

**Model: TLLA4G8G-25-11**
**Low Noise Amplifier**
**4-8GHz, NF:1.1dB, Gain:25dB, P1dB:16dBm**
**Feature:**

- Ultra Wide Band: 4-8GHz
- Gain: 25dB Min
- Noise Figure: 1.1dB Typ.
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

**电气特性 Electrical Specifications:**

| 参数 Parameter           | Min | Typ  | Max | 单位 Units |
|------------------------|-----|------|-----|----------|
| 频率范围 Frequency range   | 4-8 |      |     | GHz      |
| 增益 Gain                | 25  |      |     | dB       |
| 增益平坦度 Gain Flatness    |     | ±1.0 |     | dB       |
| 噪声系数 Noise Figure      |     | 1.1  |     | dB       |
| 线性输出功率 Output P1dB     | 14  | 16   |     | dBm      |
| 输入驻波 Input VSWR        |     | 2.0  | 2.2 | :1       |
| 输出驻波 Output VSWR       |     | 2.0  | 2.2 | :1       |
| 直流电压 DC Voltage        |     | +12  |     | V DC     |
| 直流电流 DC Supply Current |     | 80   |     | 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                         | 32.1*29.2*11          | mm       |

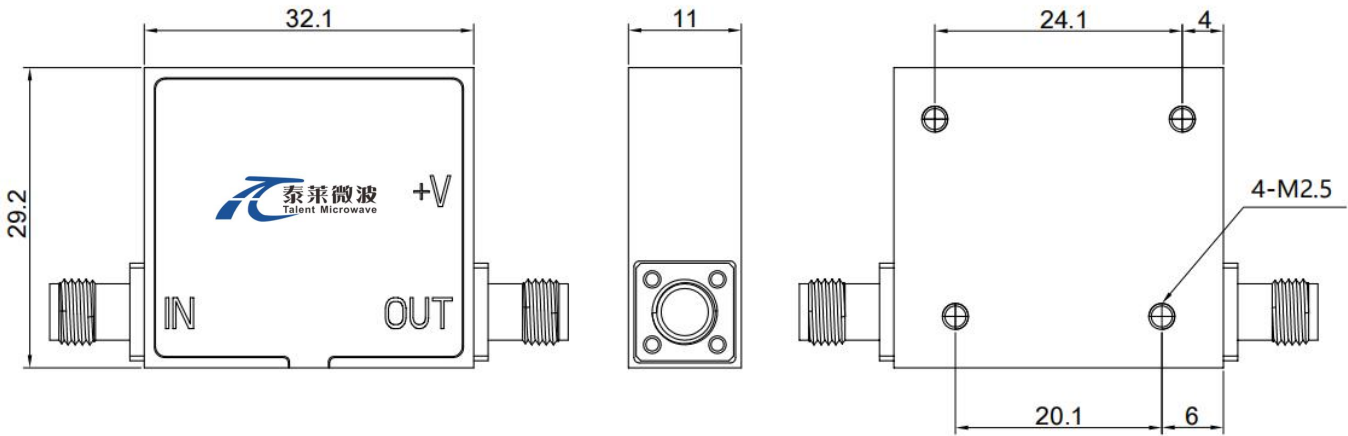
**绝对最大值 Absolute Maximum Ratings:**

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


 Available 220V System  
 Benchtop Amplifier

外形尺寸 Outline Drawing:

Unit: mm



**\*\*\*Heat Sink Required During Operation**



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

温度环境 Environmental Conditions:

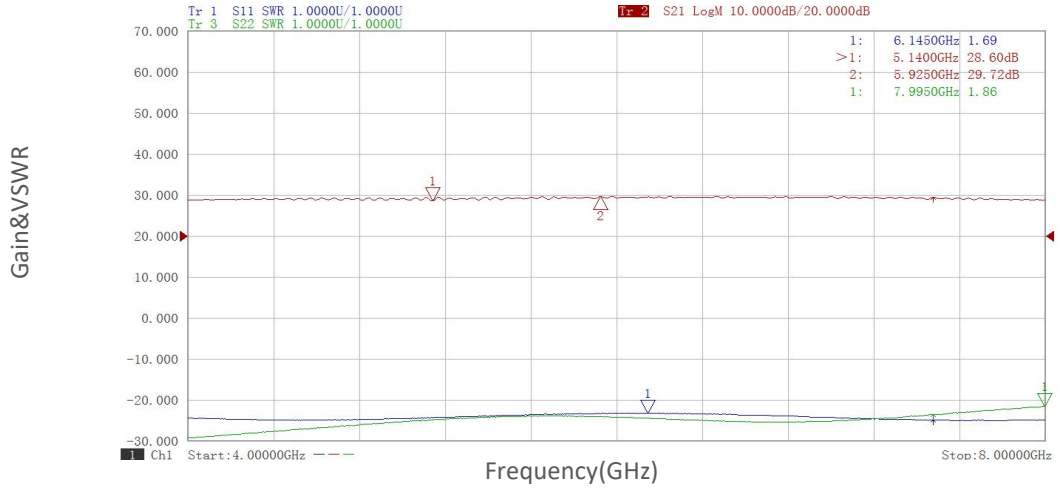
| 参数 Parameter                       | Min   | Typ | Max  | 单位 Units |
|------------------------------------|---|-----|------|----------|
| 操作温度 Operating Temperature         | -45   |     | +85  | °C       |
| 存储温度 Non-operating Temperature     | -55   |     | +125 | °C       |
| 相对湿度 Relative humidity             |   | 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:

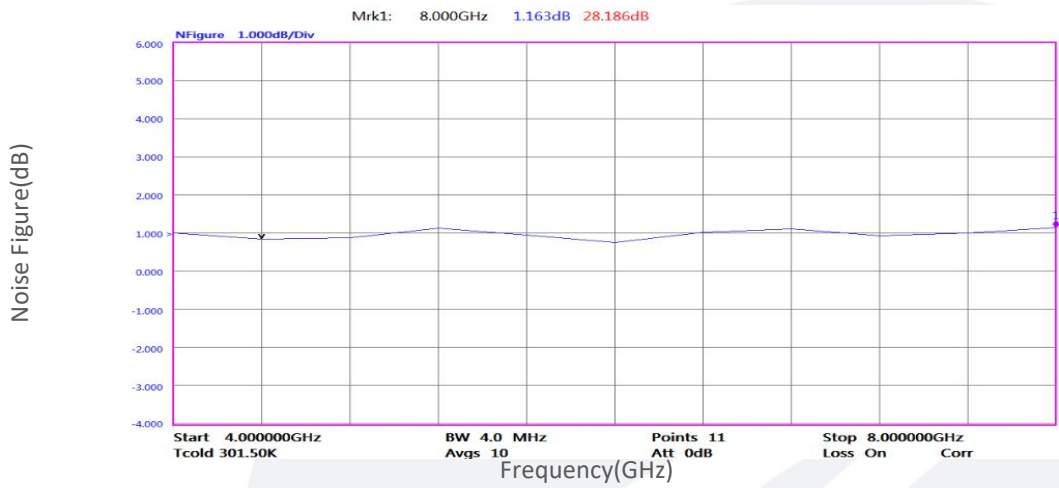
| 标准型号 Part Number  | 描述 Description  | 版本号 Revision |
|-------------------|---|--------------|
| TLLA4G8G-25-11    | Low Noise Amplifier, 4-8GHz, Noise Figure:1.1dB, Gain:25 dB,P1dB:16dBm,+12V DC,Without Heatsink | Rev.1.2      |
| TLLA4G8G-25-11-HS | Low Noise Amplifier, 4-8GHz, Noise Figure:1.1dB, Gain:25 dB,P1dB:16dBm,+12V DC,With Heatsink    | Rev.1.2      |

典型曲线 Typical Performance Data:

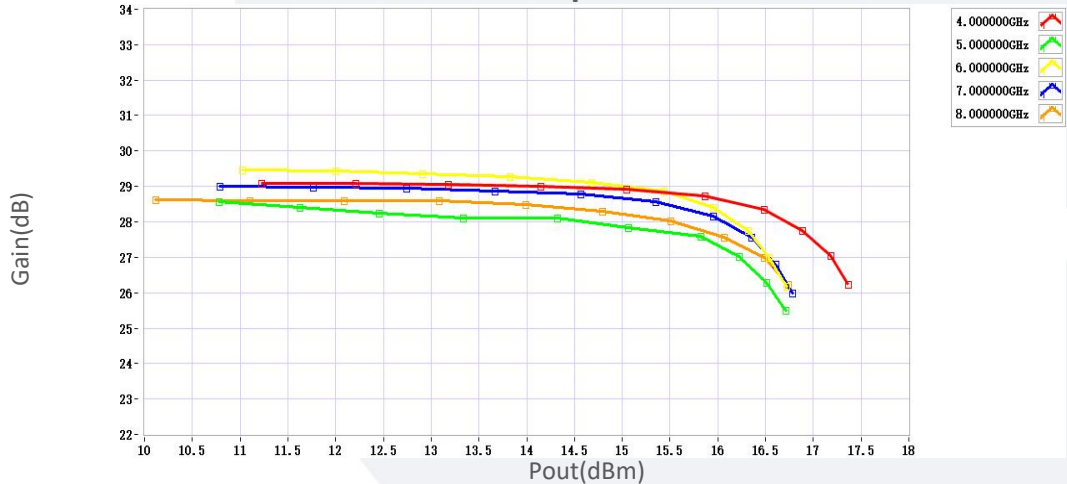
Gain&VSWR vs Frequency



Noise Figure vs Frequency



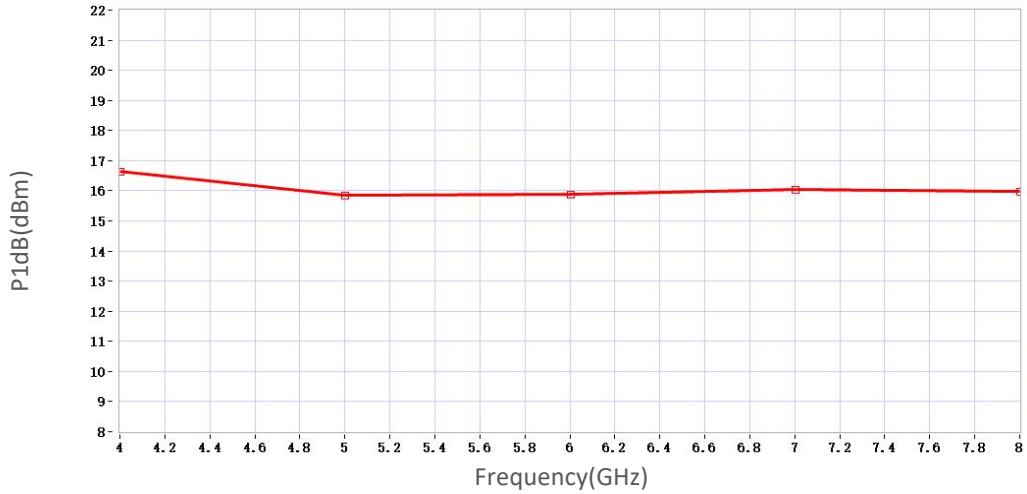
Gain vs Output Power



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

P1dB vs Frequency



2nd Harmonic vs Output Power



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.