

Low Noise Amplifier

1-12GHz /1.2dB NF/24dB Gain/15 dBm P1dB

Model: TLLA1G12G-24-12-LC

TLLA1G12G-24-12-LC is a low noise amplifier with small signal gain of 24 dB and noise figure of 1.2 dB across the frequency range of 1 to 12 GHz. The DC power requirement for the amplifier is +12 V DC/35 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Ultra Wide Band:1-12GHz
- Gain: 24dB Typ
- Noise Figure: 1.2 dB Typ
- 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	1		12	GHz
增益 Gain		24		dB
增益平坦度 Gain Flatness		±1.5		dB
噪声系数 Noise Figure		1.2		dB
输出1dB压缩点 Output P-1 dB		15		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	+15	V DC
直流电流 DC Supply Current		35		mA
阻抗 Impedance	50			Ohms

机械特性 Mechanical Specifications:

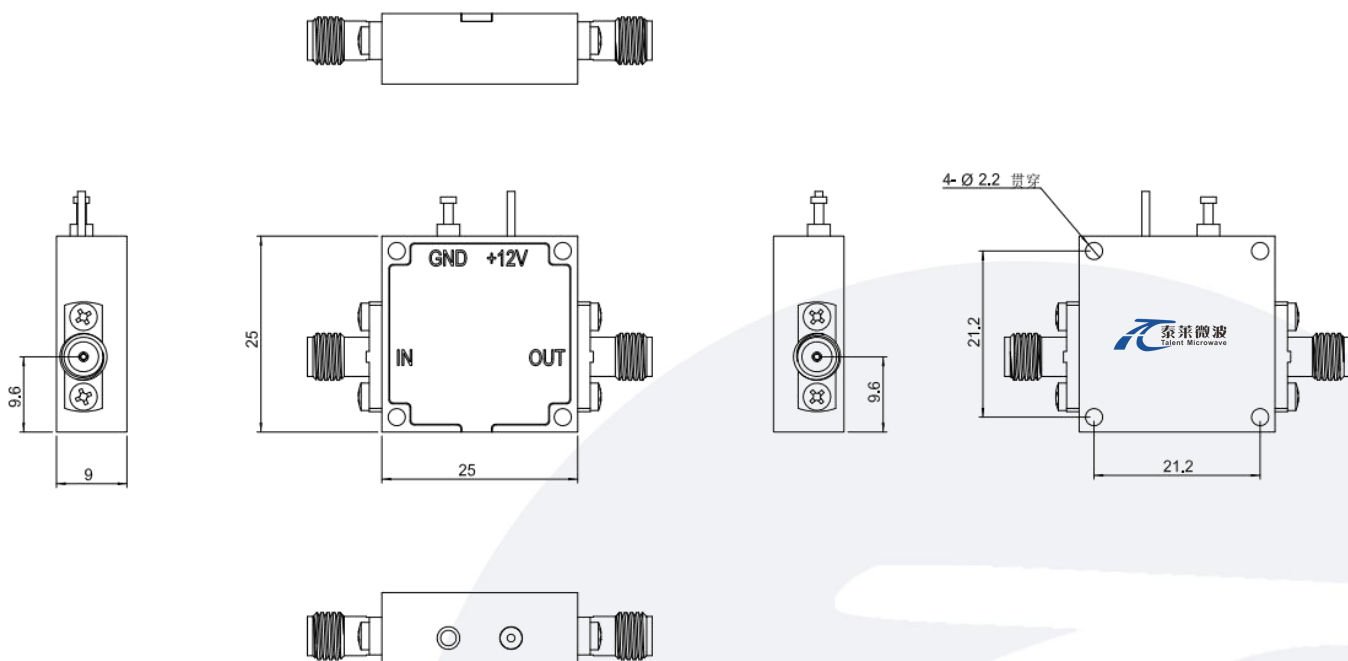
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	25×25×9	mm
重量 Weight	/	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+15 V
输入功率 RF Input Power	+17 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			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			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLLA1G12G-24-12-LC	Low Noise Amplifier, 1-12GHz, Noise Figure:1.2dB, Gain:24 dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.0