

Power Amplifier

18-40GHz /43dB Gain/43 dBm Psat

Model: TLPA18G40G-43-43

TLPA18G40G-43-43 is a power amplifier with power gain of 43 dB and Psat of 43 dBm across the frequency range of 18 to 40 GHz. The DC power requirement for the amplifier is +18 VDC/25 A. The input port configuration offers coax adapter structure with 2.92mm female and output port configuration offers coax adapter structure with 2.92mm /WRD180C24.

Features:

- Ultra Wide Band: 18-40GHz
- Gain: 43dB Min
- Output Power Psat: 43dBm 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 | | 18-40 | | GHz |
| 小信号增益 Small Signal Gain | | 50 | | dB |
| 功率增益 Power Gain | 43 | | | dB |
| 小信号增益平坦度 Small Signal Gain Flatness | | ±5 | | dB |
| 饱和输出功率 Output Psat | 43 | 44 | | dBm |
| 杂散 Spurious@Pout=43dBm | | | -50 | dBc |
| 输入驻波 Input VSWR | | 2 | 2.5 | :1 |
| 直流电压 DC Voltage | | 18 | 19 | V DC |
| 直流电流 DC Supply Current | | | 25 | A |
| 直流电流 DC Supply Current@Pout=43dBm | | 20 | | A |
| 工作模式 Working Mode | CW/PULSE compatible | | | |

机械特性 Mechanical Specifications:

| 参数 Parameter | 指标 Value | 单位 Units |
|----------------------------|------------------------------|---|
| 输入接口 Input Connector | 2.92mm Female | |
| 输出接口 Output Connector | WRD180C24/2.92mm | |
| 直流供电接口 DC Supply Interface | J30J-21ZKP | *Pin1:on/off switch Pin2~11:+18V Pin12~21:GND |
| 尺寸 Size | 190*160*30(Without Heatsink) | mm |
| 重量 Weight | / | g |

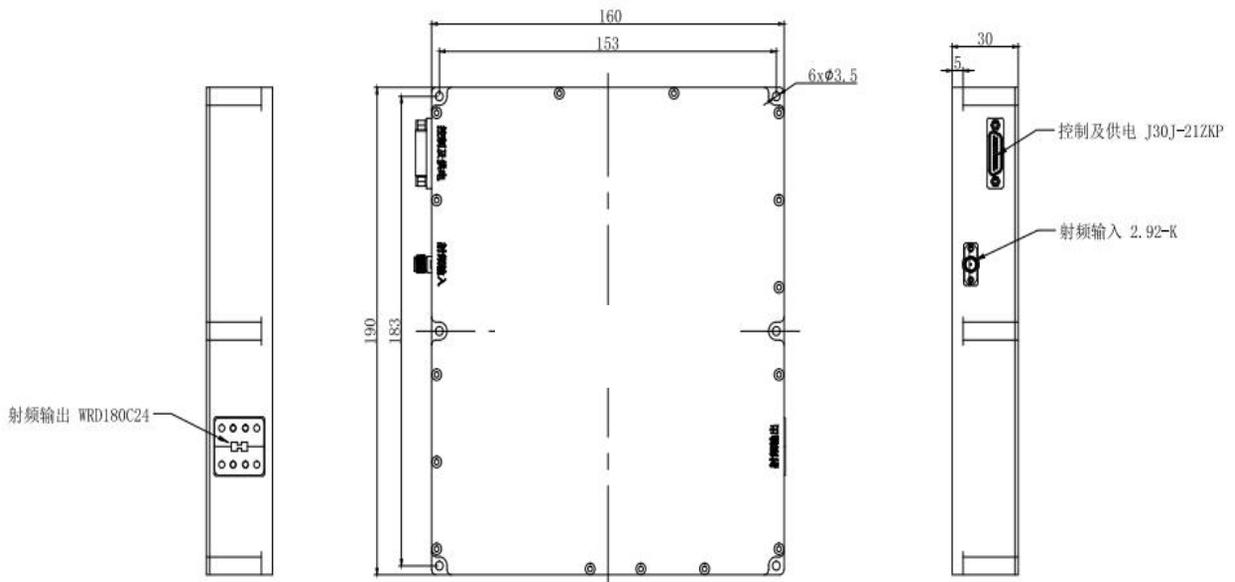
*Note: The power supply on-off pin can also be used for pulse modulation. Low level (0-0.8V) and floating are invalid, while high level (3.3-5V) is valid..

绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter | 指标 Value |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage | +19 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



外形图 Outline Drawing: Unit:mm

温度环境 Environmental Conditions:

| 参数 Parameter | Min | Typ | Max | 单位 Units |
|------------------------------------|---|-----|-----|----------|
| 操作温度 Operating Temperature* | -40 | | +50 | °C |
| 存储温度 Non-operating Temperature* | -50 | | +60 | °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 | | | |

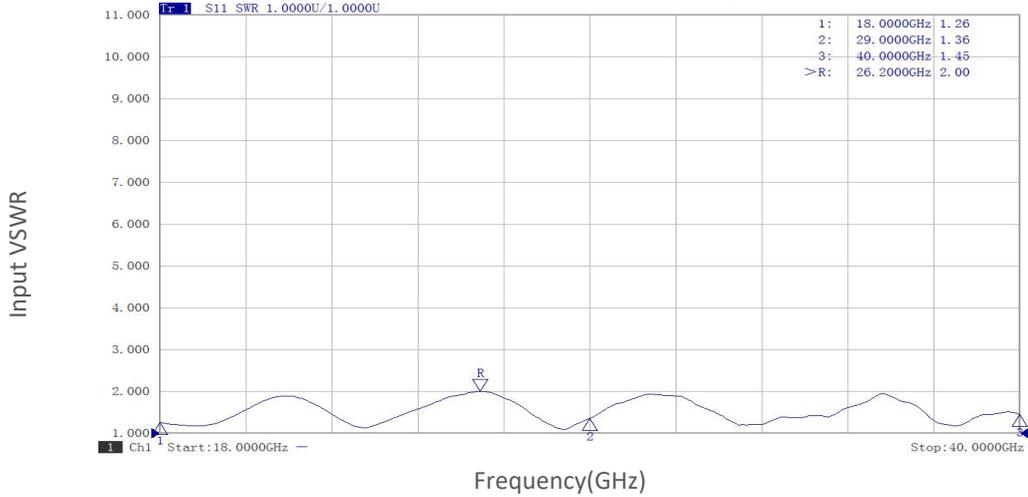
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

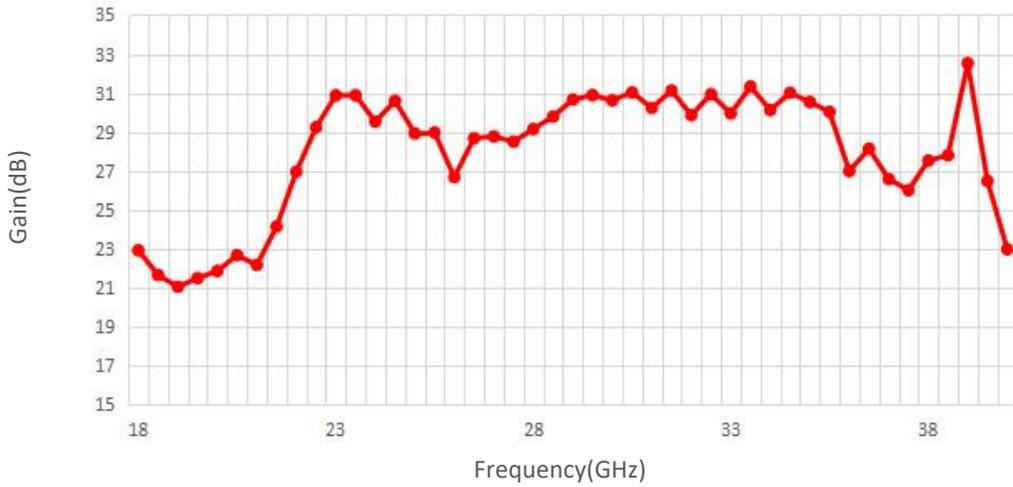
| 标准型号 Base Number | 描述 Description | 版本号 Revision |
|------------------|----------------|--------------|
|------------------|----------------|--------------|

典型曲线 Typical Performance Data:

Input VSWR vs Frequency



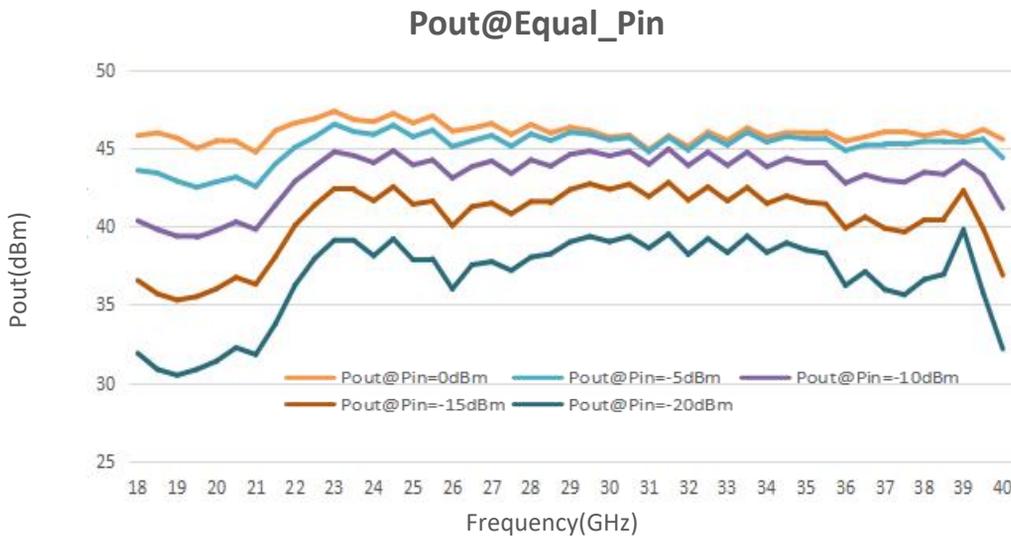
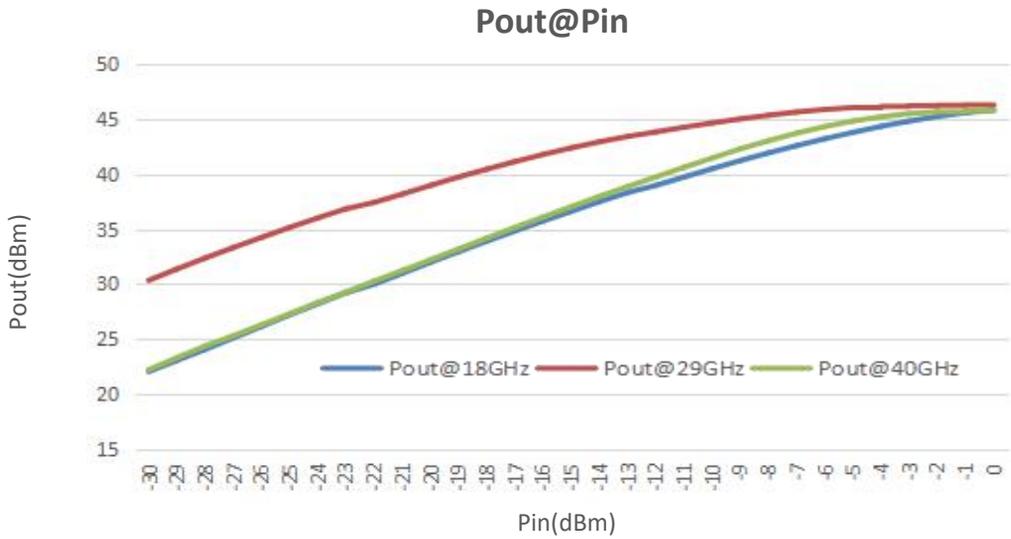
Small Signal Gain vs Frequency



PndB vs Frequency



典型曲线 Typical Performance Data:

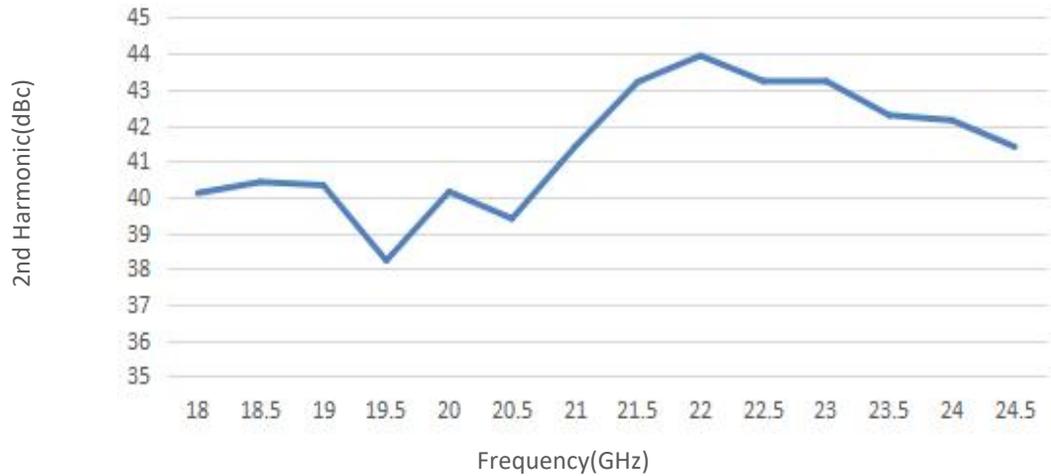


Spurious vs Frequency

Spurious(dBc)

典型曲线 Typical Performance Data:

2nd Harmonic 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.