

## Power Amplifier

2-6GHz/30dB Gain/36dBm Psat

Model: TLPA2G6G-30-33

TLPA2G6G-30-33 is a power amplifier with a minimum small signal gain of 30 dB and a nominal Psat of 36 dBm across the frequency range of 2 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/0.6 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 2-6GHz
- Gain: 30dB Min
- Output Power Psat: 36dBm Typ
- 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	2		6	GHz
小信号增益 Small Signal Gain	30	33		dB
增益平坦度 Gain Flatness		±2	±2.5	dB
线性输出功率 Output P1dB	33	35		dBm
饱和输出功率 Output Psat		36		dBm
杂散 Spurious		-60		dBc
三阶交调系数 Output IP3		42		dBm
输入驻波 Input VSWR		1.6	2	:1
直流电压 DC Voltage		+28		V DC
直流电流 DC Supply Current		0.6	1	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	
尺寸 Size	67*80*12	mm

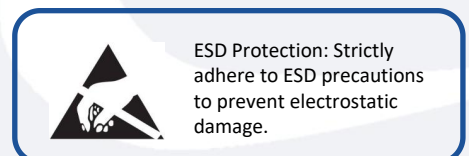
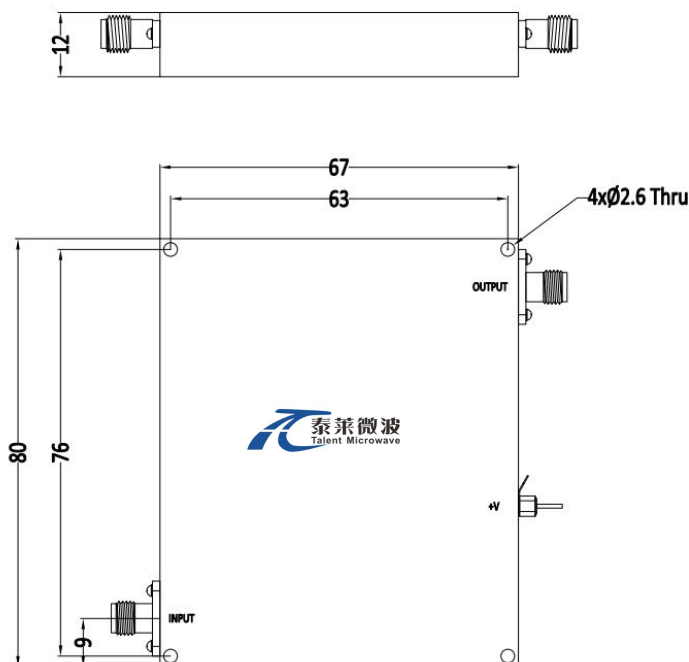
## 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+28 V
输入功率 RF Input Power	0 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



## 外形图 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*	-40		+60	°C
存储温度 Non-operating Temperature*	-50		+70	°C
相对湿度 Relative humidity	100%RH at 35°C, 95%RH at 40°C			%
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			

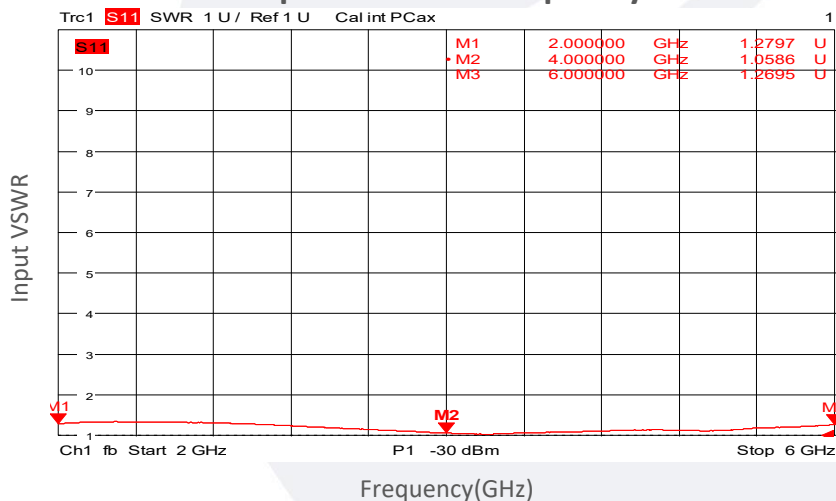
\*Note: For a wider temperature range, please consult the manufacturer.

## 订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLPA2G6G-30-33	Power amplifier 2-6GHz, Gain:30dB,Psat:36dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA2G6G-30-33-HS	Power amplifier 2-6GHz, Gain:30dB,Psat:36dBm,+28V DC,With Heatsink	Rev.1.1

## 典型曲线 Typical Performance Data:

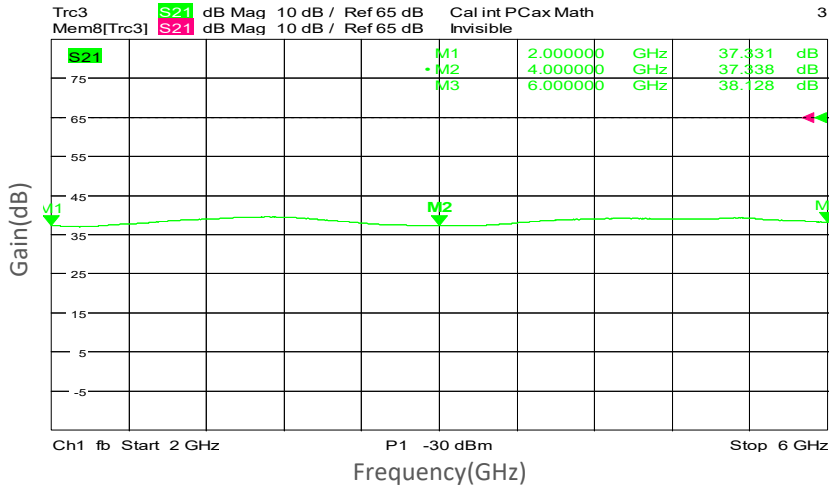
### Input VSWR vs Frequency



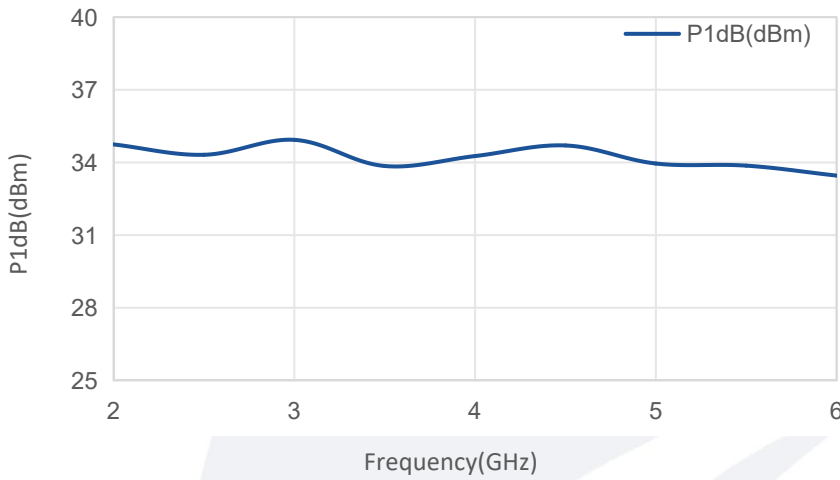
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## 典型曲线 Typical Performance Data:

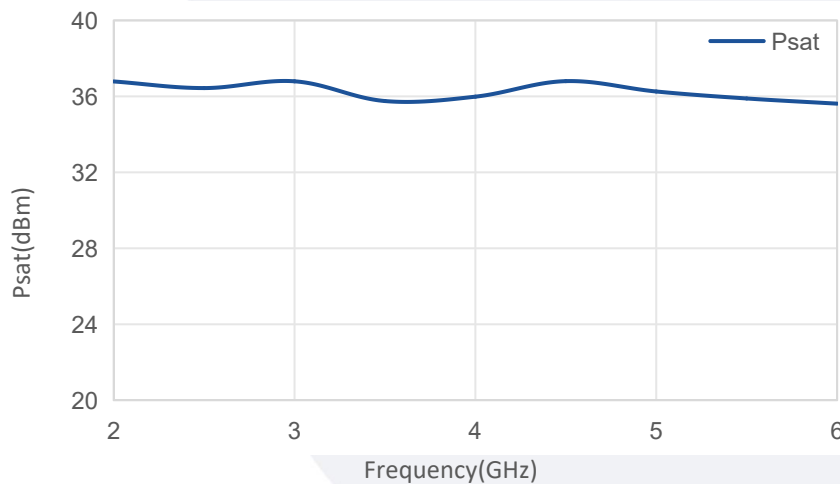
### Small Signal Gain vs Frequency



### P1dB vs Frequency



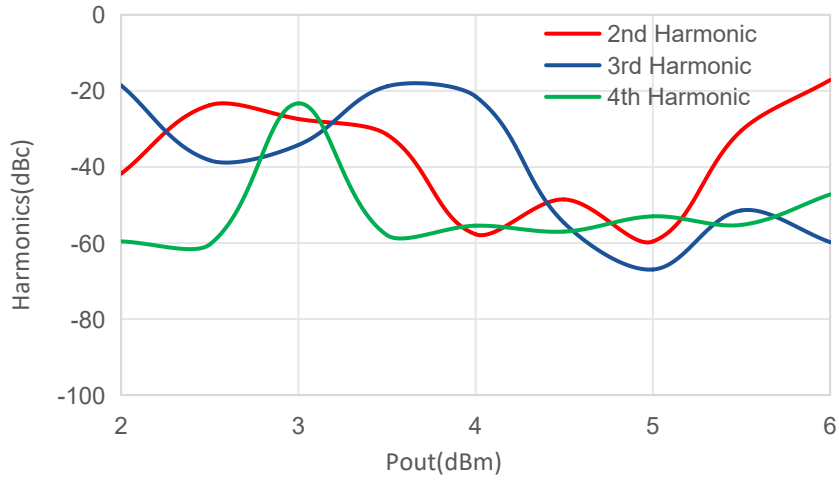
### Psat vs Frequency



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:

### Harmonics vs Output Power



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