

Power Amplifier

2-20GHz /19dB Gain/23 dBm Psat

Model: TLPA2G20G-19-23-LC

TLPA2G20G-19-23-LC is a power amplifier with a typical small signal gain of 19 dB and Psat of 23 dBm across the frequency range of 2 to 20 GHz. The DC power requirement for the amplifier is +12 VDC/90mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Ultra Wide Band: 2-20GHz
- Small Signal Gain:19 dB Typ
- Output Power Psat: 23 dBm Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

电气特性 Electrical Characteristics:

| 参数 Parameter | Min | Typ | Max | 单位 Units |
|-------------------------|-----|------|-----|----------|
| 频率范围 Frequency range | | 2-20 | | GHz |
| 小信号增益 Small Signal Gain | | 19 | | dB |
| 增益平坦度 Gain Flatness | | ±1.5 | | dB |
| 输出1dB压缩点 Output P-1 dB | | 21 | | dBm |
| 饱和输出功率 Output Psat | | 23 | | dBm |
| 噪声系数 Noise Figure | | 4.0 | | dB |
| 输入驻波 Input VSWR | | 2 | | :1 |
| 输出驻波 Output VSWR | | 2 | | :1 |
| 直流电压 DC Voltage | | +12 | +15 | V DC |
| 直流电流 DC Supply Current | | 90 | | mA |
| 阻抗 Impedance | | 50 | | Ohms |

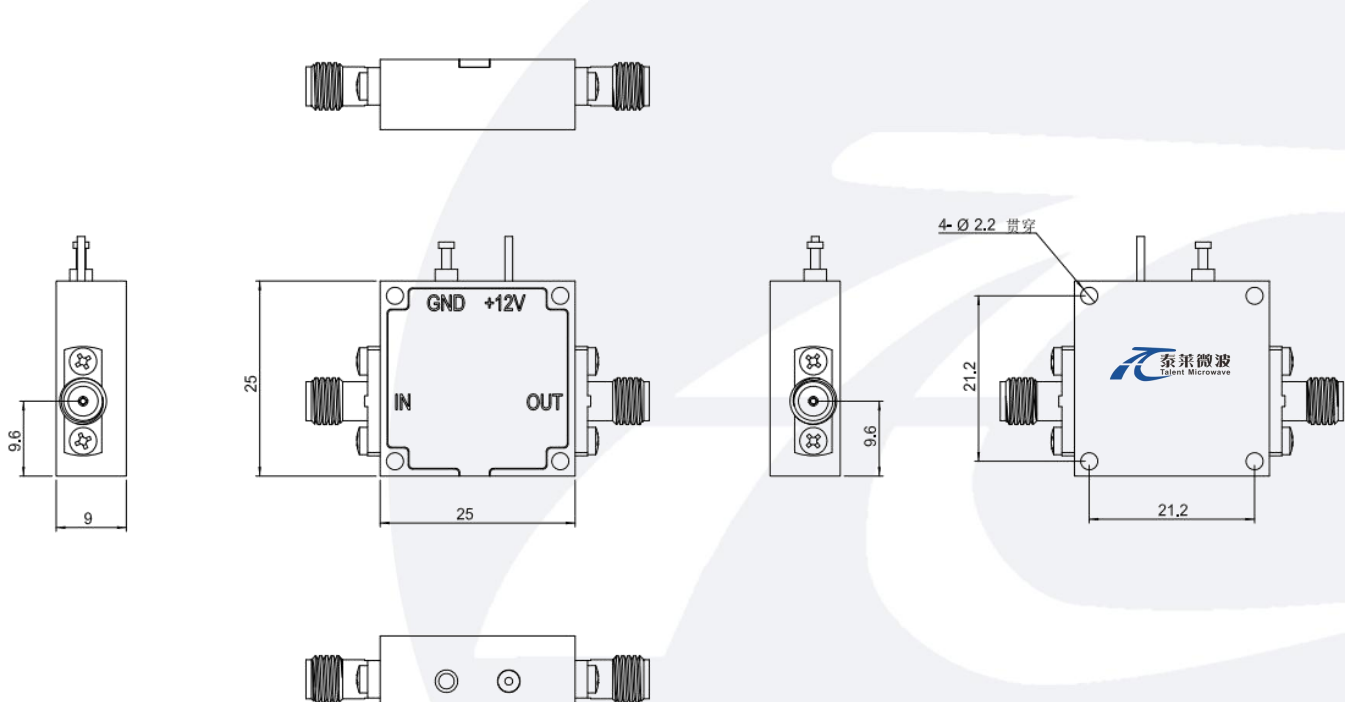
机械特性 Mechanical Specifications:

| 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 | 25×25×9 | mm |
| 重量 Weight | / | g |

绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter | 指标 Value |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage | +15 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



温度环境 Environmental Conditions:

| 参数 Parameter | Min | Typ | Max | 单位 Units |
|------------------------------------|-----------------------------------------------------|-----|-----|----------|
| 操作温度 Operating Temperature* | -40 | | +60 | °C |
| 存储温度 Non-operating Temperature* | -50 | | +70 | °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 | | | |

*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

| 标准型号 Base Number | 描述 Description | 版本号 Revision |
|--------------------|---------------------------------------------------------------------------------|--------------|
| TLPA2G20G-19-23-LC | Power amplifier 2-20GHz,Power Gain:19dB,Psat:23dBm, +12V DC,Without Heatsink | Rev.1.1 |