

## Power Amplifier

8-26.5GHz/42dB Gain/27dBm Psat

Model: TLPA8G26.5G-40-25

TLPA8G26.5G-40-25 is a power amplifier with a typical small signal gain of 42 dB and a nominal Psat of 27 dBm across the frequency range of 8 to 26.5 GHz. The DC power requirement for the amplifier is +12 VDC/420 mA. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 8-26.5GHz
- Gain: 42dB Typ
- Output Power Psat: 27dBm 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    |     | 8-26.5 |     | GHz      |
| 小信号增益 Small Signal Gain | 40  | 42     |     | dB       |
| 增益平坦度 Gain Flatness     |     | ±2.5   |     | dB       |
| 线性输出功率 Output P1dB      |     |        |     | dBm      |
| 饱和输出功率 Output Psat      | 25  | 27     |     | dBm      |
| 输入驻波 Input VSWR         |     | 2      | 2.5 | :1       |
| 输出驻波 Output VSWR        |     | 1.8    | 2.4 | :1       |
| 直流电压 DC Voltage         | 10  | 12     | 15  | V DC     |
| 直流电流 DC Supply Current  |     | 420    |     | 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                         | 52*44*13              | mm       |

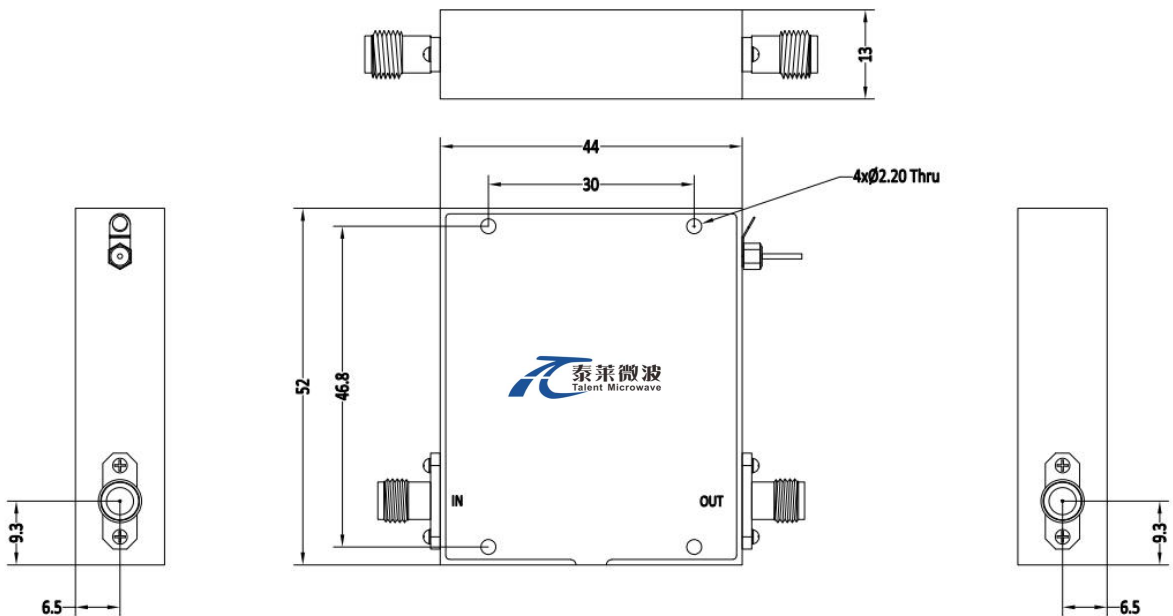
## 绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter                 | 指标 Value             |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage   | +15 V                |
| 输入功率 RF Input Power          | +15 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:

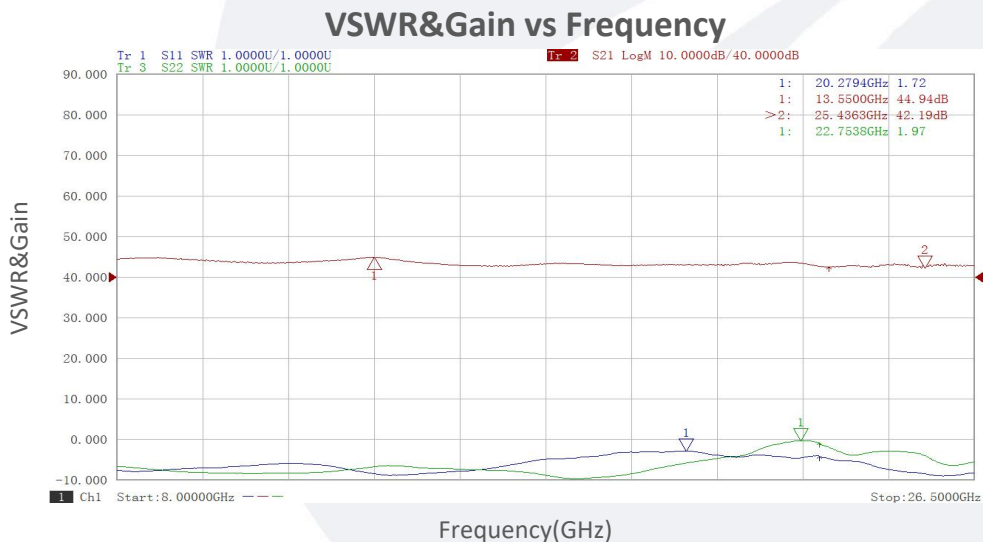
| 参数 Parameter                       | Min   | Typ | Max | 单位 Units |
|------------------------------------|---|-----|-----|----------|
| 操作温度 Operating Temperature*        | -40   |     | +60 | °C       |
| 存储温度 Non-operating Temperature*    | -50   |     | +70 | °C       |
| 相对湿度 Relative humidity             |   | 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 |
|----------------------|---|--------------|
| TLPA8G26.5G-40-25    | Power amplifier 8-26.5GHz,<br>Gain:42dB,Psat:27dBm,+12V DC,Without Heatsink | Rev.1.1      |
| TLPA8G26.5G-40-25-HS | Power amplifier 8-26.5GHz,<br>Gain:42dB,Psat:27dBm,+12V DC,With Heatsink    | Rev.1.1      |

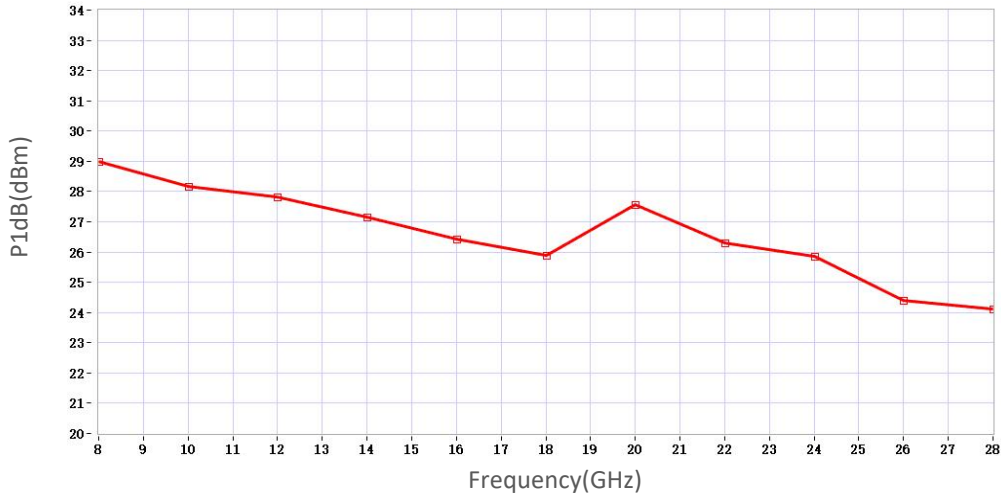
## 典型曲线 Typical Performance Data:



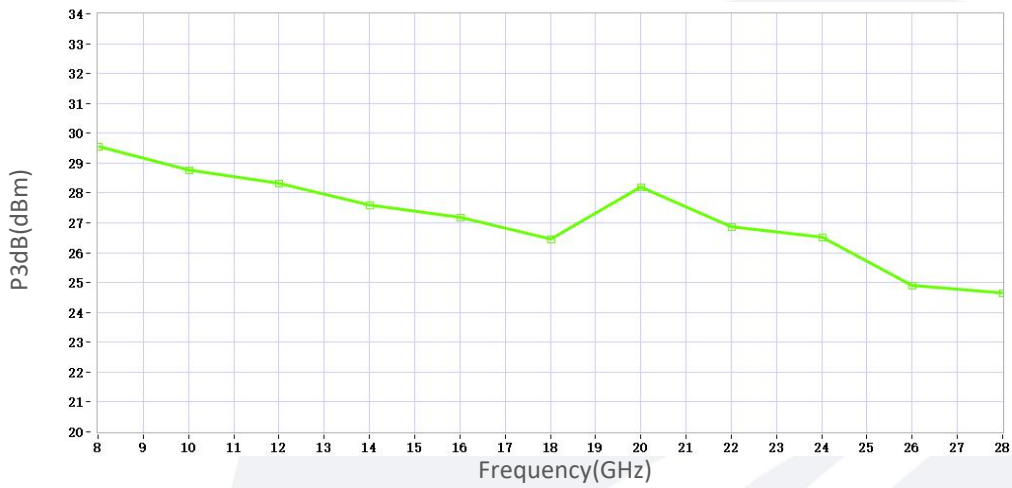
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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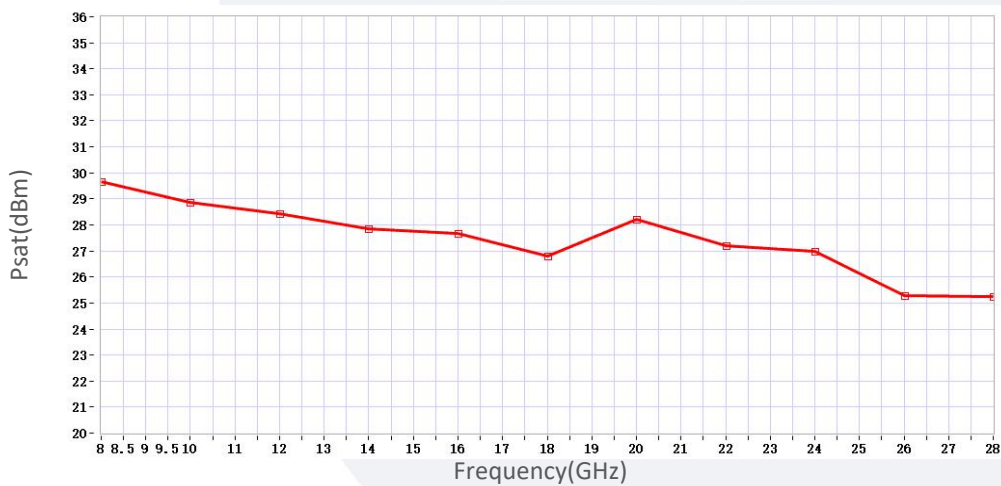
P1dB vs Frequency



P3dB vs Frequency



Psat vs Frequency



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