

**Model: TLPA100M2G-20-30**
**Power Amplifier**
**0.1-2GHz, Gain: 20dB, P1dB: 27dBm**
**Feature:**

- Ultra Wide Band: 0.1-2GHz
- Gain: 20dB Min
- P1dB Output Power: 27dBm 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	0.1-2			GHz
增益 Gain	20	22		dB
增益平坦度 Gain Flatness		±0.5	±0.75	dB
线性输出功率 Output P1dB	27	28		dBm
谐波 Harmonics		-20		dBc
输入驻波 Input VSWR		1.5	2	:1
直流电压 DC Voltage		+12	+13	V DC
直流电流 DC Supply Current		700	1000	mA
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	120*70*15	mm
重量 Weight	200	g

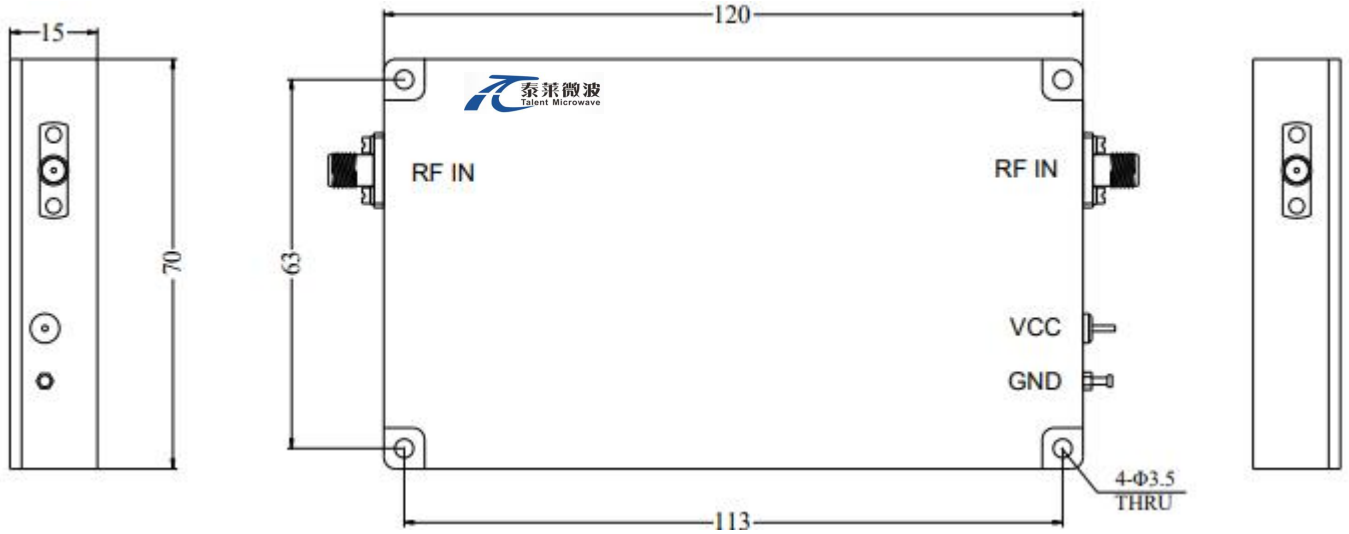
**绝对最大值 Absolute Maximum Ratings:**

参数Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+13V
输入功率 RF Input Power	16dBm
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**



温度环境 Environmental Conditions:

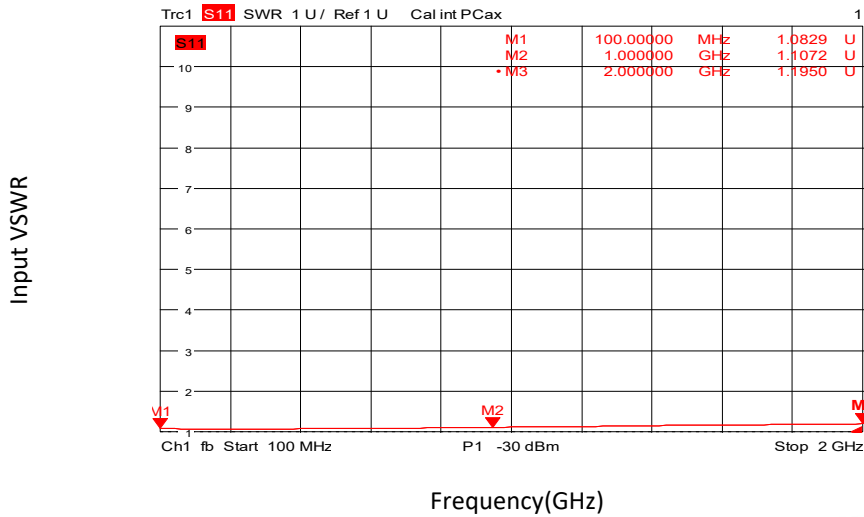
参数Parameter	Min	Typ	Max	单位Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	30,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

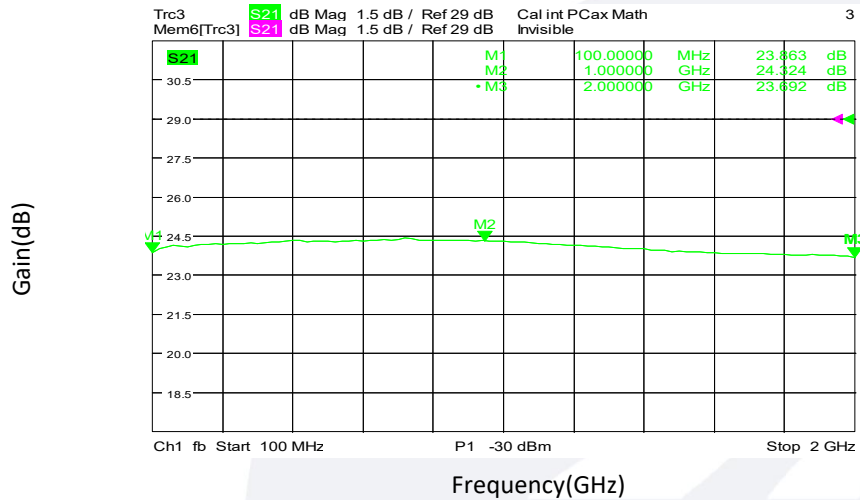
标准型号 Part Number	描述 Description	版本号Revision
TLPA100M2G-20-30	Power amplifier 0.1-2.0GHz,Gain:20dB,P1dB:27dBm,+12V DC,Without Heatsink.	Rev.1.1
TLPA100M2G-20-30 -HS	Power amplifier 0.1-2.0GHz,Gain:20dB,P1dB:27dBm,+12V DC,With Heatsink.	Rev.1.1

典型曲线 Typical Performance Data:

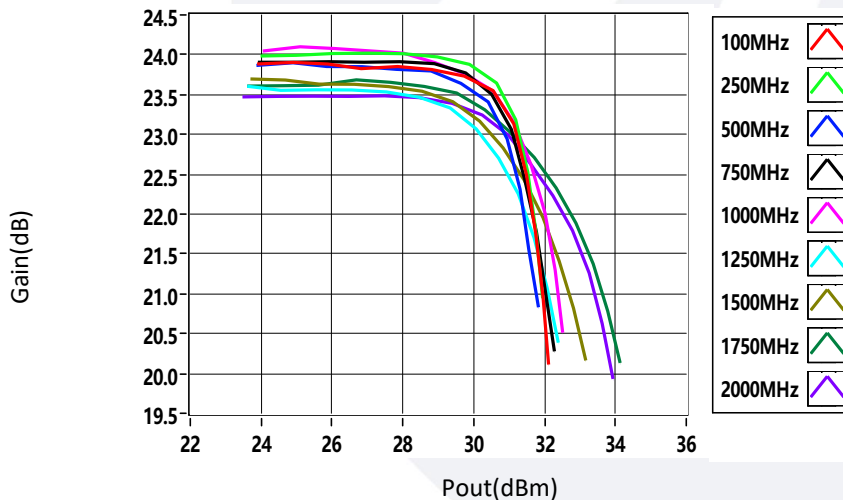
### Input VSWR vs Frequency



### Gain vs Frequency

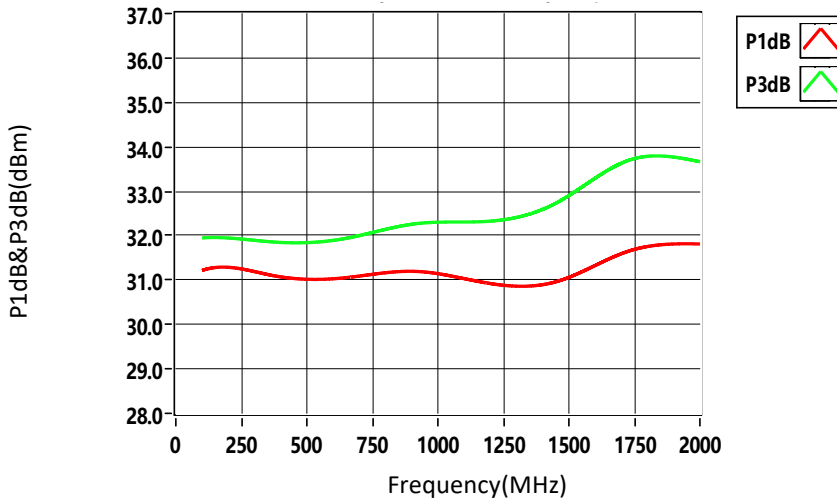


### Gain vs Output Power

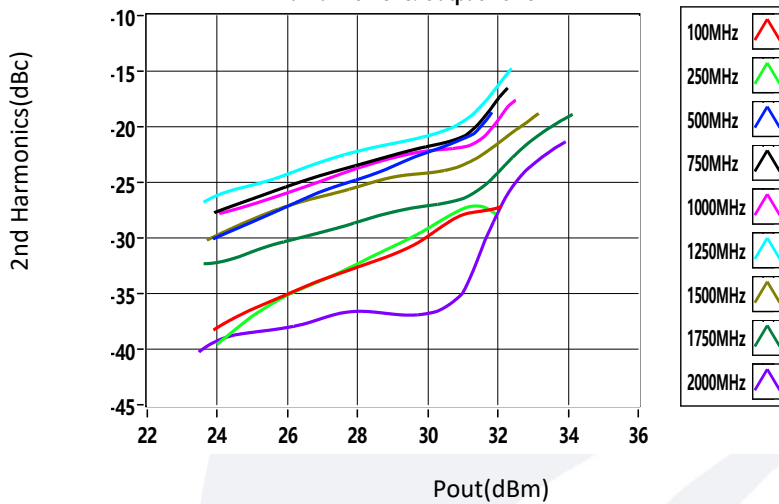


典型曲线 Typical Performance Data:

**P1dB&P3dB vs Frequency**



**2nd Harmonics VS Output Power**



**3rd Harmonics VS Output Power**

