

Model:TLPA0.7G6G-53-50
Power Amplifier
0.7-6GHz,Gain:53dB,Psat:50dBm
Feature:

- Ultra Wide Band: 0.7-6 GHz
- Gain: 53 dB Min
- Psat Output Power: 50 dBm 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	0.7-6			GHz
小信号增益 Small Signal Gain	53	56		dB
增益平坦度 Gain Flatness		±4	±6	dB
饱和输出功率 Output Psat	50	51		dBm
杂散 Supurious			-60	dBc
谐波抑制 Harmonic			-10	dBc
输入驻波 Input VSWR			2.0	:1
直流电压 DC Voltage	+28			V DC
直流电流 DC Supply Current	22			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/N Female	
直流偏置 DC Bias	D-SUB-15	
尺寸 Size	270*160*27	mm
重量 Weight	/	g

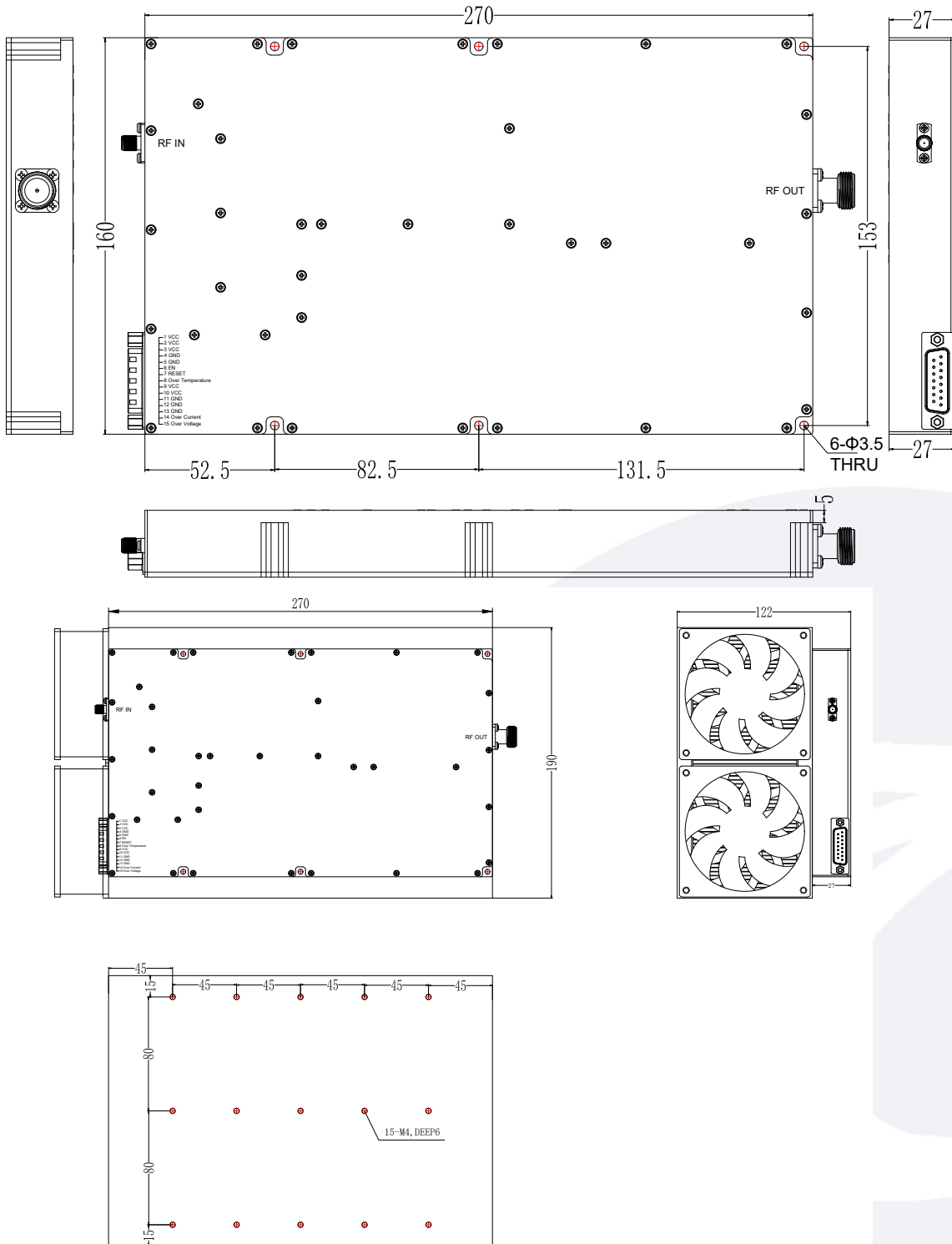
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+28 V
输入功率 RF Input Power	+3 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V


**Available 220V System
Benchtop Amplifier**

外形尺寸Outline Drawing:

Unit: mm



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

直流供电连接器 D-sub,15-Pin,Female:

Pin #	Name	Function
1	VCC	+26.0-30.0VDC
2	VCC	+26.0-30.0VDC
3	VCC	+26.0-30.0VDC
4	GND	Ground
5	GND	Ground
6	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High)
7	RESET	Resets PA when logic LOW is applied and released (Internally Pulled-High)
8	Over Temperature	When the temperature of the case exceeds 70 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 60 °C, the power amplifier will return to normal operation, and this pin will be pulled low.
9	VCC	+26.0-30.0VDC
10	VCC	+26.0-30.0VDC
11	GND	Ground
12	GND	Ground
13	GND	Ground
14	Over Current	Current FAULT:(TTL High= Fault, TTL Low =Normal)
15	Over Voltage	Voltage FAULT:(TTL High= Fault, TTL Low =Normal)

温度环境 Environmental Conditions:

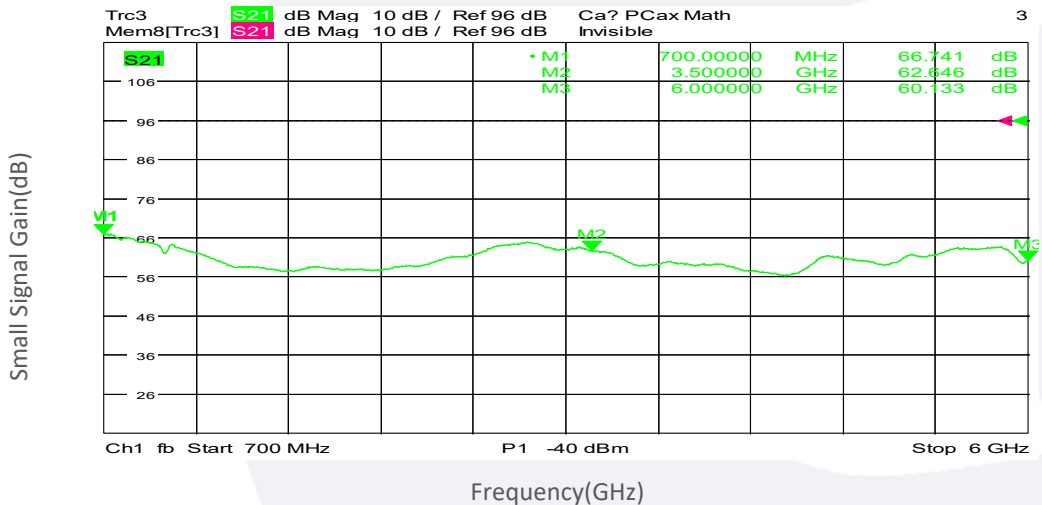
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-40		+70	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	30,000			feet
震动 Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

标准型号 Part Number	描述 Description	版本号Revision
TLPA0.7G6G-53-50	Power amplifier 0.7-6GHz,Gain:53dB,Psat:50dBm, +28V DC,Without Heatsink	Rev.1.0
TLPA0.7G6G-53-50 -HS	Power amplifier 0.7-6GHz,Gain:53dB,Psat:50dBm, +28V DC,With Heatsink	Rev.1.0

典型曲线 Typical Performance Data:

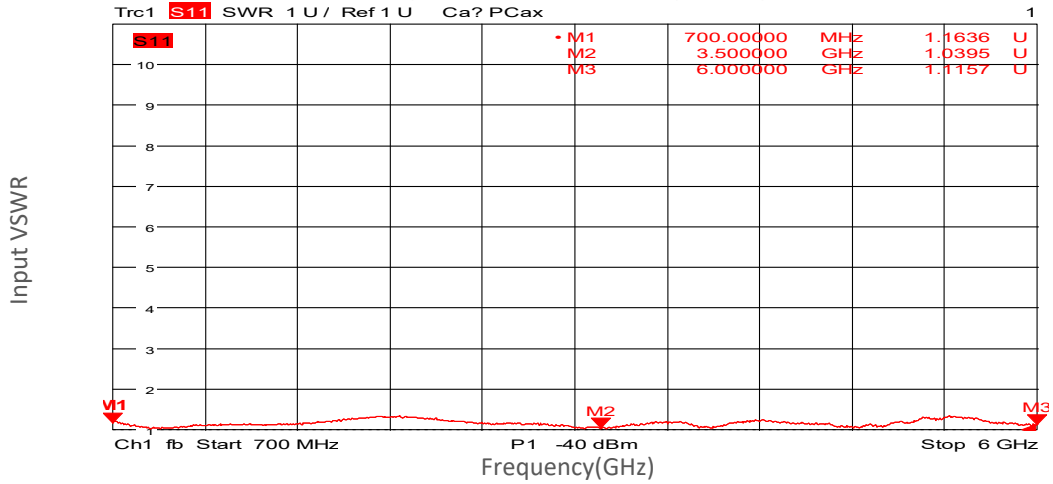
Small Signal Gain vs Frequency



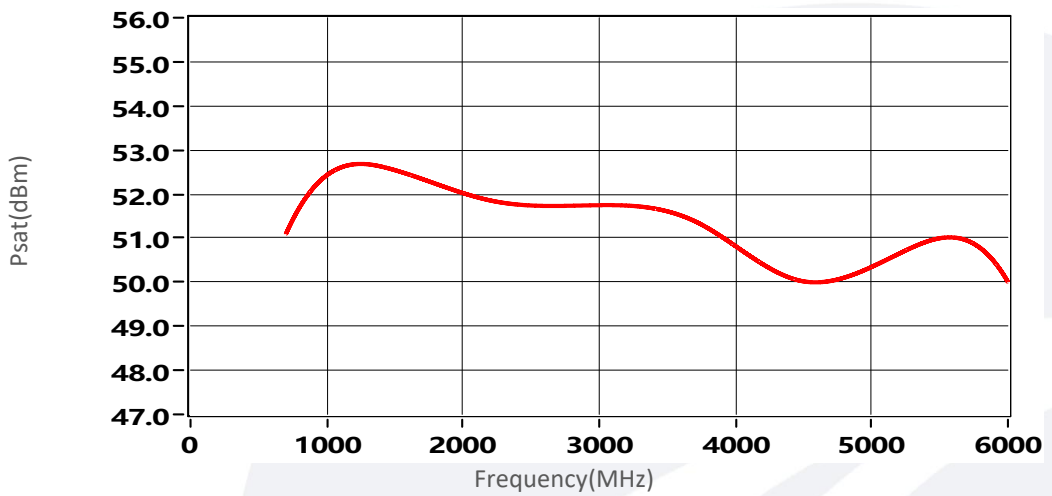
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

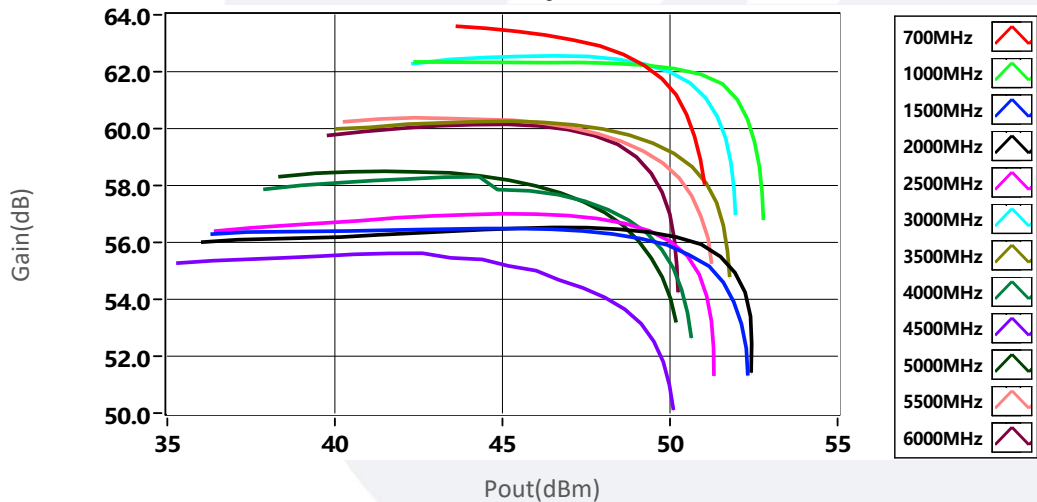
Input VSWR vs Frequency



Psat vs Frequency



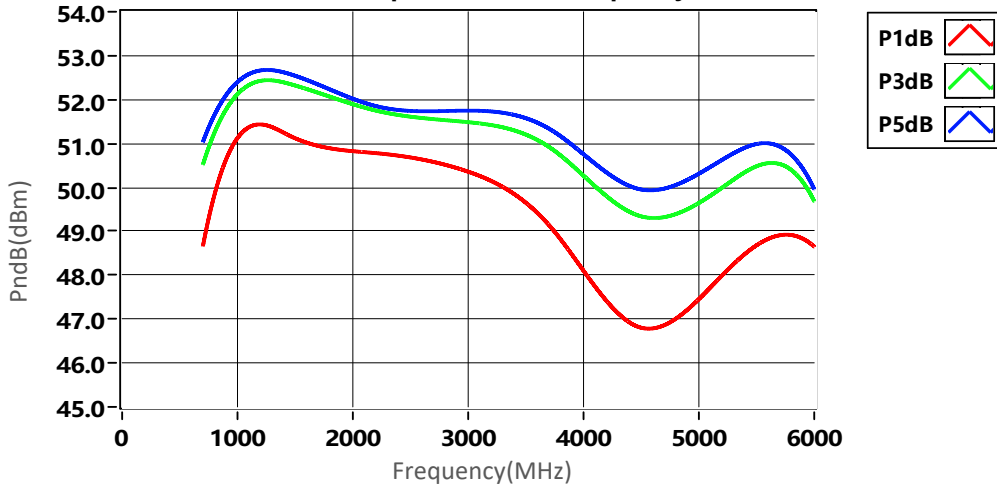
Gain vs Output Power



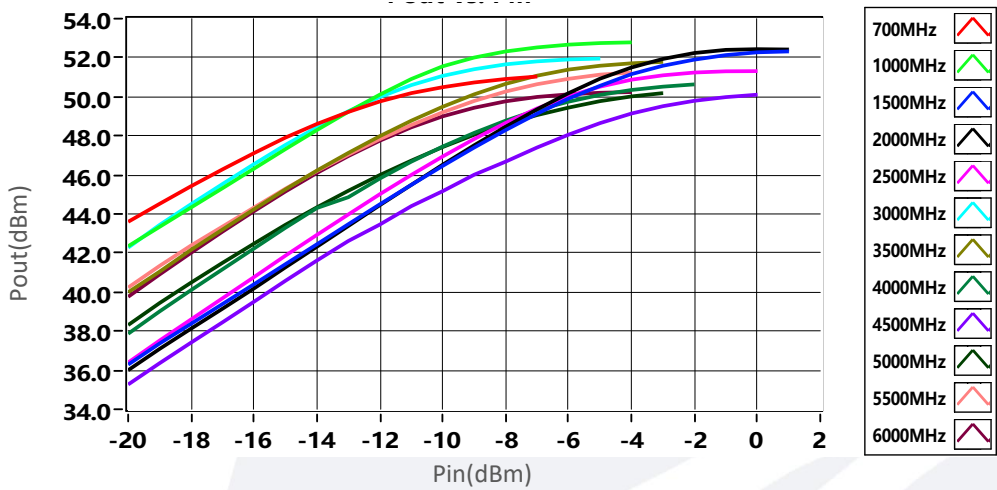
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典型曲线 Typical Performance Data:

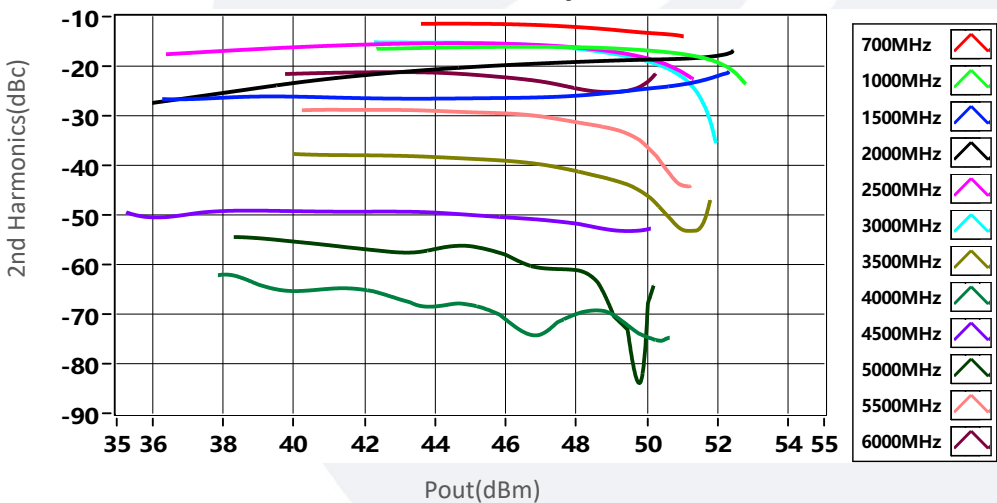
PndB vs Frequency



Pout vs Pin



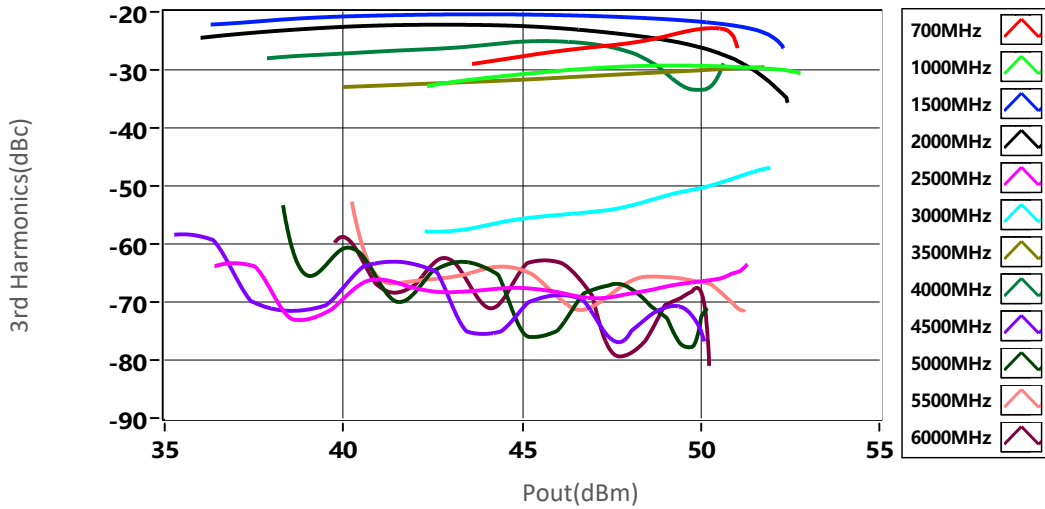
2nd Harmonics vs Output Power



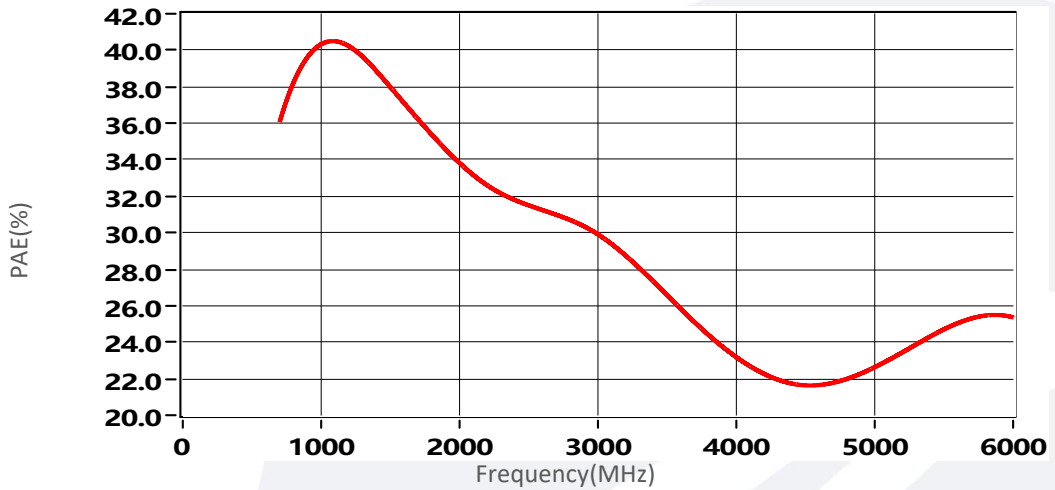
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典型曲线 Typical Performance Data:

3rd Harmonics vs Output Power



PAE vs Frequency



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