

Cryogenic RF Choke

100KHz-18GHz /18V DC/SMA

Model: TLBT-100K18G-18-SS-Cryo

TLBT-100K18G-18-SS-Cryo is a cryogenic RF choke that operates from 100 KHz to 18 GHz. The cryogenic RF choke offers 2.0 dB insertion loss and -15 dB typical return loss. The cryogenic RF choke can handle up to +18 VDC bias voltage and 700 mA current. The all ports are equipped with SMA female connectors.

Features:

- Frequency range:100KHz-18GHz
- 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	100KHz-18GHz			
插损 Insertion Loss			2	dB
回波损耗 Return Loss		-15		dB
隔离 Isolation	35			dB
直流电压 DC Voltage			18	V DC
直流电阻 DC Resistance		4		Ω
直流电流 DC Current			700	mA
射频功率 RF Power			1	W

机械特性 Mechanical Specifications:

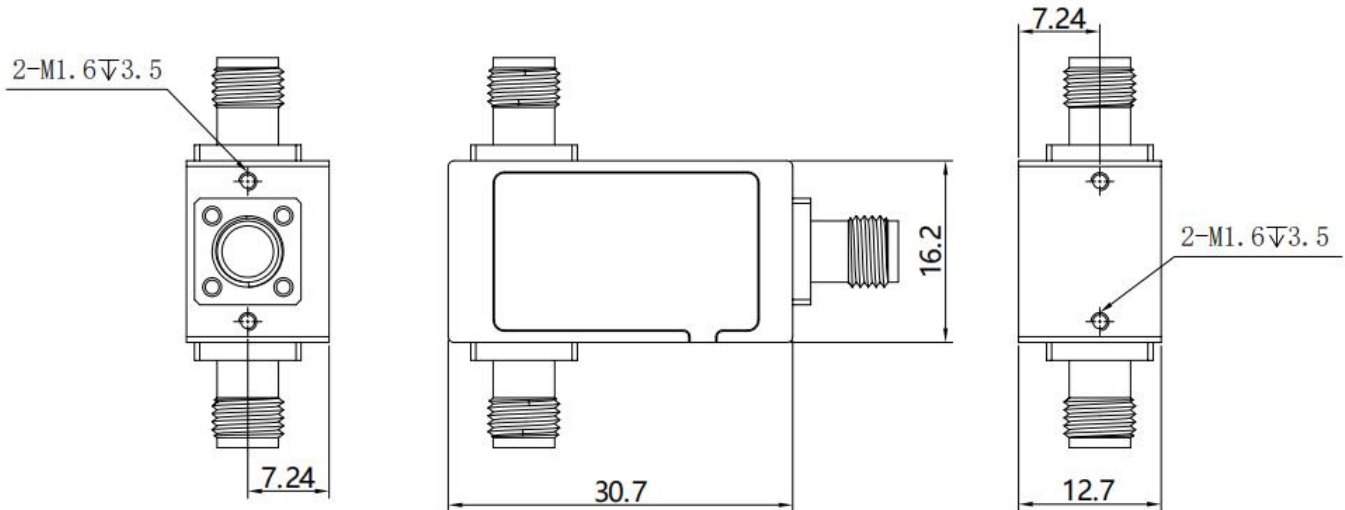
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
直流接口 DC Connector	SMA Female	
壳体材料 Case Material	OFC	
表面处理 Finish	Bue Paint	
尺寸 Size	30.7*16.2*12.7	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+18 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



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

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	10mK		+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 Base Number	描述 Description	版本号 Revision
TLBT-100K18G-18-SS-Cryo	Cryogenic RF Choke SMA,100KHz-18 GHz,+18V	Rev.1.1

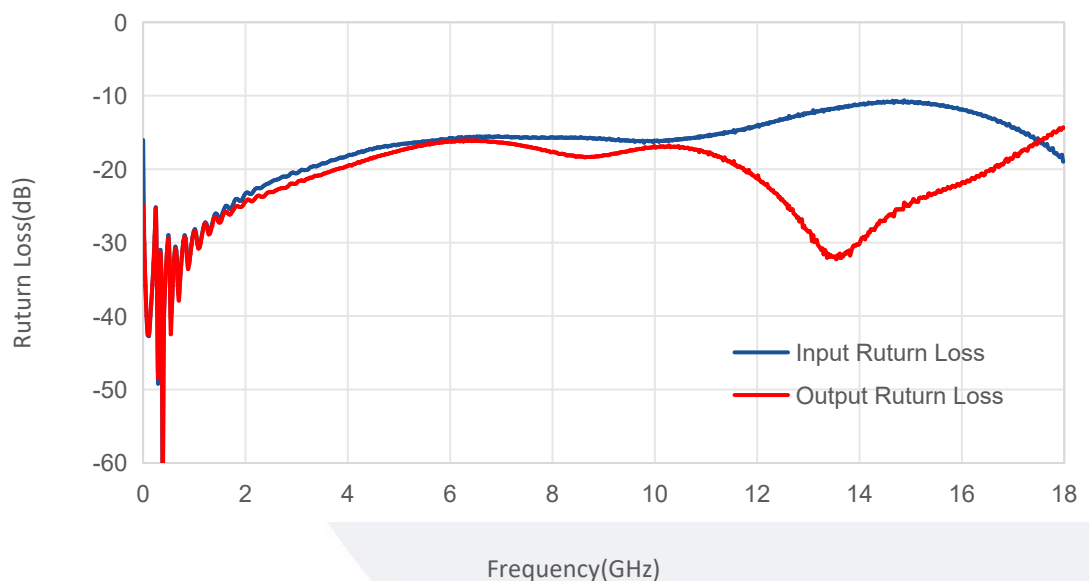
Notes:

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:

298K:

Return Loss vs Frequency

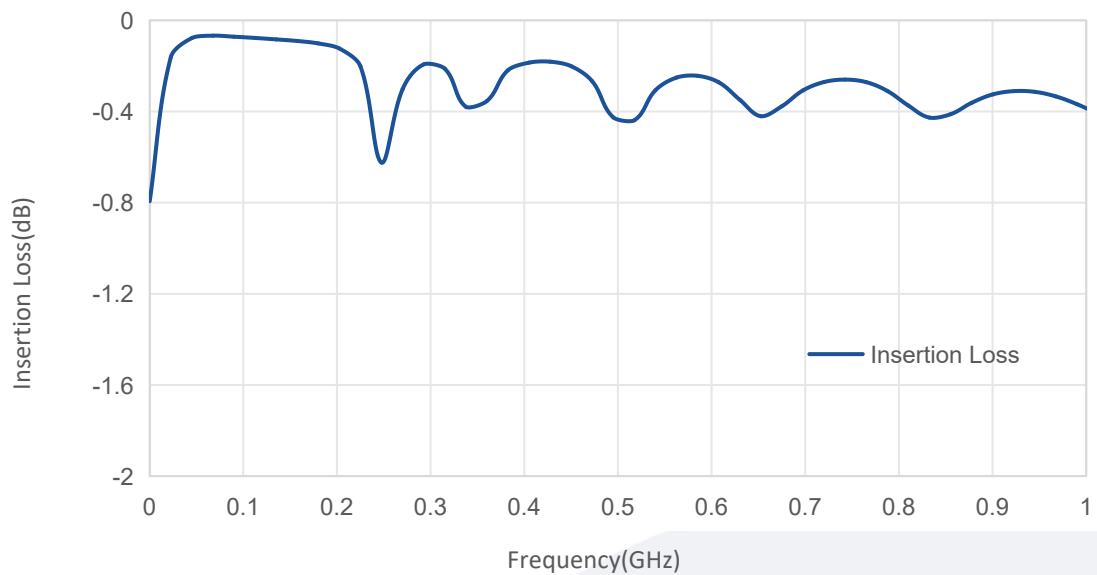


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

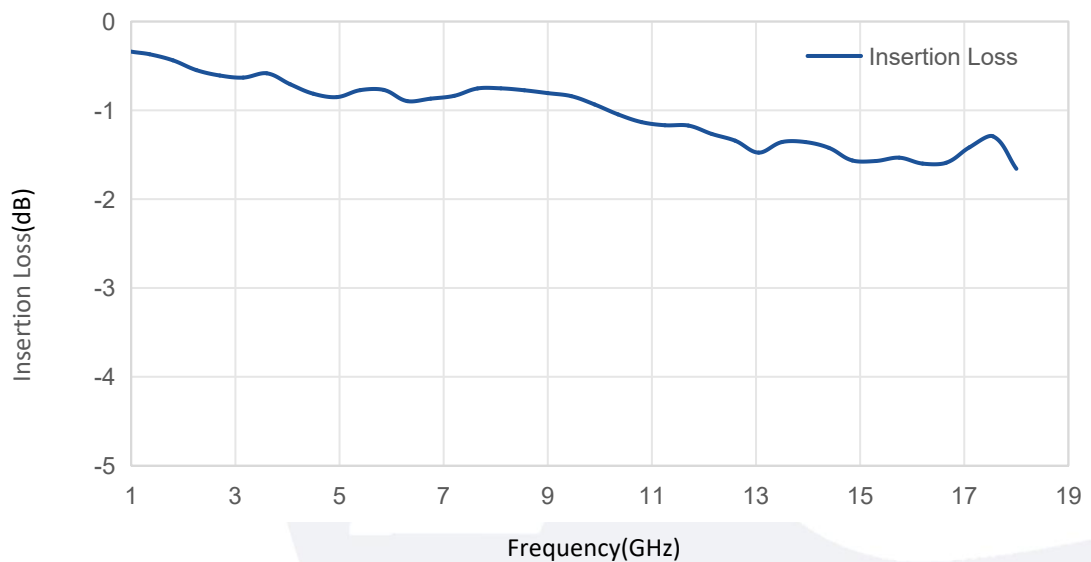
298K:

RF to Com Insertion Loss vs Frequency



298K:

RF to Com Insertion Loss vs Frequency

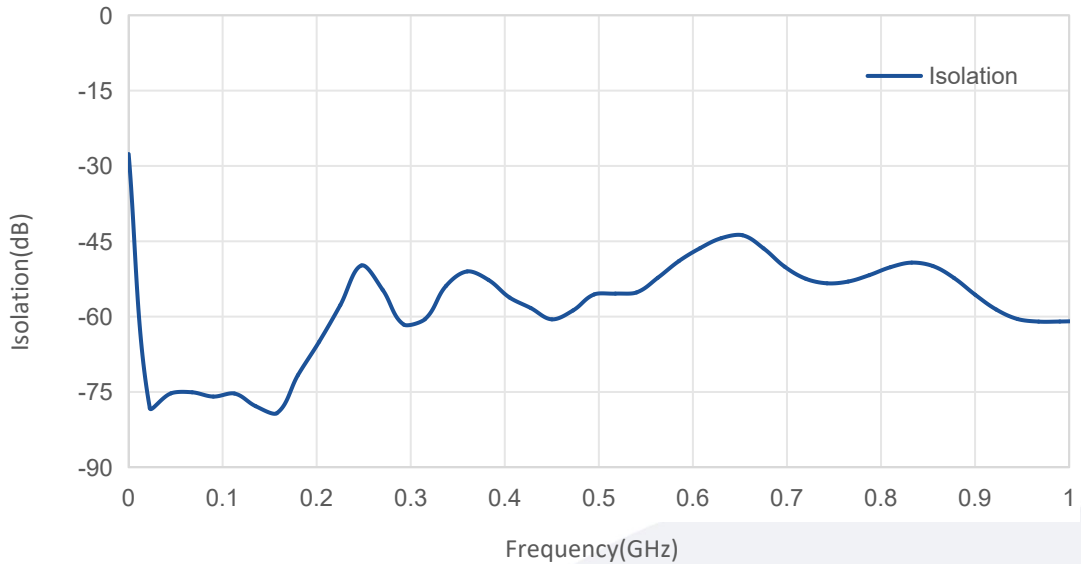


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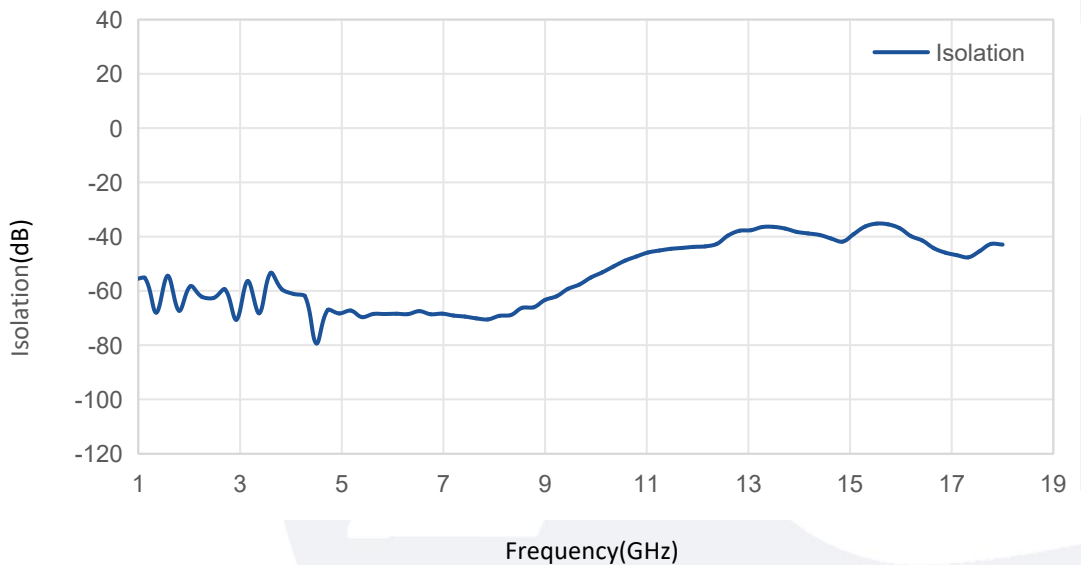
298K:

DC to Com Isolation vs Frequency



298K:

DC to Com Isolation vs Frequency

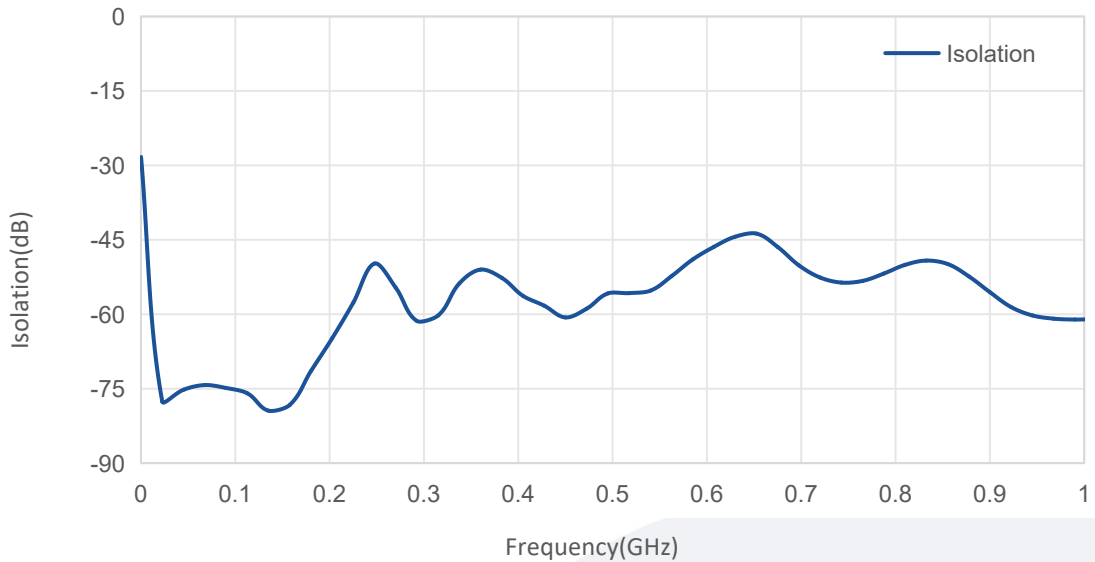


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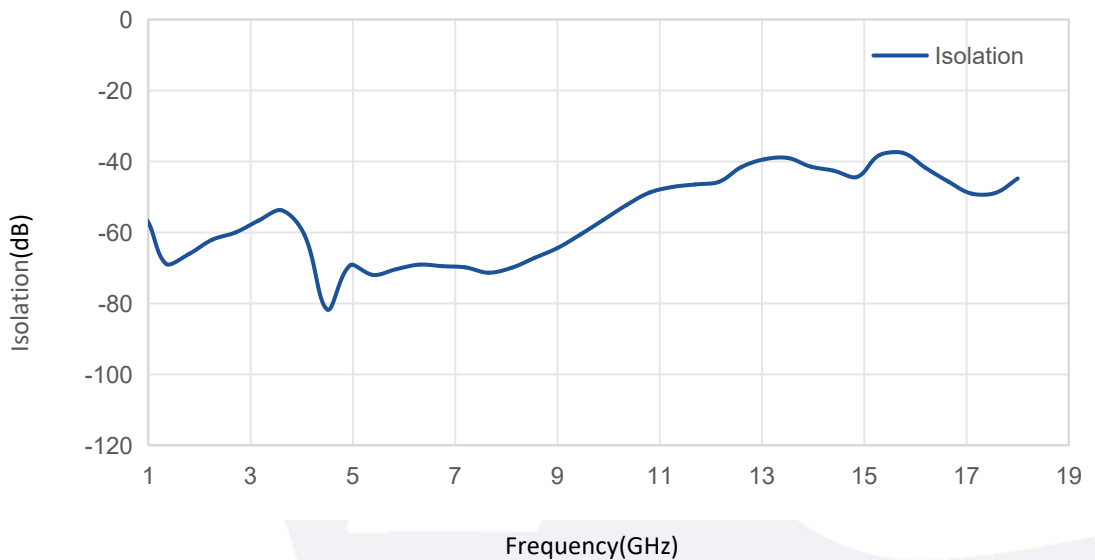
298K:

DC to RF Isolation vs Frequency



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DC to RF Isolation vs Frequency

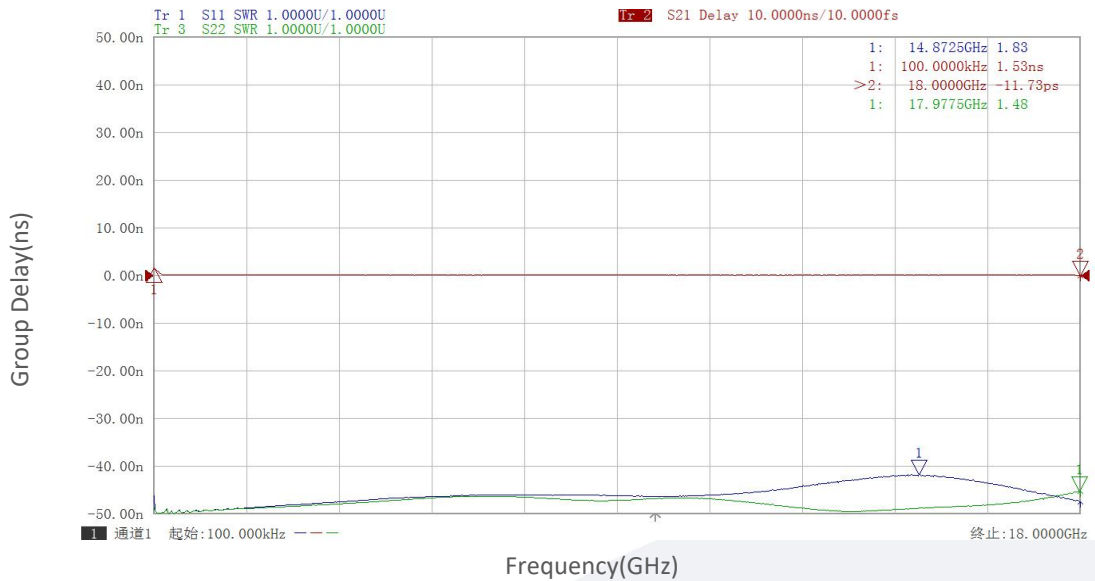


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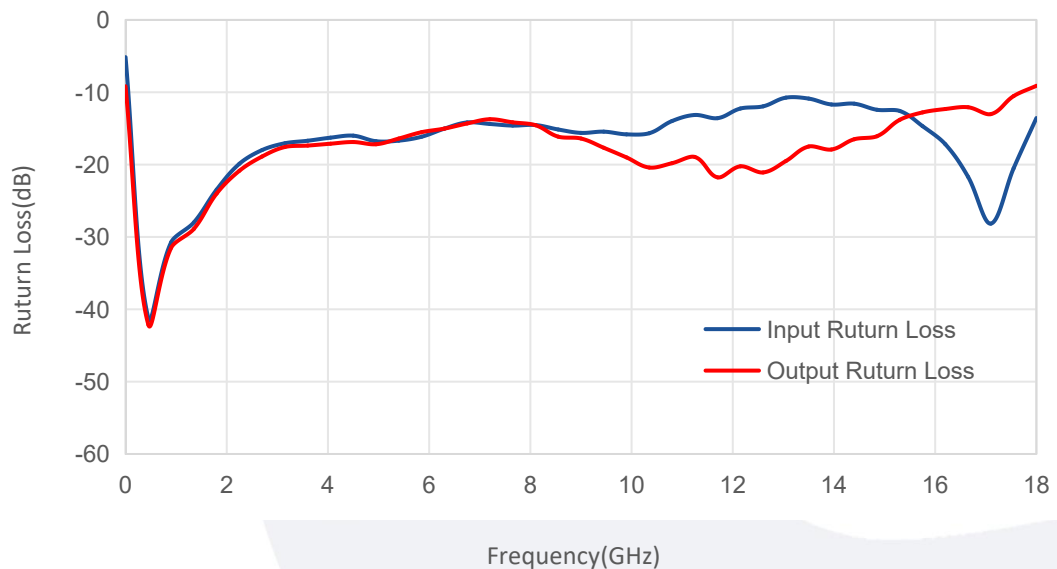
298K:

Group Delay vs Frequency



77K:

Return Loss vs Frequency

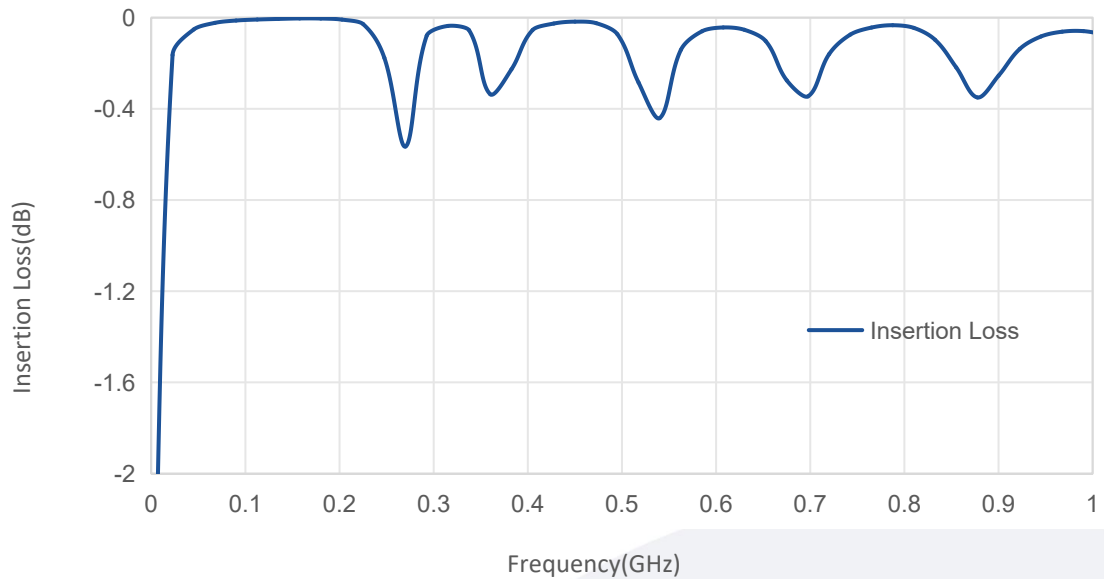


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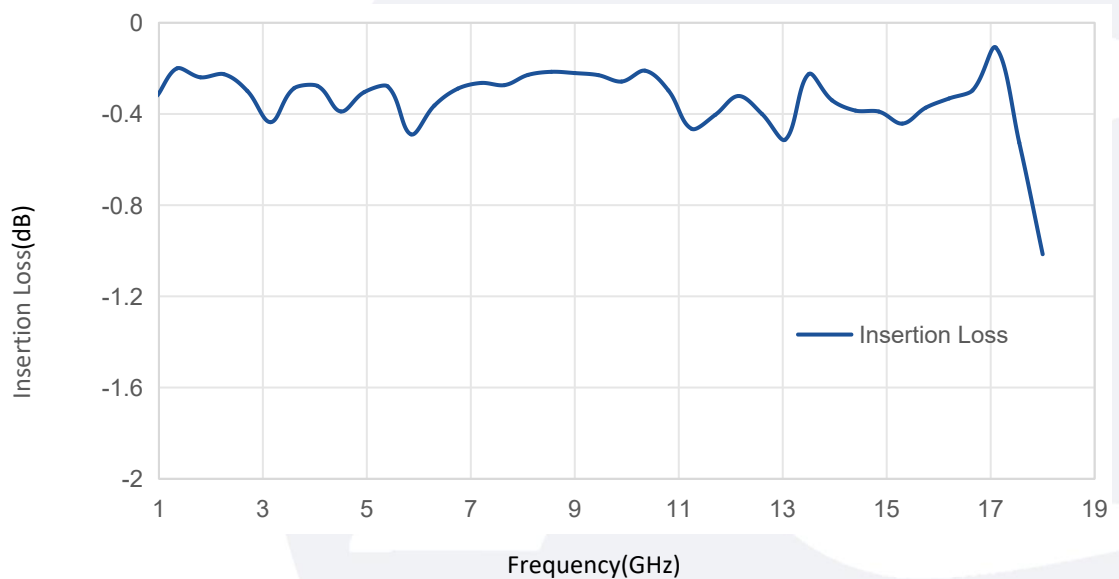
77K:

RF to Com Insertion Loss vs Frequency



77K:

RF to Com Insertion Loss vs Frequency

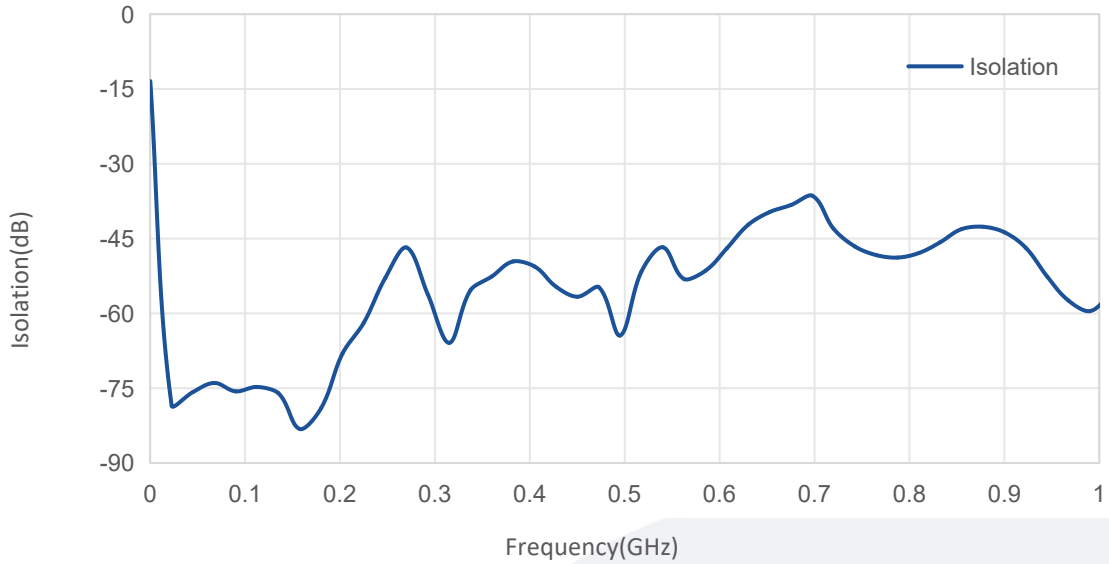


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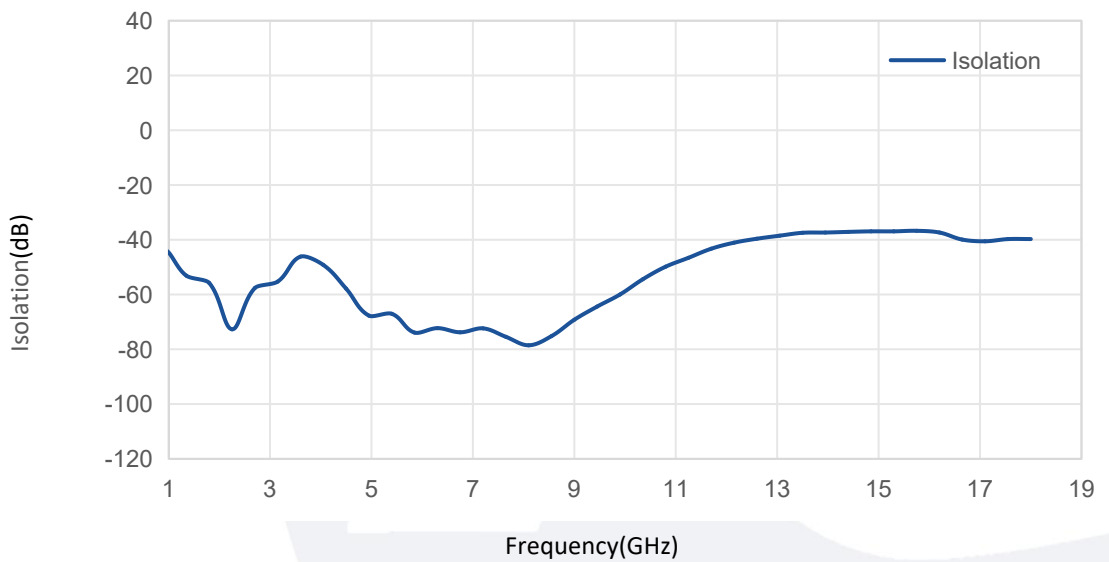
77K:

DC to Com Isolation vs Frequency



77K:

DC to Com Isolation vs Frequency

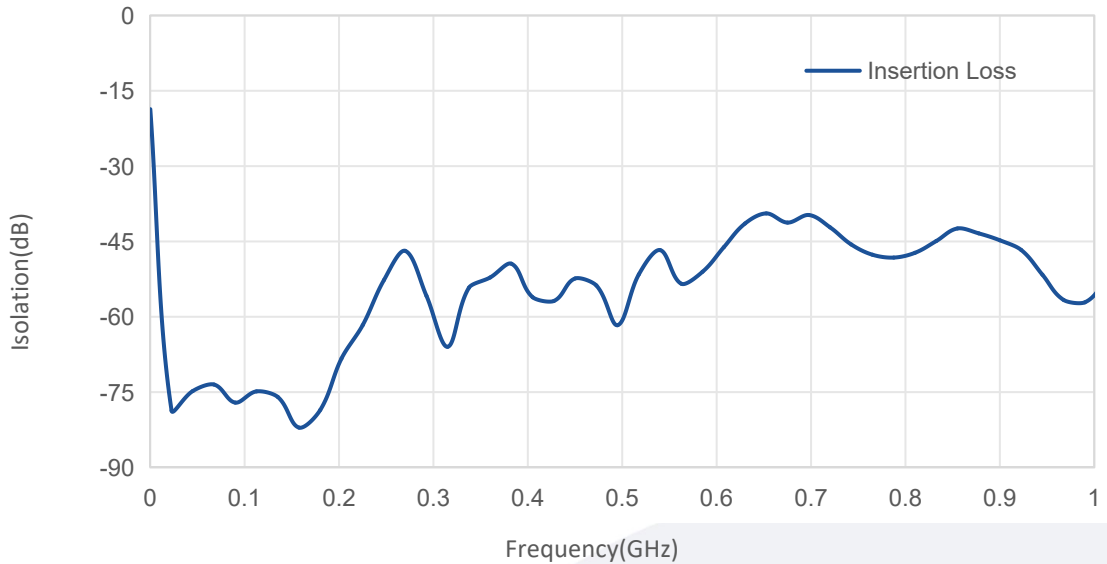


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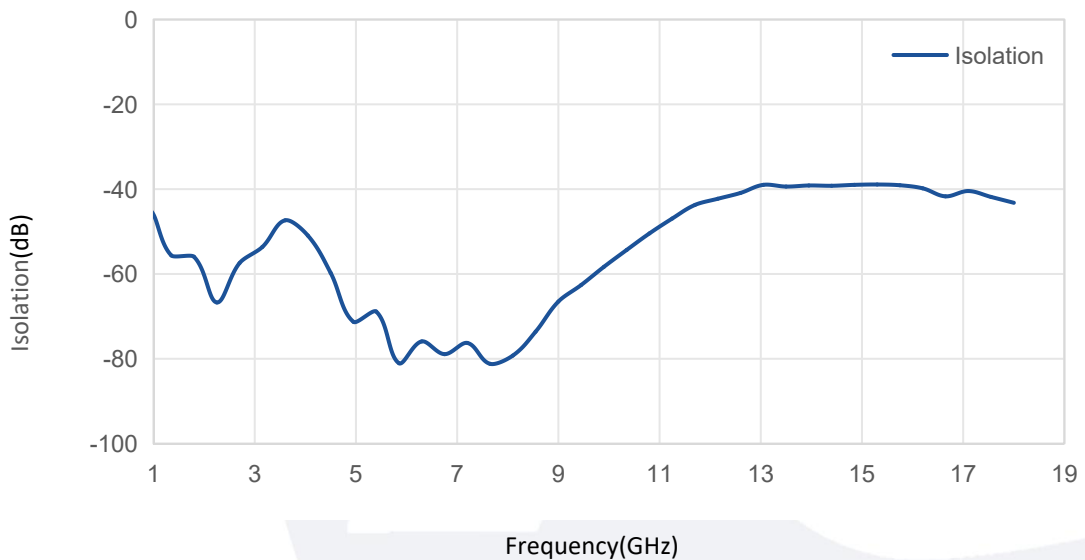
77K:

DC to RF Isolation vs Frequency



77K:

DC to RF Isolation vs Frequency

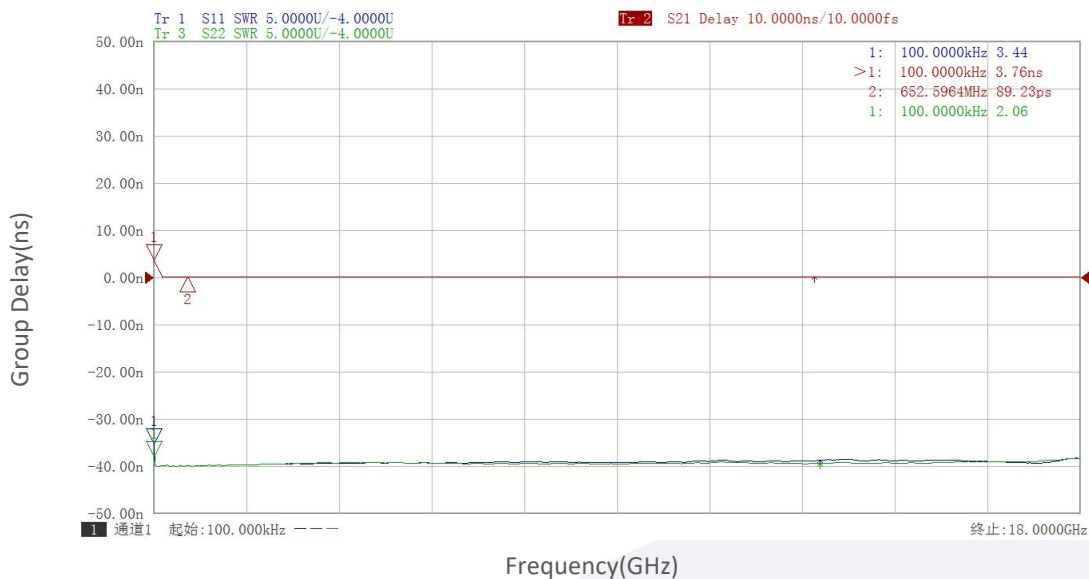


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