

# Low Noise Amplifier

## 4.9-5.1GHz/0.6dB NF/35dB Gain/12dBm P1dB

TLLA4.9G5.1G-36-6

TURLA4.9G5.1G-366 is a low noise amplifier with a minimum small signal gain of 35 dB and a nominal noise figure of 0.6 dB across the frequency range of 4.9 to 5.1 GHz. The DC power requirement for the amplifier is +15 V DC/100 mA. The input and output port configuration offers coax adapter structure with SMA female.

- Features:**
- Frequency range: 4.9-5.1GHz
  - Gain: 35dB Min
  - Noise Figure: 0.6dB 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    | 4.9 |      | 5.1 | GHz      |
| 小信号增益 Small Signal Gain | 35  | 36   |     | dB       |
| 增益平坦度 Gain Flatness     |     | ±1.0 |     | dB       |
| 噪声系数 Noise Figure       |     | 0.6  | 0.9 | dB       |
| 线性输出功率 Output P1dB      | 10  | 12   |     | dBm      |
| 饱和输出功率 Output Psat      |     | 14   |     | 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         |     | +15  | +24 | V DC     |
| 直流电流 DC Supply Current  |     | 100  |     | mA       |
| 阻抗 Impedance            | 50  |      |     | Ohms     |

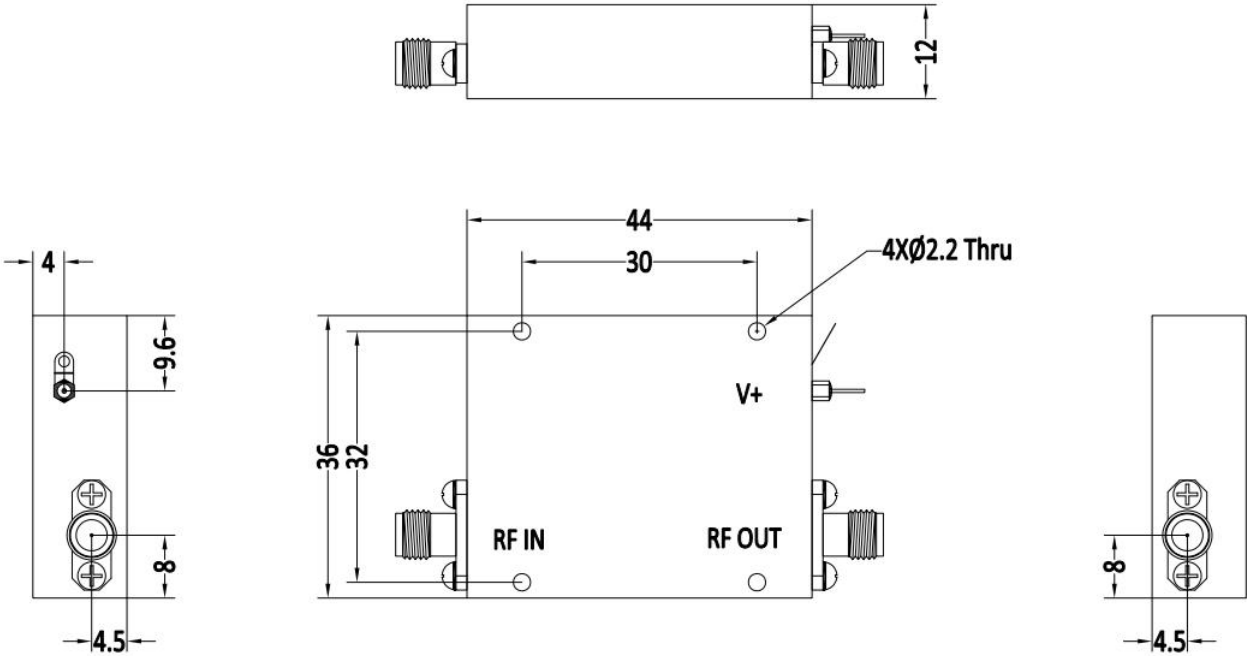
**机械特性 Mechanical Specifications:**

| 参数 Parameter                    | 指标 Value              | 单位 Units |
|---------------------------------|-----------------------|----------|
| 输入/输出接口 Input /Output Connector | SMA Female/SMA Female |          |

绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter                 | 指标 Value             |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage   | +24 V                |
| 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 |
|----------------------|----------------------------------------------------------------------------------------------------|--------------|
| TURLA4.9G5.1G-366    | Low Noise Amplifier, 4.9-5.1GHz, Noise Figure:0.6dB, Gain:35dB,P1dB:12dBm,+15V DC,Without Heatsink | Rev.1.1      |
| TURLA4.9G5.1G-366 HS | Low Noise Amplifier, 4.9-5.1GHz, Noise Figure:0.6dB, Gain:35dB,P1dB:12dBm,+15V DC,With Heatsink    | Rev.1.1      |