

## Broadband Bias Tee

30KHz-70GHz /20V DC/1.85 mm

Model: TLBT-30K70G-25-VS

TLBT-30K70G-25-VS is a bias tee that operates from 30 kHz to 70 GHz. The bias tee offers 4.0 dB insertion loss and -15 dB return loss. The bias tee can handle up to +25 VDC bias voltage and 500 mA current. The RF ports are equipped with 1.85 mm female connectors. Other connector types are available under different model numbers.

### Features:

- Ultra Wide Band:30KHz-70GHz
- Low Insertion Loss
- High Voltage
- High Current Capacity

### Applications:

- Test Lab
- Sub-assemblies
- System Integrations

## 电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	30KHz-70GHz			
插损 Insertion Loss		4.0		dB
回波损耗 Return Loss		-15		dB
隔离 Isolation		30		dB
直流电压 DC Voltage			+25	V DC
直流电流 DC Current			500	mA
射频功率 RF Power			1	W

## 机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	1.85mm Female/1.85mm Female	
直流接口 DC Connector	SMA Female	
壳体材料 Case Material	Aluminum	

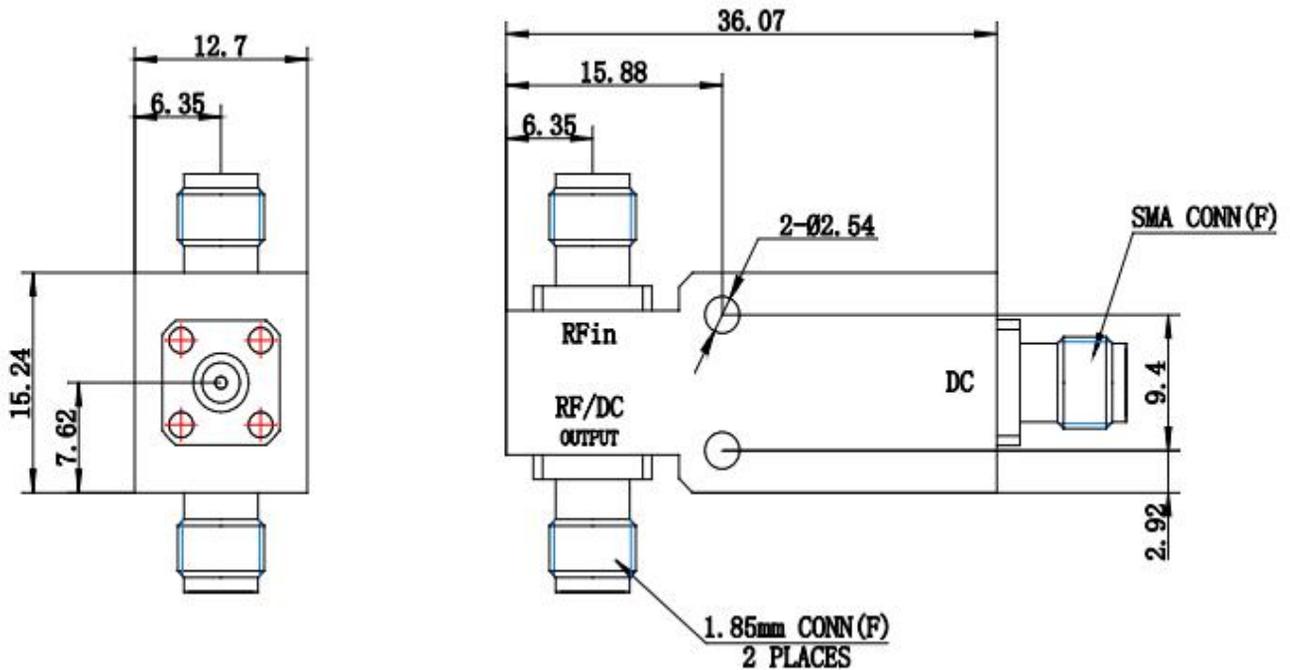
表面处理

## 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+25 V
输入功率 RF Input Power	+30 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

## 外形图 Outline Drawing:

Unit:mm



OBSERVE PRECAUTIONS  
 ELECTROSTATIC SENSITIVE

## 温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	0		+50	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			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:

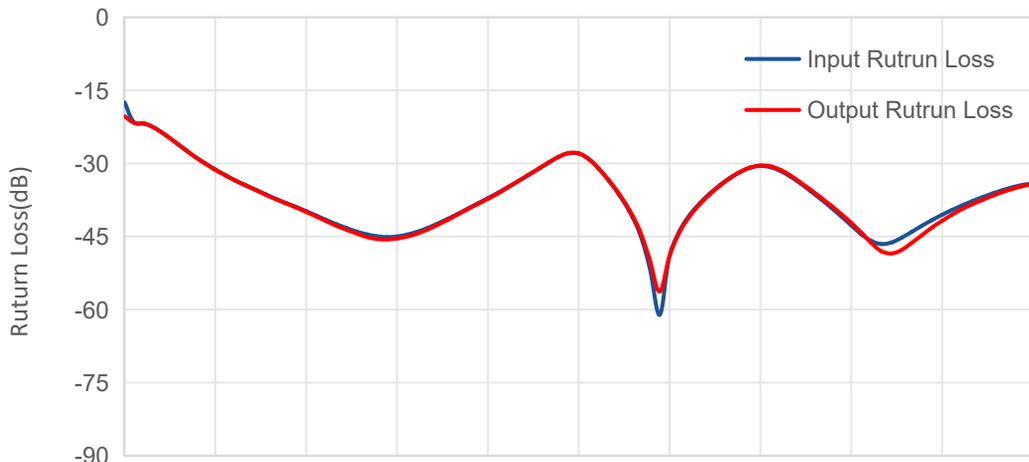
标准型号 Base Number	描述 Description	版本号 Revision
TLBT-30K70G-25-VS	Broadband Bias Tee 1.85mm,30KHz-70GHz,25V	Rev.1.1

### Notes:

1. All data taken @ +23° C unless otherwise specified.
2. Dimensions and specifications may be changed without prior notice.

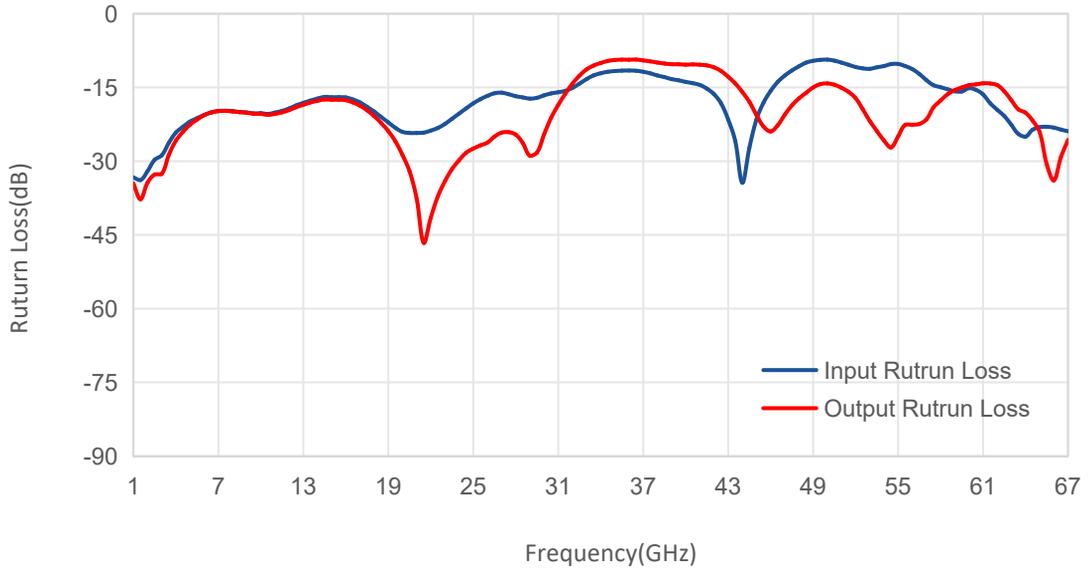
## 典型曲线 Typical Performance Data:

Return Loss vs Frequency

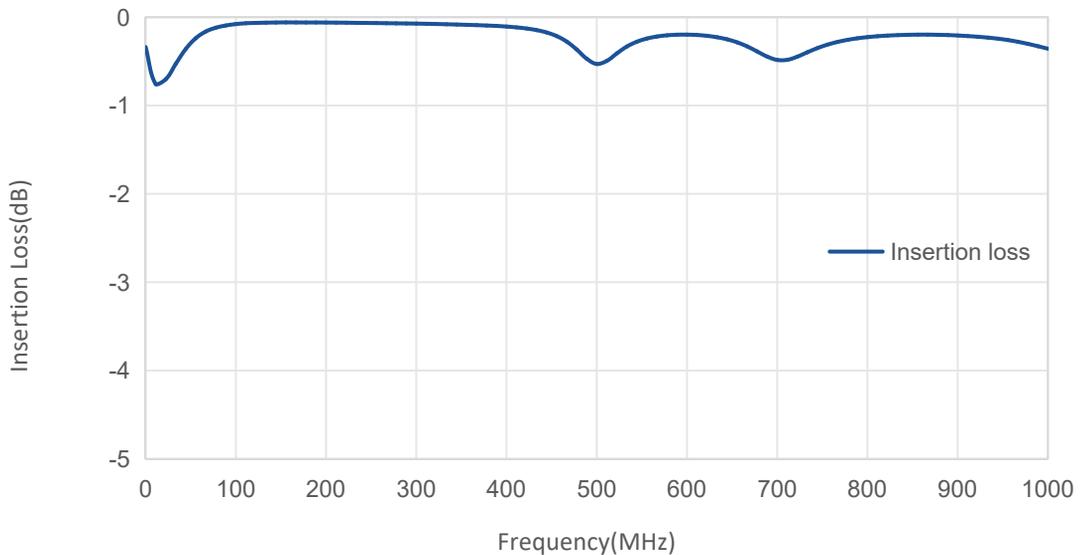


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### Return Loss vs Frequency

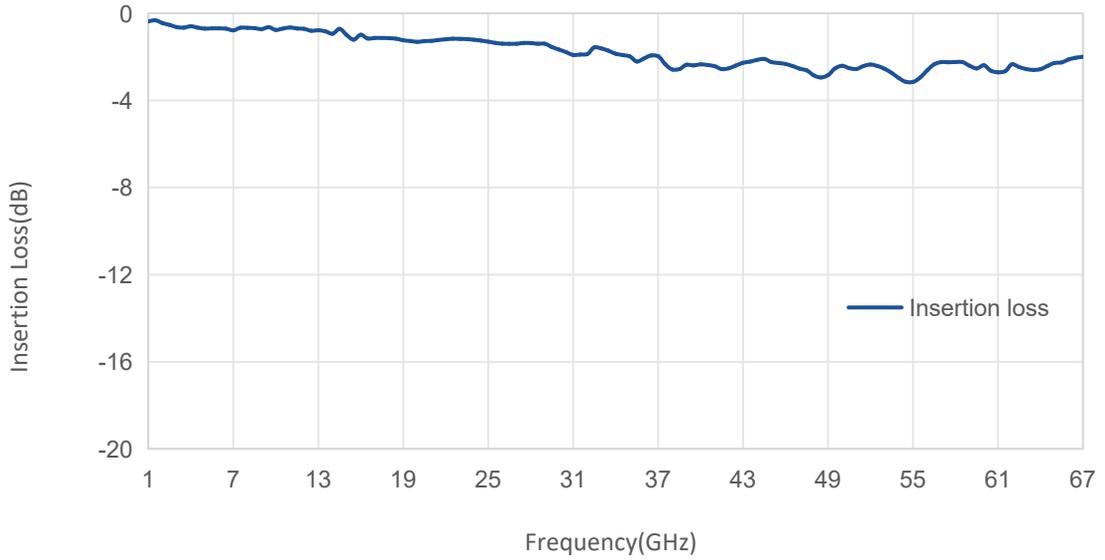


### RF to Com Insertion Loss vs Frequency

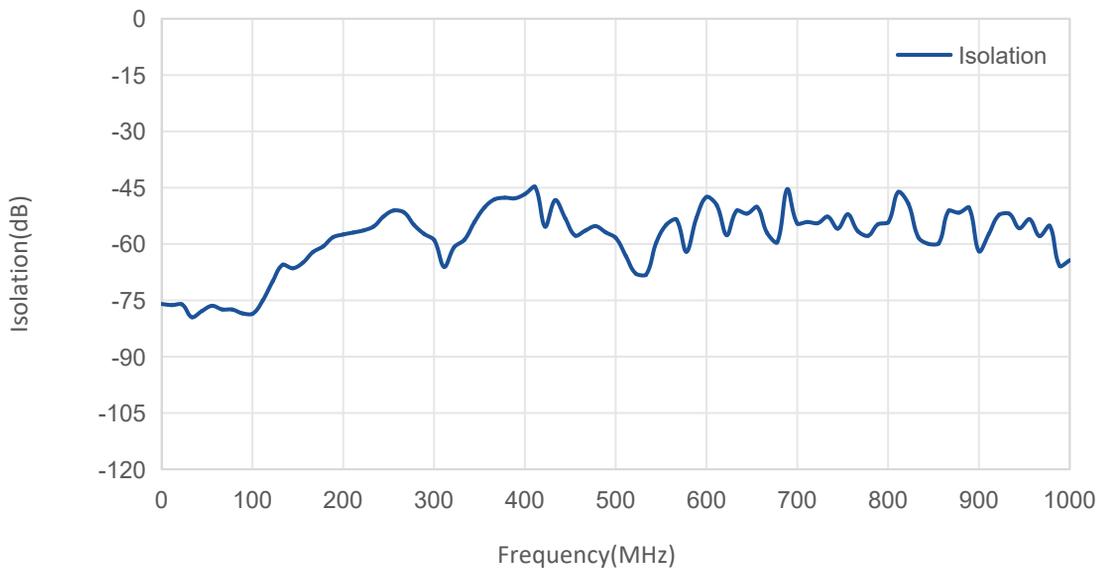


## 典型曲线 Typical Performance Data:

### RF to Com Insertion Loss vs Frequency

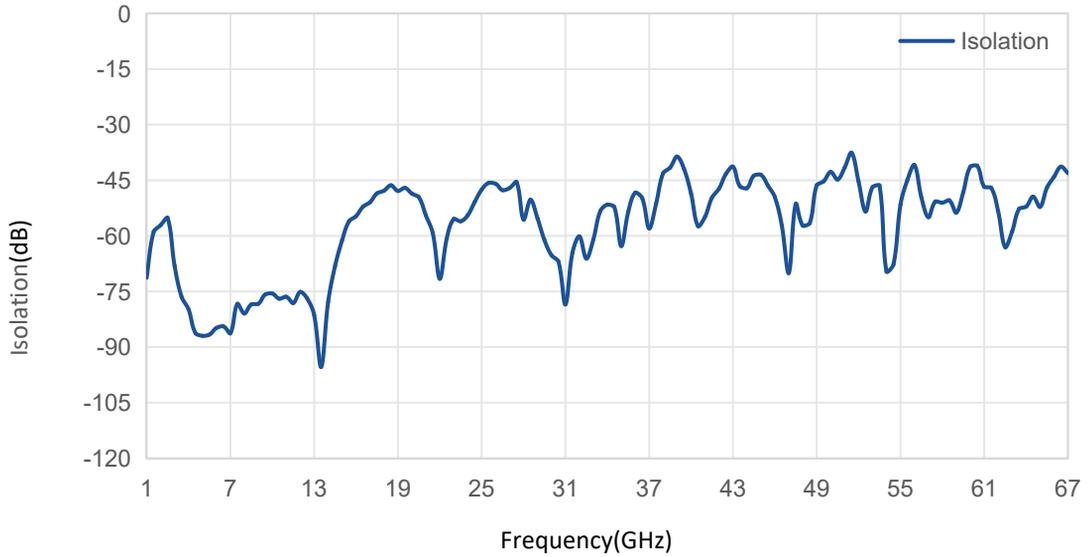


### DC to Com Isolation vs Frequency

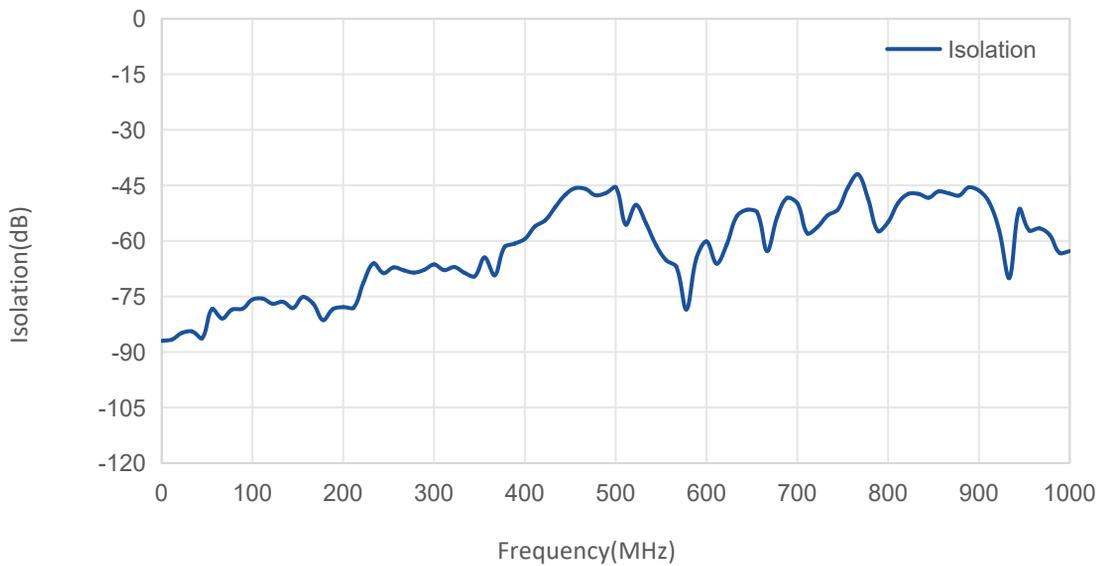


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### DC to Com Isolation vs Frequency

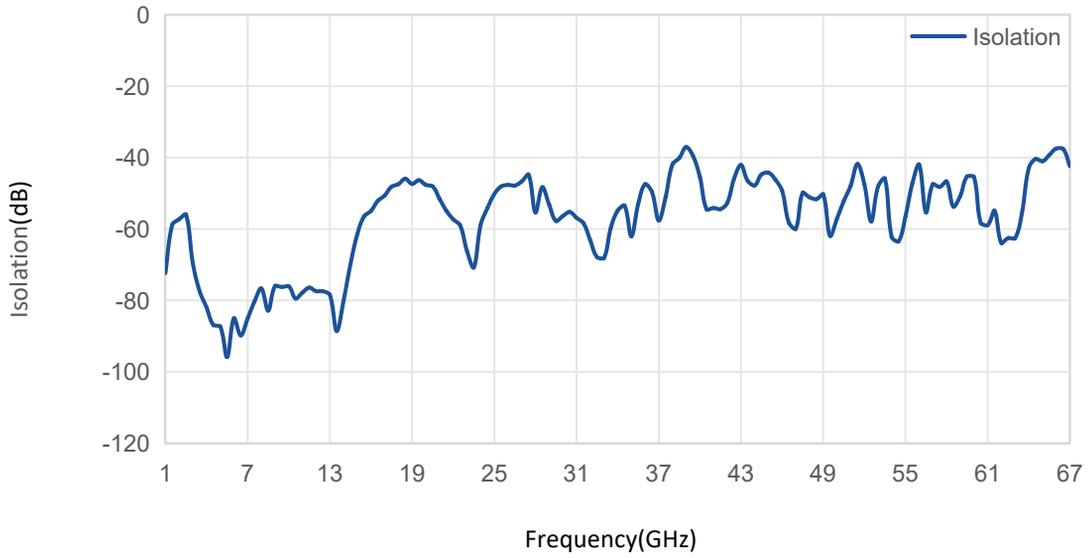


### DC to RF Isolation vs Frequency

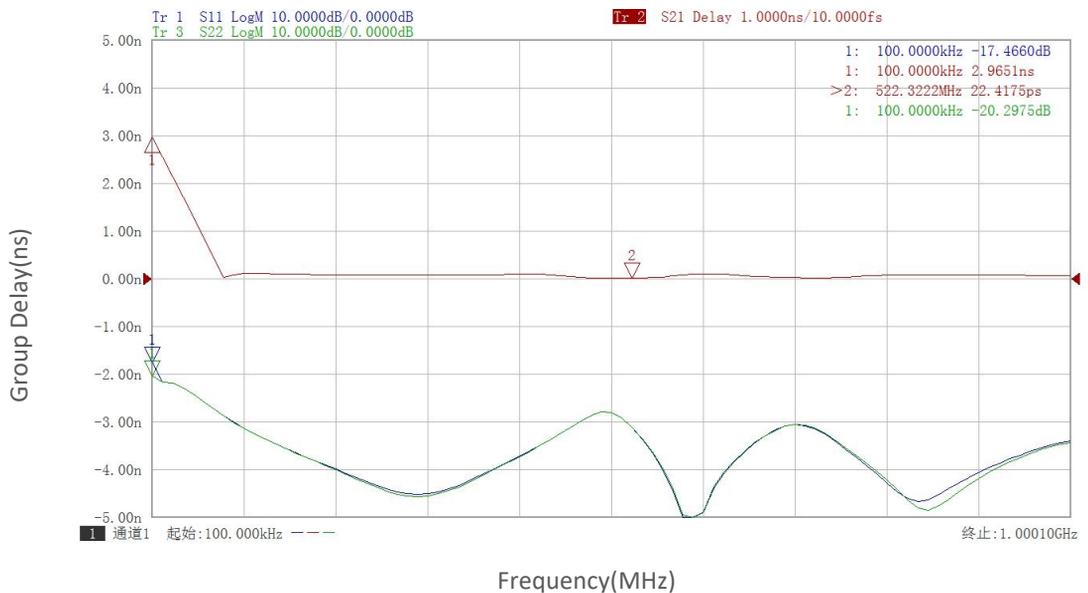


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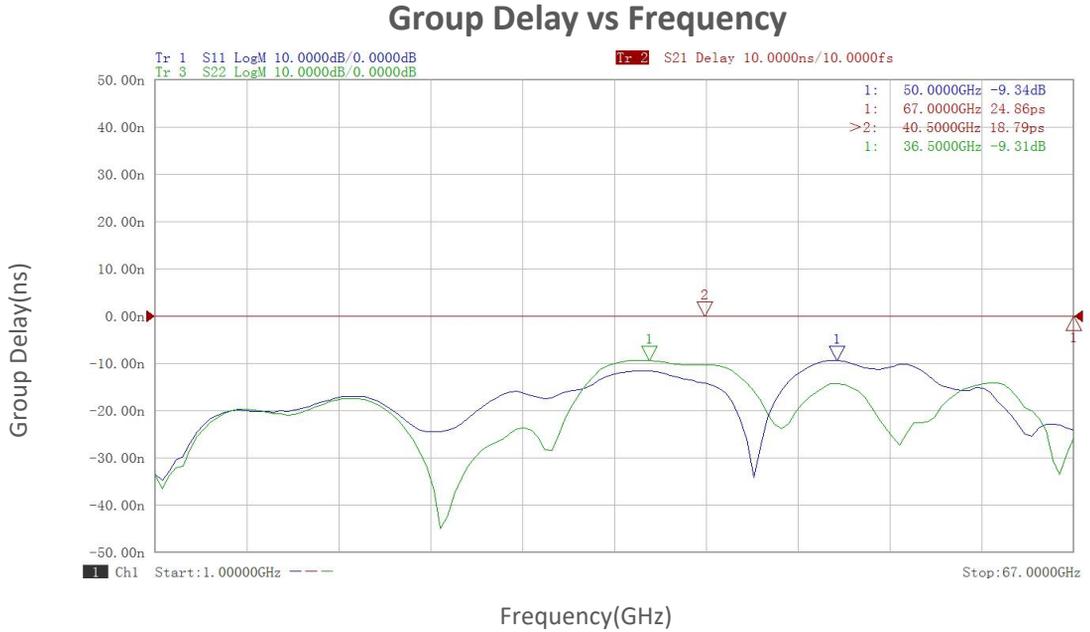
### DC to RF Isolation vs Frequency



### Group Delay vs Frequency



典型曲线 Typical Performance Data:



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.