Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

4-Steps Program Controlled Attenuator

DC-26.5GHz/11dB Range/ 1dB Step Size Model: TLDADC26.5G-11-4

The TLDADC26.5G-11-4 is an broadband Program controlled electrical attenuator operating from DC to 26.5 GHz. The attenuator exhibits 3.5 dB maximum insertion loss and offers 11 dB nominal attenuation control range in 1 dB steps under a 4 steps digital control. The RF input and output ports are female 3.5mm coax connectors.

Features:

- Frequency range: DC-26.5GHz
- 4 steps,1 dB LSB, 11 dB Range
- Low Insertion Loss
- High Attenuator Accuracy

Applications:

- Radar Systems
- Communication Systems
- Testing Equipment

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range		DC-26.5		GHz
Insertion Loss			3.5	dB
Attenuation Range		11		dB
Control Step		4		Bit
Attenuation Step		1		dB
Attenuation Accuracy		±0.8dB (1dB,2dB,4dB); ±1.6 dB (11dB)		dB
Repeatability		0.05		dB
Input VSWR			2.0	:1
Input Max Power			30	dBm
Operating Life(Per Switch)	1000000			cycles
DC Voltage	20	24	28	V DC
DC Supply Current		126		mA
Impedance		50		Ohms

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Mechanical Specifications:

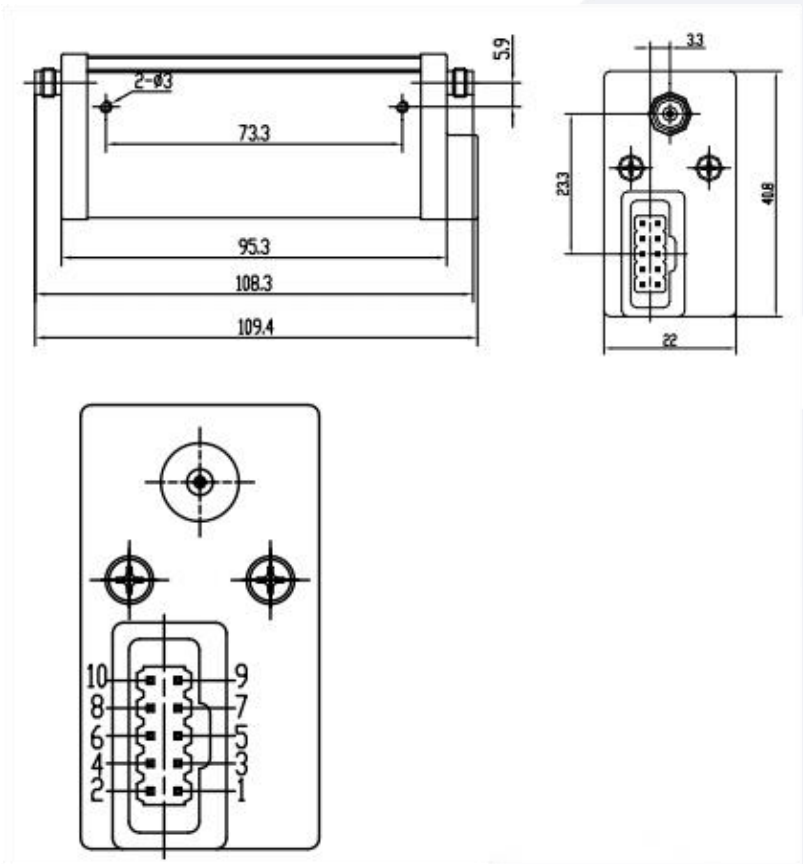
Description	Parameter	Units
Input /Output Connector	3.5mm Female/3.5mm Female	
Control Connector	517.076.003.010	
Size	108.3*40.8*22	mm
Weight	≤350	g

Absolute Maximum Ratings :

Description	Parameter	Units
RF Input Power	30	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Outline Drawing:

Unit:mm



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

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Supply Conector and Truth Table(517.076.003.010):

517.076.003.010 Define	
Pin#	Function
1	Step1 Straight-through
2	Step1 1dB attenuation
3	GND
4	Step2 Straight-through
5	Step3 Straight-through
6	Step4 Straight-through
7	Step4 4dB attenuation
8	Step3 2dB attenuation
9	Step2 4dB attenuation
10	+20~+28V DC

Control:At same step,if the voltage of this pin drops from TTL high level to low level (0V to +1.0Vdc) and the low level lasts for more than 20ms, while other pins (except pins 3 and 10) remain at TTL high level (+4.2V to +5Vdc), their respective functions will be implemented.

Truth Table				
Step1	Step2	Step3	Step4	Attenuation
O	O	O	O	0dB
x	O	O	O	1dB
O	O	x	O	2dB
x	O	x	O	3dB
O	x	O	O	4dB
x	x	O	O	5dB
O	x	x	O	6dB
x	x	x	O	7dB
O	x	O	x	8dB
x	x	O	x	9dB
O	x	x	x	10dB
x	x	x	x	11dB

Note:○ represents signal transmission through a straight-through patch, X represents signal transmission through an attenuating patch.
For example, to achieve a dB attenuation, the connector should be powered as follows:
Pin 1: TTL high level
Pin 2: TTL high level changes to low level and the low level lasts for more than 20ms
Pin 3: Ground
Pin 4: TTL high level
Pin 5: TTL high level changes to low level and the low level lasts for more than 20ms
Pin 6: TTL high level changes to low level and the low level lasts for more than 20ms
Pin 7: TTL high level
Pin 8: TTL high level
Pin 9: TTL high level changes to low level and the low level lasts for more than 20ms
Pin 10: +24Vdc

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-55		+75	℃
Non-operating Temperature	-55		+85	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	5g 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
TLDADC26.5G-11-4	4-Steps Program Controlled Attenuator DC-26.5GHz,11 dB, 1 dB Step Size	Rev.1.1