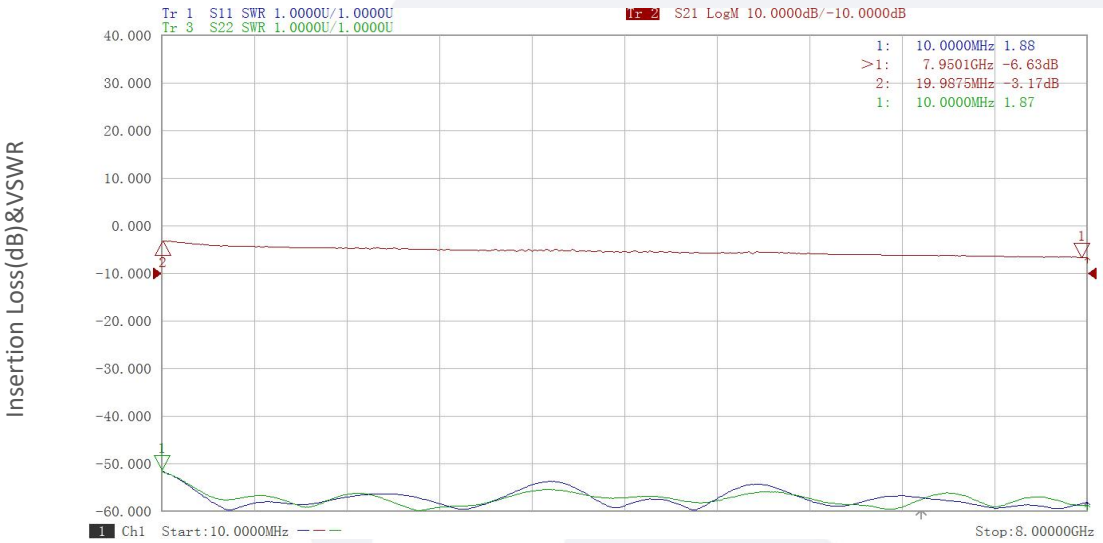


Isolation(dB)

Frequency(GHz)

Insertion Loss&VSWR vs Frequency

J0-J9:



Insertion Loss(dB)&VSWR

Frequency(GHz)

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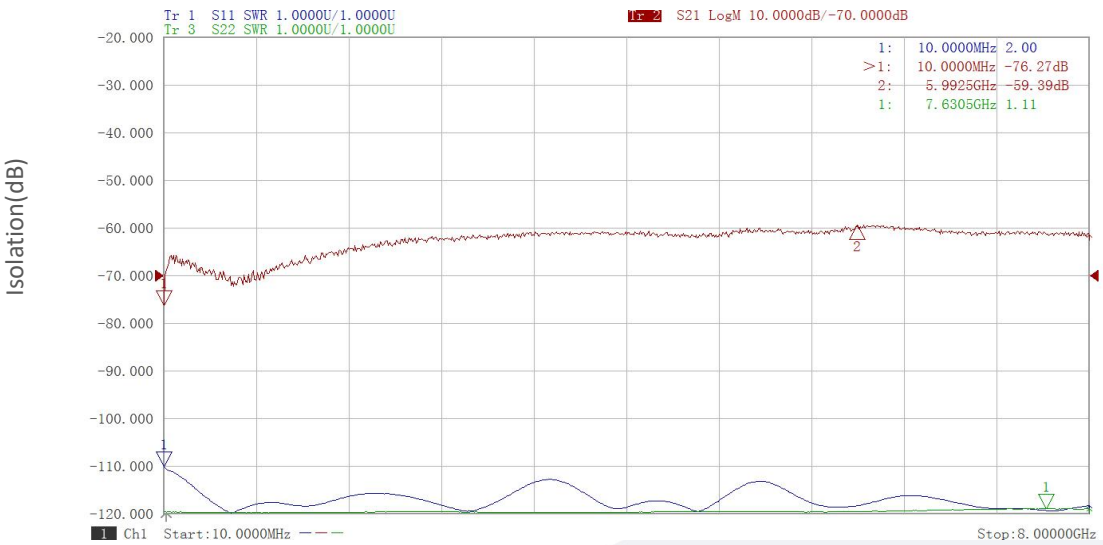
典型曲线 Typical Performance Data:

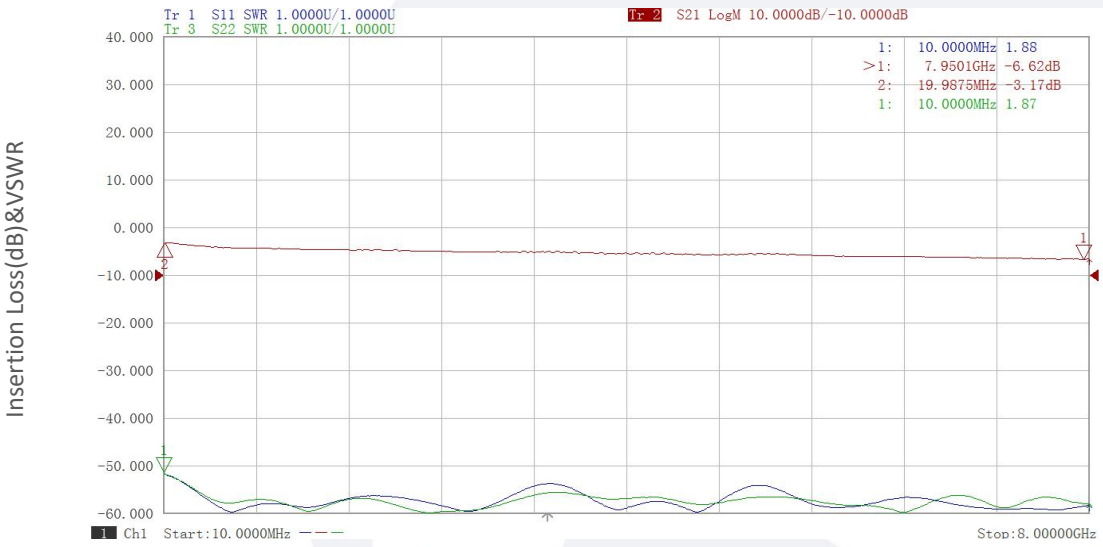
Isolation vs Frequency

J0-J9:



Insertion Loss&VSWR vs Frequency

J0-J10:



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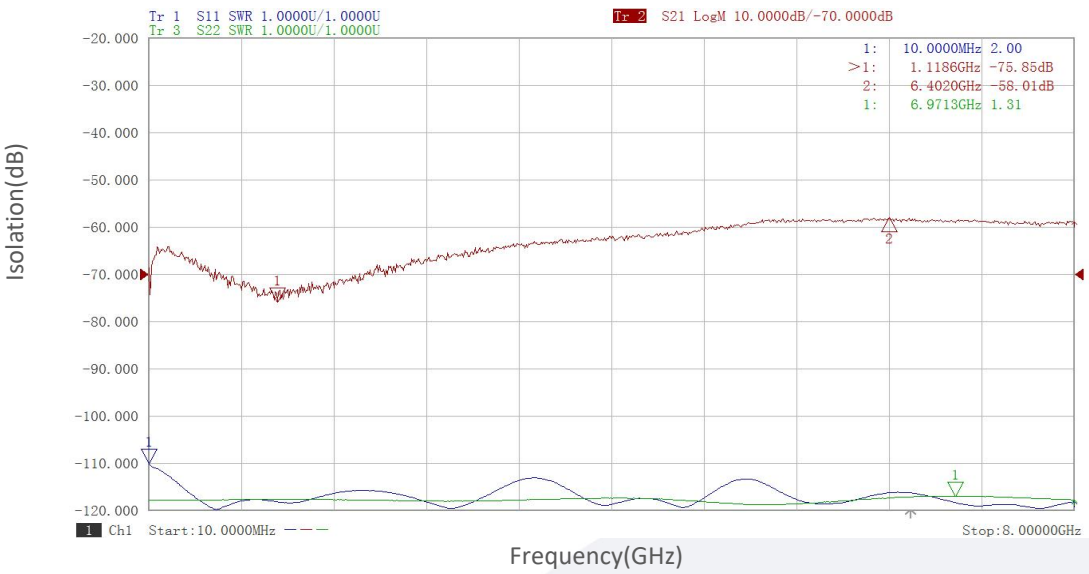
典型曲线 Typical Performance Data:

Isolation vs Frequency

J0-J10:

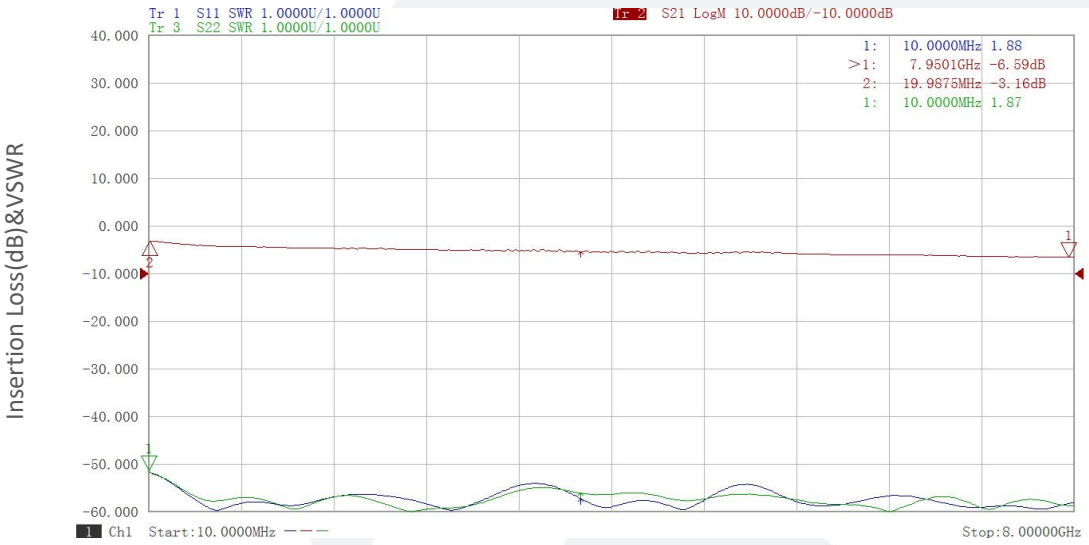


Isolation(dB)

Frequency(GHz)

Insertion Loss&VSWR vs Frequency

J0-J11:



Insertion Loss(dB)&VSWR

Frequency(GHz)

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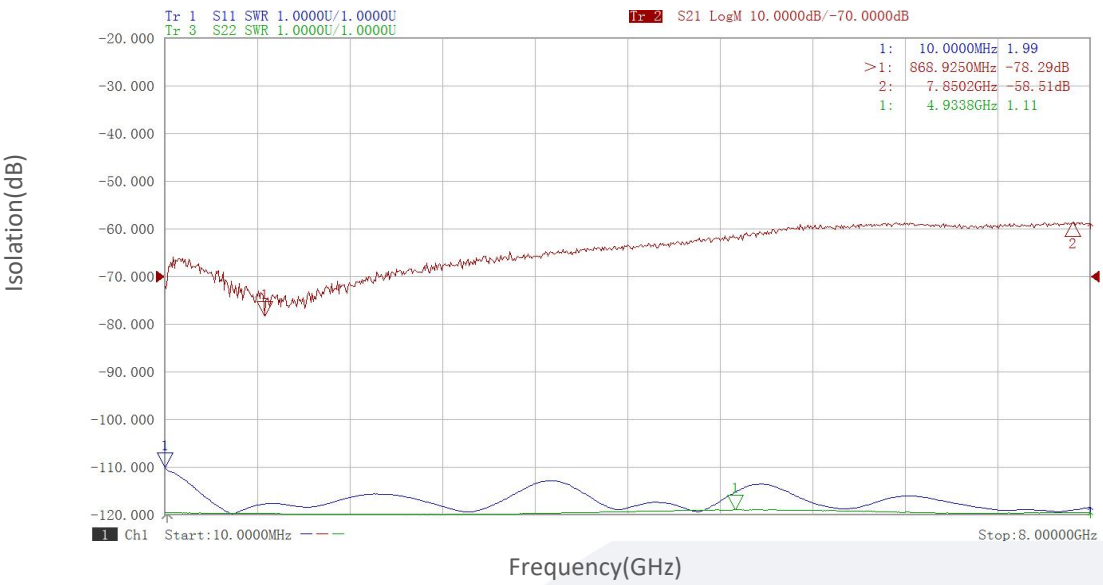
典型曲线 Typical Performance Data:

Isolation vs Frequency

J0-J11:

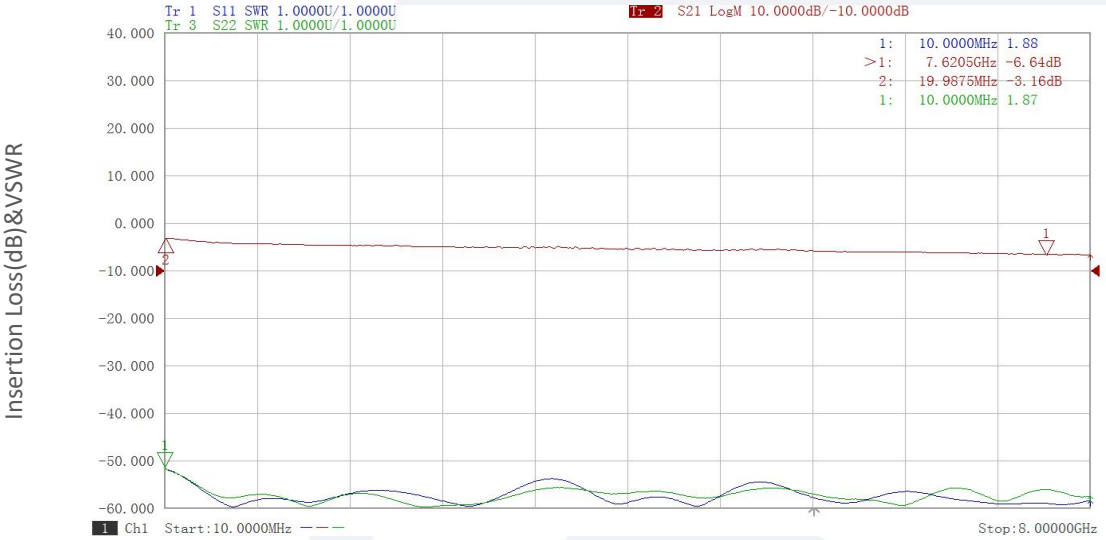


Isolation(dB)

Frequency(GHz)

Insertion Loss&VSWR vs Frequency

J0-J12:



Insertion Loss(dB)&VSWR

Frequency(GHz)

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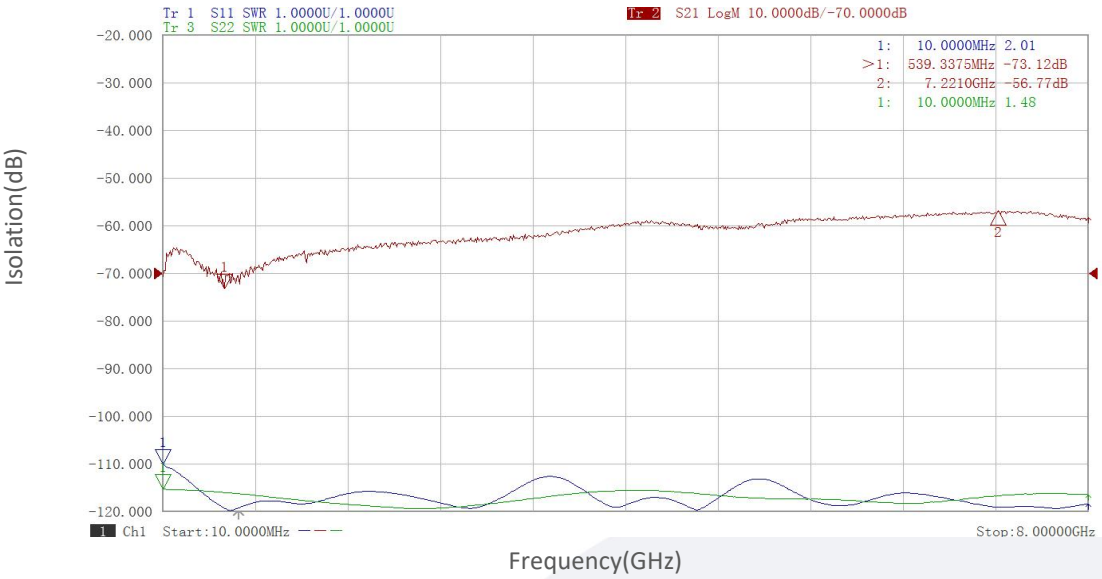
典型曲线 Typical Performance Data:

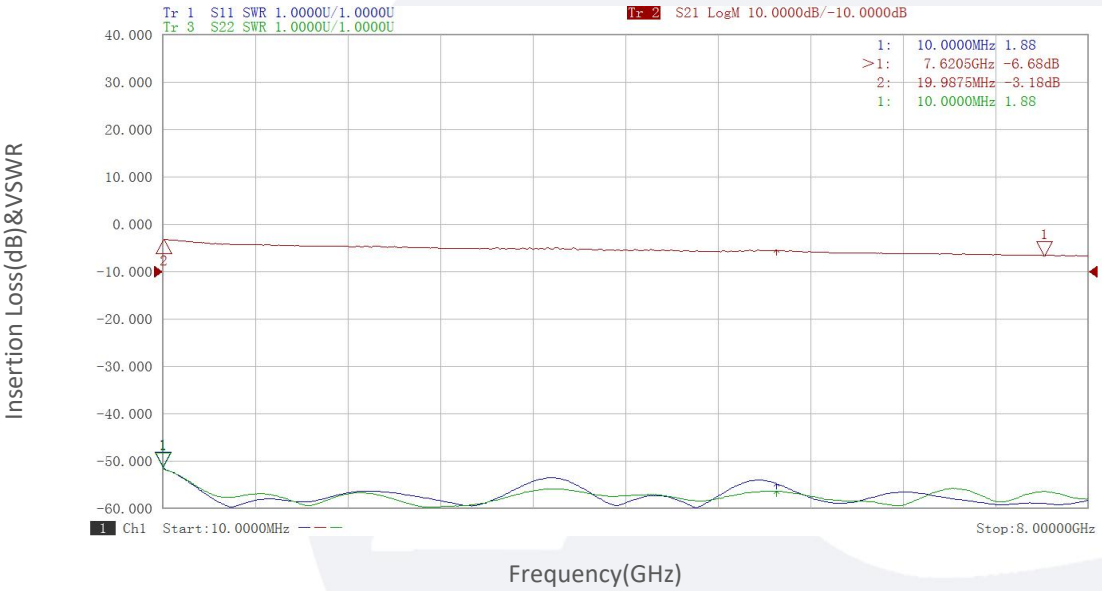
Isolation vs Frequency

J0-J12:



Insertion Loss&VSWR vs Frequency

J0-J13:



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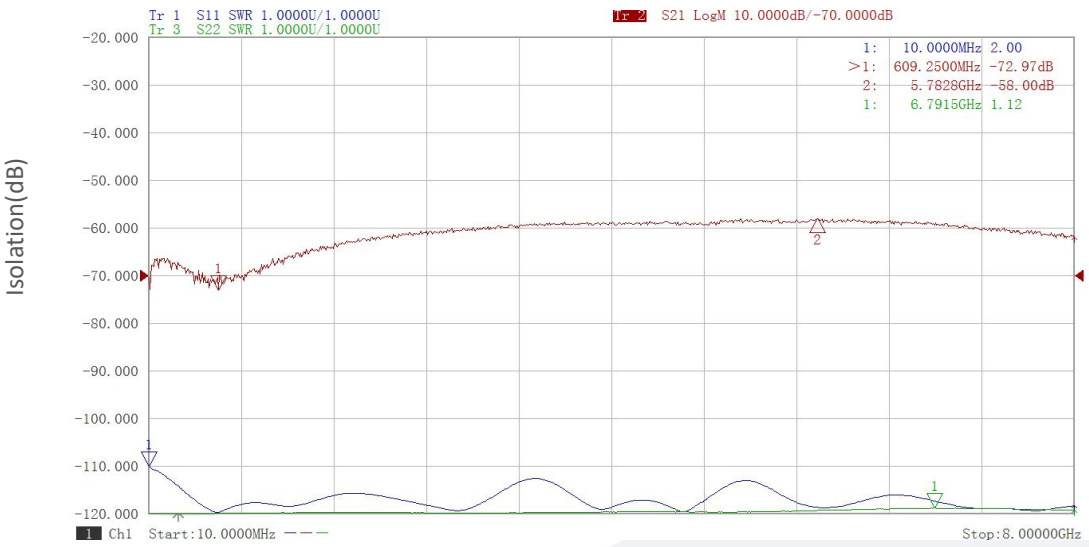
典型曲线 Typical Performance Data:

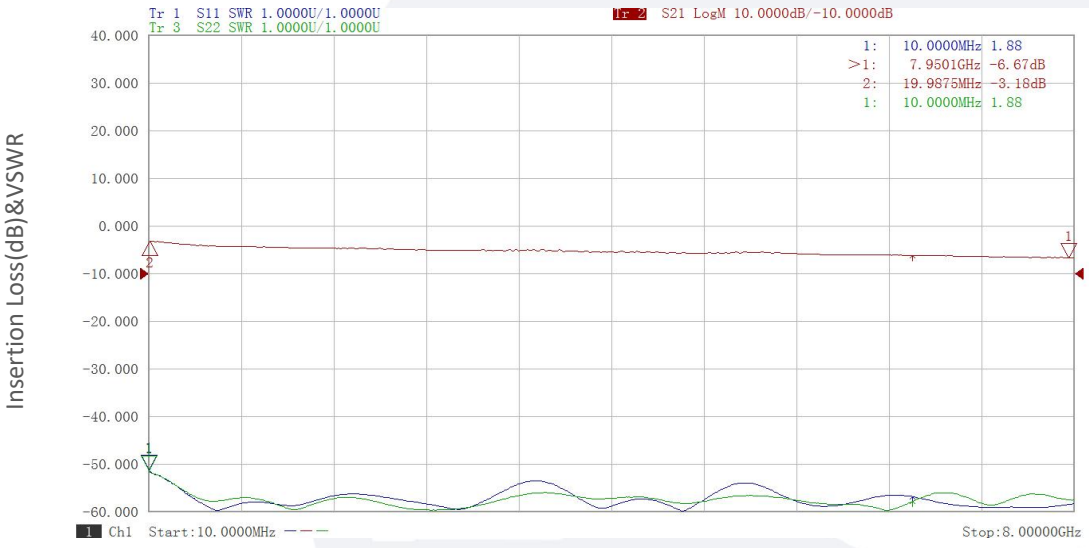
Isolation vs Frequency

J0-J13:



Insertion Loss&VSWR vs Frequency

J0-J14:



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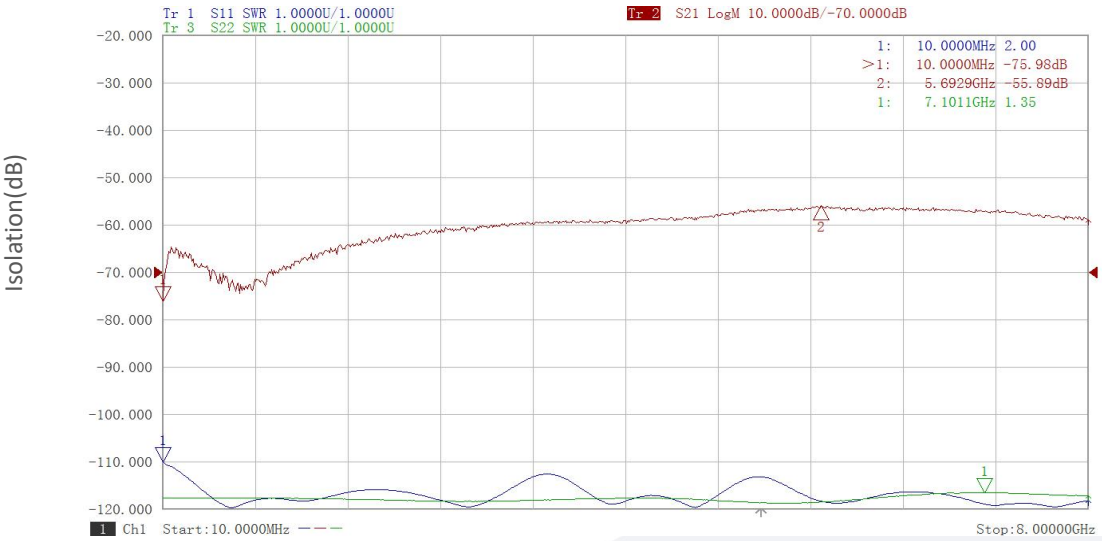
典型曲线 Typical Performance Data:

Isolation vs Frequency

J0-J14:

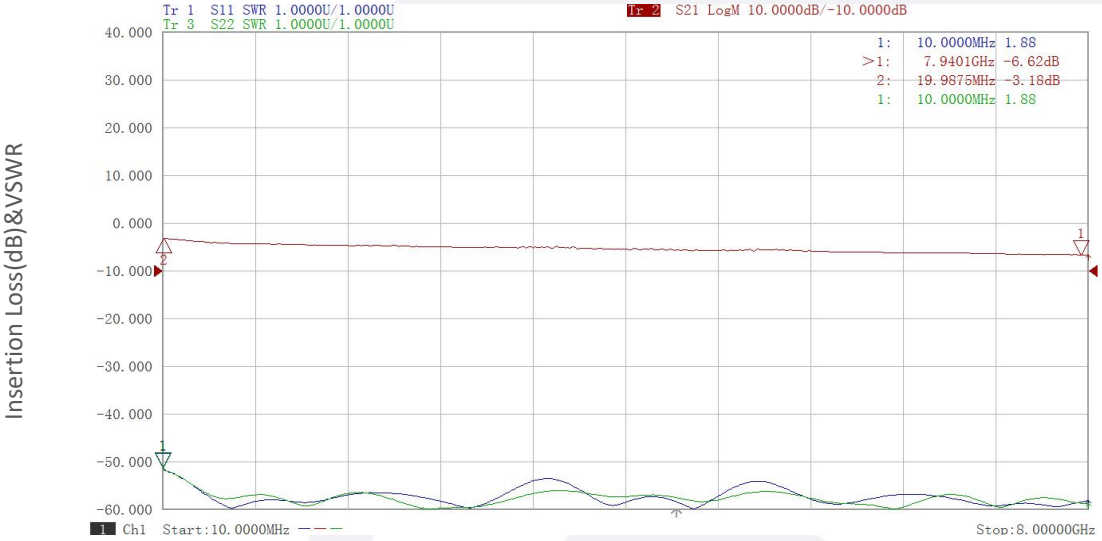


Isolation(dB)

Frequency(GHz)

Insertion Loss&VSWR vs Frequency

J0-J15:



Insertion Loss(dB)&VSWR

Frequency(GHz)

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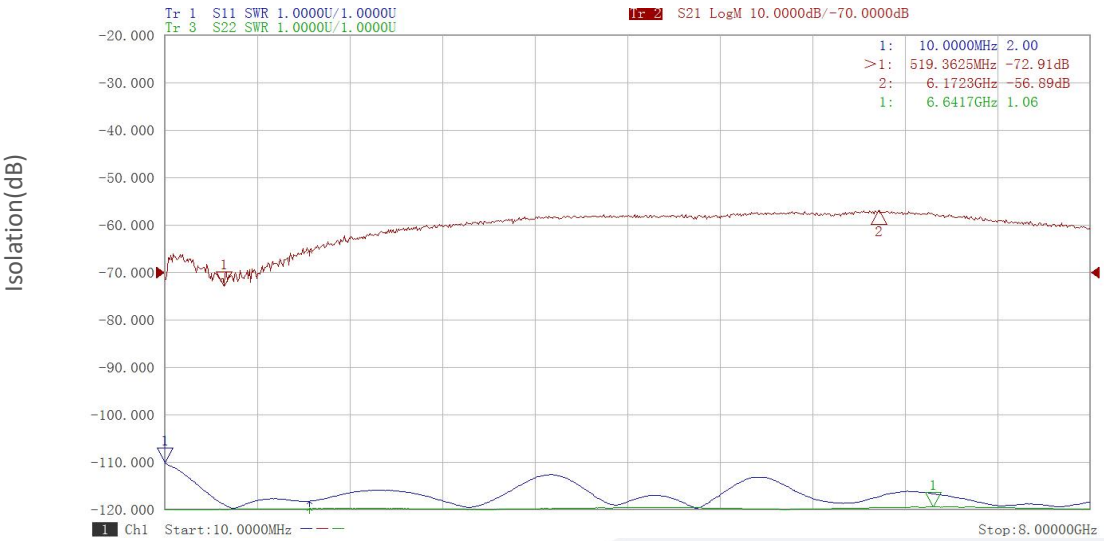
典型曲线 Typical Performance Data:

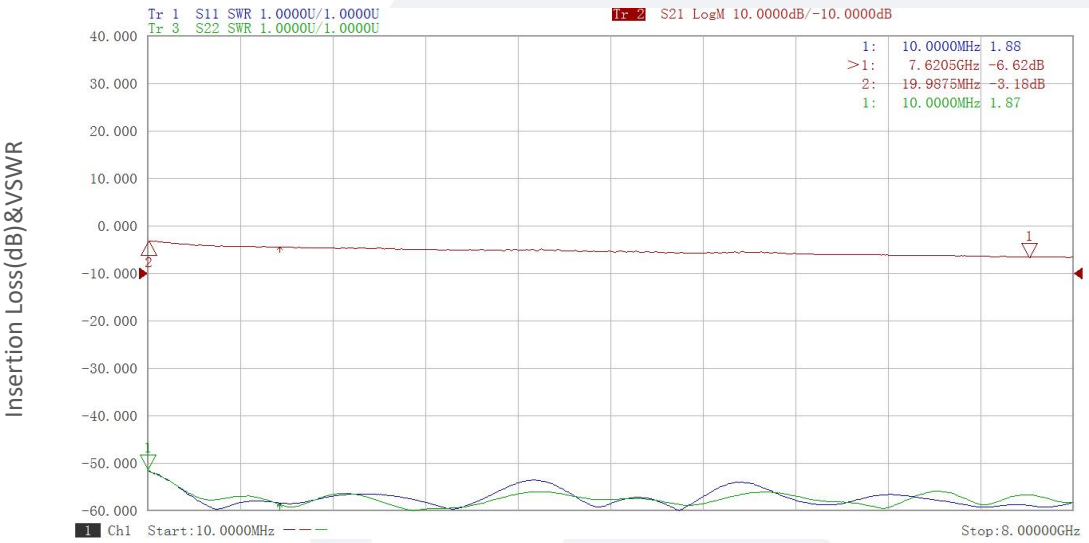
Isolation vs Frequency

J0-J15:



Insertion Loss&VSWR vs Frequency

J0-J16:



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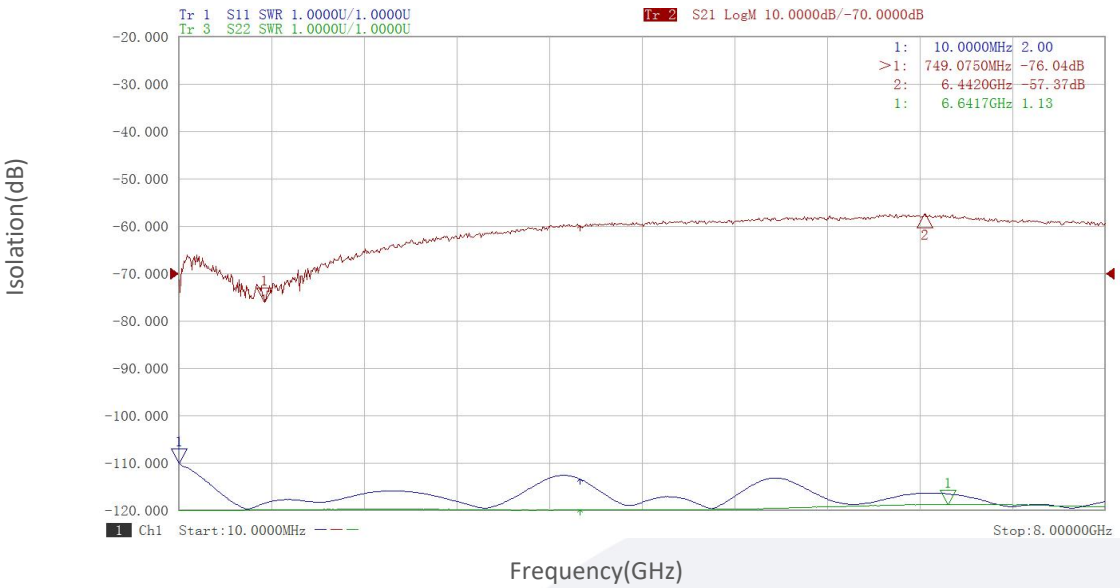
典型曲线 Typical Performance Data:

Isolation vs Frequency

J0-J16:



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.