

Voltage Controlled Attenuator

0.1-40 GHz/40dB Attenuation Range

Model: TLVA0.1G40G-40-5

The TLVA0.1G40G-40-5 is an broadband voltage controlled electrical attenuator operating from 0.1 to 40 GHz. The attenuator exhibits 10 dB typical insertion loss and 0 to 40 dB nominal attenuation range across the frequency range of 0.1 to 40 GHz while applying 0 to +5 V DC control voltage. The RF input and output ports are female 2.92 mm coax connectors.

Features:

- Frequency range: 0.1-40GHz
- Attenuation Range: 40 dB Typ
- Insertion Loss: 10 dB Typ
- High Attenuator Accuracy

Applications:

- Radar Systems
- Communication Systems
- Testing Equipment

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	0.1-40			GHz
插损 Insertion Loss		10		dB
衰减范围 Attenuation Range		40		dB
输入驻波 Input VSWR		2.5		:1
输出驻波 Output VSWR		2.5		:1
最大输入功率 Input Max Power			27	dBm
控制电压 Control Voltage	0		5	V DC
直流电压 DC Voltage		5		V DC
直流电流 DC Supply Current		30		mA
阻抗 Impedance	50			Ohms

Note: The control voltage range is customizable.

机械特性 Mechanical Specifications:

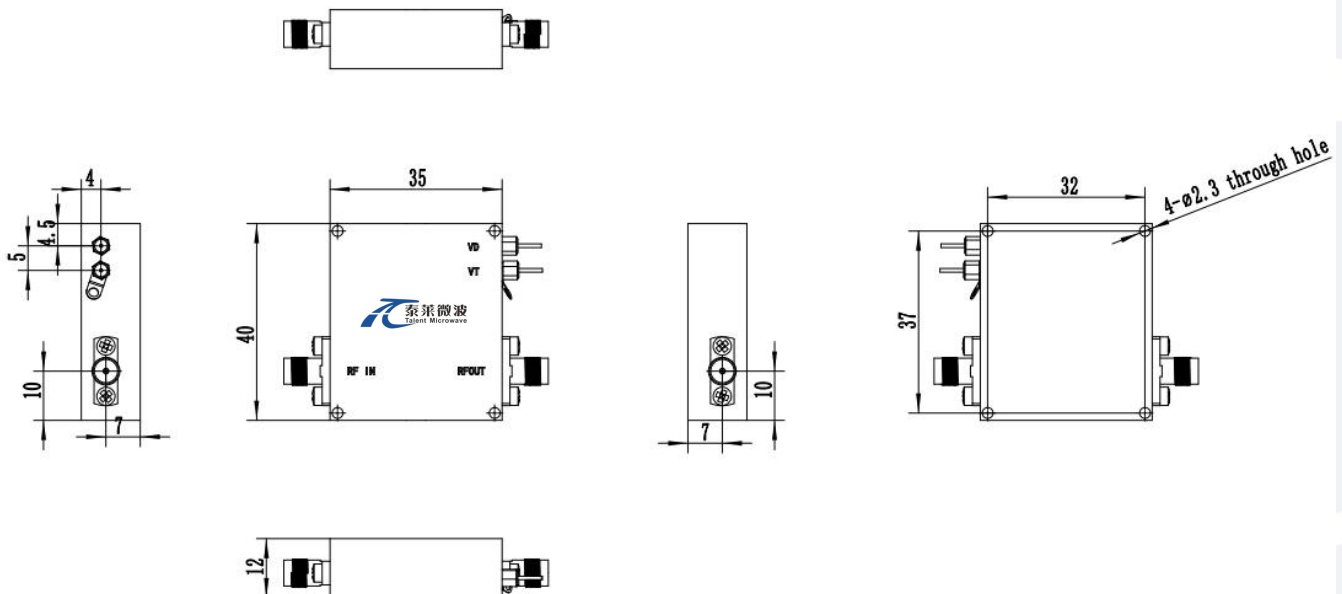
描述 Description	参数 Parameter	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mm Female	
控制连接器 Control Connector	Pin	
尺寸 Size	35*40*12	mm

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	+8	V
射频输入功率 RF Input Power	27	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:

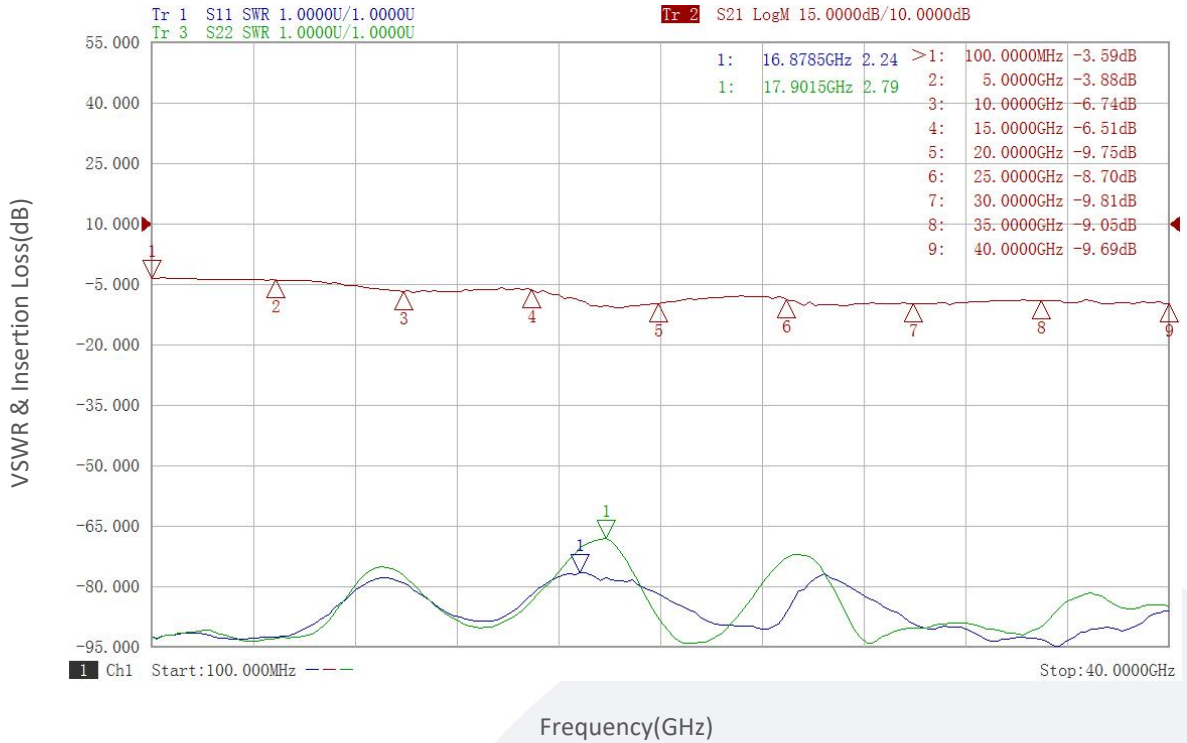
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

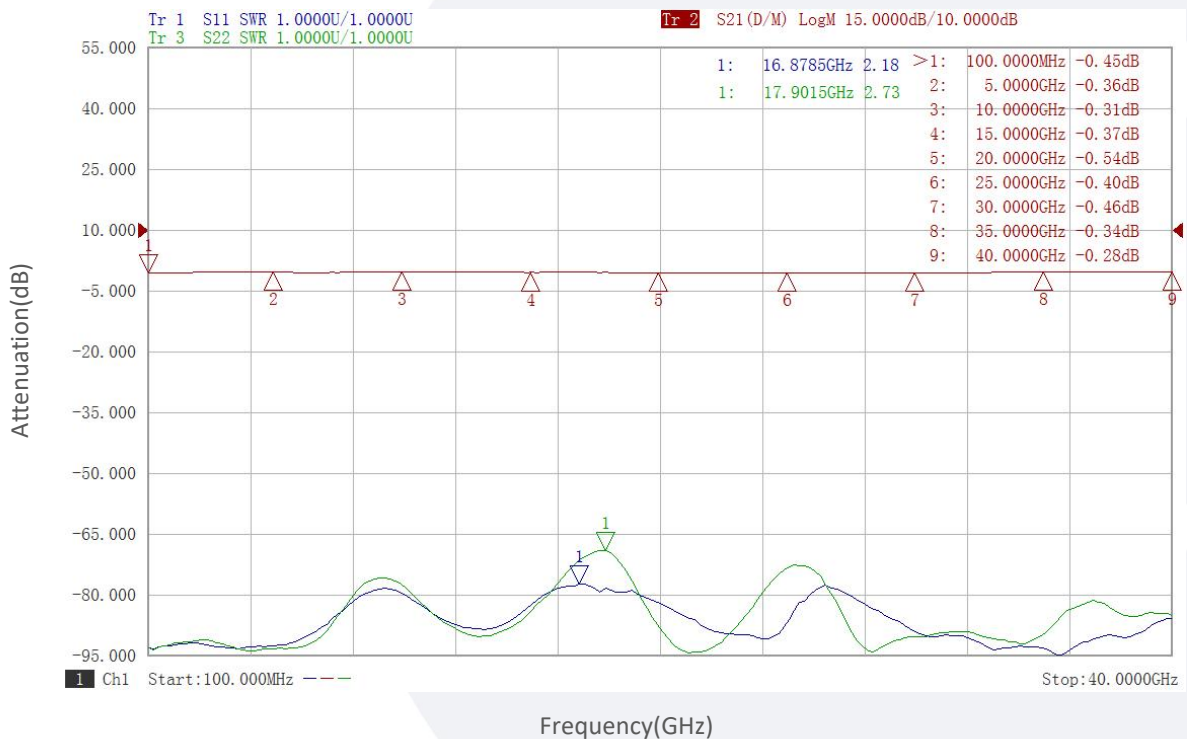
标准型号 Base Number	描述 Description	版本号 Revision
TLVA0.1G40G-40-5	Voltage Controlled Attenuator 0.1-40 GHz, 40 dB Range,2.92mm Female	Rev.1.1

典型曲线 Typical Performance Data:

VSWR & Insertion Loss vs Frequency



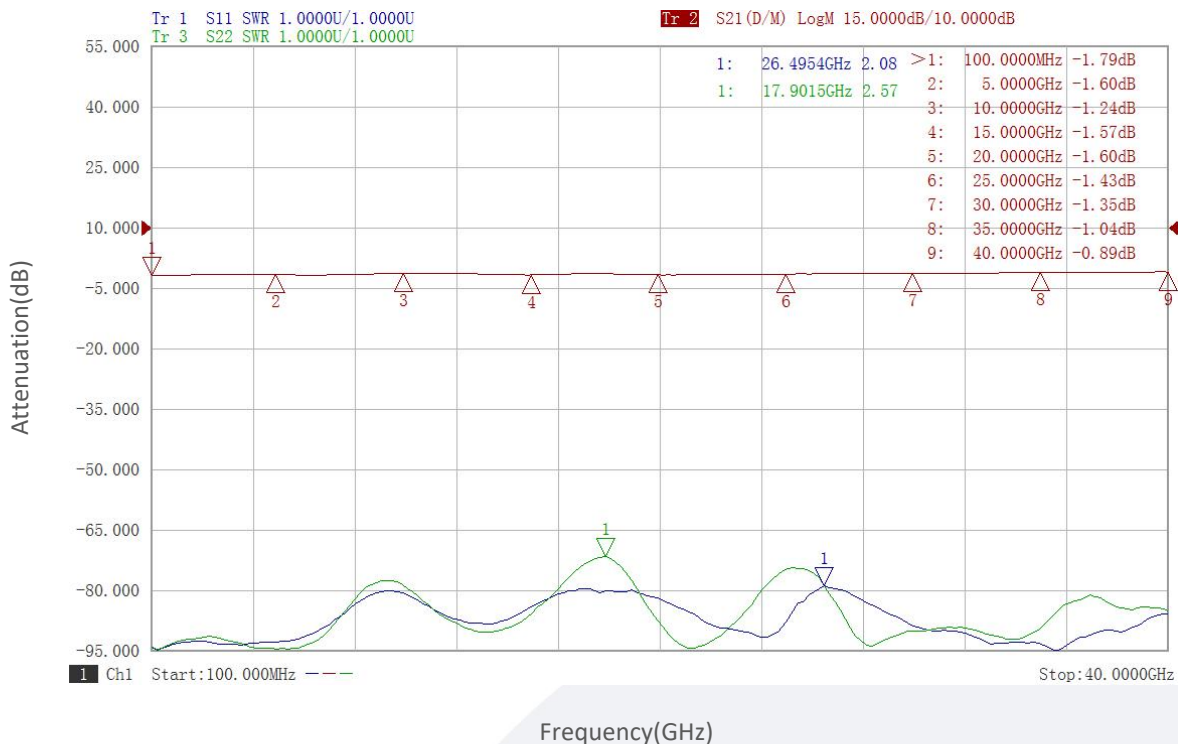
Attenuation vs Frequency@VT=0.5V



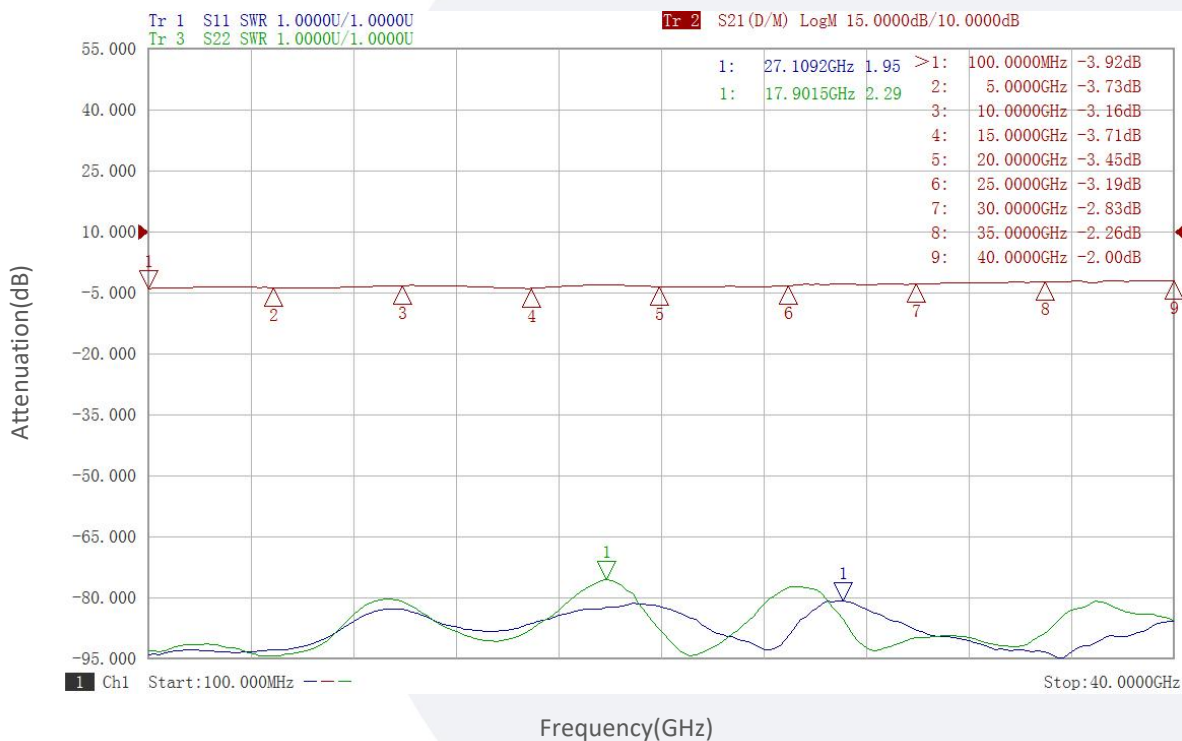
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

Attenuation vs Frequency@VT=1V



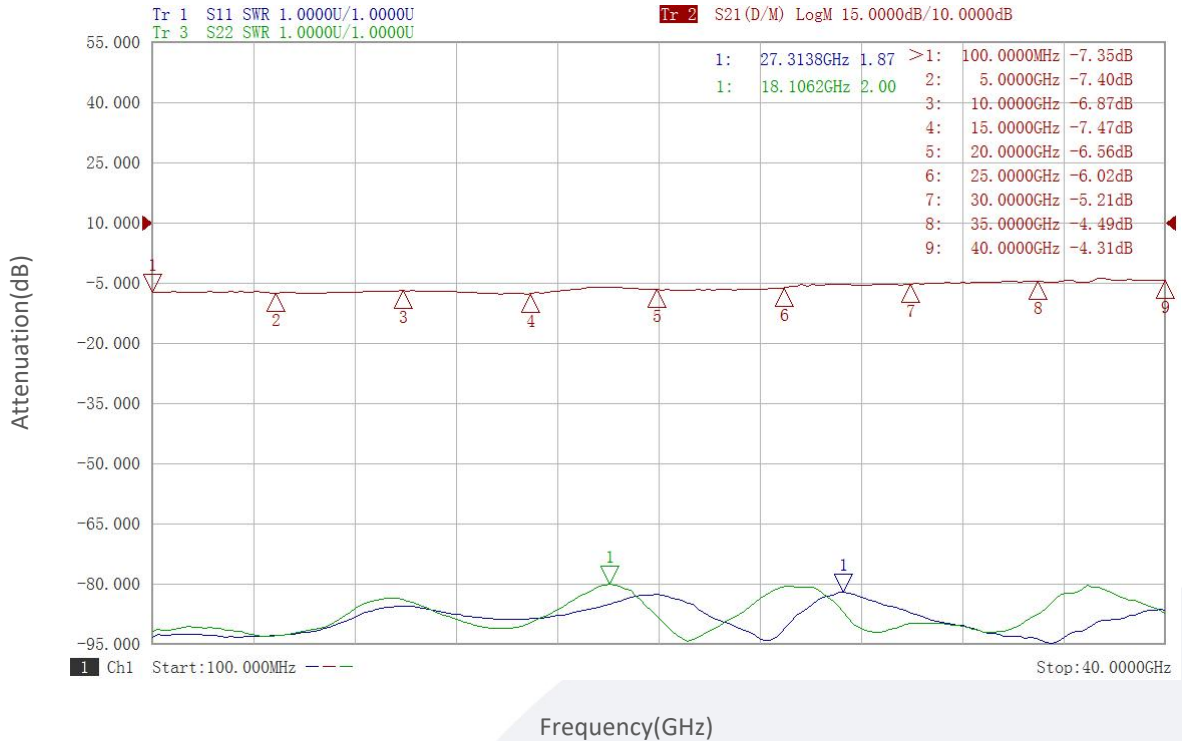
Attenuation vs Frequency@VT=1.5V



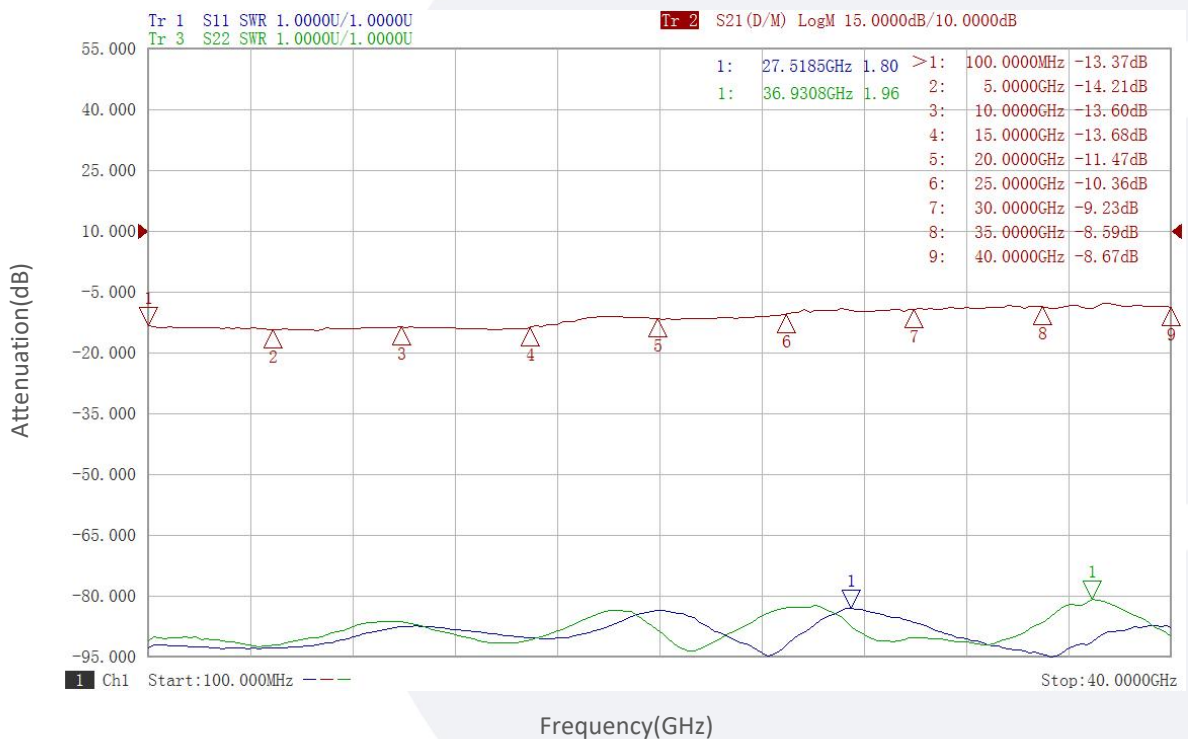
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

Attenuation vs Frequency@VT=2V



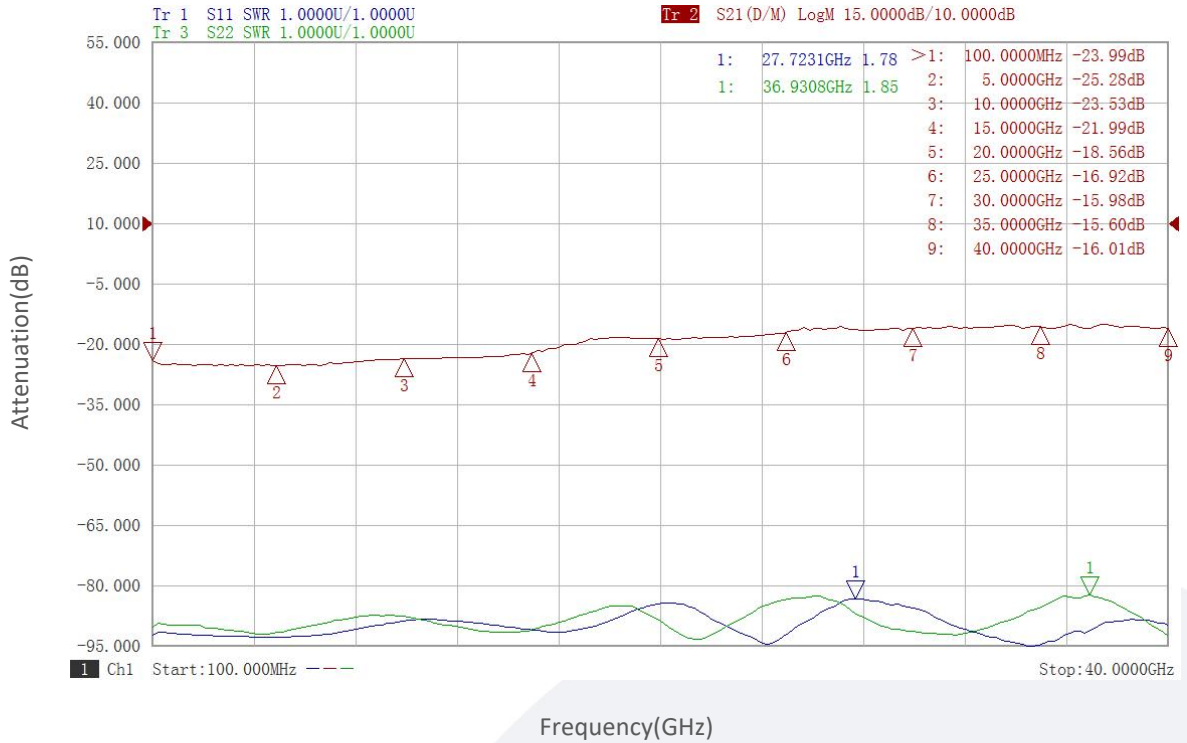
Attenuation vs Frequency@VT=2.5V



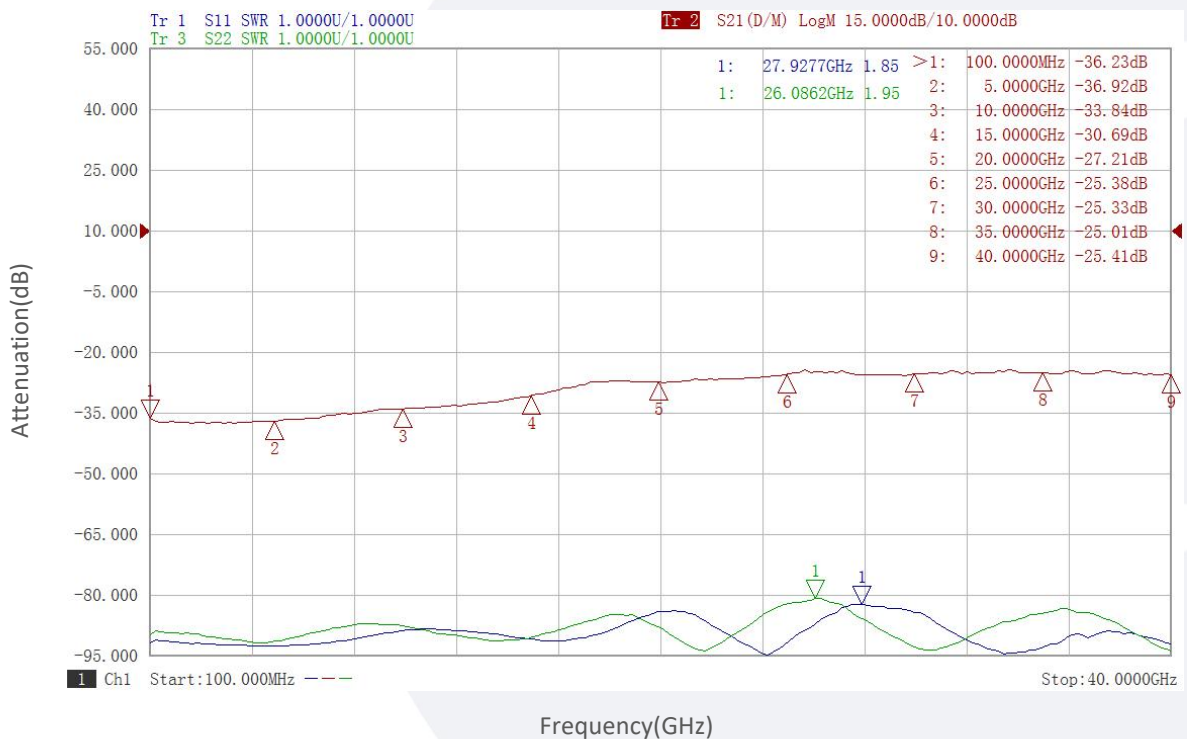
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

Attenuation vs Frequency@VT=3V



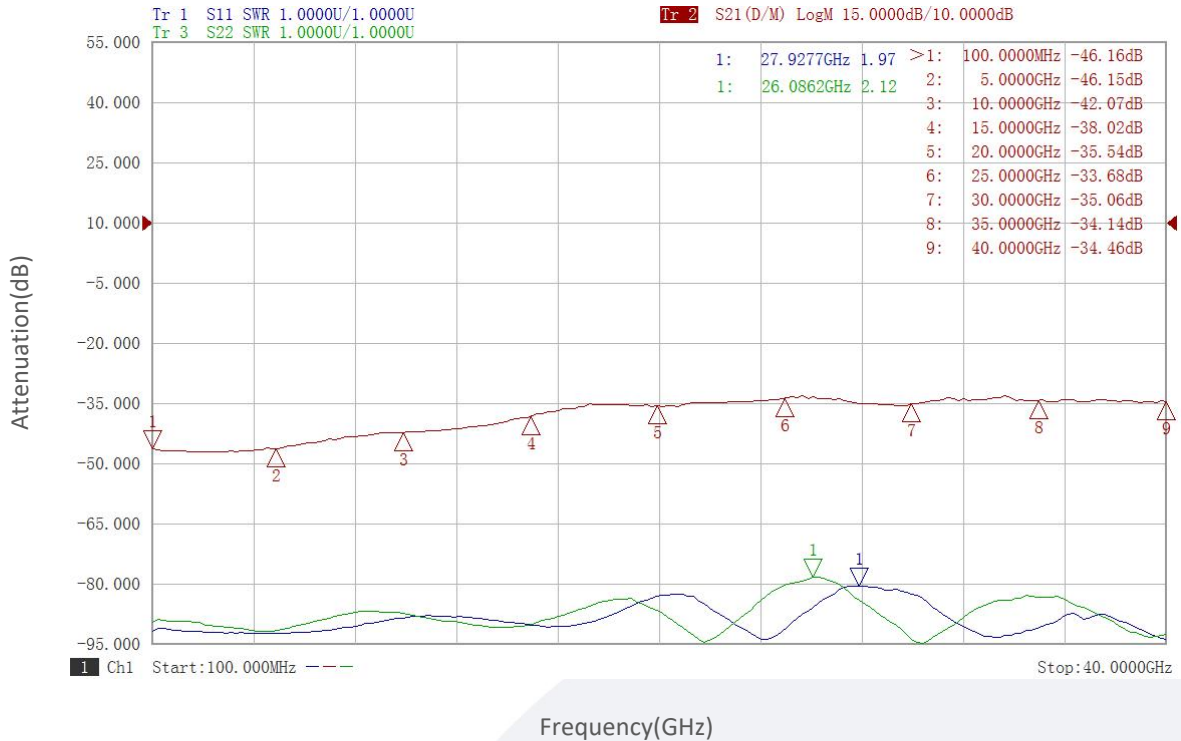
Attenuation vs Frequency@VT=3.5V



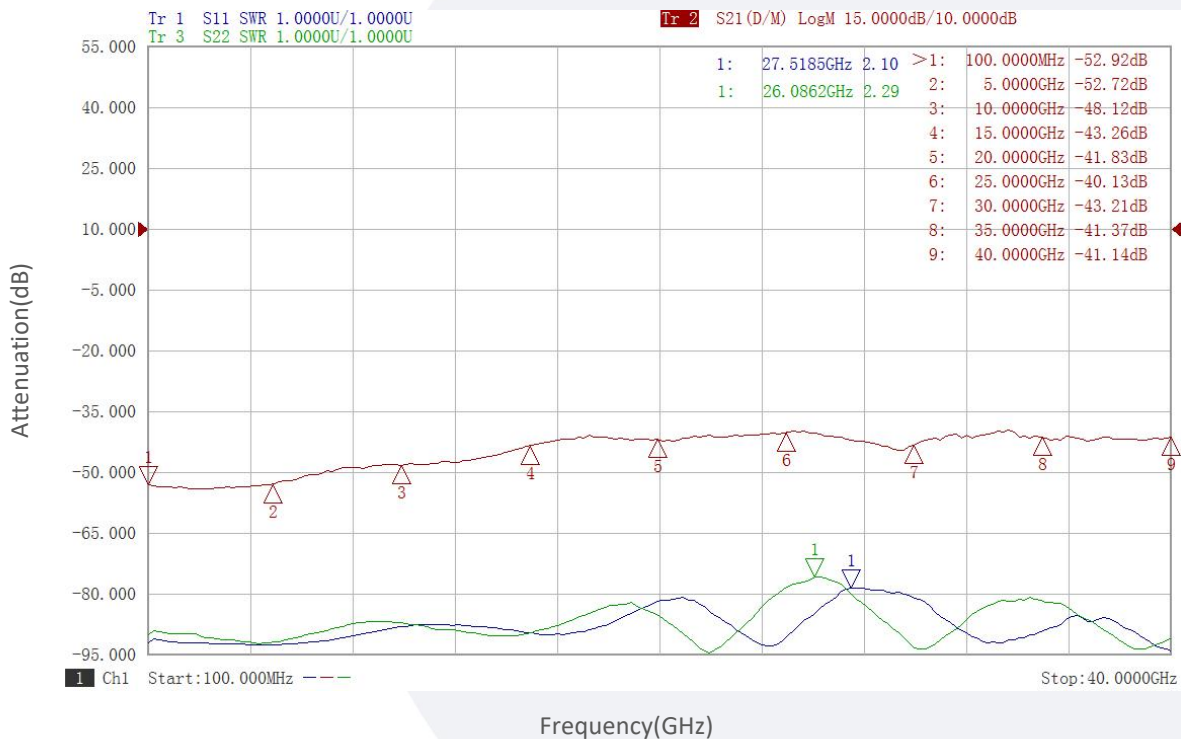
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

Attenuation vs Frequency@VT=4V



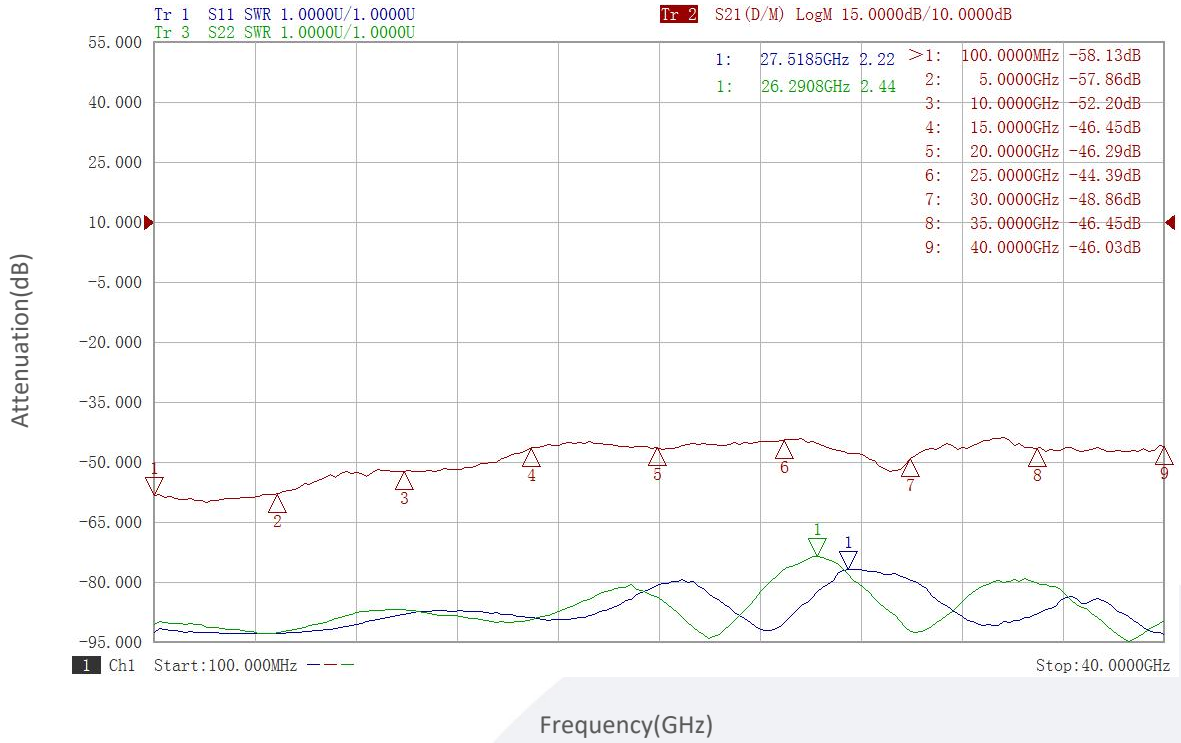
Attenuation vs Frequency@VT=4.5V



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:

Attenuation vs Frequency@VT=5V



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.