泰莱微波 Talent Microwave

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4-Steps Program Controlled Attenuator

10dB LSB/4 Steps/ DC-26.5GHz

Model: TLDADC26.5G-110-4

The TLDADC26.5G-110-4 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 110 dB nominal attenuation control range in 10 dB steps under a 4 steps digital control. The RF input and output ports are female 2.92 mm coax connectors.

Features:

- Frequency range: DC-26.5GHz
- 4 steps, 10 dB LSB, 110 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	DC-26.5			GHz
插损 Insertion Loss(@0dB)			3.5	dB
衰减范围 Attenuation Range	110			dB
衰减精度 Attenuation Accuracy	±1 dB (10dB,20dB); ±1.2 dB (40dB) ±3.5 dB (110dB)			dB
控制级数 Control Step	4			Step
衰减步进 Attenuation Step	10			dB
重复性 Repeatability		0.05		dB
驻波 Input VSWR			2.0	:1
寿命 Operating Life (Per Switch)	1000000			cycles
最大输入功率 Input Max Power			30	dBm
直流电压 DC Voltage	20	24	28	V DC
直流电流 DC Supply Current	126(every step)			mA
阻抗 Impedance	50			Ohms

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机械特性 Mechanical Specifications:

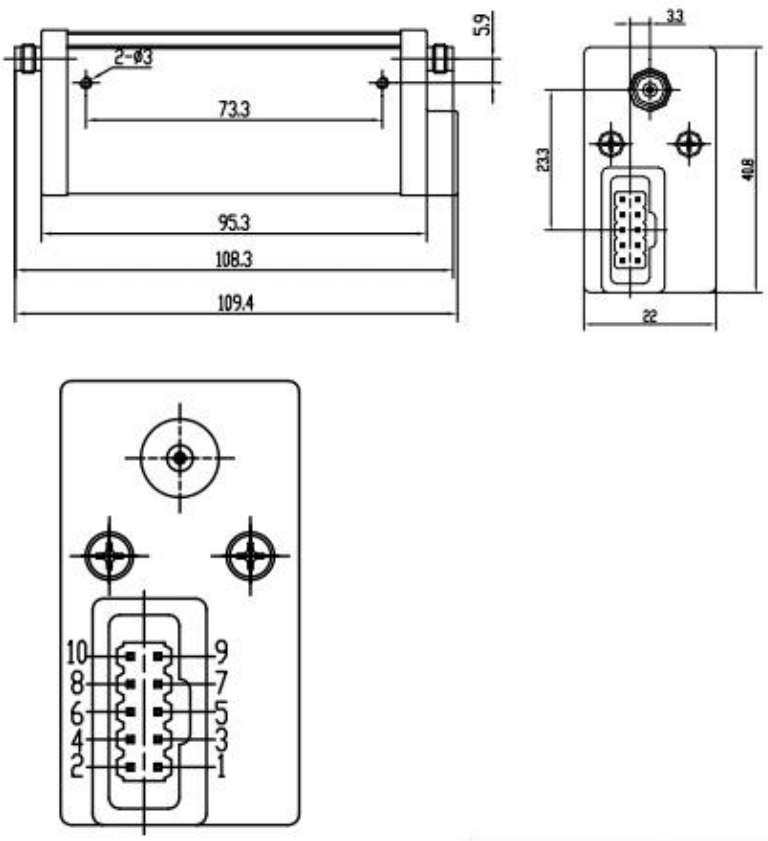
描述 Description	参数 Parameter	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mm Female	
控制连接器 Control Connector	517.076.003.010	
尺寸 Size	108.3*40.8*22	mm
重量 Weight	≤350	g

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	+30	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.

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加电接口 Supply Conector(J30J-15ZKP):

引脚Pin#	功能Function
1	Step1 Straight-through
2	Step1 10dB attenuation
3	GND
4	Step2 Straight-through
5	Step3 Straight-through
6	Step4 Straight-through
7	Step4 40dB attenuation
8	Step3 20dB attenuation
9	Step2 40dB attenuation
10	+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.

真值表 Truth Table				
Step1	Step2	Step3	Step4	Attenuation
○	○	○	○	0dB
X	○	○	○	10dB
○	○	X	○	20dB
X	○	X	○	30dB
○	X	○	○	40dB
X	X	○	○	50dB
○	X	X	○	60dB
X	X	X	○	70dB
○	X	○	X	80dB
X	X	○	X	90dB
○	X	X	X	100dB
X	X	X	X	110dB

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

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-55		+75	℃
存储温度 Non-operating Temperature	-55		+85	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	5g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	10G for 6msc half sin wave,3 axis both directions			

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订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLDADC26.5G-110-4	4-Steps Program Controlled Attenuator, DC-26.5GHz,110 dB, 10 dB Step Size,2.92mm Female	Rev.1.1