

Model:TLPA10M1G-47-47
Power Amplifier
0.01-1GHz,Gain:47dB,Psat:47dBm
Feature:

- Ultra Wide Band: 0.01-1GHz
- Gain: 47 dB Min
- Psat Output Power: 47 dBm Typ
- 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	0.01-1			GHz
增益 Gain	47	50		dB
增益平坦度 Gain Flatness		±2	±3	dB
线性输出功率 Output P1dB		45		dBm
饱和输出功率 Output Psat	46	47		dBm
谐波 Harmonics@Pout=47dBm		-10		dBc
输入驻波 Input VSWR		1.5	2.0	:1
直流电压 DC Voltage		+28	+30	V DC
直流电流 DC Supply Current		1	12	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	D-SUB-9	
尺寸 Size	170*80*20	mm
重量 Weight	200	g

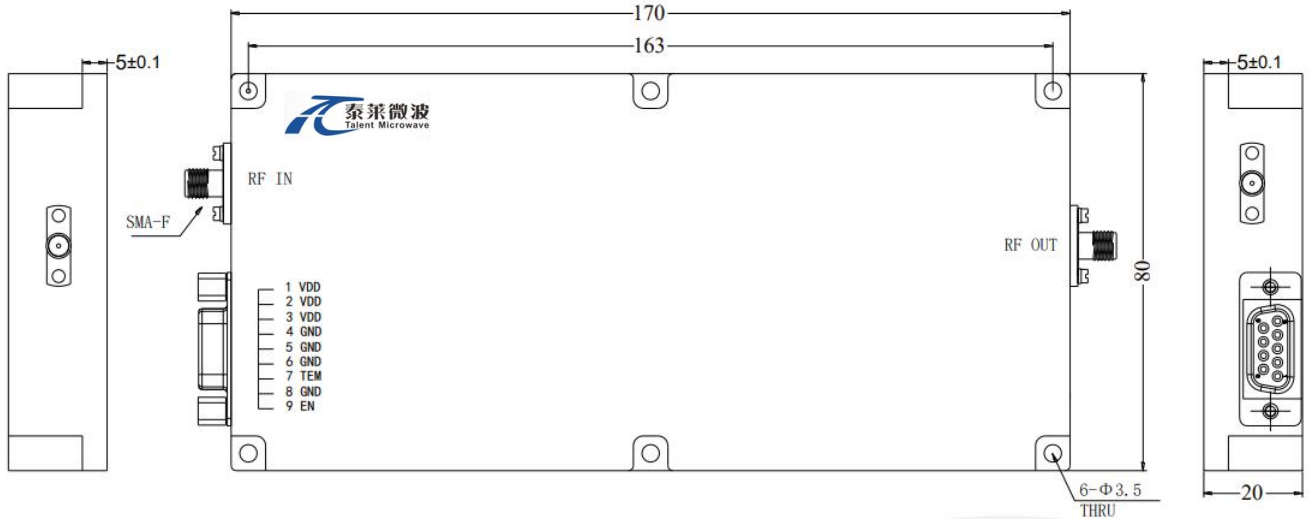
绝对最大值 Absolute Maximum Ratings:

参数Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+30 V
输入功率 RF Input Power	+5 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



***Heat Sink Required During Operation



温度环境 Environmental Conditions:

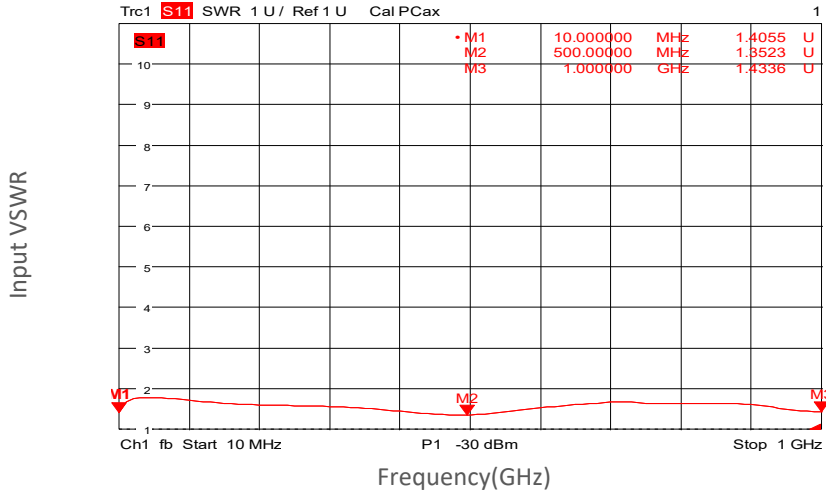
参数Parameter	Min	Typ	Max	单位Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	30,000			feet
震动 Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

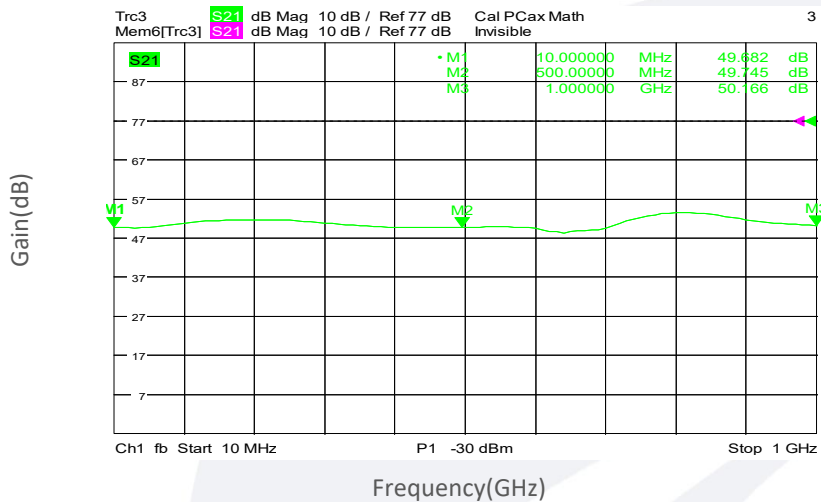
标准型号 Part Number	描述 Description	版本号Revision
TLPA10M1G-47-47	Power amplifier 0.01-1GHz,Gain:47dB,Psat:47dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA10M1G-47-47-HS	Power amplifier 0.01-1GHz,Gain:47dB,Psat:47dBm,+28V DC,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:

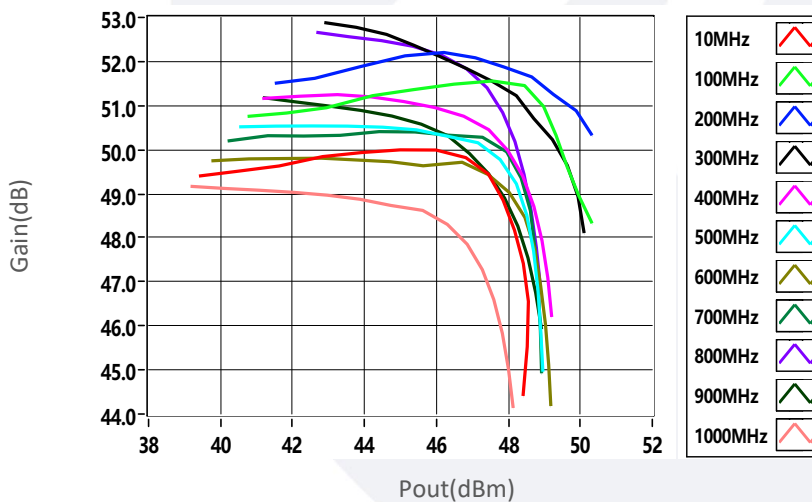
Input VSWR vs Frequency



Gain vs Frequency

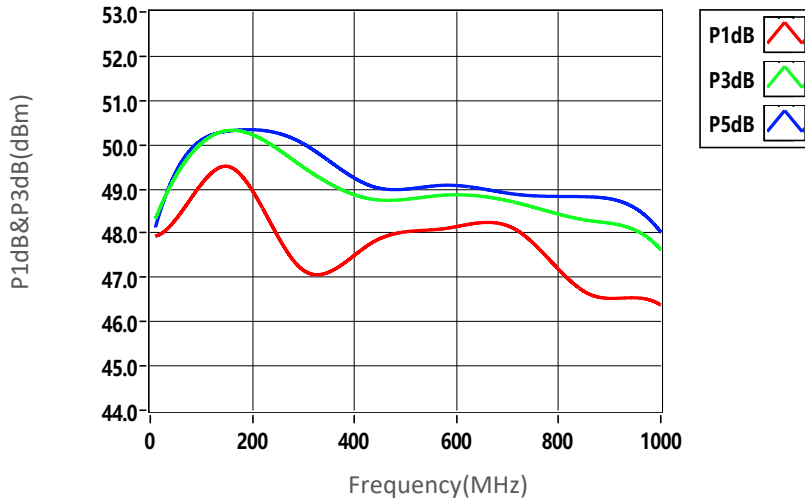


Gain vs Output Power

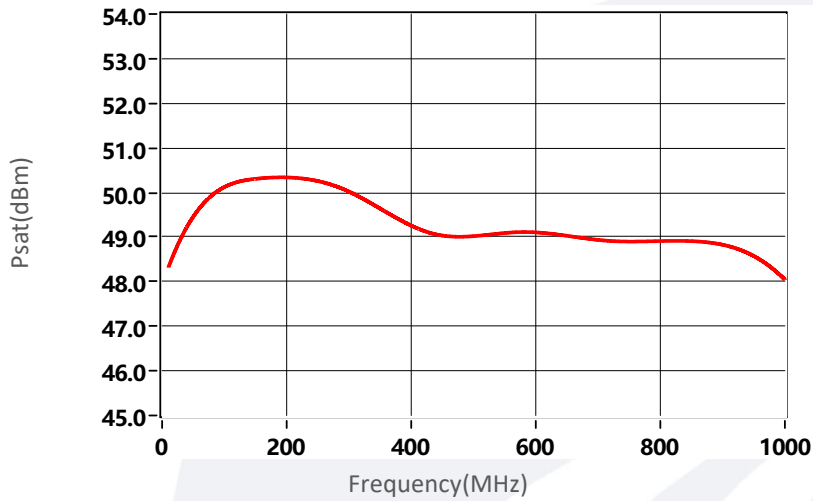


典型曲线 Typical Performance Data:

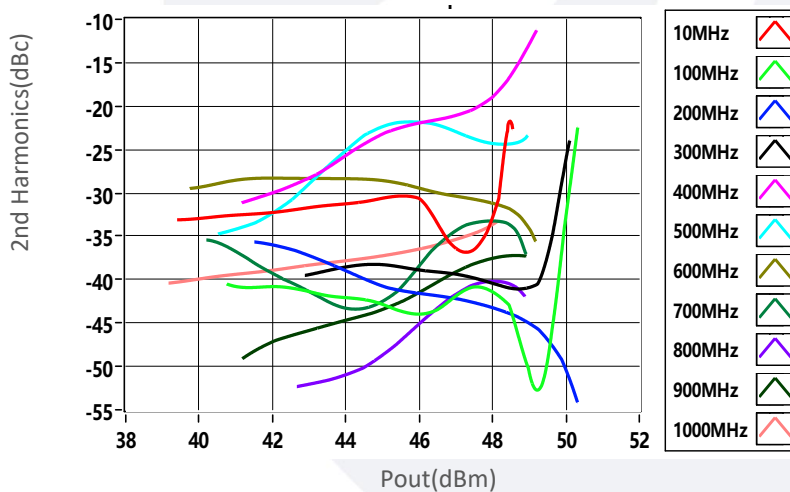
P1dB&P3dB vs Frequency



Psat vs Frequency



2nd Harmonics vs Output Power



典型曲线 Typical Performance Data:

3rd Harmonics vs Output Power

