泰莱微波
Talent Microwave

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

5-Steps Program Controlled Attenuator

10dB LSB/5 Steps/ DC-67GHz Model: TLDADC67G-90-5

The TLDADC67G-90-5 is an broadband Program controlled electrical attenuator operating from DC to 67 GHz. The attenuator exhibits 5 dB maximum insertion loss and offers 90 dB nominal attenuation control range in 10 dB steps under a 5 steps digital control. The control speed of the attenuator is 25 ms.The RF input and output ports are female 1.85 mm coax connectors.

Features:

- Frequency range: DC-67GHz
- 5 steps, 10 dB LSB, 90 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-67			GHz
Insertion Loss(@0dB)			5.0	dB
Attenuation Range	90			dB
Attenuation Accuracy	±1.5 dB (10dB); ±2.5 dB (20dB)			dB
Control Step	5			Step
Attenuation Step	10			dB
Repeatability		0.05		dB
Switching Speed		20	25	ms
Input VSWR		1.5	2.0	:1
Input Max Power			30(CW)	dBm
Operating Life (Per Switch)	1000000			cycles
DC Voltage	20	24	28	V DC
DC Supply Current	126(every step)			mA
Impedance	50			Ohms

泰莱微波
Talent Microwave
Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Mechanical Specifications:

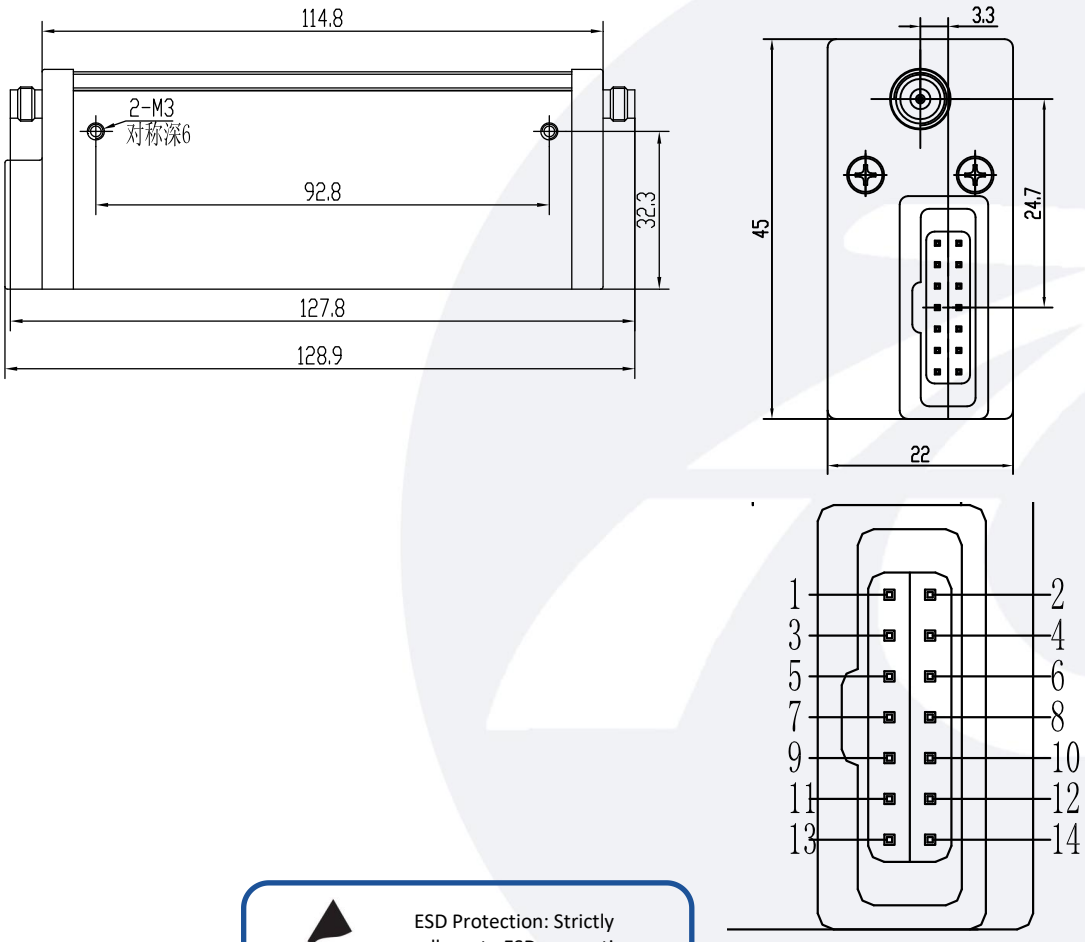
Description	Parameter	Units
Input /Output Connector	1.85mm Female/1.85mm Female	
Control Connector	517.076.003.014	
Size	128.9*45*22	mm
Weight	≤350	g

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.

泰莱微波
Talent Microwave

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

Supply Conector(517.076.003.014):

Pin#	Function
1,2	NC
3	Step2 20dB attenuation
4	+24V
5	Step4 10dB attenuation
6	Step3 20dB attenuation
7	Step3 Straight-through
8	Step4 Straight-through
9	GND
10	Step2 Straight-through
11	Step1 Straight-through
12	Step1 20dB attenuation
13	Step5 Straight-through
14	Step5 20dB attenuation
15	+20~+28V DC

Note: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	Step5	Attenuation
○	○	○	○	○	0dB
○	○	○	×	○	10dB
×	○	○	○	○	20dB
×	○	○	×	○	30dB
×	×	○	○	○	40dB
×	×	○	×	○	50dB
×	×	×	○	○	60dB
×	×	×	×	○	70dB
×	×	×	○	×	80dB
×	×	×	×	×	90dB

Note:○ represents signal transmission through a straight-through patch, X represents signal transmission through an attenuating patch.
For example, to achieve a 50dB 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

Environmental Conditions:

Parameter	Min	Typ	Max	单位 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)	10G for 6msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLDADC67G-90-5	5-Steps Program Controlled Attenuator, DC-67GHz,90 dB, 10 dB Step Size,1.85mm Female	Rev.1.1