

Power Amplifier

0.7-6GHz /47dB Gain/47 dBm Psat

Model: TLPA0.7G6G-47-47

TLPA0.7G6G-47-47 is a power amplifier with power gain of 47 dB and a nominal Psat of 47 dBm across the frequency range of 0.7 to 6 GHz. The DC power requirement for the amplifier is +36 VDC/400 W. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N female.

Features:

- Ultra Wide Band: 0.7-6GHz
- Gain: 47dB Min
- Output Power Psat: 47dBm Min
- Protection: over voltage protection
- 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 | 0.7-6 | | | GHz |
| 功率增益 Power Gain | 47 | | | dB |
| 增益平坦度 Gain Flatness | | ±3 | | dB |
| 饱和输出功率 Output Psat | 47 | | | dBm |
| 杂散 Spurious@Pout=47dBm | | | -60 | dBc |
| 谐波抑制 Harmonic@Pout=47dBm | | | -10 | dBc |
| 输入驻波 Input VSWR | | | 2 | :1 |
| 直流电压 DC Voltage | | 36 | | V DC |
| 功耗 Power Consumption | | | 400 | W |
| 阻抗 Impedance | 50 | | | Ohms |

机械特性 Mechanical Specifications:

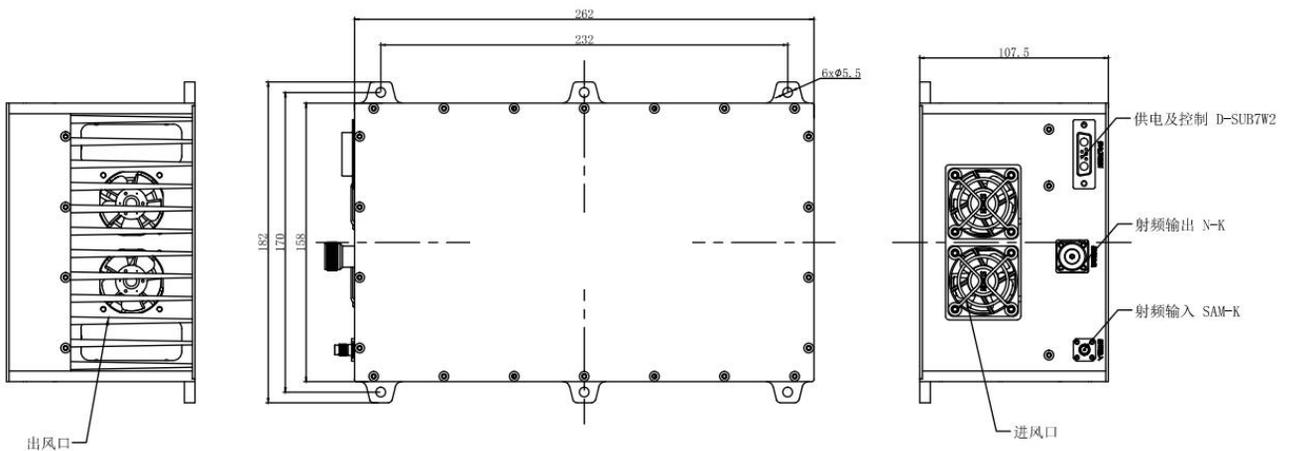
| 参数 Parameter | 指标 Value | 单位 Units |
|---------------------------------|------------------------------|--------------------------------|
| 输入/输出接口 Input /Output Connector | SMA Female/N Female | |
| 直流偏置 DC Bias | D-SUB7W2 | A1:+36V A2:GND Pin1~5:NC |
| 尺寸 Size | 262*182*107.5(With heatsink) | mm |
| 重量 Weight | / | g |

绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter | 指标 Value |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage | +36 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



OBSERVE PRECAUTIONS
 ELECTROSTATIC SENSITIVE
 DEVICES

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 |
|---------------------|--|--------------|
| TLPA0.7G6G-47-47 | Power amplifier 0.7-6 GHz,Gain:47dB,Psat:47dBm, +36 V DC,Without Heatsink | |
| TLPA0.7G6G-47-47-HS | Power amplifier 0.7-6 GHz,Gain:47dB,Psat:47dBm, +36 V DC,With Heatsink | Rev.1.1 |

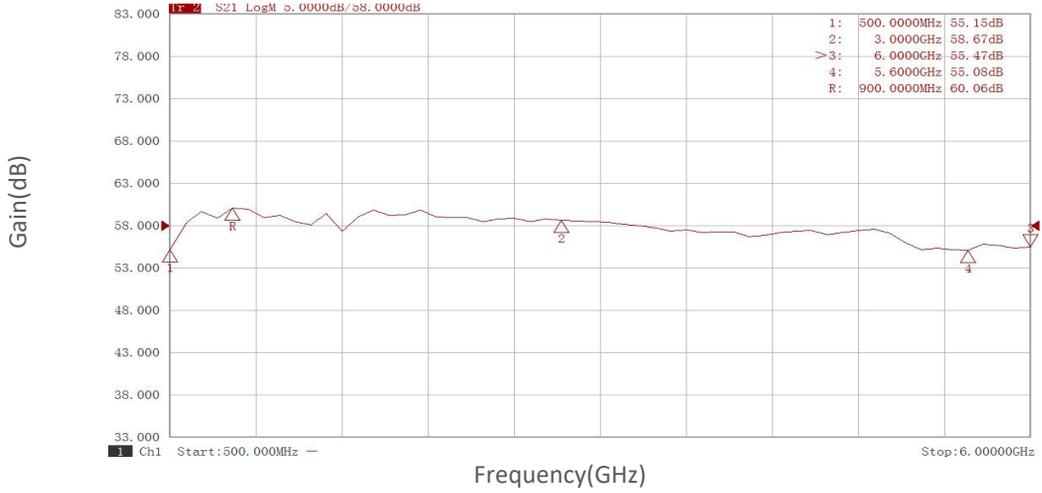
典型曲线 Typical Performance Data:

Input VSWR vs Frequency

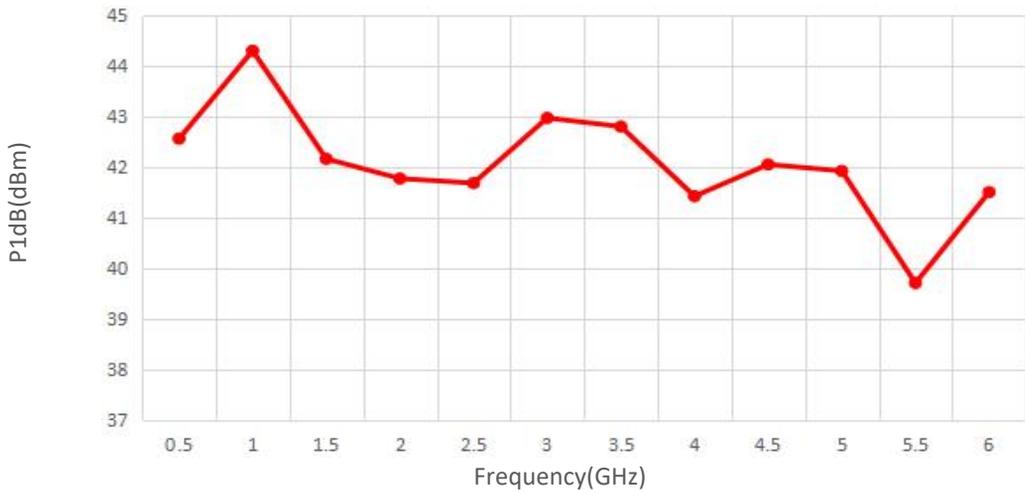
Input VSWR

典型曲线 Typical Performance Data:

Small Signal Gain vs Frequency



P1dB vs Frequency

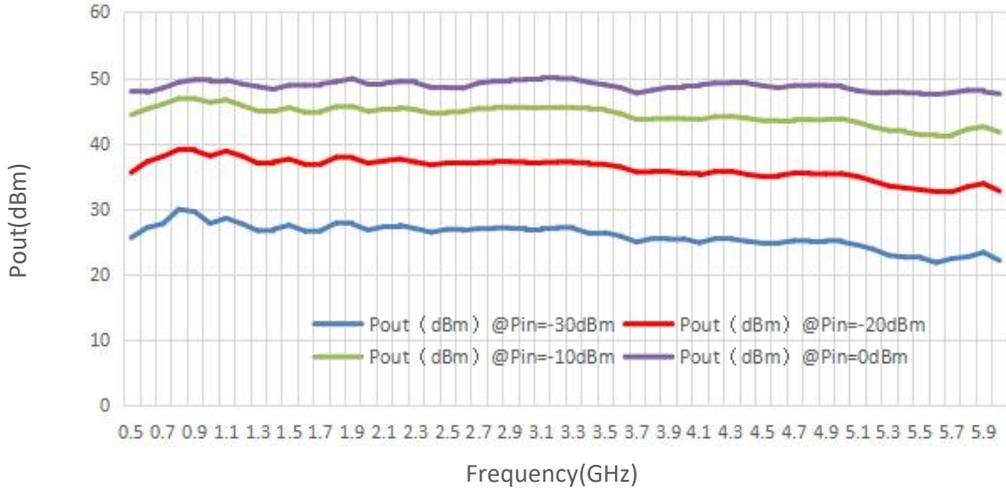


Pout@Pin

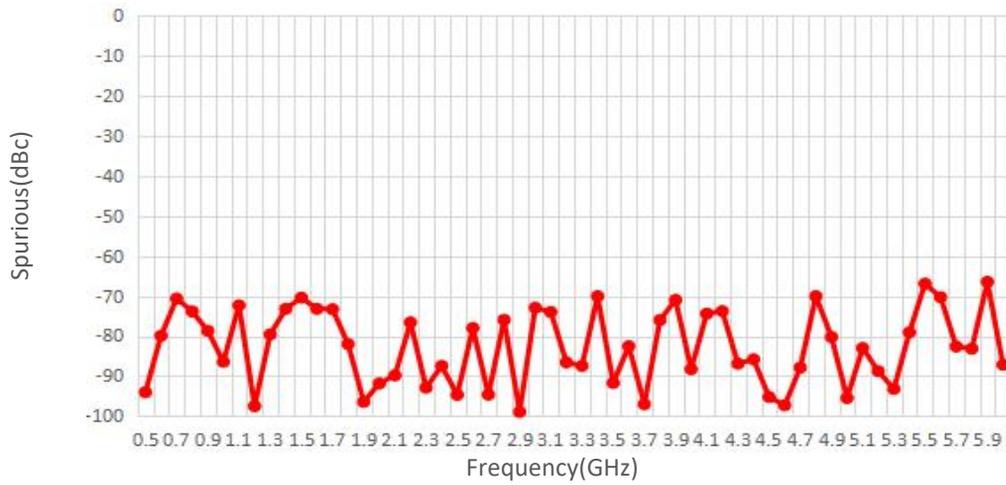


典型曲线 Typical Performance Data:

Pout@Equal_Pin



Spurious vs Frequency



Harmonic vs Frequency

