泰莱微波
Talent Microwave

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

Low Noise Amplifier

0.1-4GHz/2.0dB NF/36dB Gain/10dBm P1dB Model: TLLA0.1G4G-36-20

TLLA0.1G4G-36-20 is a low noise amplifier with a minimum small signal gain of 36 dB and a maximum noise figure of 2.0 dB across the frequency range of 0.1 to 4 GHz. The DC power requirement for the amplifier is +12 V DC/150 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.1-4 GHz
- Gain: 36dB Min
- Noise Figure: 2.0dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	0.1		4	GHz
小信号增益 Small Signal Gain	36			dB
增益平坦度 Gain Flatness		±2.5		dB
噪声系数 Noise Figure			2.0	dB
线性输出功率 Output P1dB	10			dBm
输入驻波 Input VSWR			2.0	:1
输出驻波 Output VSWR			2.0	:1
直流电压 DC Voltage		+12		V DC
直流电流 DC Supply Current		150		mA
阻抗 Impedance	50			Ohms

*Performance may degrade below 300 MHz. Please refer to below typical test plots

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	44.8*29.2*11	mm
重量 Weight	50	g

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绝对最大值 Absolute Maximum Ratings:

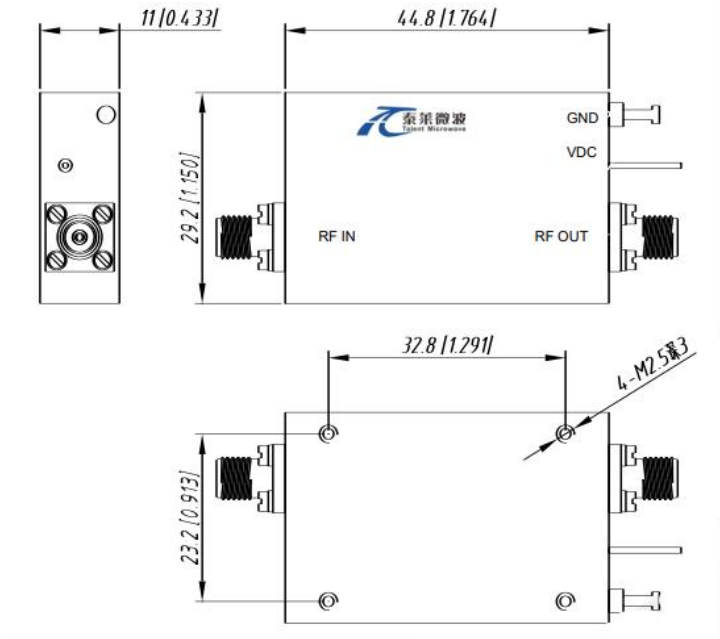
参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	TBD
输入功率 RF Input Power	TBD
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



Simple 220V System
Available SAC option

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



***Heat Sink Required During Operation



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

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-55		+85	℃
存储温度 Non-operating Temperature	-55		+125	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc 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
TLLA0.1G4G-36-20	Low Noise Amplifier,0.1-4GHz, Noise Figure:2.0dB, Gain:36 dB,P1dB:10dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA0.1G4G-36-20-HS	Low Noise Amplifier, 0.1-4GHz, Noise Figure:2.0dB, Gain:36 dB,P1dB:10dBm,+12V DC,With Heatsink	Rev.1.1