

## Low Noise Amplifier

7.9-8.5GHz/0.9dB NF/52dB Gain/11dBm P1dB

Model: TLLA7.9G8.5G-52-09

TLLA7.9G8.5G-52-09 is a low noise amplifier with a typical small signal gain of 52 dB and a nominal noise figure of 0.9 dB across the frequency range of 7.9 to 8.5 GHz. The DC power requirement for the amplifier is +12 V DC/40 mA. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 7.9-8.5 GHz
- Gain: 52dB Typ
- Noise Figure: 0.9dB 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	7.9		8.5	GHz
小信号增益 Small Signal Gain		52		dB
增益平坦度 Gain Flatness		±1		dB
带外抑制 Rejection@ < 7.7GHz	35			dB
带外抑制 Rejection@ > 8.7GHz	35			dB
噪声系数 Noise Figure		0.9		dB
线性输出功率 Output P1dB		11		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		+12		V DC
直流电流 DC Supply Current		40		mA
阻抗 Impedance		50		Ohms

## 机械特性 Mechanical Specifications:

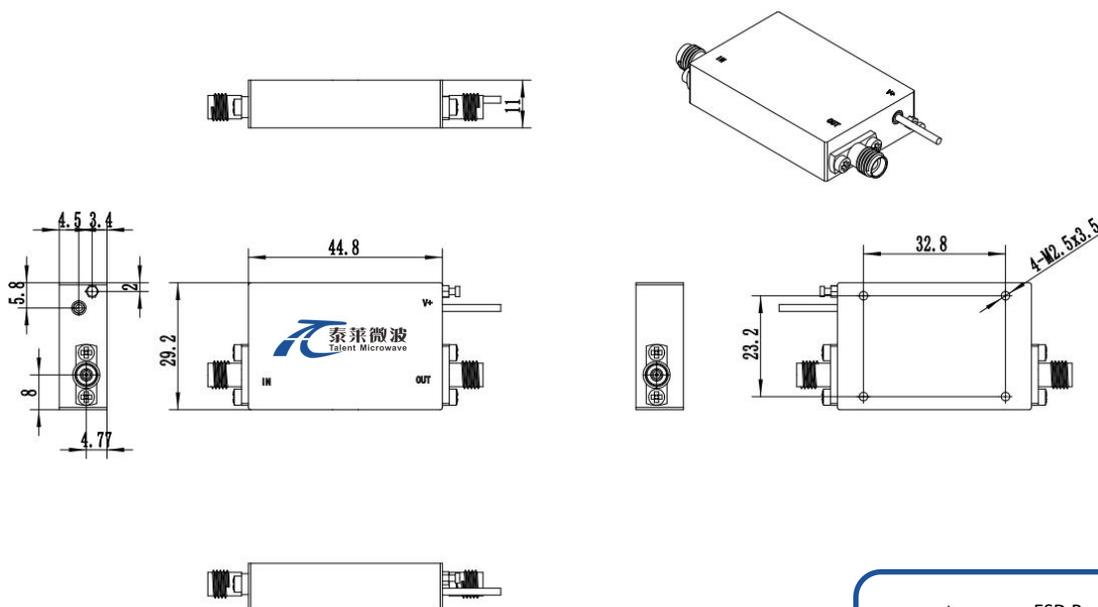
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	44.8*29.2*11	mm

**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	+5 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	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
TLLA7.9G8.5G-52-09	Low Noise Amplifier, 7.9-8.5GHz, Noise Figure:0.9dB, Gain:52 dB,P1dB:11dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA7.9G8.5G-52-09-HS	Low Noise Amplifier, 7.9-8.5GHz, Noise Figure:0.9dB, Gain:52 dB,P1dB:11dBm,+12V DC,With Heatsink	Rev.1.1