泰莱微波
Talent Microwave

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# Power Amplifier

## 18-36GHz /50dB Gain/37 dBm Psat  Model: TLPA18G36G-40-37

TLPA18G36G-40-37 is a power amplifier with a typical small signal gain of 50 dB and Psat of 37 dBm across the frequency range of 18 to 36 GHz. The DC power requirement for the amplifier is +24 VDC/1.2 A. The input and output port configuration offers coax adapter structure with 2.92mm female.

## Features:

- Ultra Wide Band: 18-36 GHz
- Gain: 50dB Typ
- Output Power Psat: 37dBm 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 | | 18-36 | | GHz |
| 小信号增益 Small Signal Gain | | 50 | | dB |
| 增益平坦度 Gain Flatness | | ±1 | | dB |
| 饱和输出功率 Output Psat | 37 | | | dBm |
| 杂散 Spurious | | | -60 | dBc |
| 谐波抑制 Harmonic | | | -20 | dBc |
| 输入驻波 Input VSWR | | | 2 | :1 |
| 直流电压 DC Voltage | 19 | 24 | 25 | V DC |
| 直流电流 DC Supply Current | | 1.2 | | A |
| 阻抗 Impedance | | 50 | | Ohms |

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## 机械特性 Mechanical Specifications:

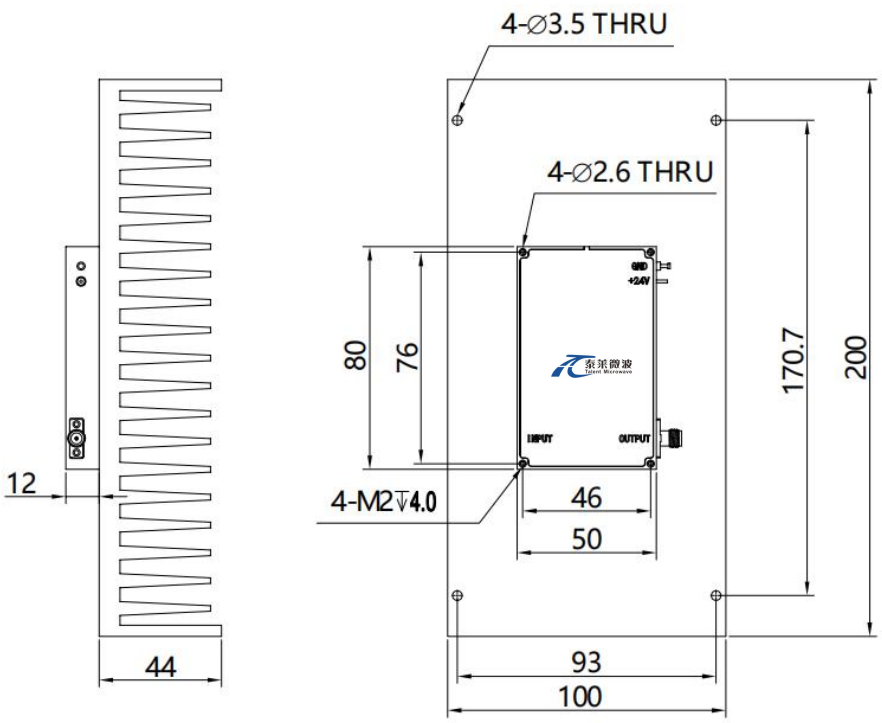
| 参数 Parameter | 指标 Value | 单位 Units |
|---|---|---|
| 输入/输出接口 Input /Output Connector | 2.92mm Female/2.92mm Female | |
| 直流偏置 DC Bias | Solder Pin | |
| 尺寸 Size | 50*80*12(Without Heatsink)<br>100*200*56(With Heatsink) | mm |

## 绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter | 指标 Value |
|---|---|
| 供电偏置电压 Supply Bias Voltage | +26 V |
| 输入功率 RF Input Power | +10 dBm |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |

## 外形图 Outline Drawing:

Unit:mm




***Heat Sink Required During Operation

OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

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## 温度环境 Environmental Conditions:

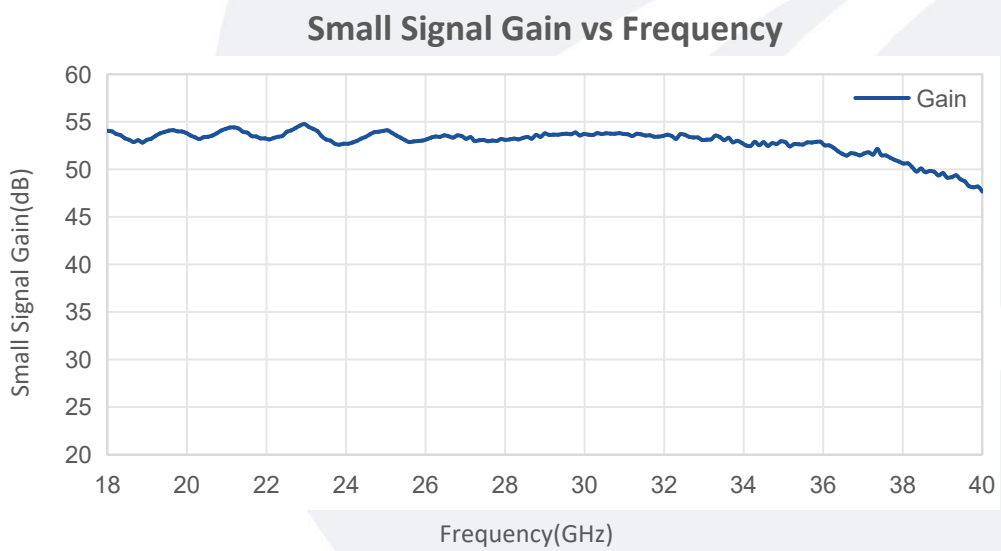
| 参数 Parameter | Min | Typ | Max | 单位 Units |
|---|---|---|---|---|
| 操作温度 Operating Temperature* | -40 | | +60 | ℃ |
| 存储温度 Non-operating Temperature* | -50 | | +70 | ℃ |
| 相对湿度 Relative humidity | | 95 | | % |
| 海拔 Altitude | 10,000 | | | feet |
| 震动 Shock / Vibration(MIL-STD-810F) | 25g rms (15 degree 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 Desciption | 版本号 Revision |
|---|---|---|
| TLPA18G36G-40-37 | Power amplifier 18-36GHz,Gain:50dB,Psat:37dBm, +24V DC,Without Heatsink | Rev.1.1 |
| TLPA18G36G-40-37-HS | Power amplifier 18-36GHz,Gain:50dB,Psat:37dBm, +24V 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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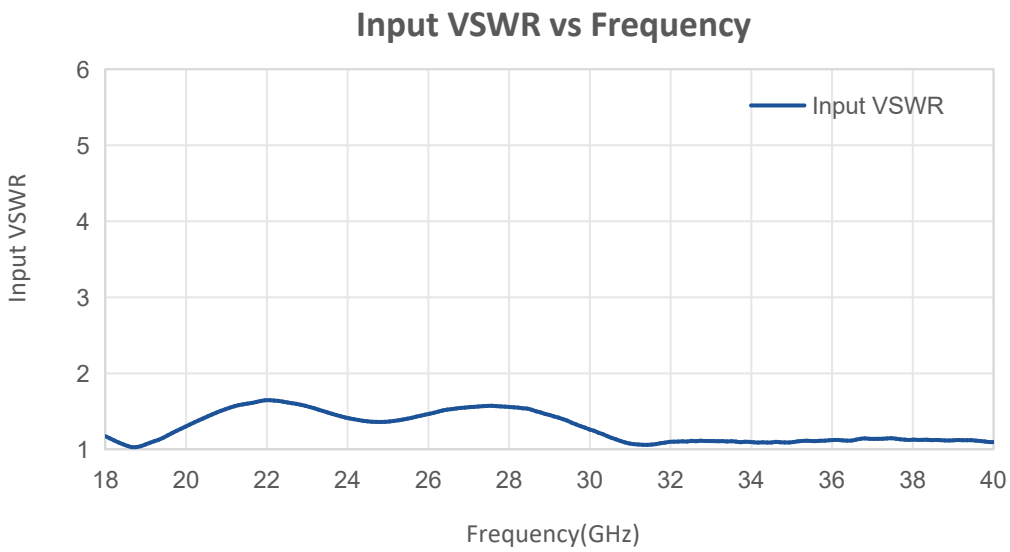


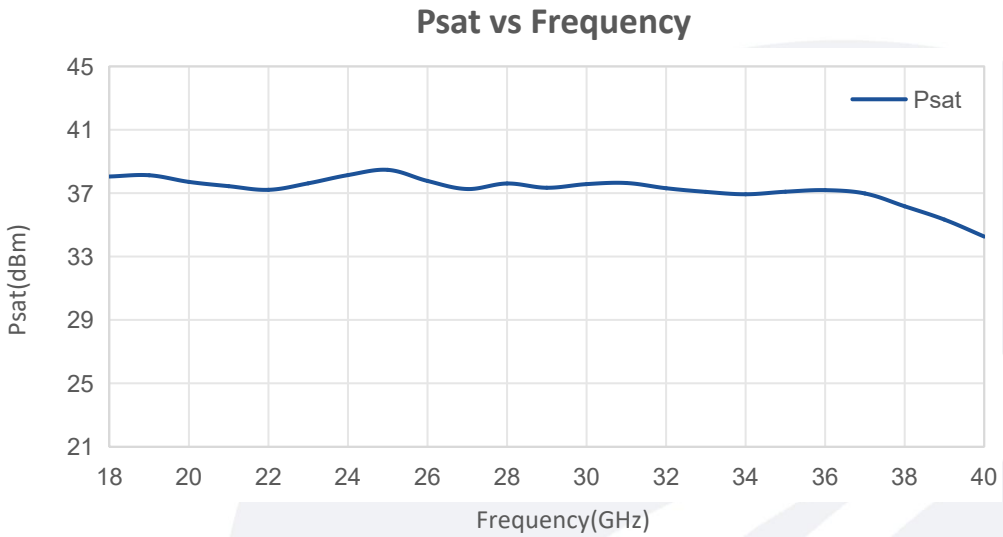


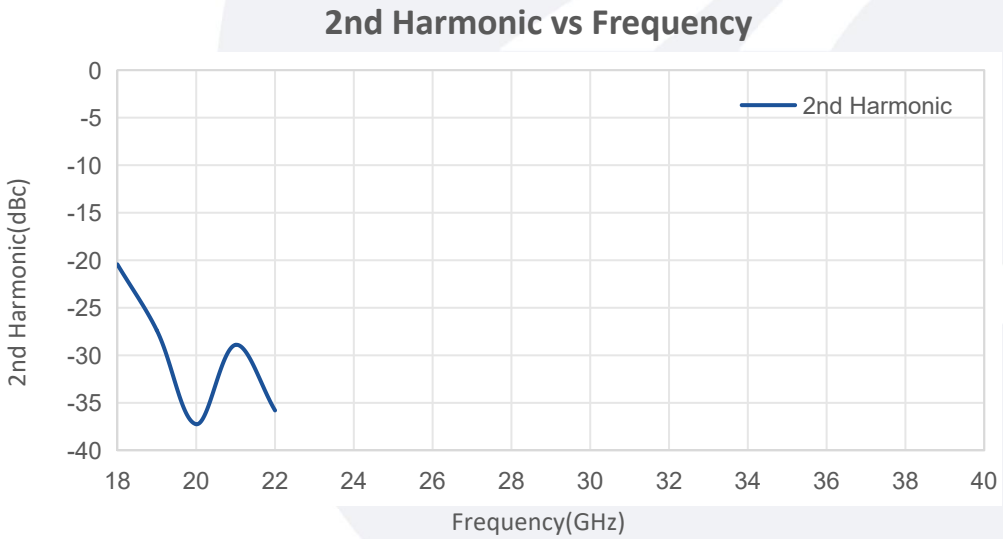


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