Suzhou Talent Microwave,Inc
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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

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range		0.1-40		GHz
Insertion Loss		10		dB
Attenuation Range		40		dB
Input VSWR		2.5		:1
Output VSWR		2.5		:1
Input Max Power			27	dBm
Control Voltage	0		5	V DC
DC Voltage		5		V DC
DC Supply Current		30		mA
Impedance		50		Ohms

Note: The control voltage range is customizable.

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Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
Control Connector	Pin	
Size	35*40*12	mm

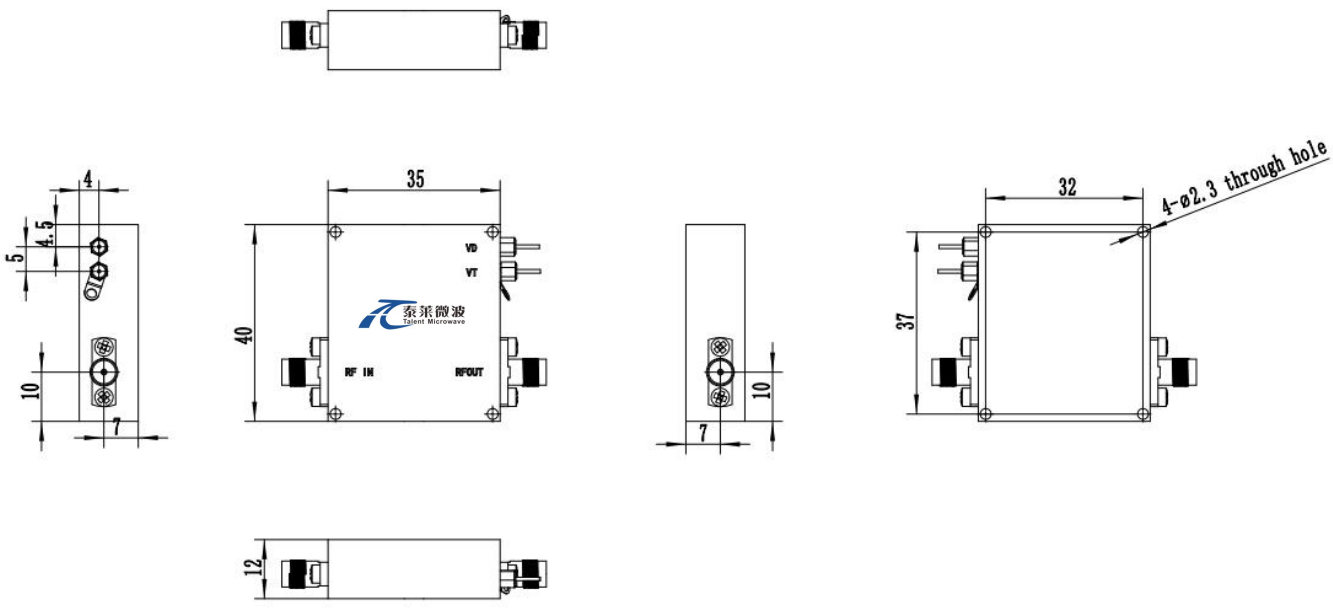
Absolute Maximum Ratings :

Description	Parameter	Units
Supply Bias Voltage	+8	V
RF Input Power	27	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Outline Drawing:

Unit:mm

Regulatory Compliance:



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

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Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	℃
Non-operating Temperature	-45		+85	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

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

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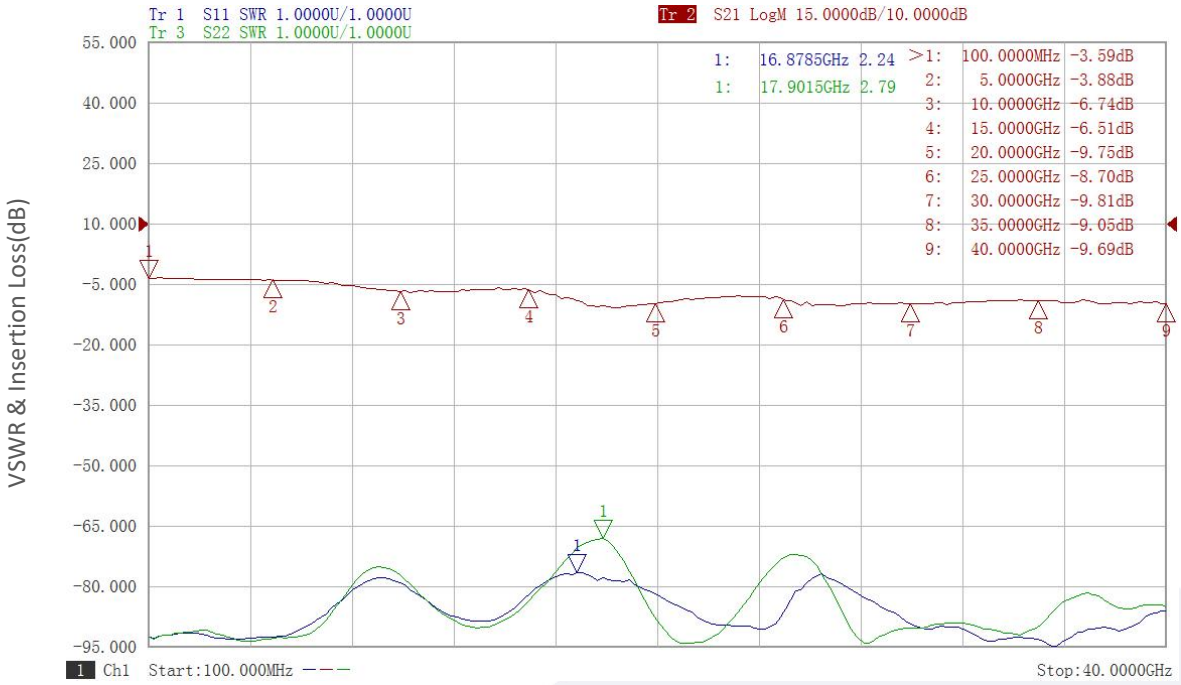
典型曲线 Typical Performance Data:

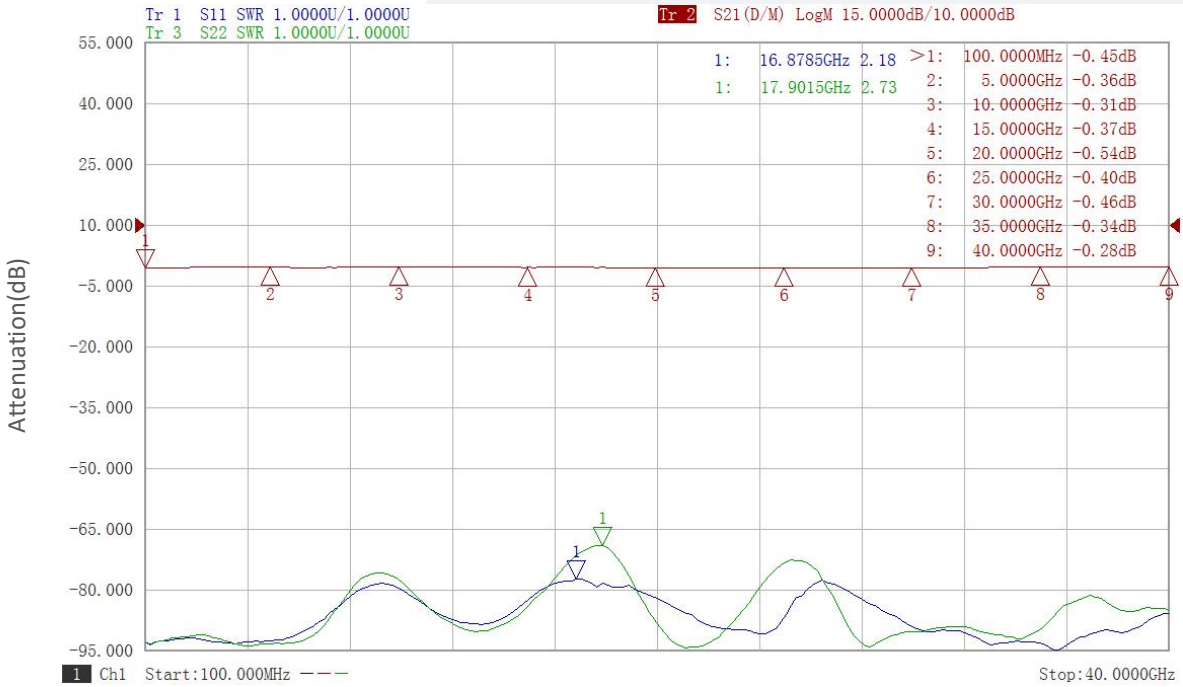
VSWR & Insertion Loss vs Frequency



VSWR & Insertion Loss(dB)

Frequency(GHz)

Attenuation vs Frequency@VT=0.5V



Attenuation(dB)

Frequency(GHz)

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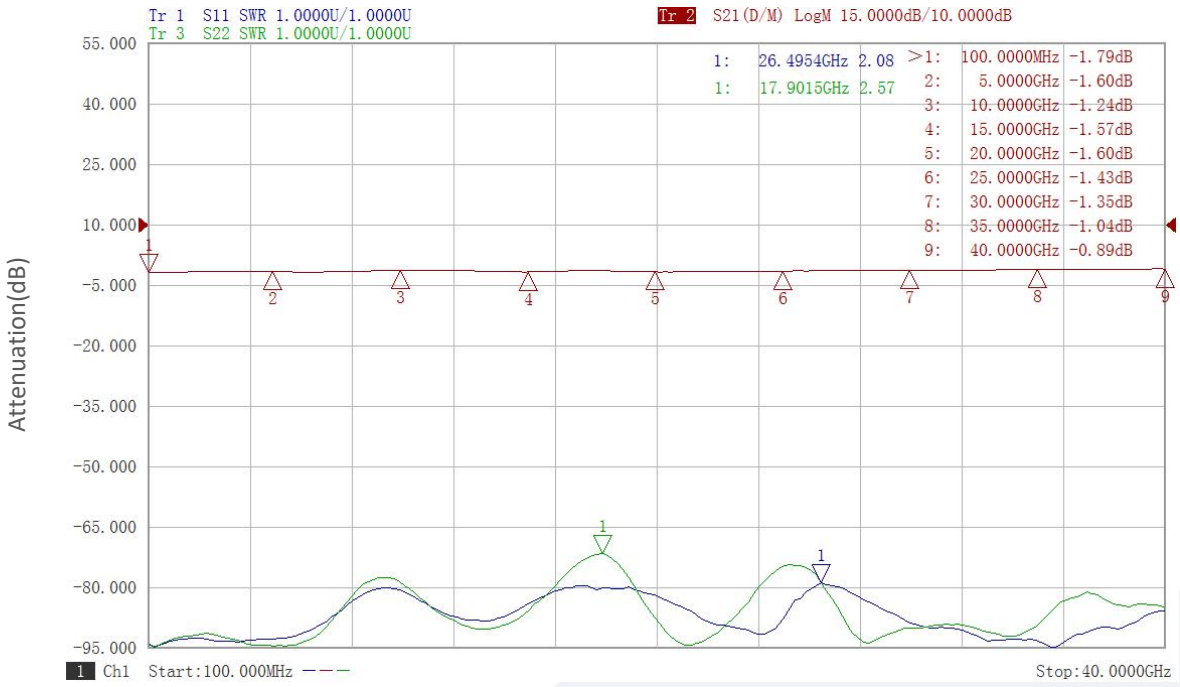
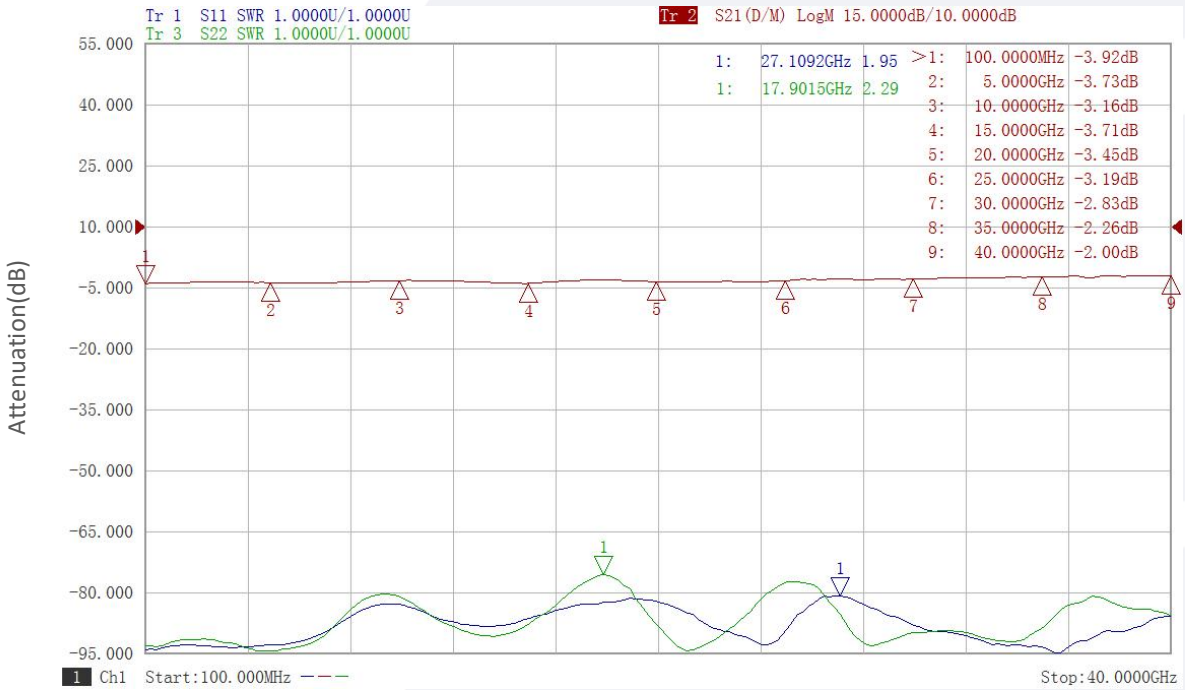
典型曲线 Typical Performance Data:

Attenuation vs Frequency@VT=1V



Frequency(GHz)

Attenuation vs Frequency@VT=1.5V



Frequency(GHz)

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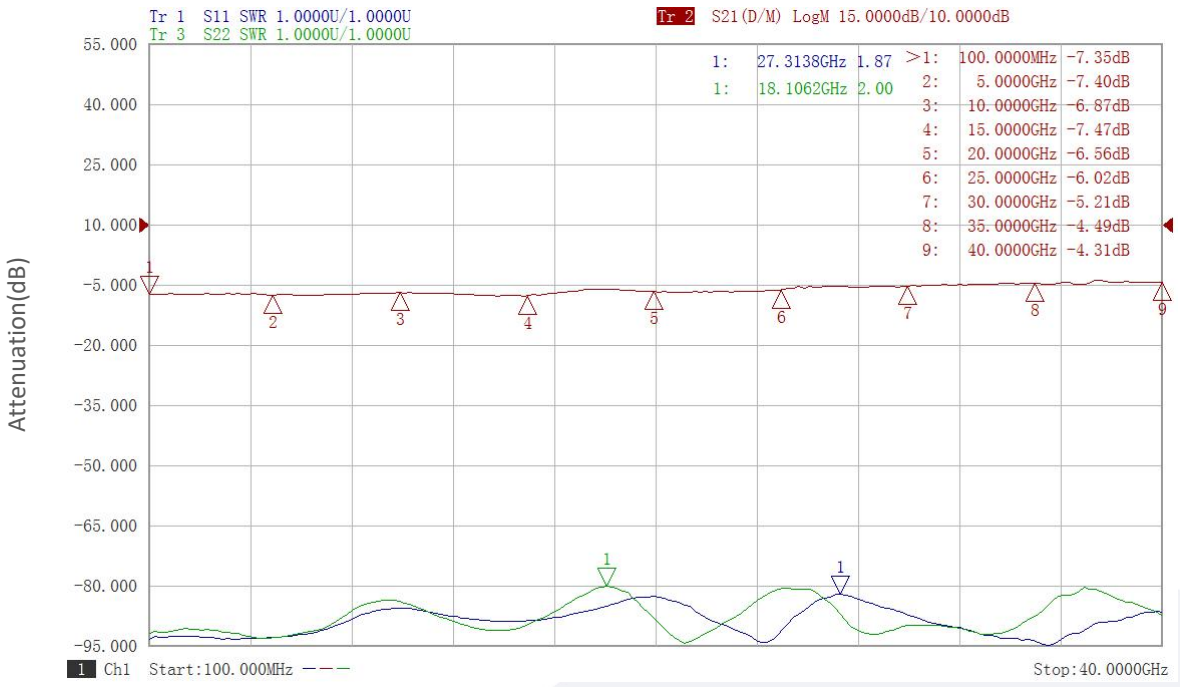
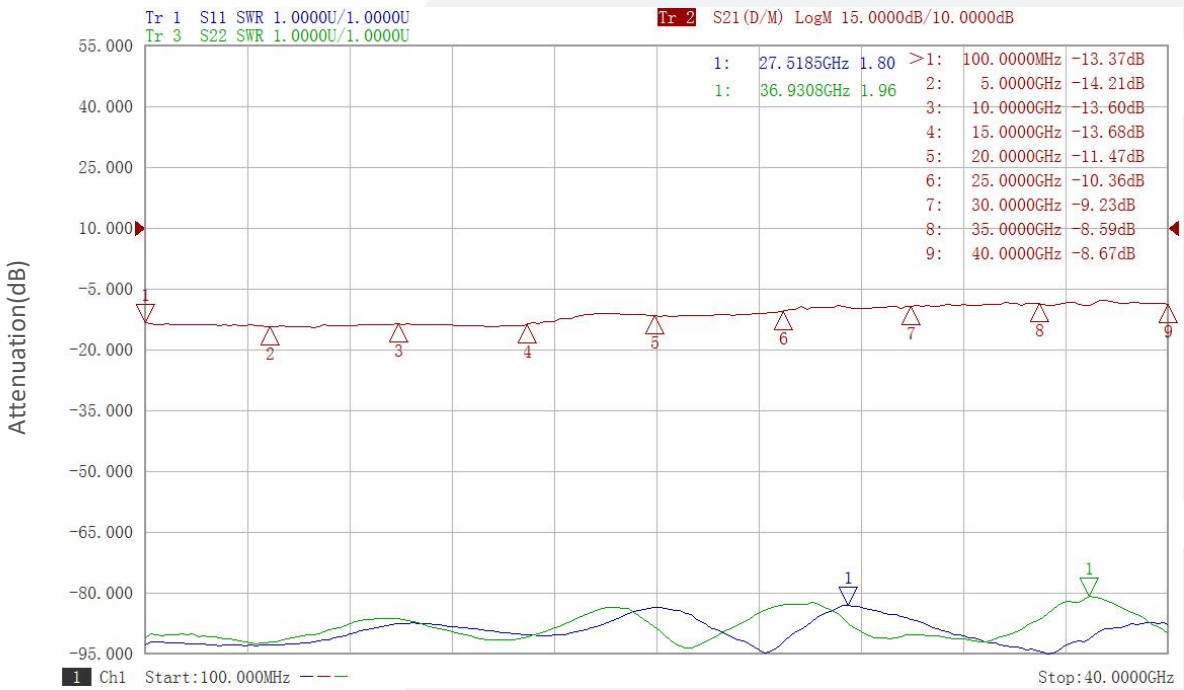
典型曲线 Typical Performance Data:

Attenuation vs Frequency@VT=2V



Attenuation vs Frequency@VT=2.5V



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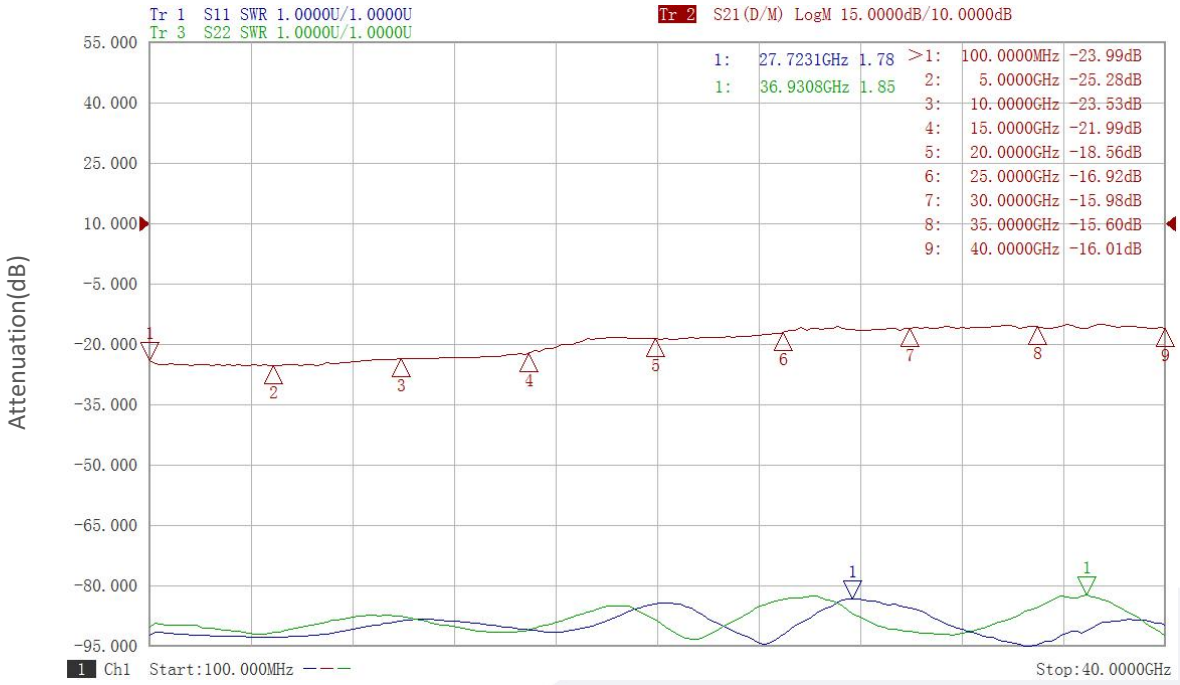
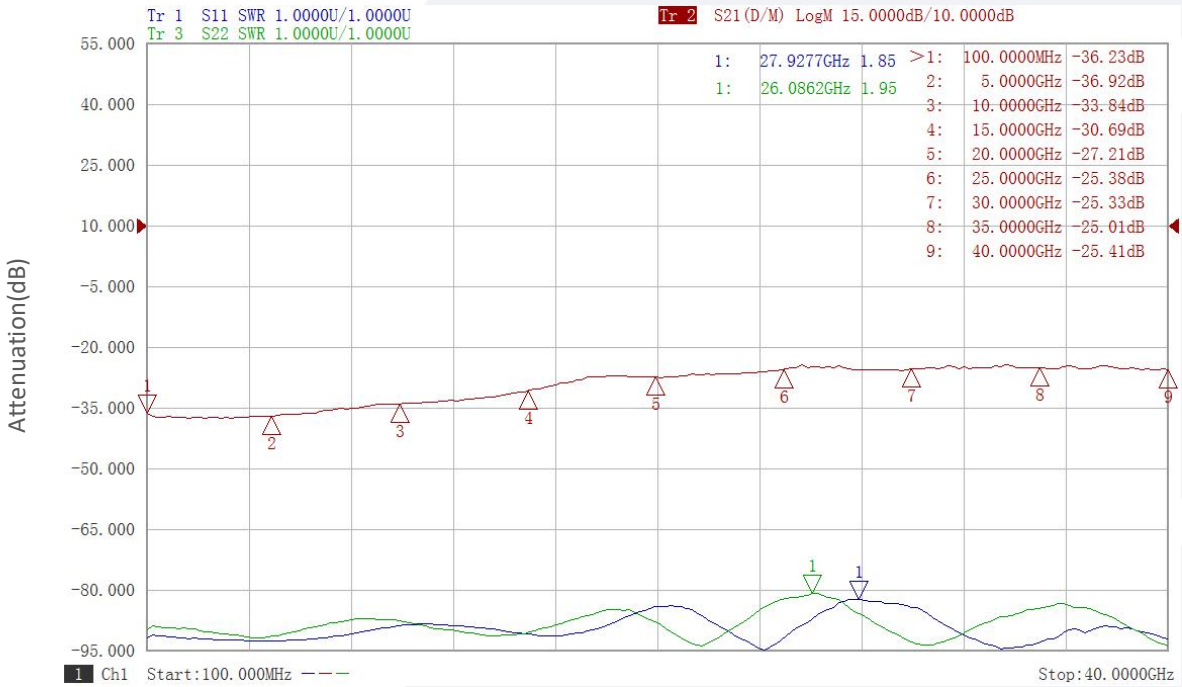
典型曲线 Typical Performance Data:

Attenuation vs Frequency@VT=3V



Frequency(GHz)

Attenuation vs Frequency@VT=3.5V



Frequency(GHz)

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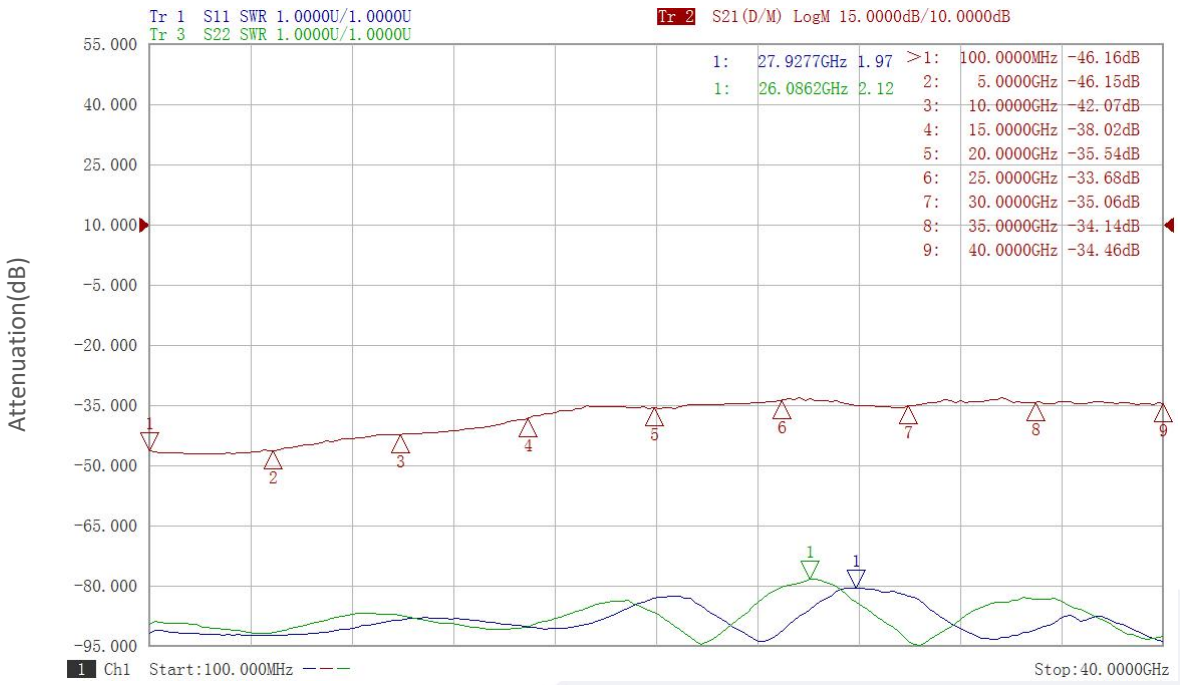
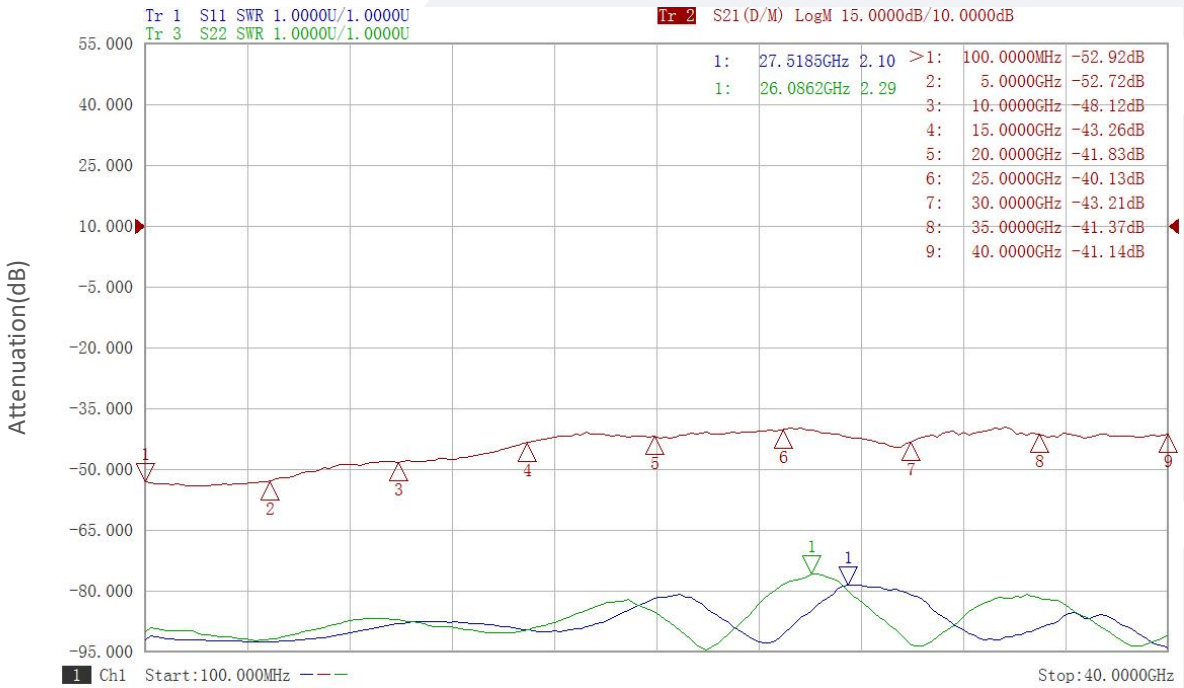
典型曲线 Typical Performance Data:

Attenuation vs Frequency@VT=4V



Frequency(GHz)

Attenuation vs Frequency@VT=4.5V



Frequency(GHz)

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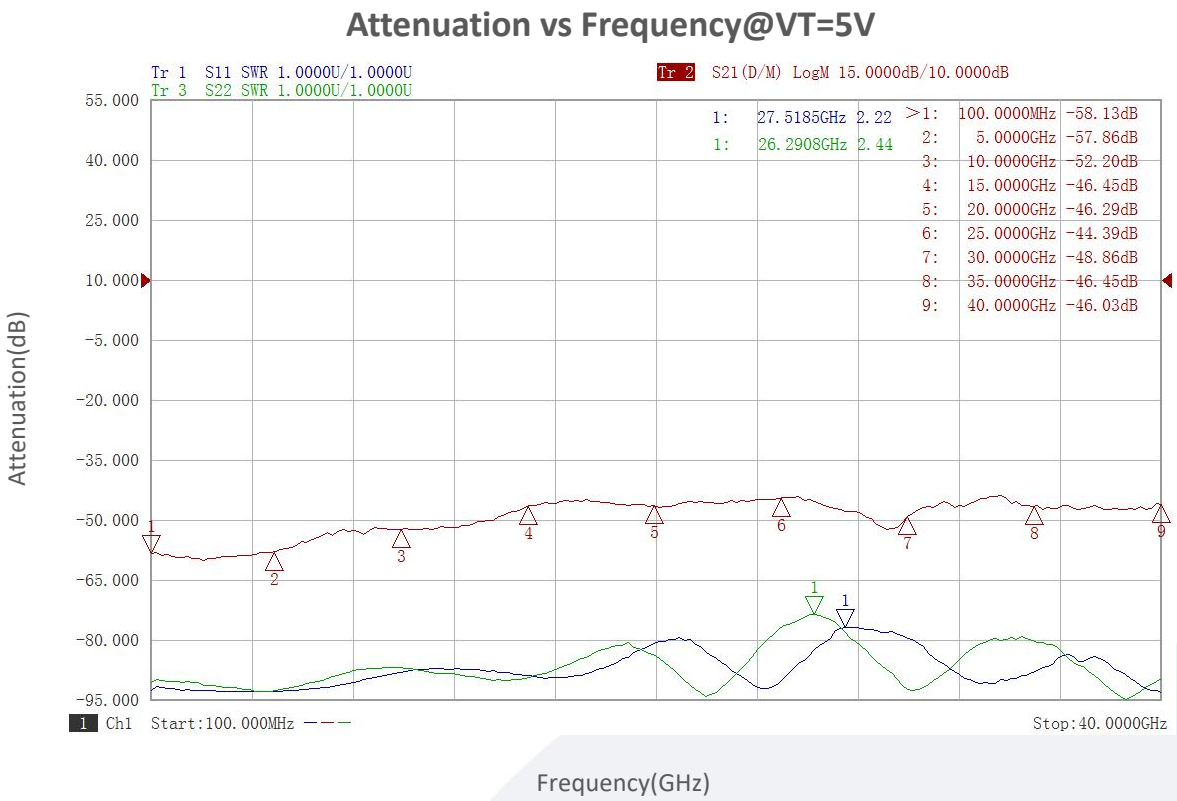
典型曲线 Typical Performance Data:



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