

USB Digital Attenuator

0.25dB LSB/USB control/ 0.1-4GHz

Model: TLDA0.1G4G-95.25-USB

The TLDA0.1G4G-95.25-USB is an broadband digitally controlled electrical attenuator operating from 0.1 to 4 GHz. The attenuator exhibits 7 dB typical insertion loss and offers 95.25 dB nominal attenuation control range in 0.25 dB step. The control speed of the attenuator is typically 3 ms. The RF input and output ports are female SMA female coax connectors, and a USB interface port is employed for providing the control signal and DC bias.

Features:

- Frequency range: 0.1-4GHz
- 0.25 dB LSB, 95.25 dB Range
- Low Insertion Loss
- 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	0.1-4			GHz
插损 Insertion Loss		7		dB
衰减范围 Attenuation Range	92.25			dB
衰减步进 Attenuation Step	0.25			dB
切换速度 Switch Speed		3		ms
输入驻波 Input VSWR		2		:1
输出驻波 Output VSWR		2		:1
最大输入功率 Input Max Power	23			dBm
直流电压 DC Voltage	USB power supply			
直流电流 DC Supply Current		100		mA
阻抗 Impedance	50			Ohms

机械特性 Mechanical Specifications:

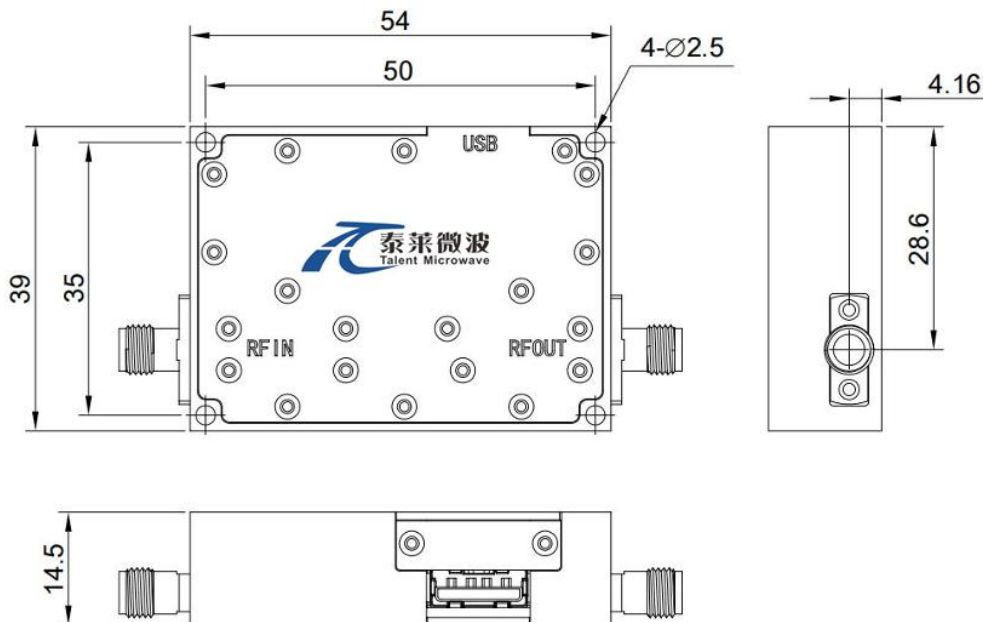
描述 Description	参数 Parameter	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
控制接口 Control Connector	USB 2.0 Type A	
尺寸 Size	54*39*14.5	mm

绝对最大值 Absolute Maximum Ratings :

描述 Description	参数 Parameter	单位 Units
射频输入功率 RF Input Power	23	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
TLDA0.1G4G-95.25-USB	USB Digital Step Attenuator,0.1-4GHz,SMA Female	Rev.1.1