

Low Noise Amplifier

23.8-24.2GHz/4.5dB NF/18dB Gain/13dBm P1dB

Model: TLLA23.8G24.2G-18-45

TLLA23.8G24.2G-18-45 is a low noise amplifier with a minimum small signal gain of 18 dB and a maximum noise figure of 4.5 dB across the frequency range of 23.8 to 24.2 GHz. The DC power requirement for the amplifier is +12 V DC/120 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 23.8-24.2GHz
- Gain: 18dB Min
- Noise Figure: 4.5dB 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	23.8		24.2	GHz
小信号增益 Small Signal Gain	18			dB
增益平坦度 Gain Flatness		±0.6		dB
噪声系数 Noise Figure			4.5	dB
线性输出功率 Output P1dB	13			dBm
输入驻波 Input VSWR			1.8	:1
输出驻波 Output VSWR			1.8	:1
直流电压 DC Voltage		+12		V DC
直流电流 DC Supply Current		120		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	2.92mm Female/2.92mm Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	32.1*29.2*11	mm

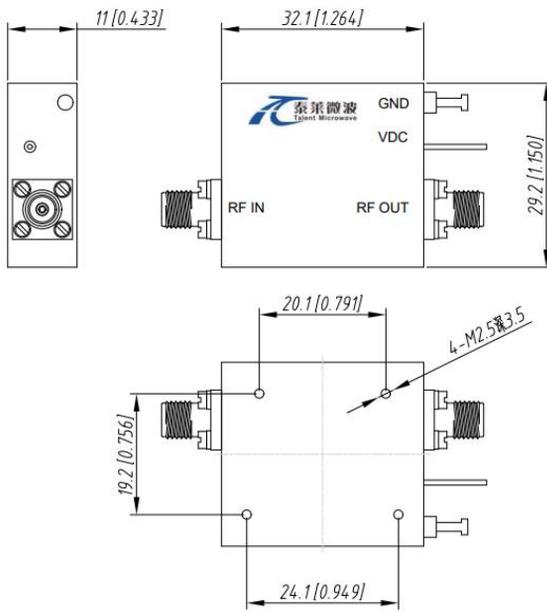
绝对最大值 Absolute Maximum Ratings:

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



外形图 Outline Drawing:

Unit:mm



***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	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
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			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLLA23.8G24.2G-18-45	Low Noise Amplifier, 23.8-24.2GHz, Noise Figure:4.5dB, Gain:18 dB,P1dB:13dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA23.8G24.2G-18-45-HS	Low Noise Amplifier, 23.8-24.2GHz, Noise Figure:4.5dB, Gain:18 dB,P1dB:13dBm,+12V DC,With Heatsink	Rev.1.1