

**Model:TLPA0.5G6G-40-40-A**
**Power Amplifier**  
**0.5-6GHz,Gain:40dB,Psat:40dBm**
**Feature:**

- Ultra Wide Band: 0.5-6GHz
- Gain:40dB Min
- Psat Output Power:40dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

**电气特性 Electrical Specifications:**

参数Parameter	Min	Typ	Max	单位Units
频率范围 Frequency range	0.5-6			GHz
小信号增益 Small Signal Gain	40	43		dB
增益平坦度 Gain Flatness		±2.5	±3.5	dB
线性输出功率 Output P1dB	37	38		dBm
饱和输出功率 Output Psat	40			dBm
杂散 Spurious		-60		dBc
谐波 Harmonics		-15	-11	dBc
输入驻波 Input VSWR		1.5	2.5	:1
直流电压 DC Voltage		+30		V DC
直流电流 DC Supply Current		0.5	2	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	125*95*12	mm
重量 Weight	/	g

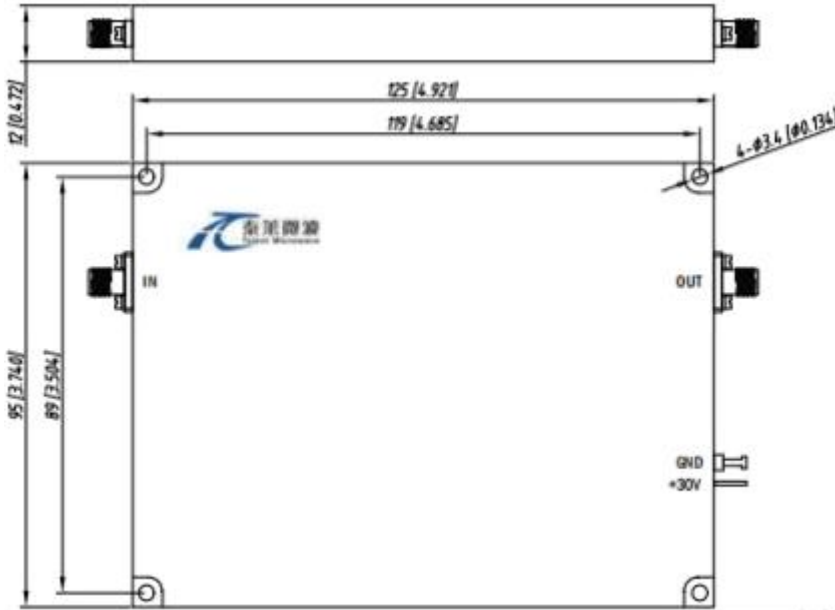
**绝对最大值 Absolute Maximum Ratings:**

参数Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+32V
输入功率 RF Input Power	8dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V


**Available 220V System  
 Benchtop Amplifier**

外形尺寸 Outline Drawing:

Unit: mm



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



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

温度环境 Environmental Conditions:

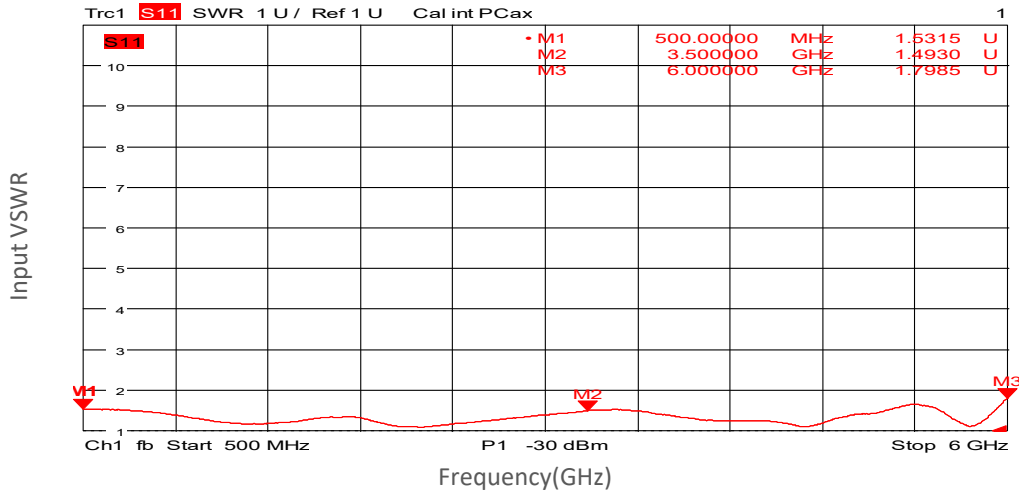
参数Parameter	Min	Typ	Max	单位Units
操作温度 Operating Temperature	-30		+70	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

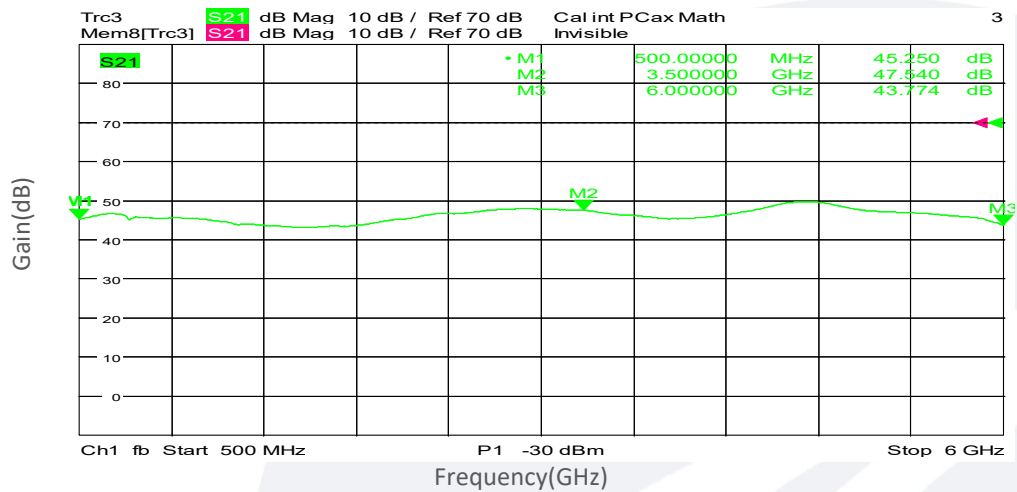
标准型号 Part Number	描述 Description	版本号Revision
TLPA0.5G6G-40-40	Power amplifier 0.5-6GHz,Gain:40dB,Psat:40dBm,+30V DC,Without Heatsink.	Rev.1.0
TLPA0.5G6G-40-40-HS	Power amplifier 0.5-6GHz,Gain:40dB,Psat:40dBm,+30V DC,With Heatsink.	Rev.1.0

典型曲线 Typical Performance Data:

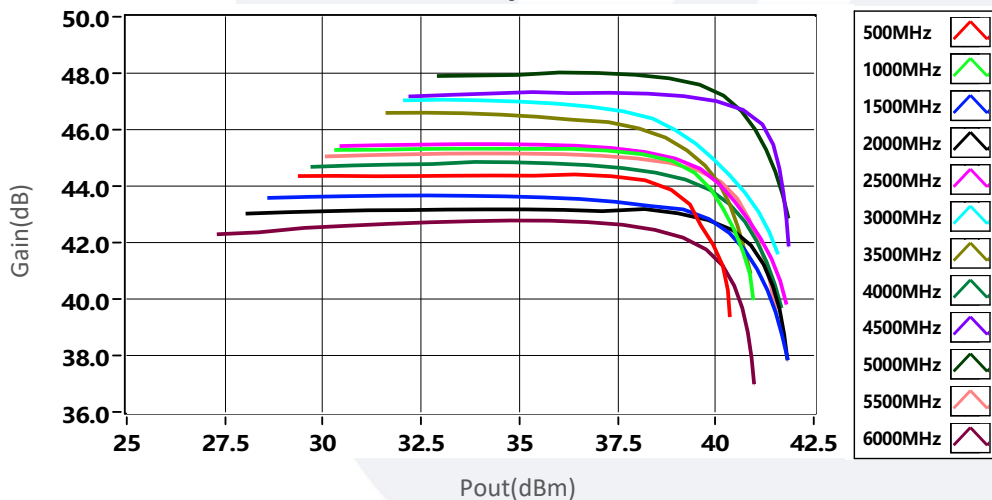
Input VSWR vs Frequency



Small Signal Gain vs Frequency



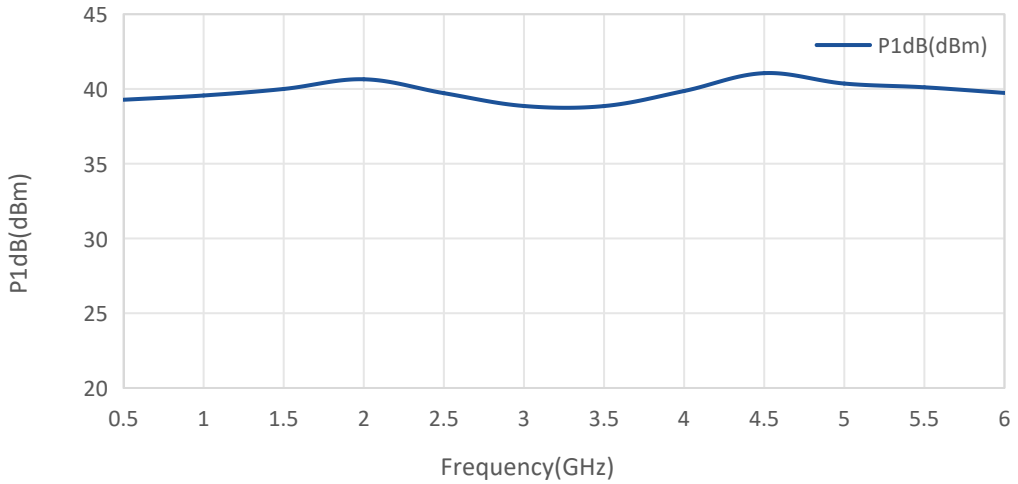
Gain vs Output Power



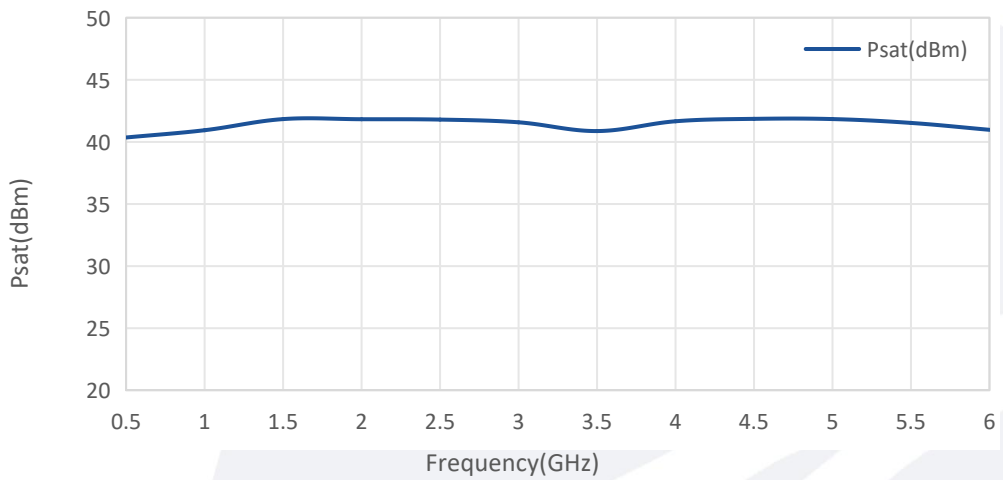
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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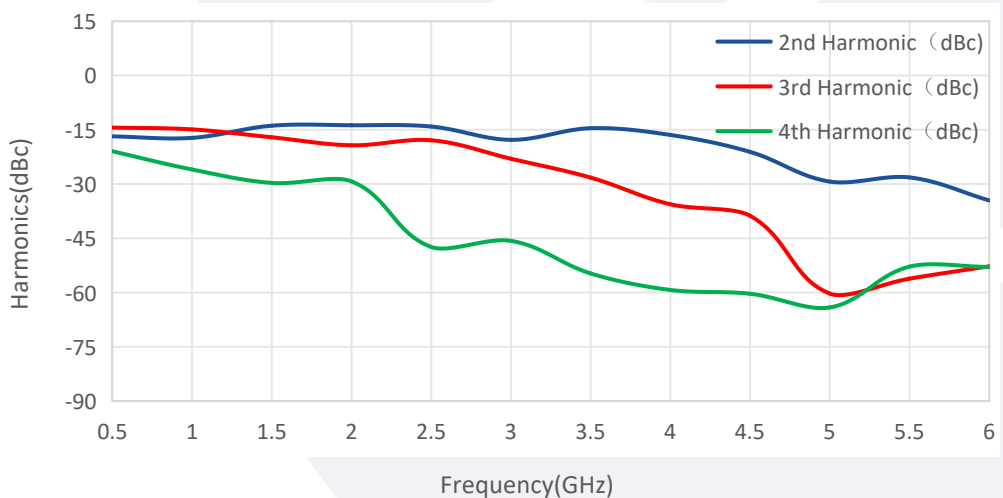
**P1dB vs Frequency**



**Psat vs Frequency**



**Harmonics vs Frequency**



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