泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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6-Bit Digital Step Attenuator

0.5dB LSB/6 Bit/2-2.5GHz

Model: TLDA2G2.5G-31.5-6

The TLDA2G2.5G-31.5-6 is an broadband digitally controlled electrical attenuator operating from 2 to 2.5 GHz. The attenuator exhibits 2 dB typical insertion loss and offers 31.5 dB nominal attenuation control range in 0.5 dB steps under a 6-bit digital control. The control speed of the attenuator is typically 100 ns. The RF input and output ports are female SMA coax connectors, and a male J30J-9ZKP port is employed for providing the control signal and DC bias.

Features:

- Frequency range: 2-2.5GHz
- 6-Bit, 0.5 dB LSB, 31.5dB Range
- Low Insertion Loss
- High Attenuator Accuracy

Applications:

- Radar Systems
- Communication Systems
- Testing Equipment

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	2		2.5	GHz
Insertion Loss		2		dB
Attenuation Range		31.5		dB
Control Bit TTL		6		Bit
Attenuation Step		0.5		dB
Switch Speed			100	ns
Input VSWR		1.8	2	:1
Output VSWR		1.8	2	:1
Input Max Power		25		dBm
DC Voltage		5		V DC
DC Supply Current			80	mA
Impedance	50			Ohms

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Mechanical Specifications:

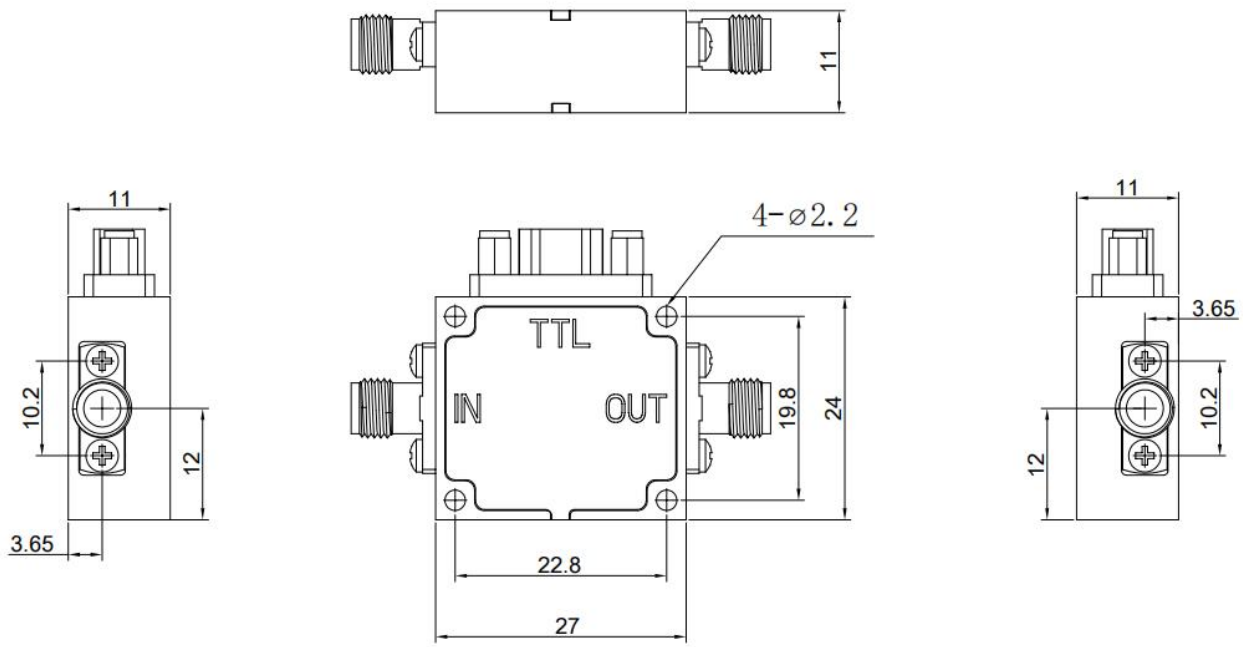
Description	Parameter	Units
Input /Output Connector	SMA Female/SMA Female	
DC control Connector	J30J-9ZKP	
Size	27*24*11	mm

Absolute Maximum Ratings :

Description	Parameter	Units
Supply Bias Voltage	±5%	V
RF Input Power	25	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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

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Truth Table&Supply Conector(J30J-9ZKP):

J30J-9ZKP			
Pin#	Function	Pin#	Function
1	+5V	6	C4
2	GND	7	C5
3	C1	8	C6
4	C2	9	NC
5	C3		

Truth Table						
TTL Control Input						Signal Path State
C1	C2	C3	C4	C5	C6	
0	0	0	0	0	0	Reference
1	0	0	0	0	0	0.5dB
0	1	0	0	0	0	1dB
0	0	1	0	0	0	2dB
0	0	0	1	0	0	4dB
0	0	0	0	1	0	8dB
0	0	0	0	0	1	16dB
1	1	1	1	1	1	31.5dB

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-40		+70	℃
Non-operating Temperature	-55		+85	℃
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
TLDA2G2.5G-31.5-6	6-Bit Digital Step Attenuator, 2-2.5GHz, SMA Female	Rev.1.0