

Power Amplifier

1-8GHz/43dB Gain/43dBm Psat

Model: TLPA1G8G-43-43

TLPA1G8G-43-43 is a power amplifier with a minimum power gain of 43 dB and a minimum Psat of 43 dBm across the frequency range of 1 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/8 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 1-8GHz
- Gain: 43dB Min
- Output Power Psat: 43dBm Min
- 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 | | 1-8 | | GHz |
| 功率增益 Power Gain | 43 | | | dB |
| 增益平坦度 Gain Flatness | | ±3 | | dB |
| 饱和输出功率 Output Psat | 43 | | | dBm |
| 杂散 Spurious@Pout=43dBm | | | -50 | dBc |
| 谐波抑制 Harmonic@Pout=43dBm | | | -10 | dBc |
| 输入驻波 Input VSWR | | | 2 | :1 |
| 直流电压 DC Voltage | | 28 | 29 | V DC |
| 直流电流 DC Supply Current | | 8 | | A |
| 阻抗 Impedance | | 50 | | Ohms |

机械特性 Mechanical Specifications:

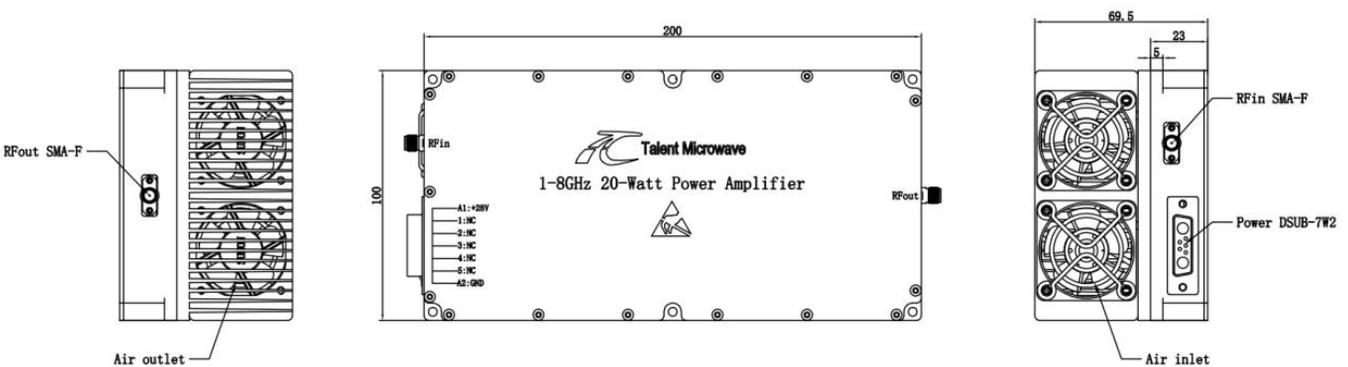
| 参数 Parameter | 指标 Value | 单位 Units |
|---------------------------------|---|-----------------------------------|
| 输入/输出接口 Input /Output Connector | SMA Female/SMA Female | |
| 直流偏置 DC Bias | DSUB-7W2 | Pin1~5: NC A1: +28V A2; GND |
| 尺寸 Size | 200*100*23(Without heatsink) 200*100*69.5(With heatsink) | mm |
| 重量 Weight | ≤1 | Kg |

绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter | 指标 Value |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage | +8 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



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* | -40 | | +50 | °C |
| 存储温度 Non-operating Temperature* | -50 | | +60 | °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 |
|------------------|---|--------------|
| TLPA1G8G-43-43 | Power amplifier 1-8GHz, Gain:43dB,Psat:43dBm,+28V DC,With Heatsink | Rev.1.1 |