

Voltage Controlled Attenuator 0.2-3GHz/30dB Attenuation Range

Model: TLVA0.2G3G-30-5

The TLVA0.2G3G-30-5 is an broadband voltage controlled electrical attenuator operating from 0.2 to 3 GHz. The attenuator exhibits 3 dB typical insertion loss and 0 to 30 dB nominal attenuation range across the frequency range of 0.2 to 3 GHz while applying 0 to +5 V DC control voltage. The RF input and output ports are female SMA coax connectors.

Features:

- Ultra Wide Band: 0.2-3GHz
- Attenuation Range: 30 dB Typ
- Insertion Loss: 3dB 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	0.2-3			GHz
插损 Insertion Loss		3	4.5	dB
衰减范围 Attenuation Range		30		dB
输入驻波 Input VSWR		1.4		:1
输出驻波 Output VSWR		1.4		:1
最大输入功率 Input Max Power		30		dBm
直流电压 DC Voltage		12		V DC
控制电压 Control Voltage	0		5	V DC
阻抗 Impedance	50			Ohms

机械特性 Mechanical Specifications:

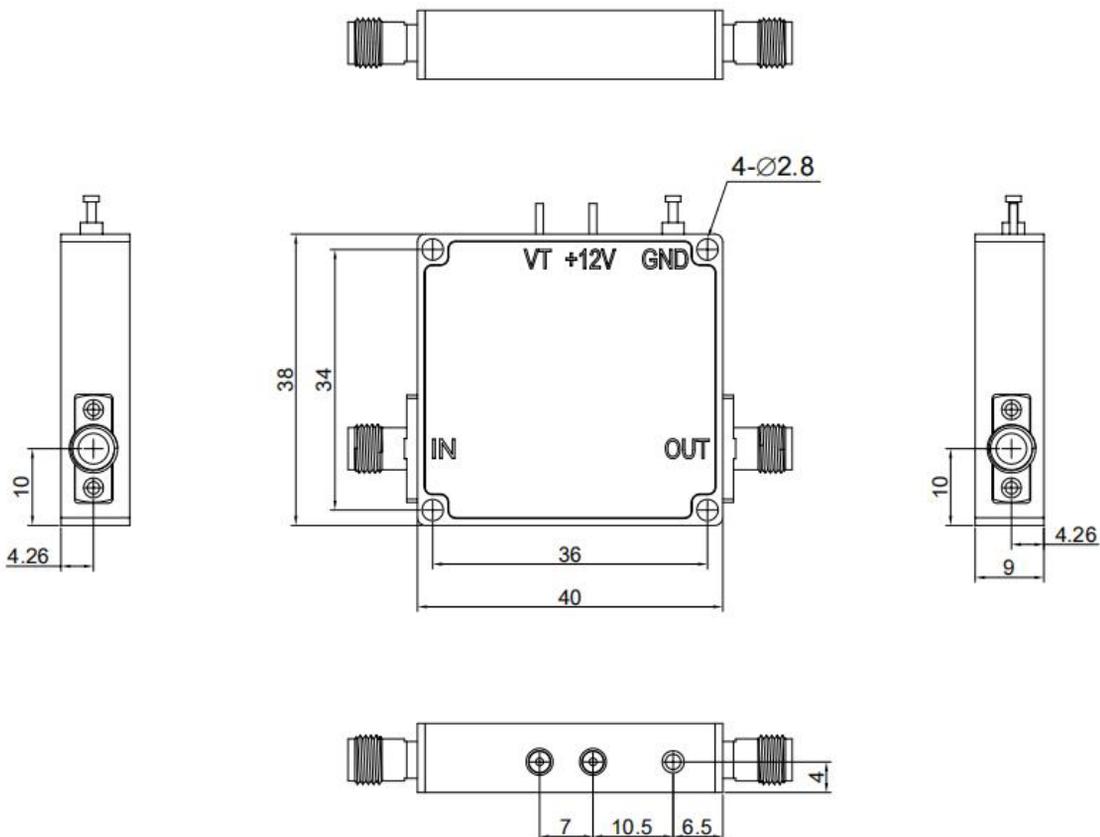
描述 Description	参数 Parameter	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	

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	+15V	
射频输入功率 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
 DEVICES

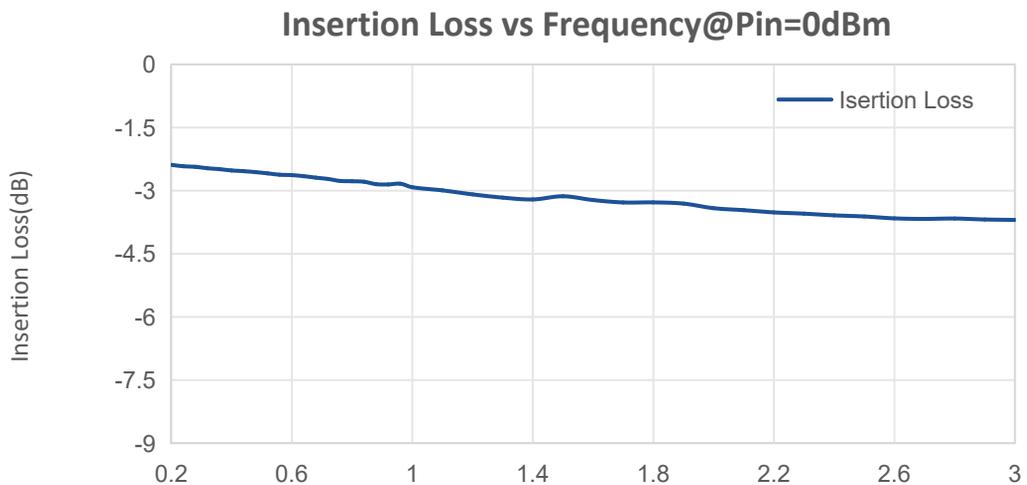
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	0		+55	°C
存储温度 Non-operating Temperature	-25		+65	°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:

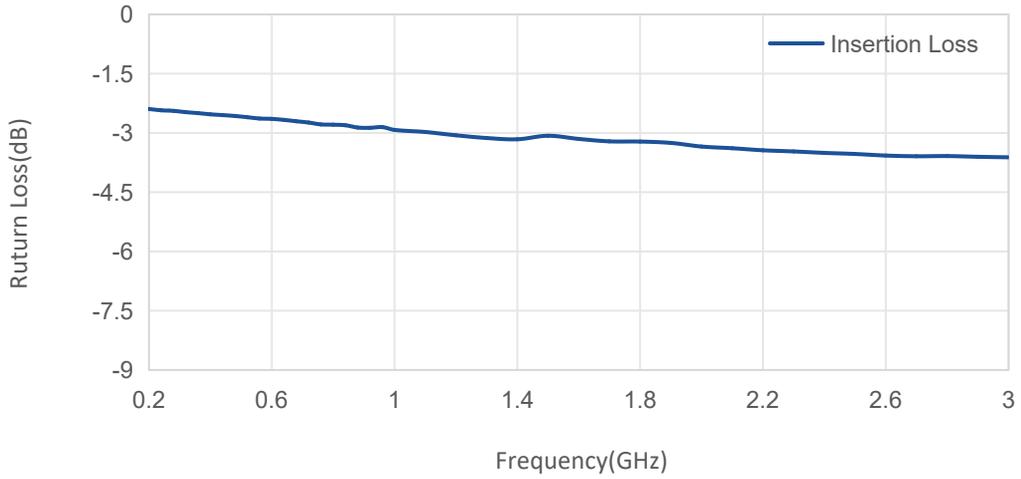
标准型号 Base Number	描述 Description	版本号 Revision
TLVA0.2G3G-30-5	Voltage Controlled Attenuator 0.2-3 GHz, 30 dB Range,SMA Female	Rev.1.1

典型曲线 Typical Performance Data:

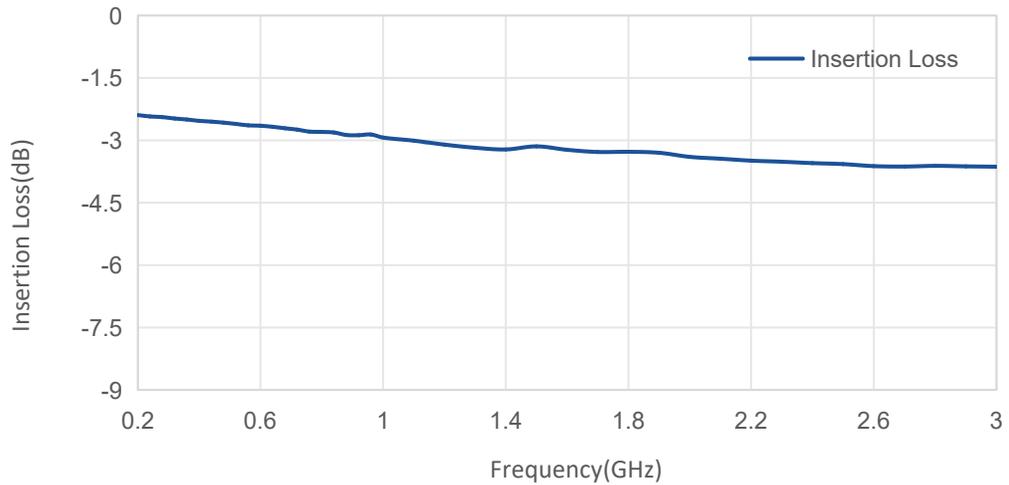


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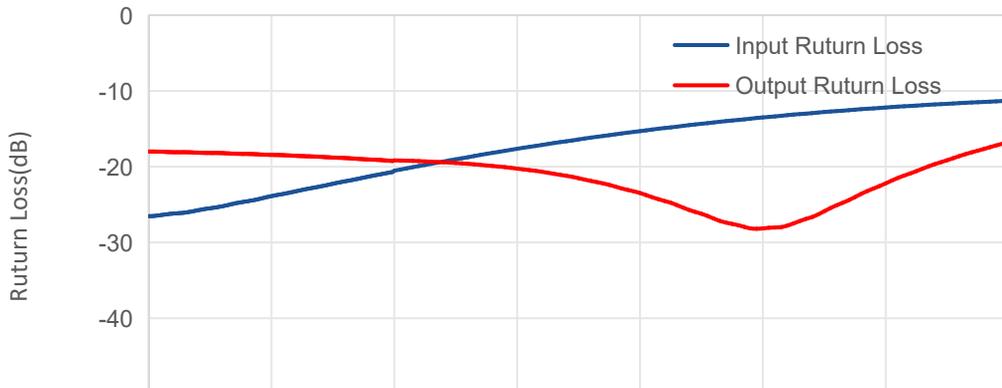
Insertion Loss vs Frequency@Pin=5dBm



Insertion Loss vs Frequency@Pin=10dBm

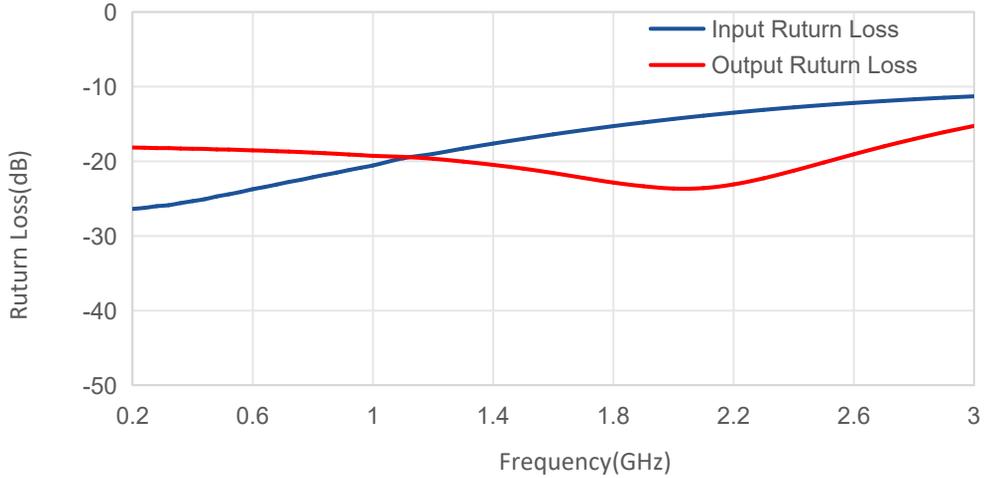


Return Loss vs Frequency@Pin=0dBm

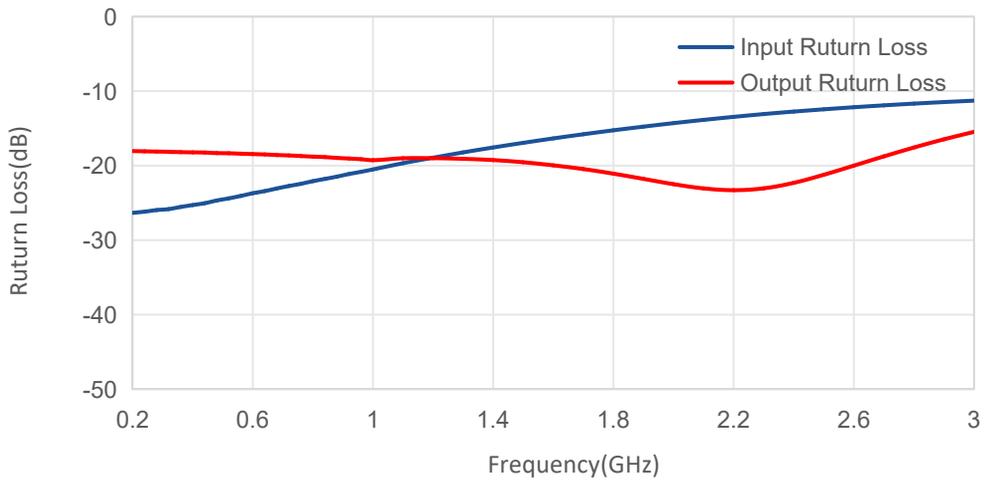


典型曲线 Typical Performance Data:

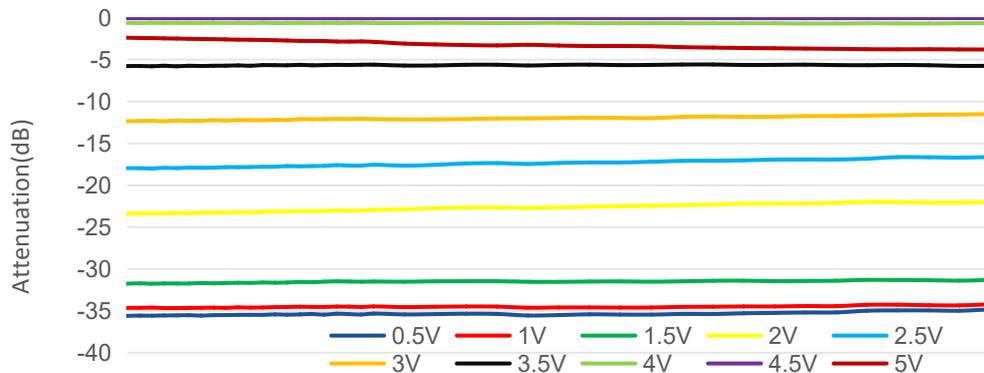
Return Loss vs Frequency@Pin=5dBm



Return Loss vs Frequency@Pin=10dBm

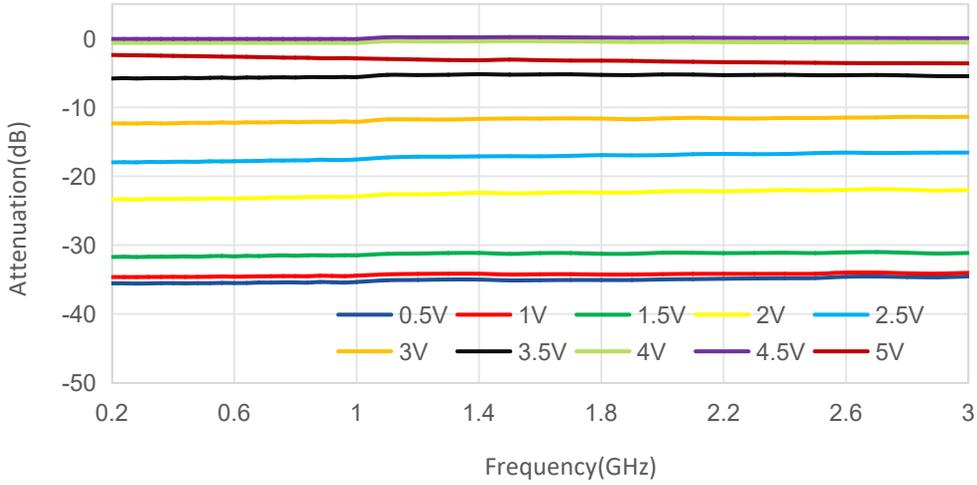


Attenuation@Voltage Pin=0dBm

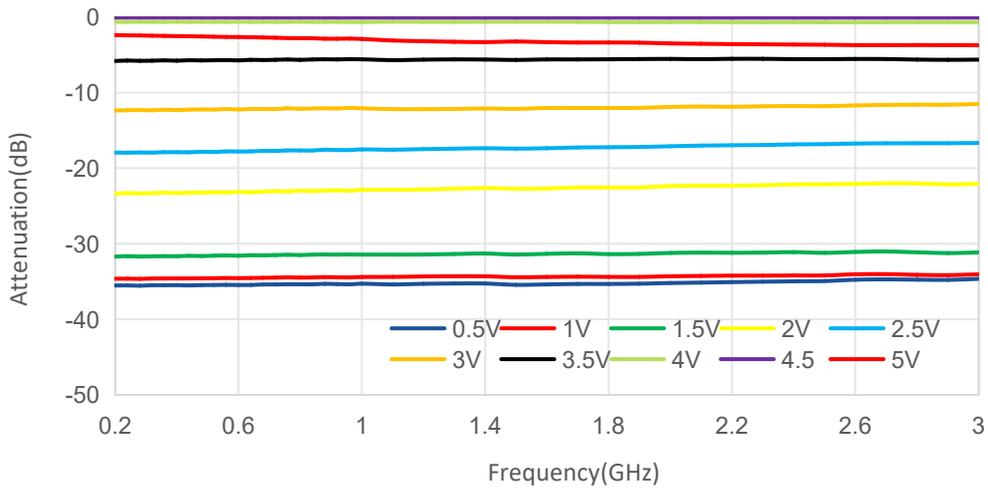


典型曲线 Typical Performance Data:

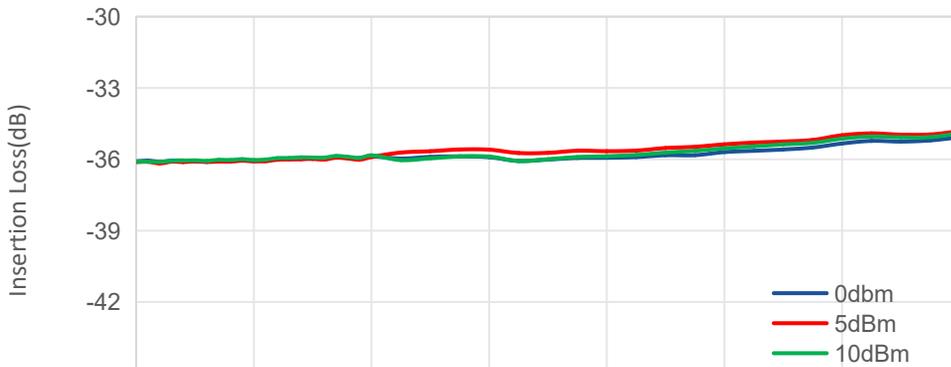
Attenuation@Voltage Pin=5dBm



Attenuation@Voltage Pin=10dBm

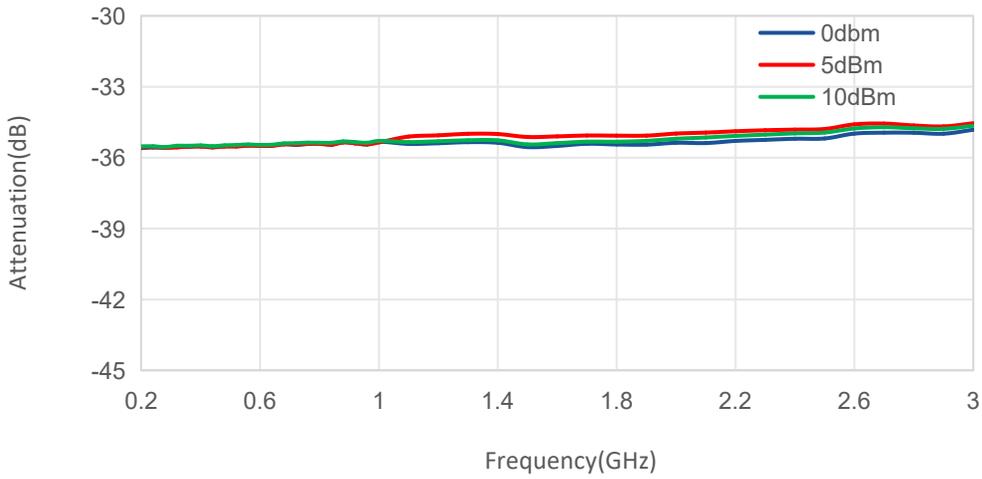


Attenuation@Pin VT=0V

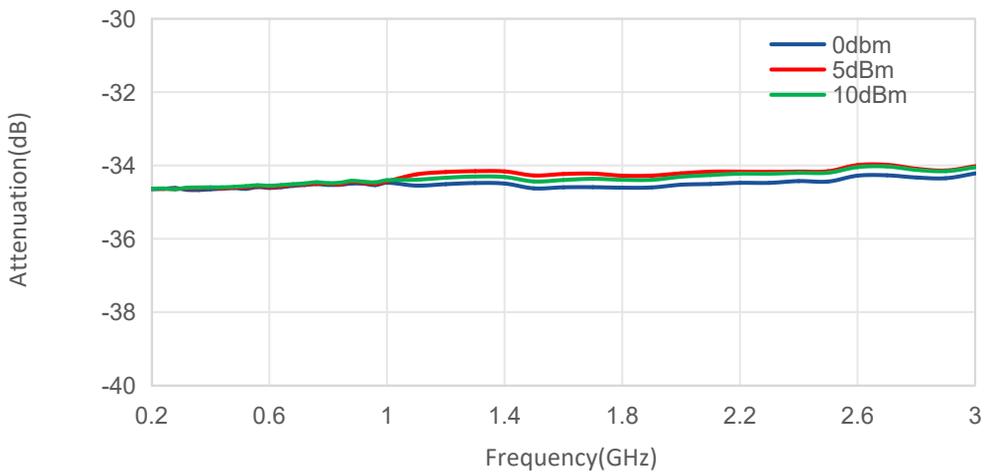


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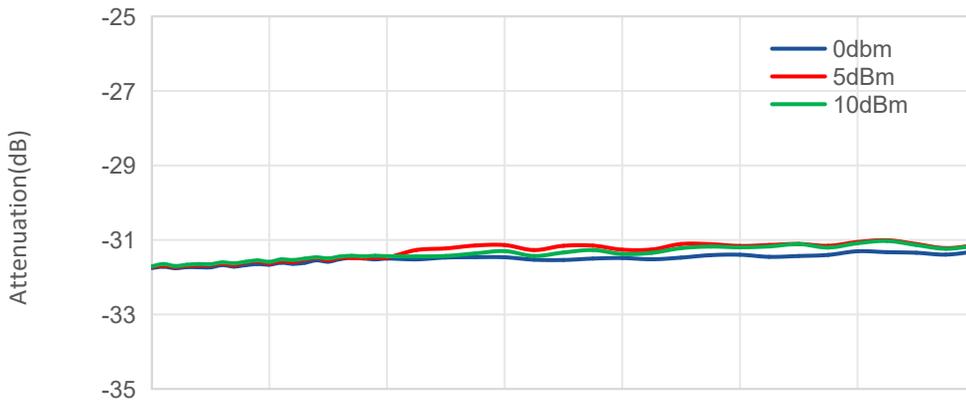
Attenuation@Pin $V_T=0.5V$



Attenuation@Pin $V_T=1V$

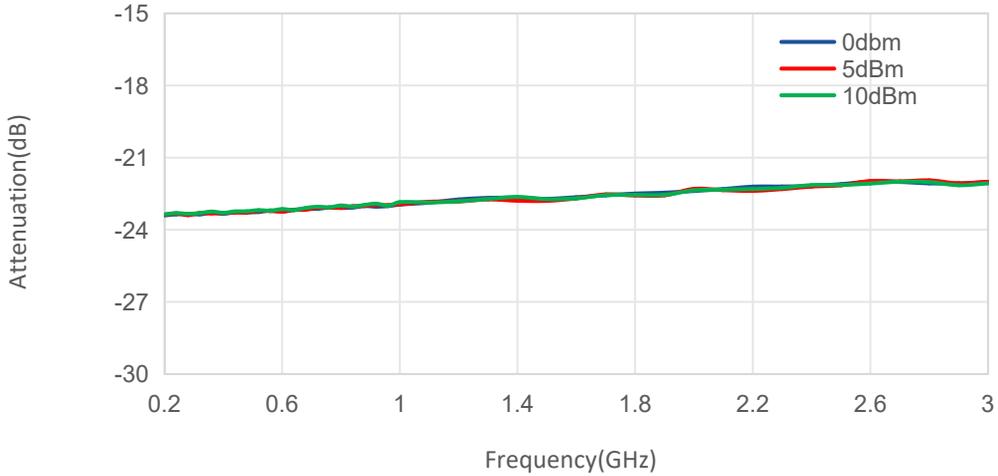


Attenuation@Pin $V_T=1.5V$

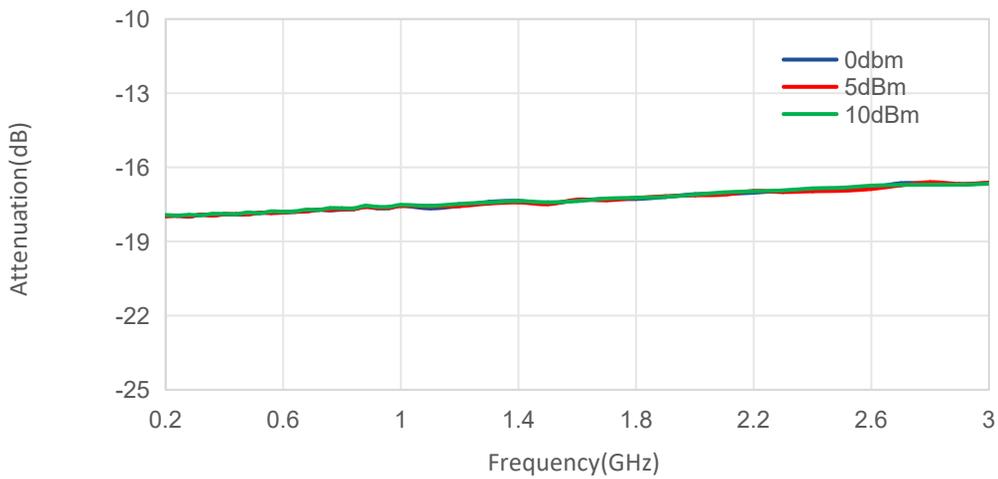


典型曲线 Typical Performance Data:

Attenuation@Pin $V_T=2V$



Attenuation@Pin $V_T=2.5V$

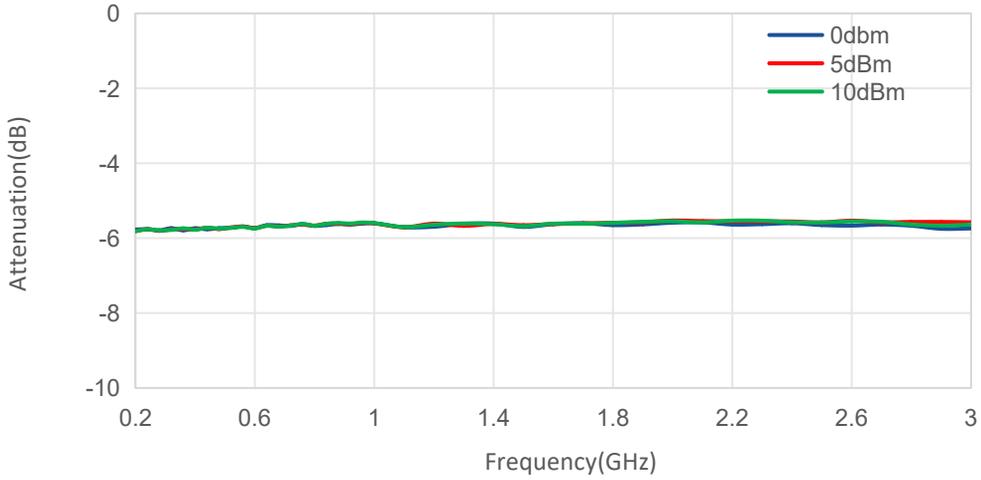


Attenuation@Pin $V_T=3V$

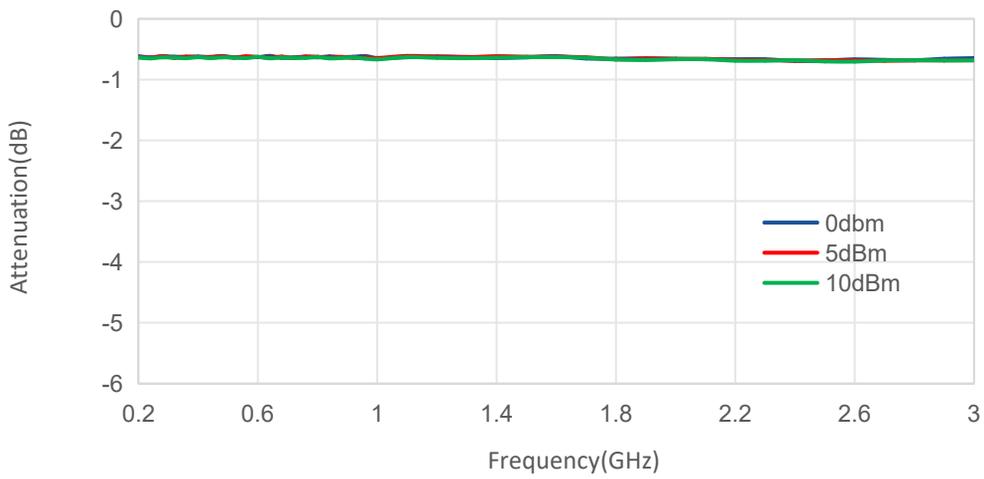


典型曲线 Typical Performance Data:

Attenuation@Pin $V_T=3.5V$



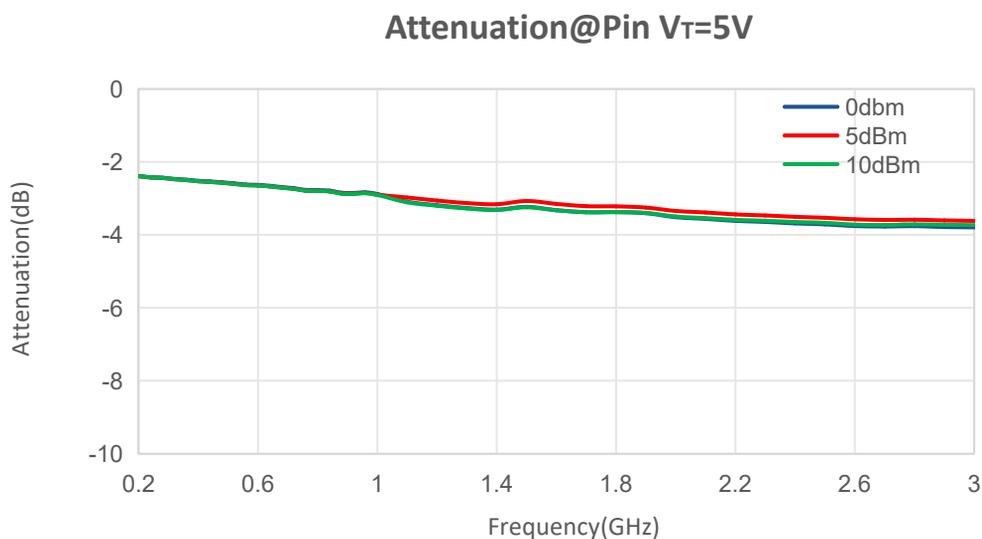
Attenuation@Pin $V_T=4V$



Attenuation@Pin $V_T=4.5V$



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.