

Power Amplifier

6-18GHz/60dB Gain/53dBm Psat

Model: TLPA6G18G-60-53

TLPA6G18G-60-53 is a power amplifier with a minimum small signal gain of 60 dB and a minimum Psat of 53 dBm across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/3500 W. The input port configuration offers coax adapter structure with SMA female and output port is WRD500.

Features:

- Frequency range: 6-18GHz
- Gain: 60dB Min
- Output Power Psat: 53dBm 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 | 6 | | 18 | GHz |
| 小信号增益 Small Signal Gain | 60 | | | dB |
| 增益平坦度 Gain Flatness | | ±4.5 | ±5 | dB |
| 饱和输出功率 Output Psat | 53 | | | dBm |
| 杂散 Spurious@Pout=50dBm | | | -55 | dBc |
| 二次谐波 2nd Harmonic@Pout=50dBm | | -20 | -15 | dBc |
| 直流电压 DC Voltage | | +28 | | V DC |
| 功耗 Power Consumption | | | 3500 | 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/WRD500 | |
| 直流供电接口 DC Supply Connector | D-SUB-8W8 | |
| 尺寸 Size | 305*310*200 | mm |
| 重量 Weight | 25 | Kg |

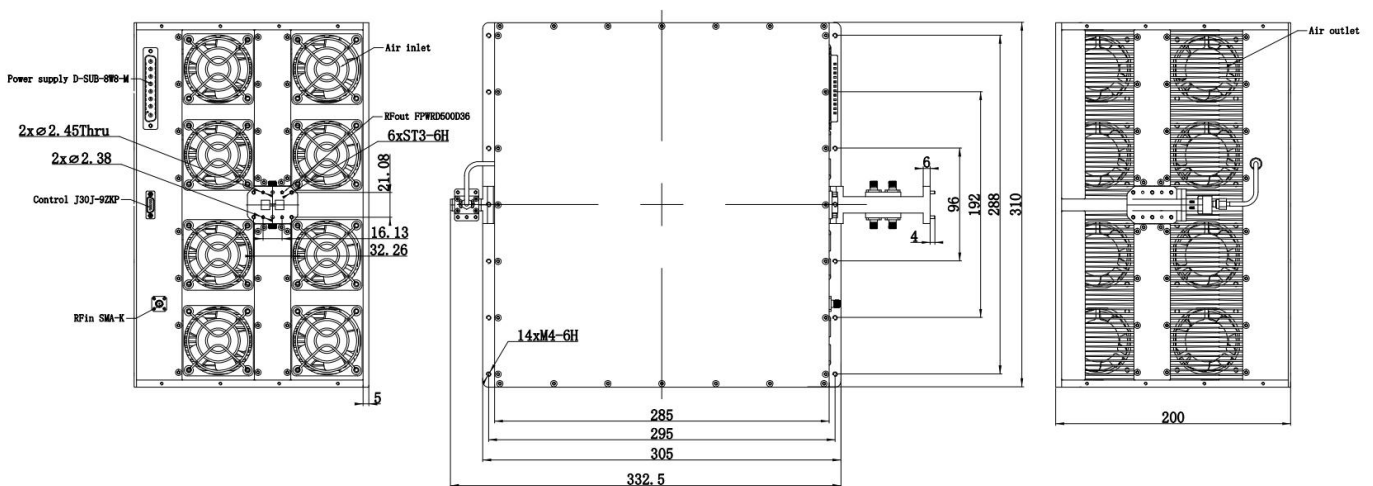
绝对最大值 Absolute Maximum Ratings:

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



外形图 Outline Drawing:

Unit:mm



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

直流供电接口 DC Supply Connector(DSUB-8W8):

| 引脚 Pin | 功能 Function |
|--------|-------------|
| Pin1-4 | +28V |
| Pin5-8 | GND |

温度环境 Environmental Conditions:

| 参数 Parameter | Min | Typ | Max | 单位 Units |
|------------------------------------|---|-----|-----|----------|
| 操作温度 Operating Temperature* | -20 | | +40 | °C |
| 存储温度 Non-operating Temperature* | -45 | | +65 | °C |
| 相对湿度 Relative humidity | | 95 | | % |
| 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 | | | |

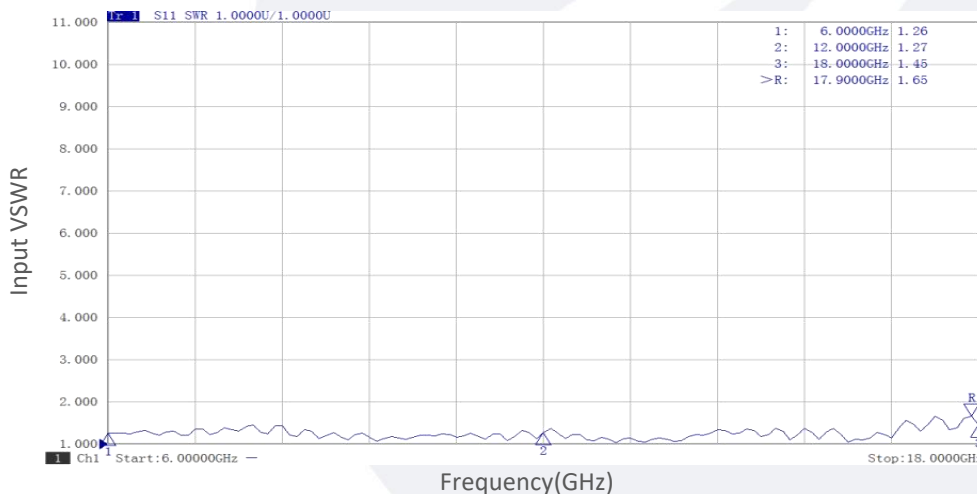
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

| 标准型号 Base Number | 描述 Description | 版本号 Revision |
|------------------|--|--------------|
| TLPA6G18G-60-53 | Power amplifier 6-18GHz, Gain:60dB,Psat:53dBm,+28V DC,Built in Fan Cooling. | Rev.1.2 |

典型曲线 Typical Performance Data:

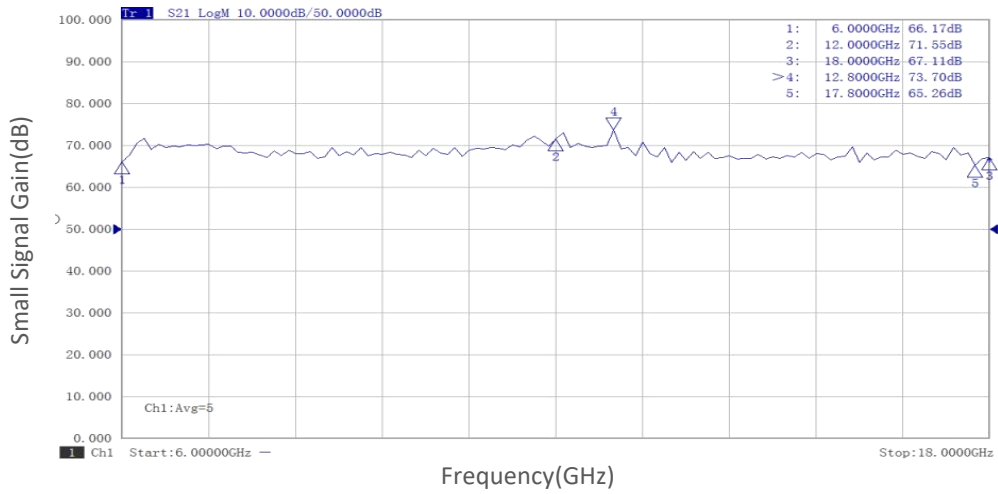
Input VSWR vs Frequency



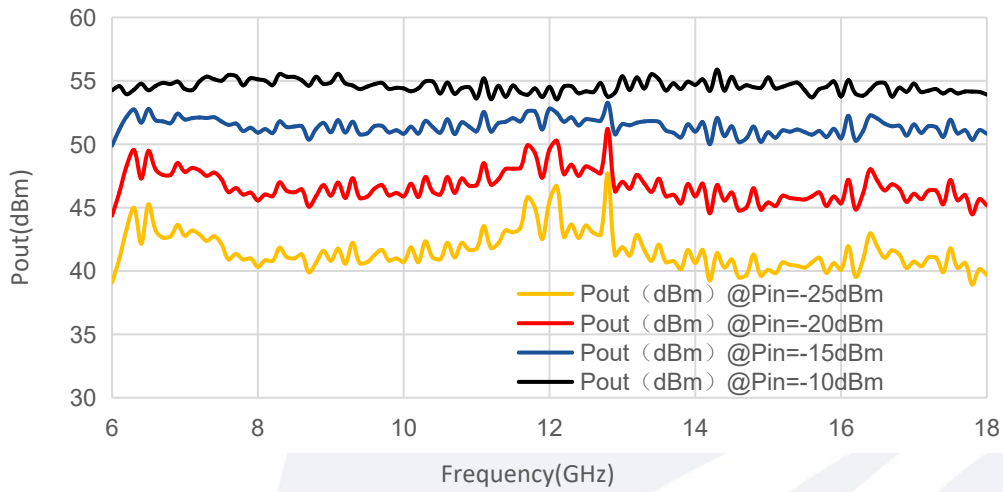
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

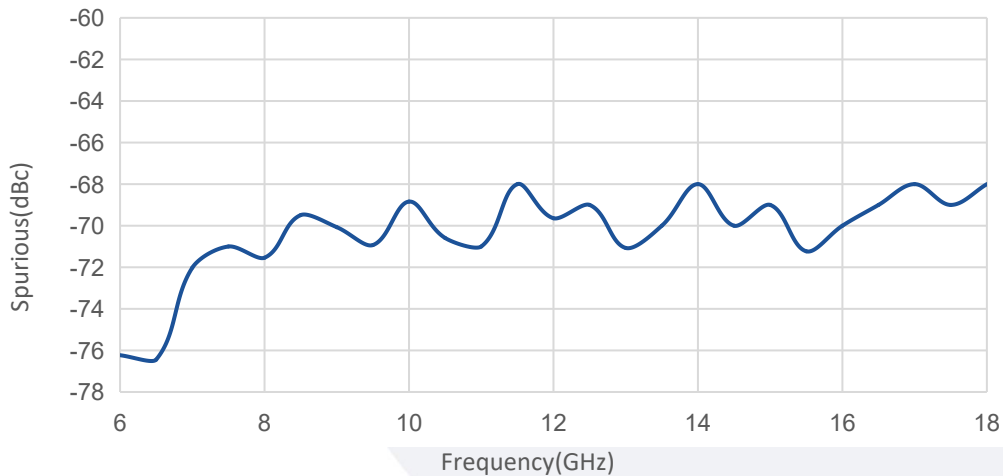
Small Signal Gain vs Frequency



Pout vs Frequency



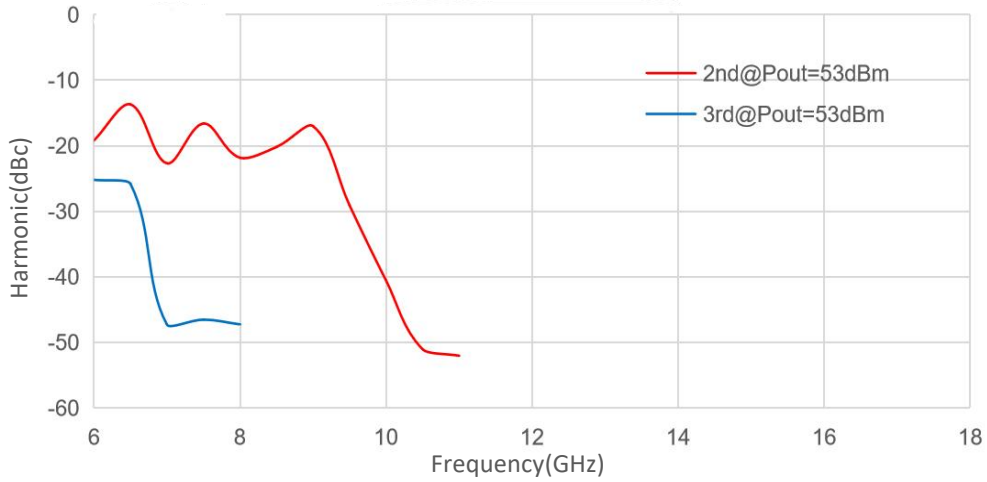
Spurious vs Frequency



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典型曲线 Typical Performance Data:

Harmonic vs Frequency



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