

**Model:TLPA40G50G-33-33**
**Power Amplifier**  
**40-50GHz,Gain:33dB,Psat:33dBm**
**Feature:**

- Ultra Wide Band: 40-50GHz
- Gain: 33 dB Min
- Psat Output Power: 33 dBm Min
- 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    | 40-50    |     |     | GHz     |
| 小信号增益 Small Signal Gain | 33       |     |     | dB      |
| 饱和输出功率 Output Psat      | 33       | 34  |     | dBm     |
| 杂散 Supurious            |          |     | -50 | dBc     |
| 输入驻波 VSWR               |          | 3   |     | :1      |
| 输入功率 Input Power        |          | 0   | 5   | dBm     |
| 直流电压 DC Voltage         |          | +18 | +20 | V DC    |
| 电流 Current              | 2.5A@Max |     |     | A       |
| 阻抗 Impedance            | 50       |     |     | Ohms    |

**机械特性 Mechanical Specifications:**

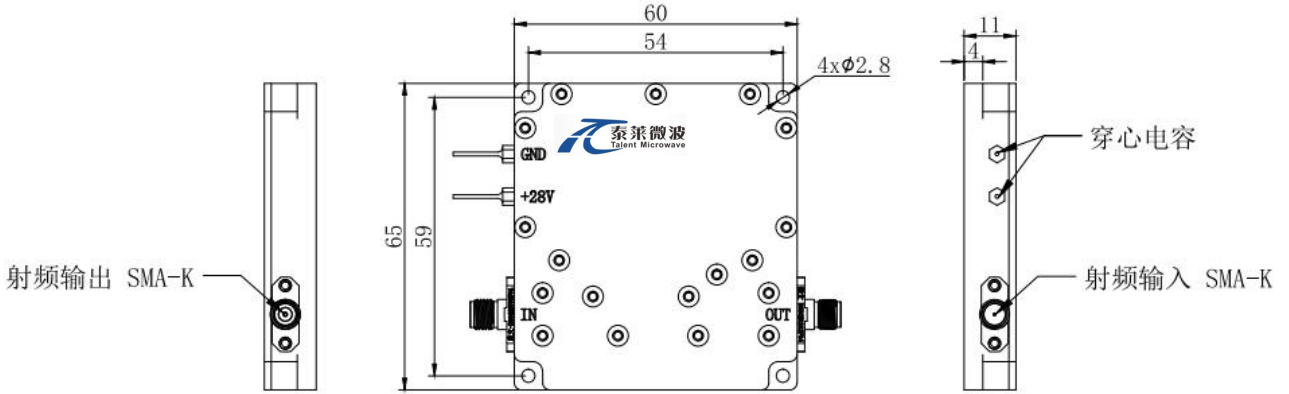
| 参数Parameter                     | 指标 Value              | 单位Units |
|---------------------------------|-----------------------|---------|
| 输入/输出接口 Input /Output Connector | 2.4 Female/2.4 Female |         |
| 直流偏置 DC Bias                    | Solder Pin            |         |
| 尺寸 Size                         | 60*65*11              | mm      |
| 重量 Weight                       | 300                   | g       |

**绝对最大值 Absolute Maximum Ratings:**

| 参数Parameter                  | 指标 Value             |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage   | +20 V                |
| 输入功率 RF Input Power          | +5 dBm               |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |

外形尺寸 Outline Drawing:

Unit: mm



\*\*\*Heat Sink Required During Operation



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                        | 30,000   |     |     | feet    |
| 震动 Shock / Vibration(MIL-STD-810F) | 20g,11ms,saw-tooth                                 |     |     |         |
| 冲击 Shock(non operating)            | 20G for 11msc half sin wave,3 axis both directions |     |     |         |

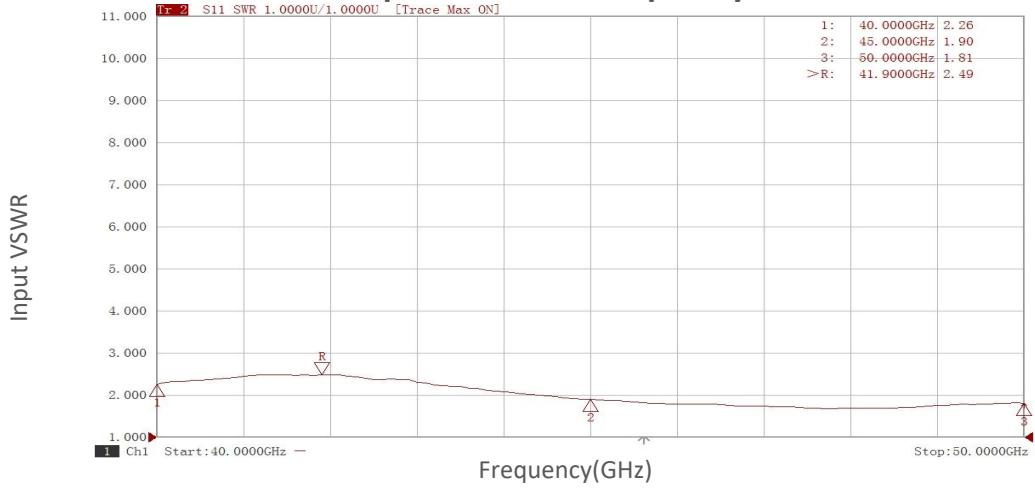
\*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

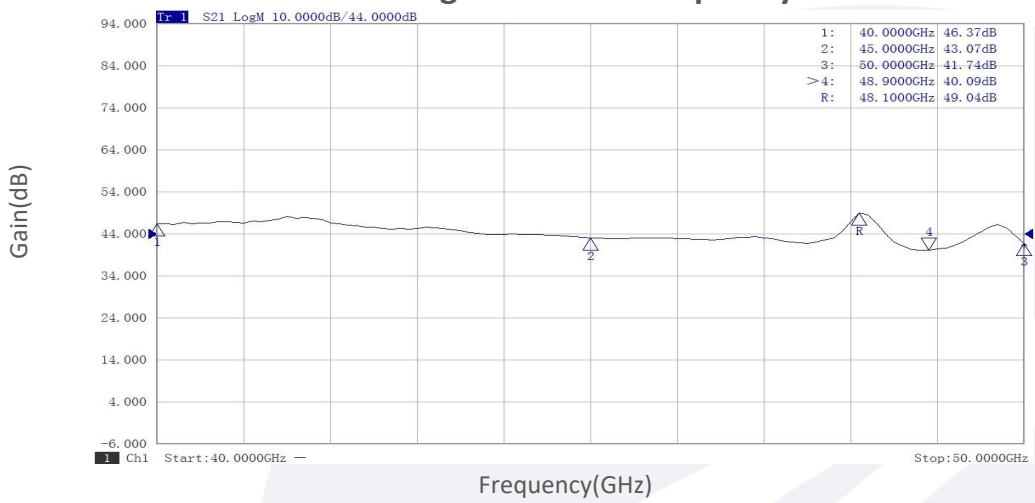
| 标准型号 Part Number    | 描述 Description   | 版本号Revision |
|---------------------|--|-------------|
| TLPA40G50G-33-33    | Power amplifier 40-50GHz,Gain:33dB,Psat:33dBm,<br>+18V DC,Without Heatsink | Rev.1.1     |
| TLPA40G50G-33-33-HS | Power amplifier 40-50GHz,Gain:33dB,Psat:33dBm,<br>+18V DC,With Heatsink    | Rev.1.1     |

典型曲线 Typical Performance Data:

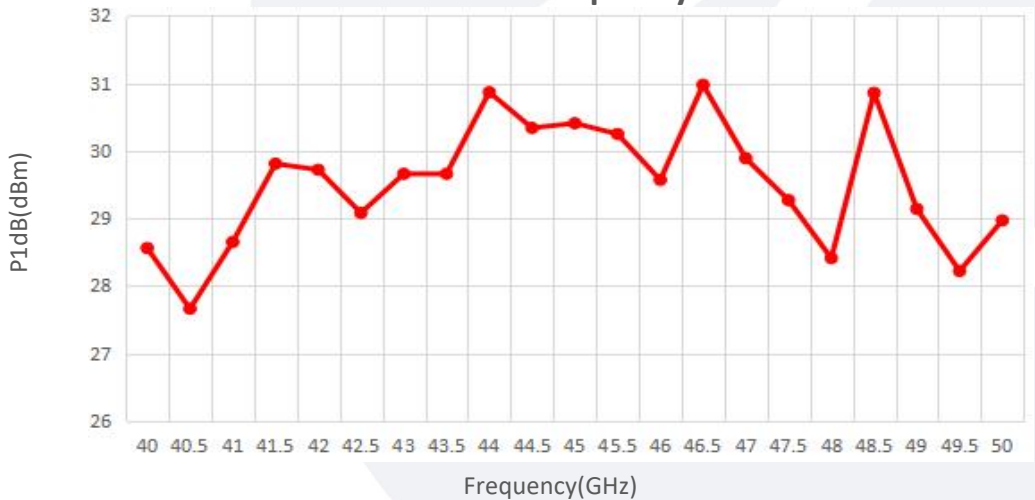
**Input VSWR vs Frequency**



**Small Signal Gain vs Frequency**



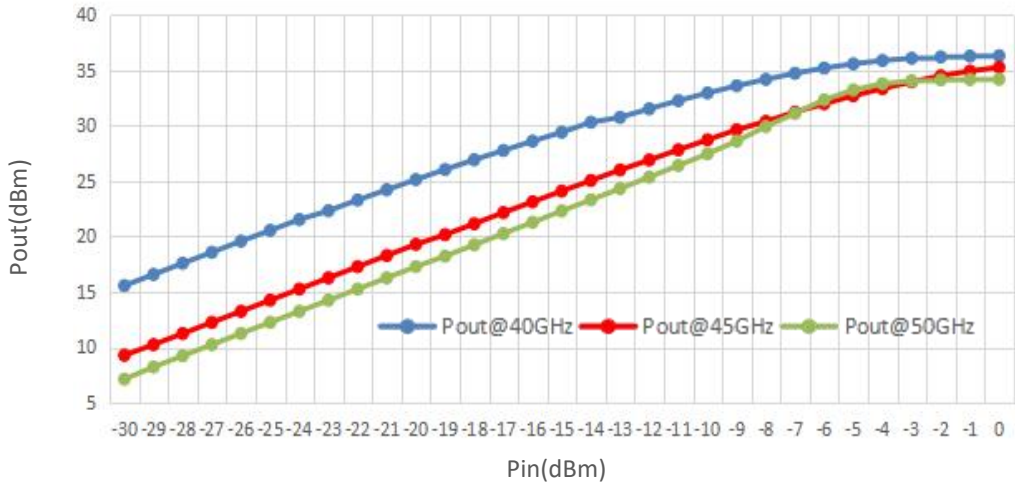
**P1dB vs Frequency**



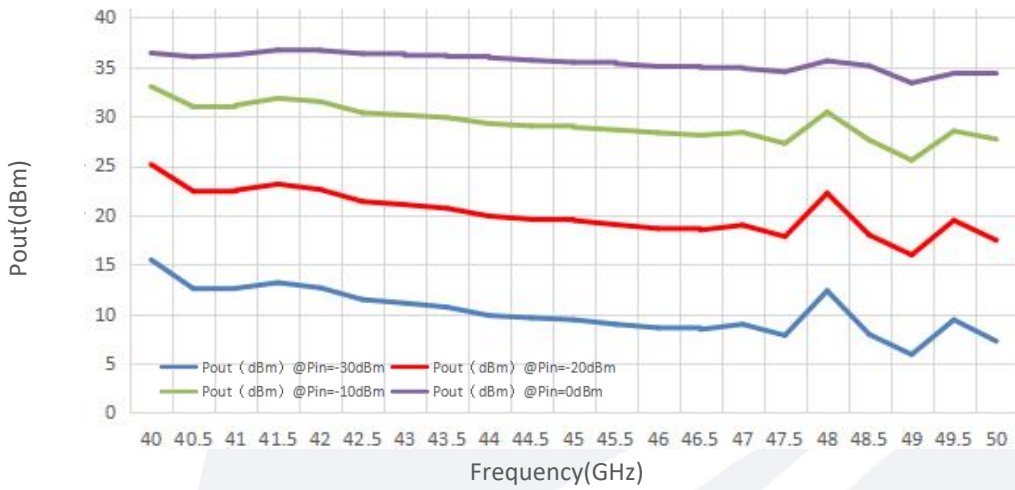
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

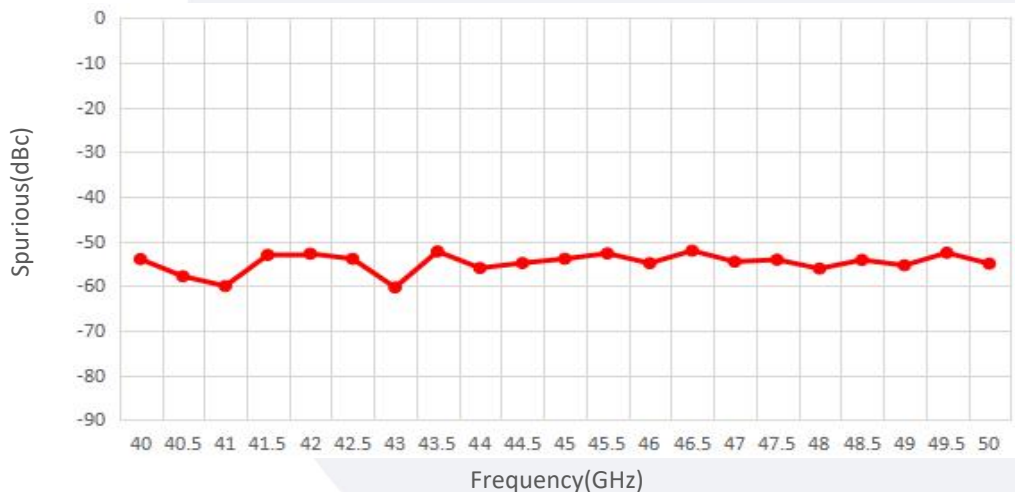
Pout@Pin



Pout@Equal\_Pin



Spurious vs Frequency



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.