

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

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.1-4			GHz
Insertion Loss		7		dB
Attenuation Range	92.25			dB
Attenuation Step	0.25			dB
Switch Speed		3		ms
Input VSWR		2		:1
Output VSWR		2		:1
Input Max Power	23			dBm
DC Voltage	USB power supply			
DC Supply Current		100		mA
Impedance	50			Ohms

Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	SMA Female/SMA Female	
Control Connector	USB 2.0 Type A	
Size	54*39*14.5	mm

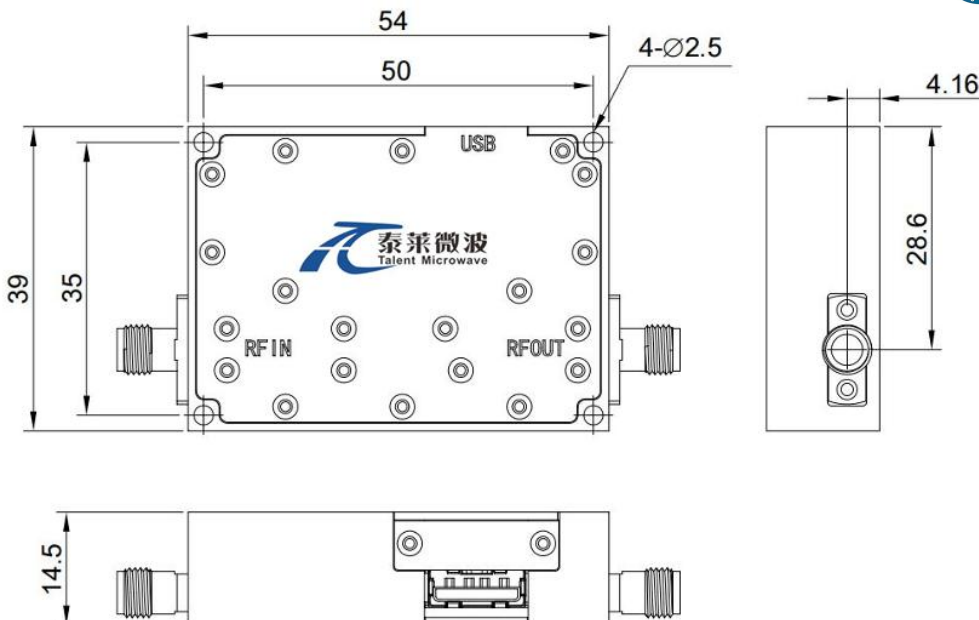
Absolute Maximum Ratings :

Description	Parameter	Units
RF Input Power	23	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.

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
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
TLDA0.1G4G-95.25-USB	USB Digital Step Attenuator,0.1-4GHz,SMA Female	Rev.1.1