

Model: TLPA0.05G12G-30-30
Power Amplifier
0.05-12GHz, Gain: 33dB, P1dB: 30dBm
Feature:

- Ultra Wide Band: 0.05-12GHz
- Gain: 30dB Min
- Psat Output Power: 31dBm Typ
- 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 | 0.05-12 | | | GHz |
| 增益 Gain | 30 | 33 | | dB |
| 增益平坦度 Gain Flatness | | ±3 | | dB |
| 线性输出功率 Output P1dB | 30 | | | dBm |
| 饱和输出功率 Output Psat | | 31 | | dBm |
| 二次谐波 Second Harmonic | | -20 | | dBc |
| 杂散 Spurious | | -60 | | dBc |
| 输入驻波 Input VSWR | | 2 | | :1 |
| 输出驻波 Output VSWR | | 2 | | :1 |
| 噪声系数 Noise Figure | | 8 | | dB |
| 直流电压 DC Voltage | | +24 | | V DC |
| 直流电流 DC Supply Current | | 790 | 1000 | 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 | 35*52*12 | mm |
| 重量 Weight | 50 | g |

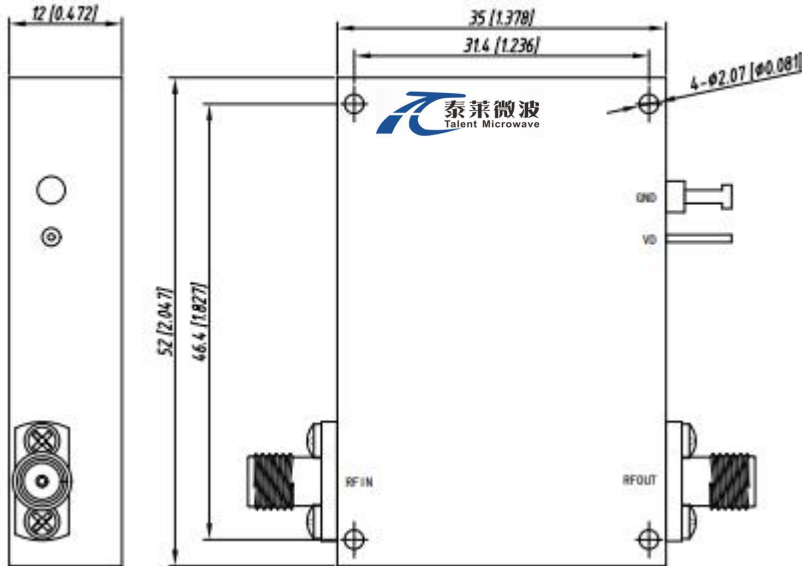
绝对最大值 Absolute Maximum Ratings:

| 参数Parameter | 指标 Value |
|------------------------------|----------------------|
| 输入功率 RF Input Power | 5dBm |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |


**Available 220V System
Benchtop Amplifier**

外形尺寸 Outline Drawing:

Unit: mm



*****Heat Sink Required During Operation**



温度环境 Environmental Conditions:

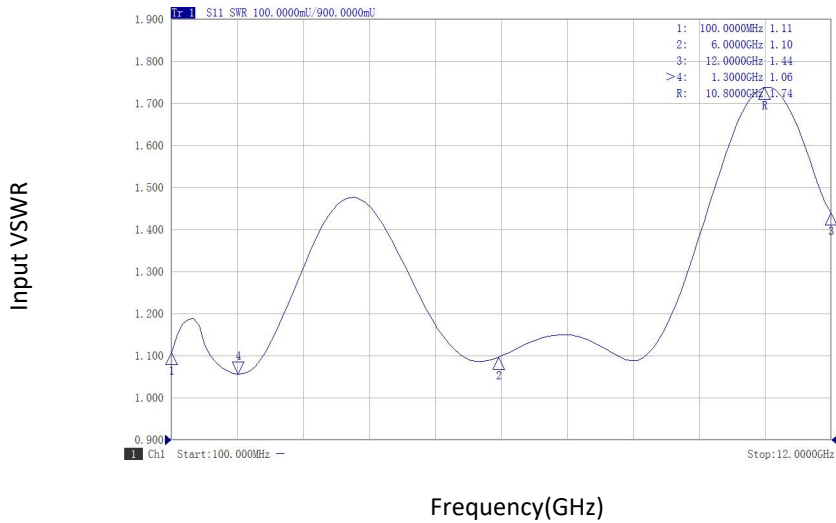
| 参数Parameter | Min | Typ | Max | 单位Units |
|------------------------------------|---|-----|------|---------|
| 操作温度 Operating Temperature | -45 | | +85 | °C |
| 存储温度 Non-operating Temperature | -55 | | +125 | °C |
| 相对湿度 Relative humidity | 100%RH at 35°C, 95%RH at 40°C | | | % |
| 海拔 Altitude | 50,000 | | | 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 | | | |

订货信息 Ordering Information:

| 标准型号 Part Number | 描述 Description | 版本号Revision |
|-----------------------|---|-------------|
| TLPA0.05G12G-30-30 | Power amplifier 0.05-12GHz, Gain:33dB, P1dB:30dBm, +24V DC, Without Heatsink. | Rev.1.1 |
| TLPA0.05G12G-30-30-HS | Power amplifier 0.05-12GHz, Gain:33dB, P1dB:30dBm, +24V DC, With Heatsink. | Rev.1.1 |

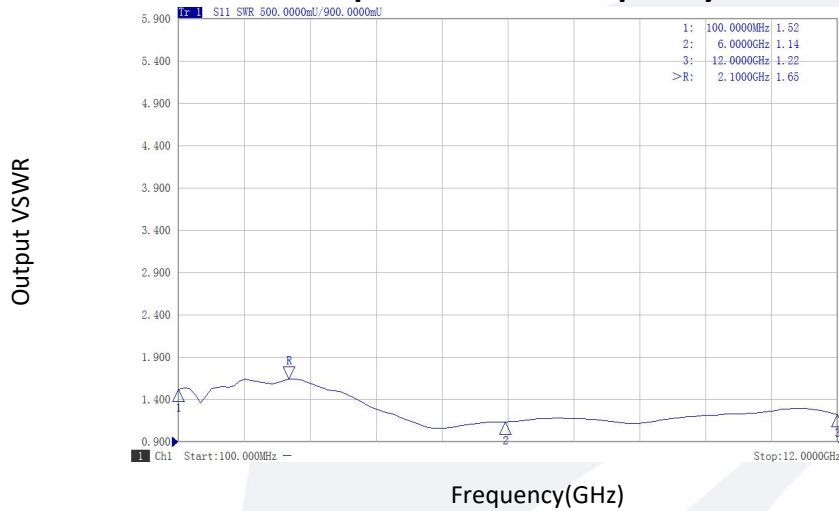
典型曲线 Typical Performance Data:

Input VSWR vs Frequency



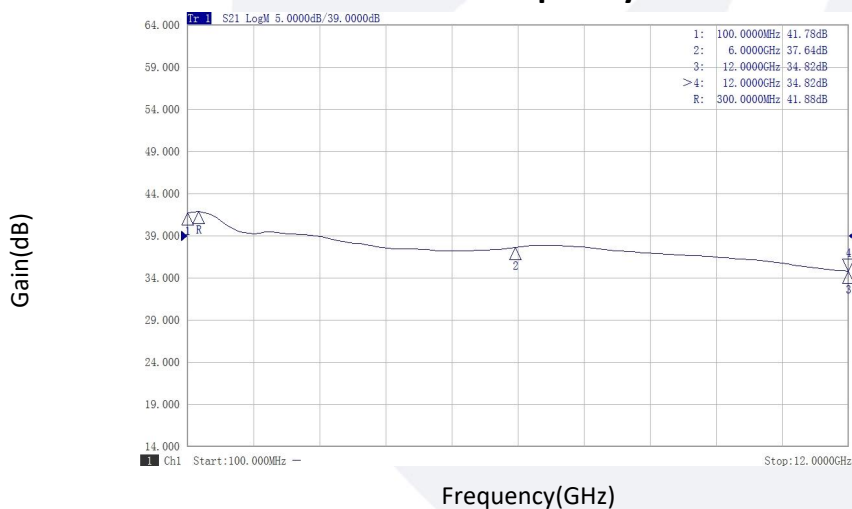
Frequency(GHz)

Output VSWR vs Frequency



Frequency(GHz)

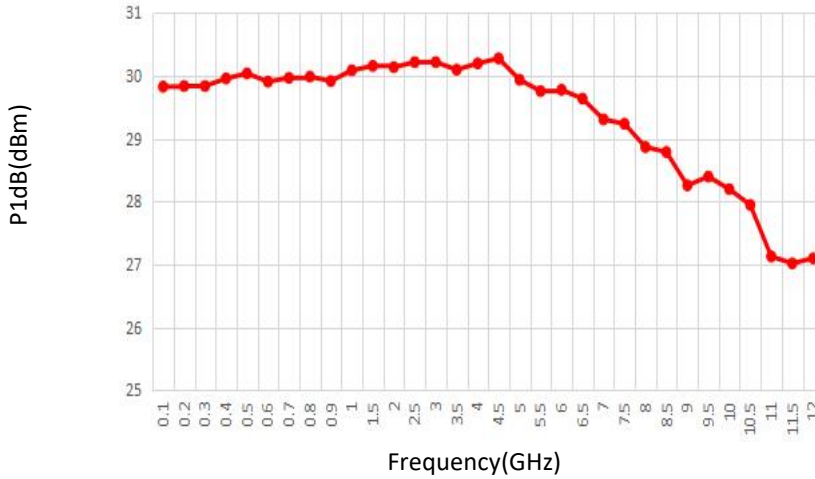
Gain vs Frequency



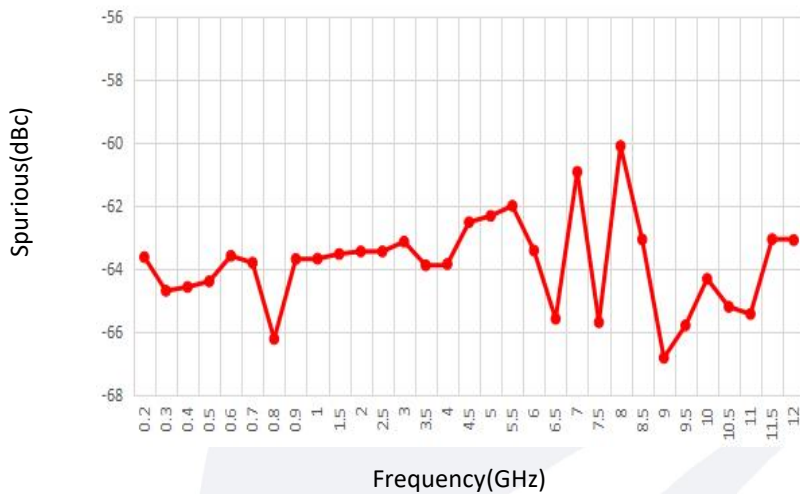
Frequency(GHz)

典型曲线 Typical Performance Data:

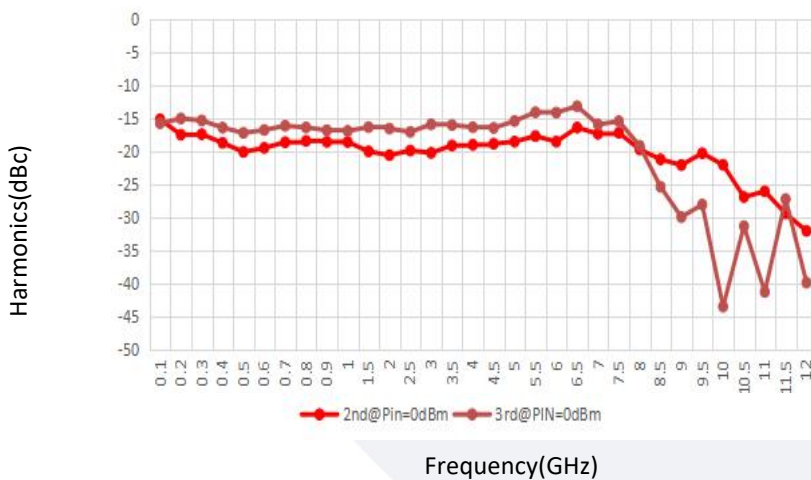
P1dB vs Frequency



Spurious VS Frequency

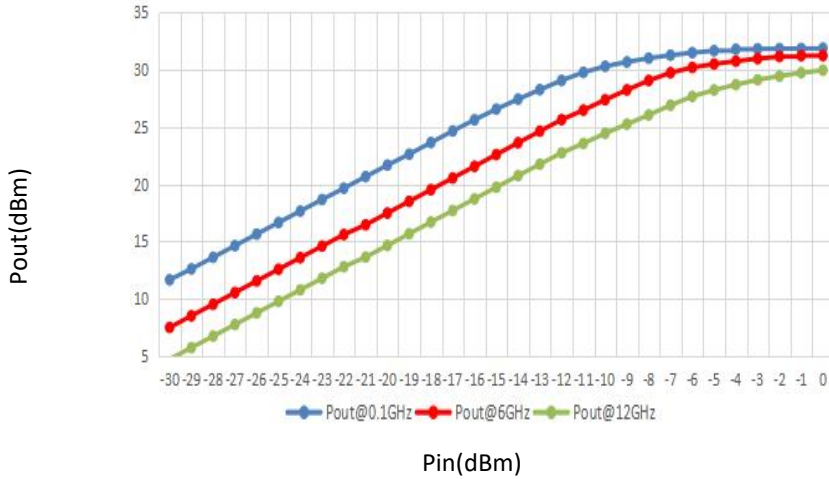


Harmonics VS Frequency



典型曲线 Typical Performance Data:

Pout@Pin



Pout@Equal_Pin

