

## Power Amplifier

1-6GHz /43dB Gain/43 dBm Psat

Model: TLPA1G6G-43-43-HP1

TLPA1G6G-43-43-HP1 is a power amplifier with power gain of 43 dB and Psat of 43 dBm across the frequency range of 1 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/6 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 1-6 GHz
- 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		1-6		GHz
功率增益 Power Gain	43			dB
增益平坦度 Gain Flatness		±3		dB
线性输出功率 Output P1dB	40			dBm
饱和输出功率 Output Psat	43			dBm
杂散 Spurious@Pout=43dBm			-50	dBc
输入驻波 Input VSWR		1.5	2.5	:1
直流电压 DC Voltage		28		V DC
直流电流 DC Supply Current		6		A
阻抗 Impedance		50		Ohms

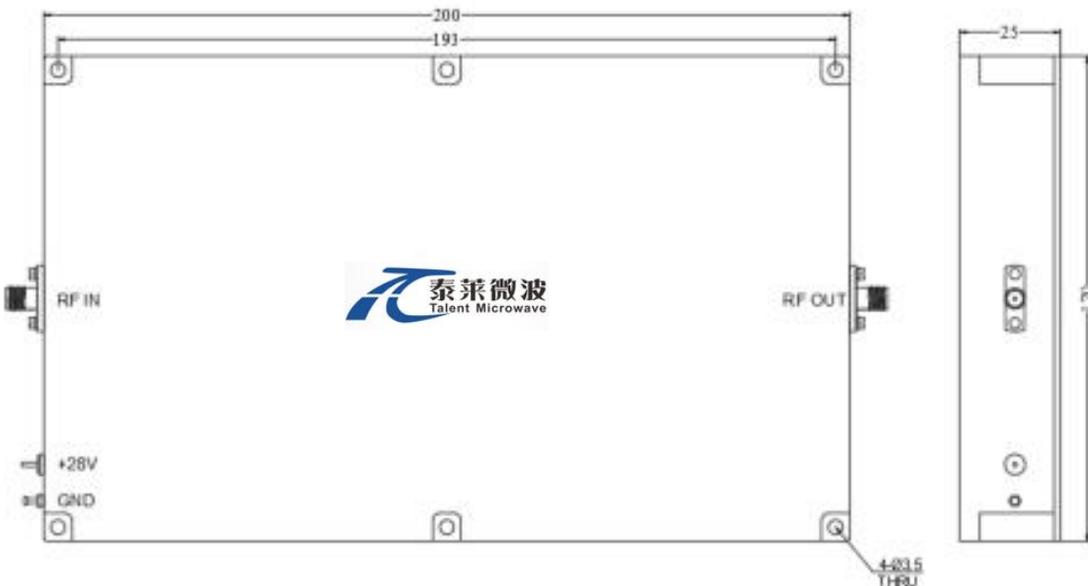
### 机械特性 Mechanical Specifications:

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	200*120*20(Without heatsink) 261.7*140*87(With heatsink)	mm
重量 Weight	200	g

### 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+28V
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

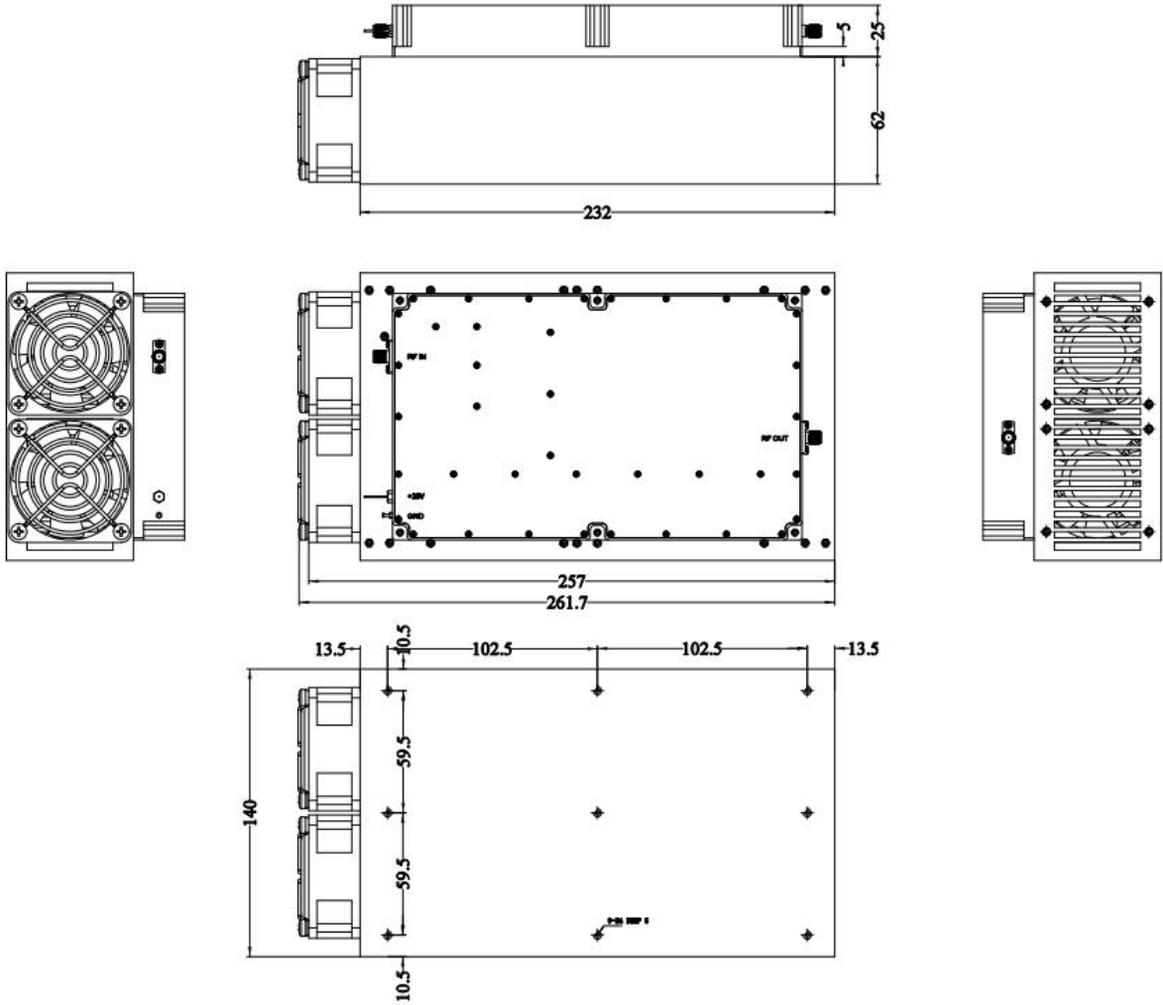


**\*\*\*Heat Sink Required During Operation**

ESD Protection: Strictly

## 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			

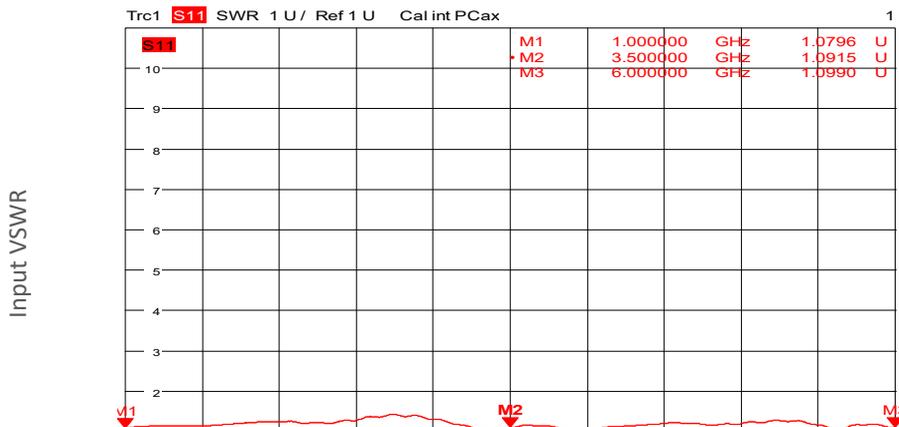
\*Note: For a wider temperature range, please consult the manufacturer.

### 订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLPA1G6G-43-43-HP1	Power amplifier 1-6GHz,Gain:43dB,Psat:43dBm, +28V DC,Without Heatsink	Rev.1.1
TLPA1G6G-43-43-HP1-HS	Power amplifier 1-6GHz,Gain:43dB,Psat:43dBm, +28V DC,With Heatsink	Rev.1.1

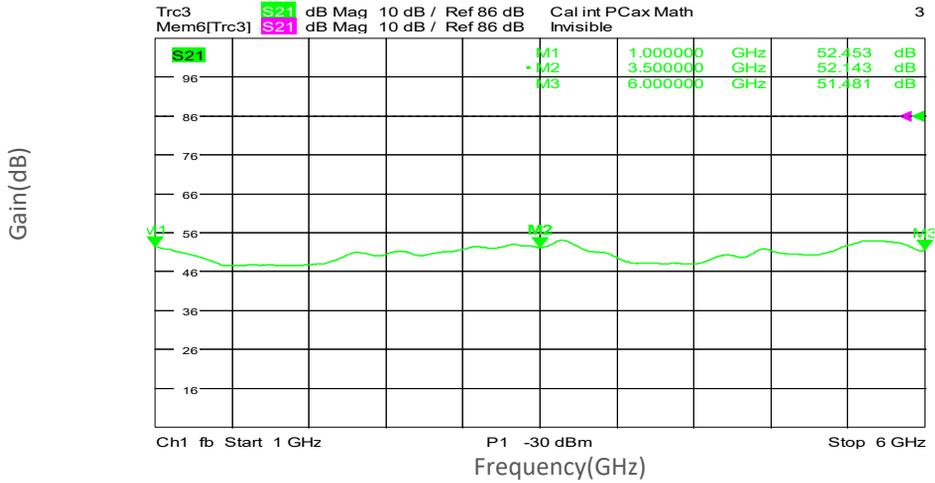
### 典型曲线 Typical Performance Data:

Input VSWR vs Frequency

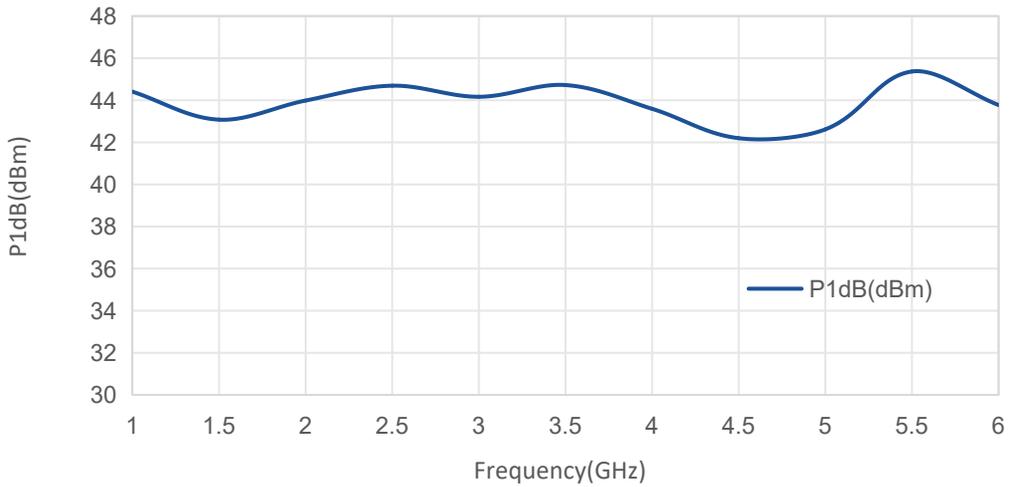


### 典型曲线 Typical Performance Data:

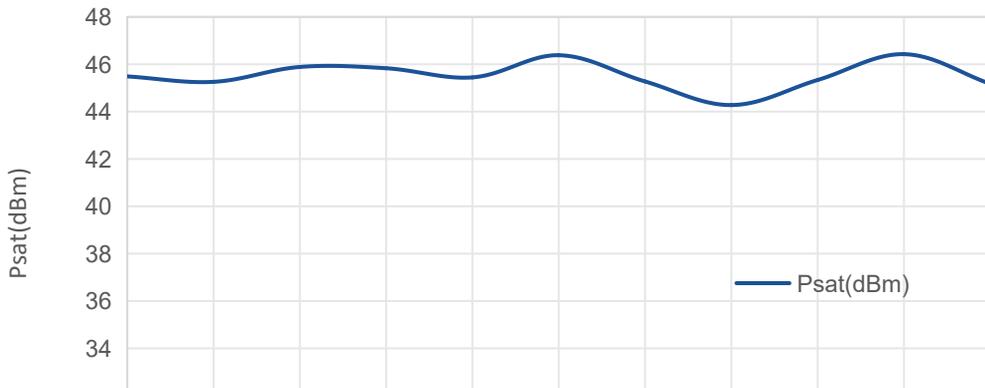
#### Small Signal Gain vs Frequency



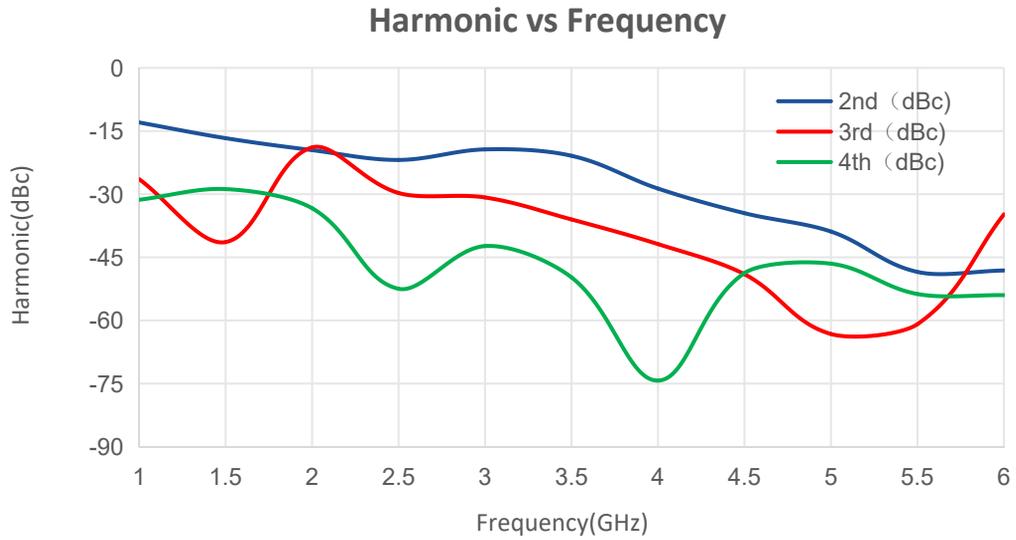
#### P1dB vs Frequency



#### Psat vs Frequency



## 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.