

## Low Noise Amplifier

2.2-2.4GHz/1.0dB NF/36dB Gain/17dBm P1dB

Model: TLLA2.2G2.4G-35-10

TLLA2.2G2.4G-35-10 is a low noise amplifier with a typical small signal gain of 36 dB and a nominal noise figure of 1.0 dB across the frequency range of 2.2 to 2.4 GHz. The DC power requirement for the amplifier is +5.5 V DC/60 mA. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 2.2-2.4GHz
- Gain: 36dB Typ
- Noise Figure: 1.0dB 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	2.2		2.4	GHz
小信号增益 Small Signal Gain		36		dB
增益平坦度 Gain Flatness			±0.5	dB
噪声系数 Noise Figure		0.7	1	dB
线性输出功率 Output P1dB	16	17		dBm
饱和输出功率 Output Psat		18		dBm
输入驻波 Input VSWR		1.5		:1
输出驻波 Output VSWR		1.5		:1
直流电压 DC Voltage		+5.5	+13	V DC
直流电流 DC Supply Current		60		mA
阻抗 Impedance		50		Ohms

## 机械特性 Mechanical Specifications:

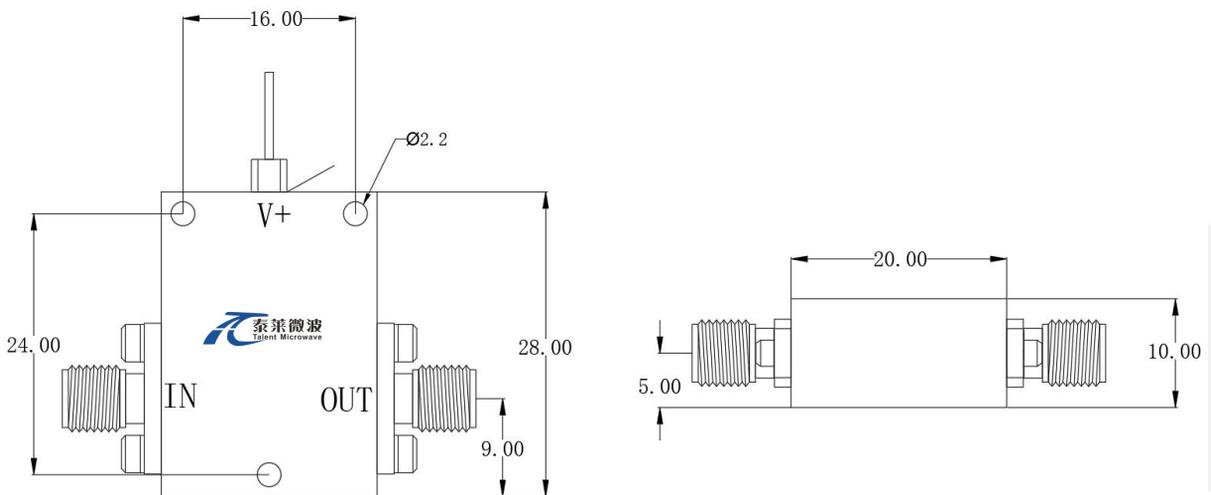
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	28*20*10	mm
重量 Weight	20	g

### 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+13 V
输入功率 RF Input Power	+20 dBm
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
TLLA2.2G2.4G-35-10	Low Noise Amplifier, 2.2-2.4GHz, Noise Figure:1.0dB, Gain:36dB,P1dB:17dBm,+5.5V DC,Without Heatsink	Rev.1.1
TLLA2.2G2.4G-35-10-HS	Low Noise Amplifier, 2.2-2.4GHz, Noise Figure:1.0dB, Gain:36dB,P1dB:17dBm,+5.5V DC,With Heatsink	Rev.1.1