

Model:TLPA50M500M-50-33
Power Amplifier
50-500MHz,Gain:50dB,P1dB:33dBm
Feature:

- Wide Band:50-500M Hz
- Gain: 50 dB Min
- P1dB Output Power: 33 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	50-500			MHz
增益 Gain	50	52		dB
增益平坦度 Gain Flatness		±2	±3	dB
噪声系数 Noise Figure		4	5	dB
线性输出功率 Output P1dB	33	34		dBm
饱和输出功率 Output Psat	34	35		dBm
输入驻波 Input VSWR		1.5	2.0	:1
直流电压 DC Voltage		+15		V DC
直流电流 DC Supply Current	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	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	90*48*15	mm
重量 Weight	150	g

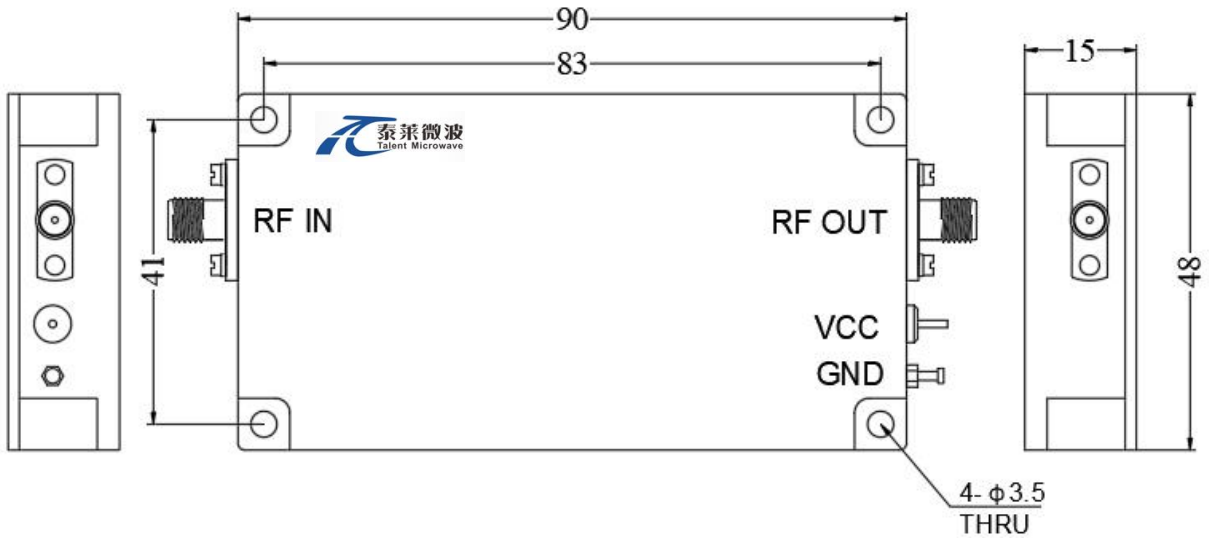
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+18 V
输入功率 RF Input Power	-15 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



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

温度环境 Environmental Conditions:

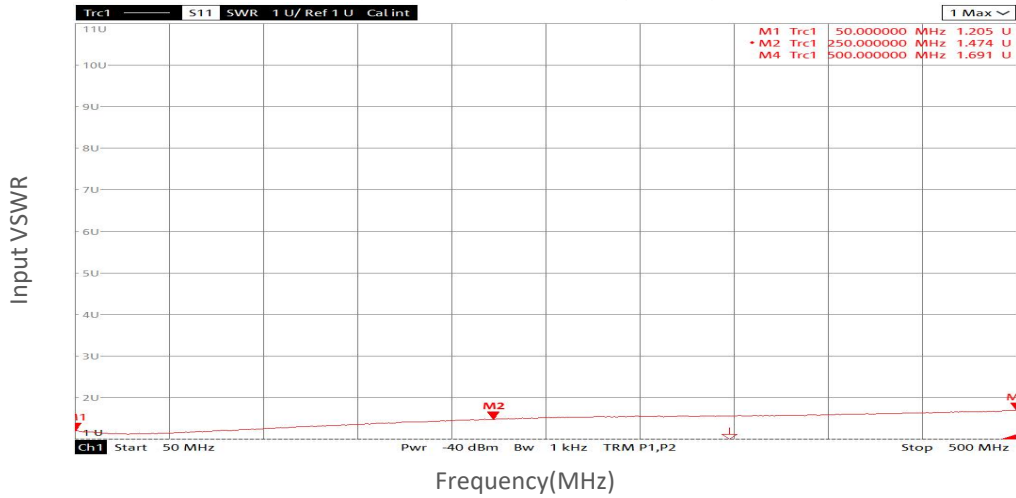
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	30,000			feet
震动 Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

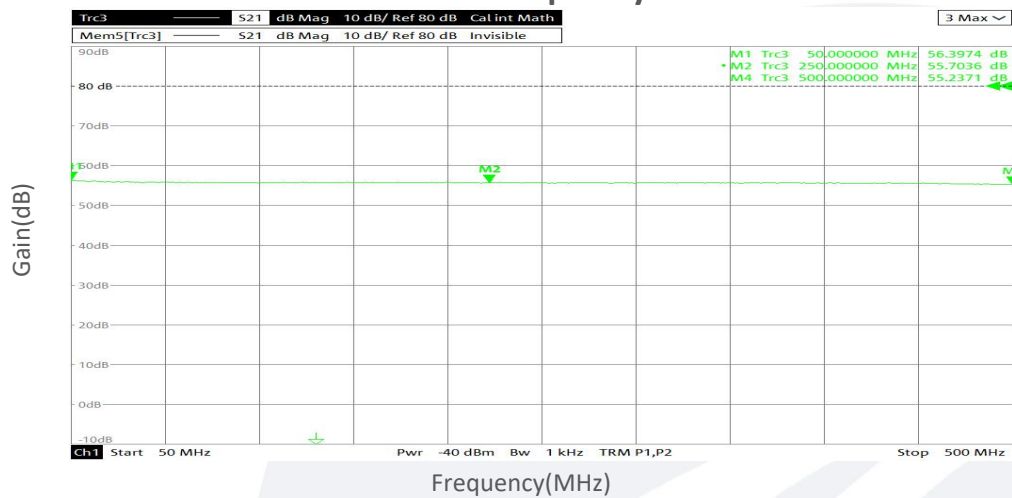
标准型号 Part Number	描述 Description	版本号 Revision
TLPA50M500M-50-33	Power amplifier 50-500MHz,Gain:50dB,P1dB:33dBm,+15V DC,Without Heatsink	Rev.1.0
TLPA50M500M-50-33-HS	Power amplifier 50-500MHz,Gain:50dB,P1dB:33dBm,+15V DC,With Heatsink	Rev.1.0

典型曲线 Typical Performance Data:

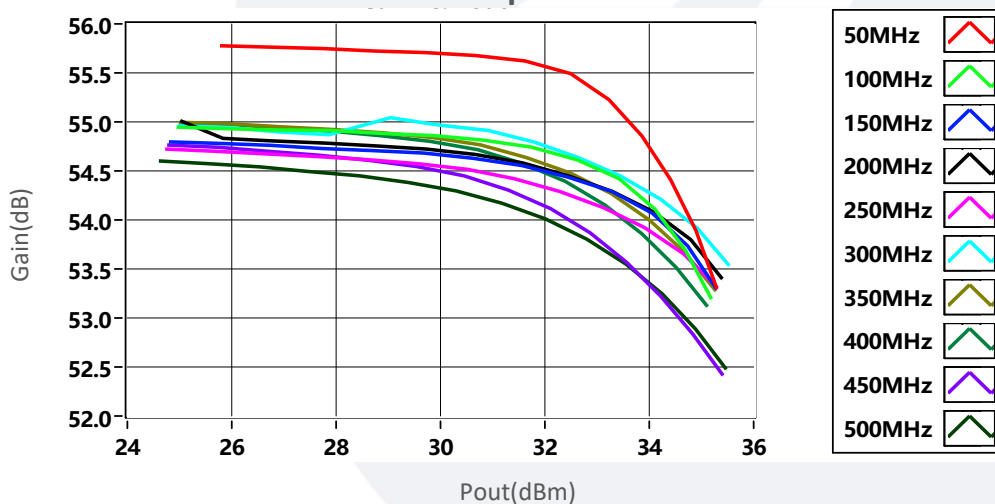
Input VSWR vs Frequency



Gain vs Frequency



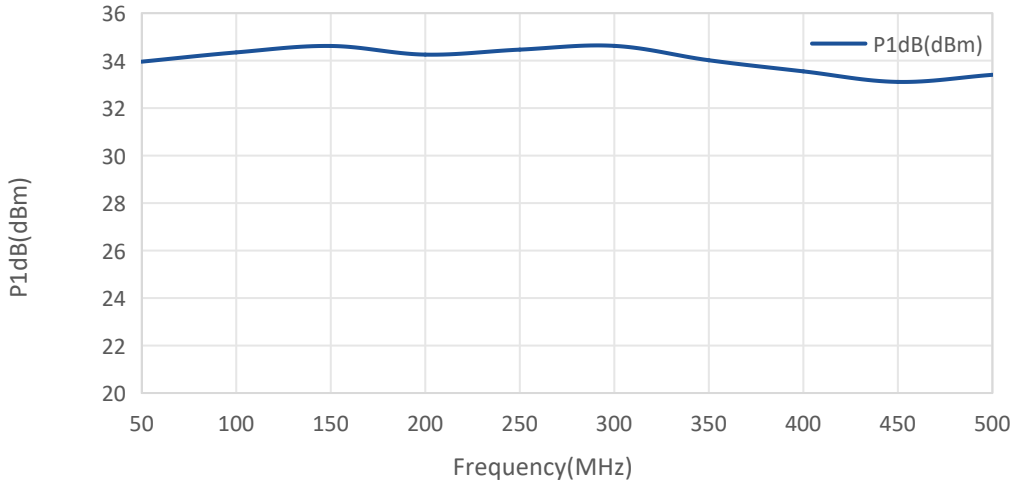
Gain vs Output Power



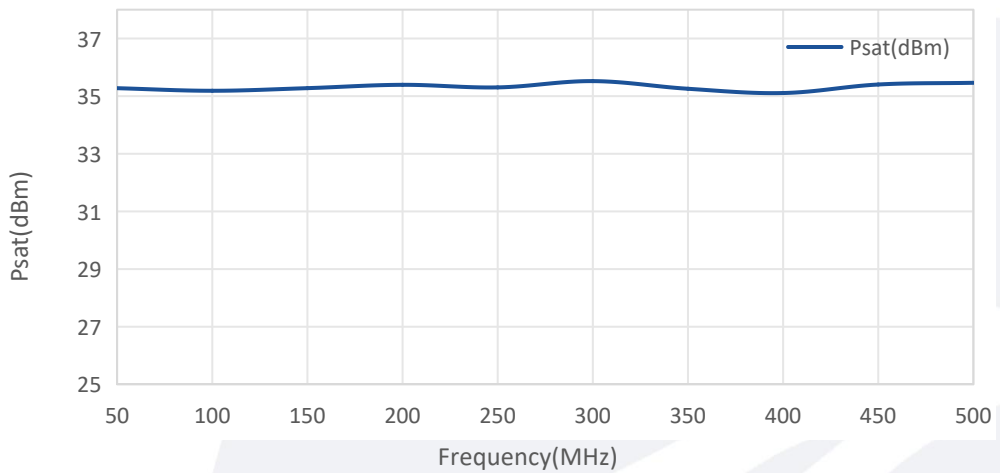
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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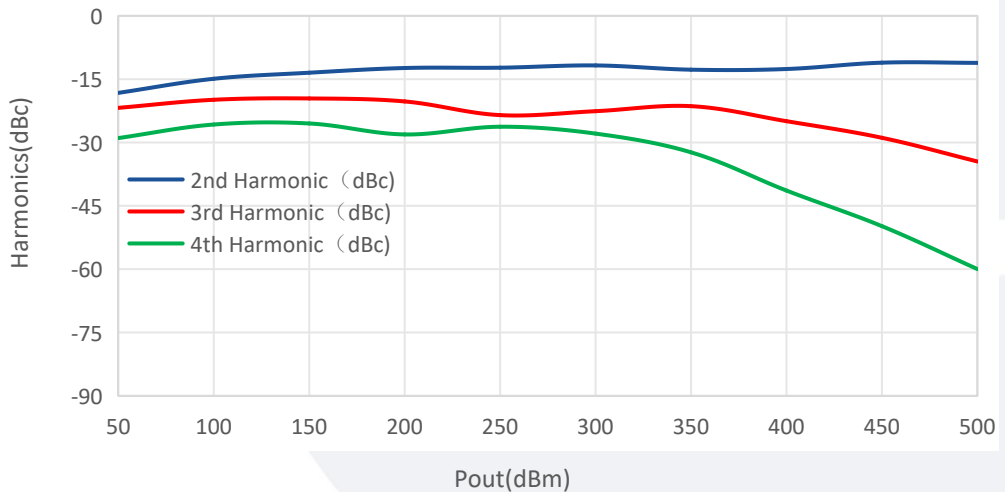
P1dB vs Frequency



Psat vs Frequency



Harmonics vs Output Power



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