

**Model:TLPA10M40G-28-20**
**Power amplifier**
**0.01-40GHz,Gain:28dB,P1dB:18dBm,Psat:20dBm**
**Feature:**

- Ultra Wide Band: 10MHz-40GHz
- Gain: 28dB Typ
- Psat Output Power: 20dBm Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

**电气特性 Electrical:**

参数Parameter	Min.	Typ.	Max.	单位Units
频率范围 Frequency range		0.01-40		GHz
增益 Gain		28		dB
增益平坦度 Gain Flatness		±2.0		dB
线性输出功率P1dB		18		dB
饱和输出功率 Psat		20		dBm
杂散 Spurious		-60		dBc
噪声系数 Noise Figure		6		dB
输入驻波 Input VSWR		2.0		:1
*输出驻波 Output VSWR		2.0		:1
直流电压 DC Voltage		12		V DC
直流电流 DC Supply Current		0.40		A
阻抗 Impedance		50		Ohms

**机械特性 Mechanical :**

参数Parameter	指标 Value	单位 Units
输入输出接Input /Output Connector	2.92mm Female	
直流偏置 Bias	Solder Pin	
尺寸 Size	44*36*12	mm
重量 Weight	/	g

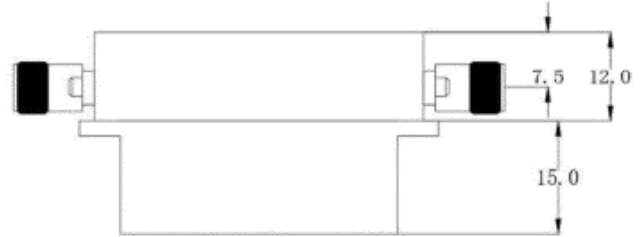
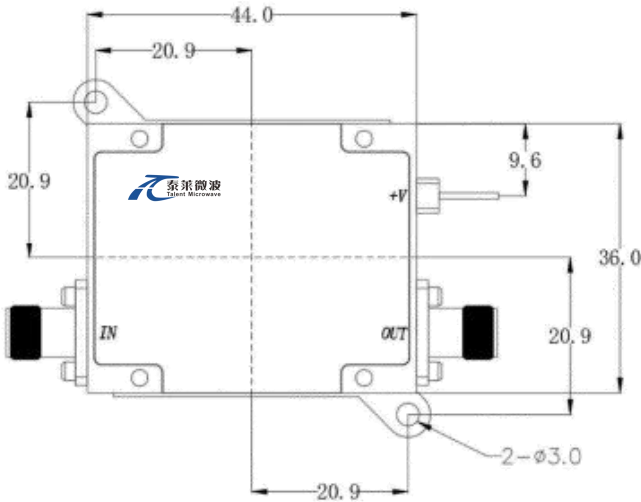

 Available 220V System  
 Benchtop Amplifier

**绝对最大值 Absolute Maximum Ratings:**

参数Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+12 V
输入功率 RF INPUT POWER	10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形尺寸 Outline Drawing:

Unit: mm(inches)



**\*\*\*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	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			

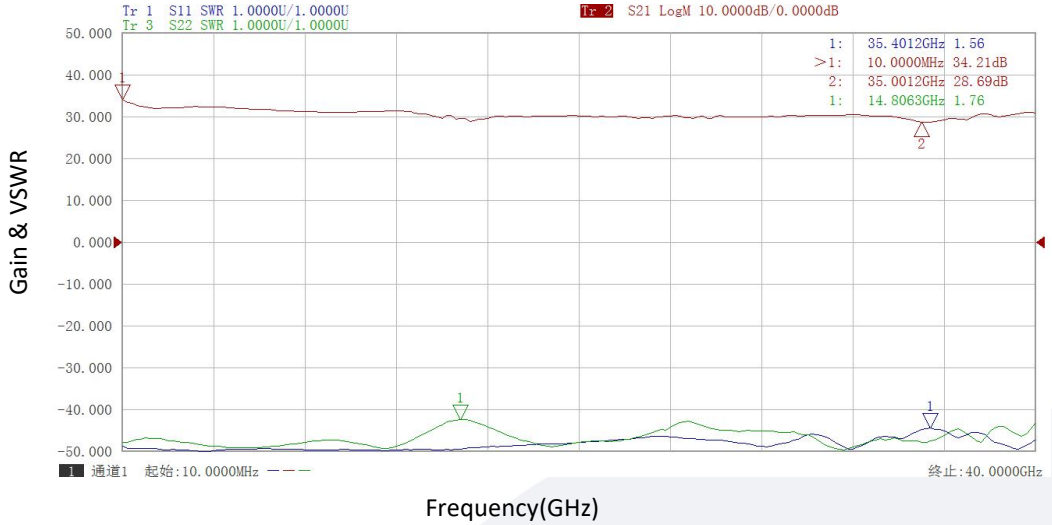
订货信息 Ordering Information:

标准型号 Part Number	描述 Description	版本号Revision
TLPA10M40G-30-22	Power amplifier 10MHz-40 GHz,Gain:30dB,P1dB:20dBm,12V DC,Without Heatsink	Rev.1.1
TLPA10M40G-30-22-HS	Power amplifier 10MHz-40 GHz,Gain:30dB,P1dB:20dBm,12V DC With Heatsink	Rev.1.1

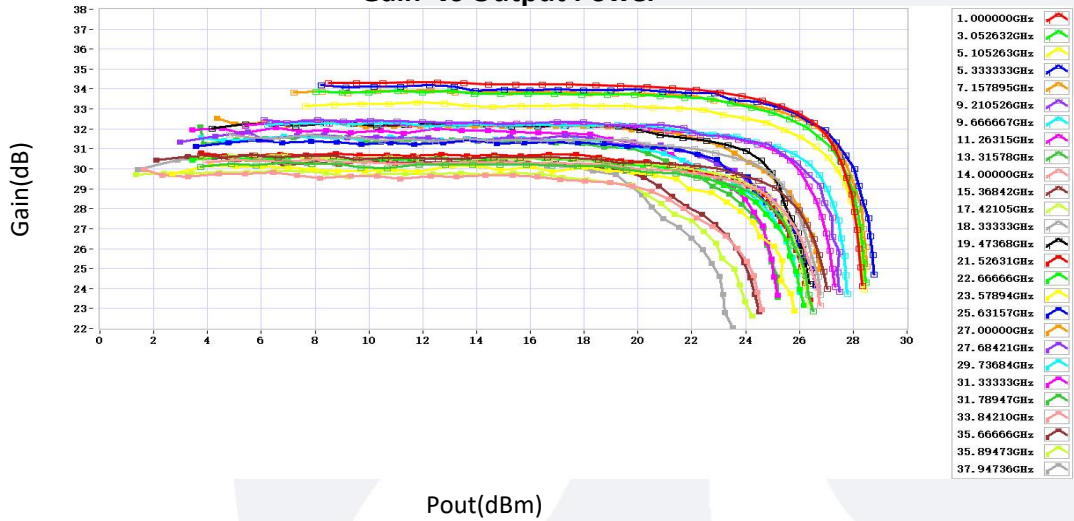
典型曲线 Typical Performance Data:

\* Performance may degrade below 300 MHz. Please refer to below typical test plots.

Gain & VSWR vs Frequency

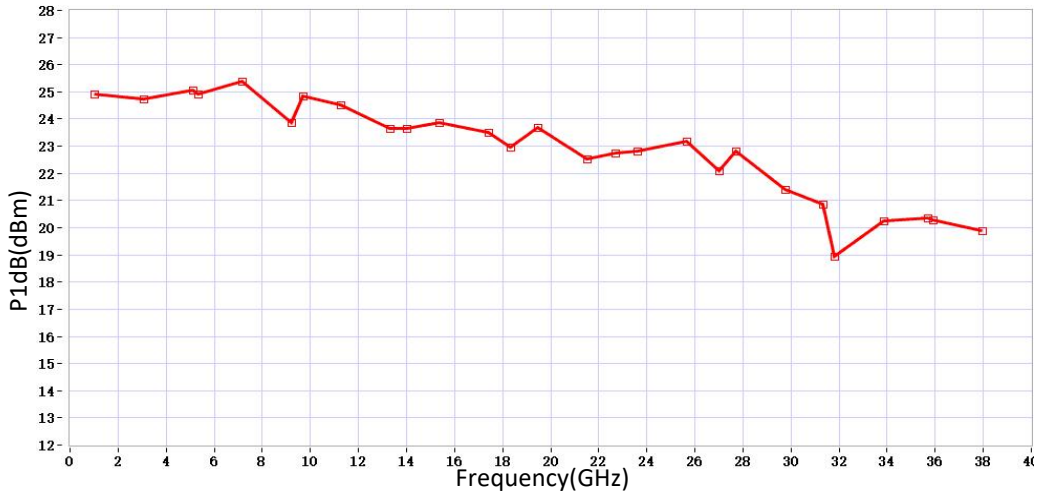


Gain vs Output Power

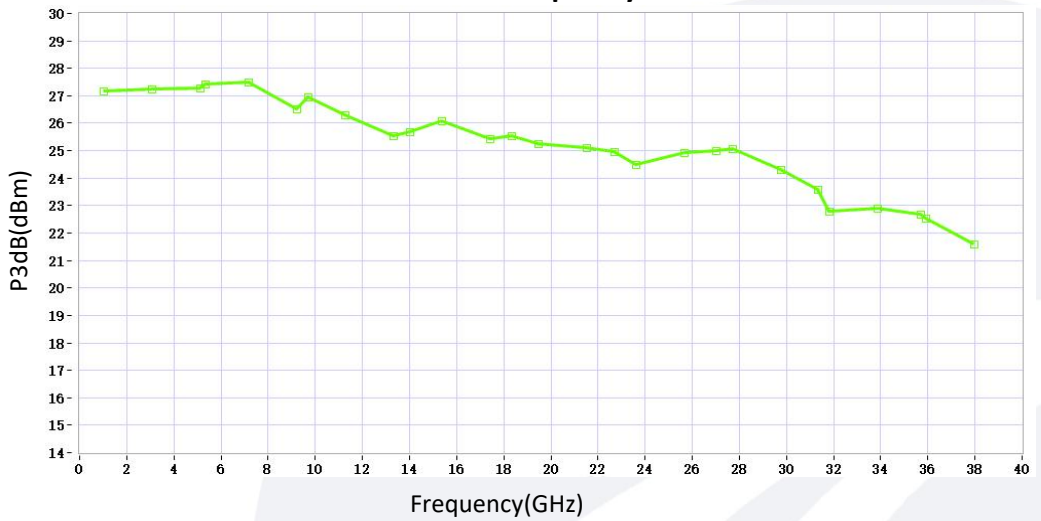


典型曲线 Typical Performance Data:

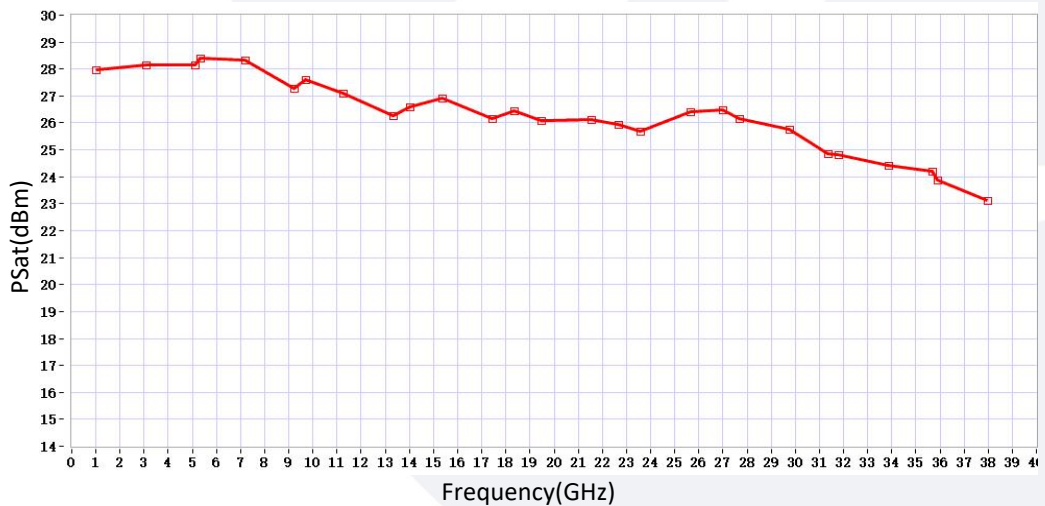
**P1dB vs Frequency**



**P3dB vs Frequency**

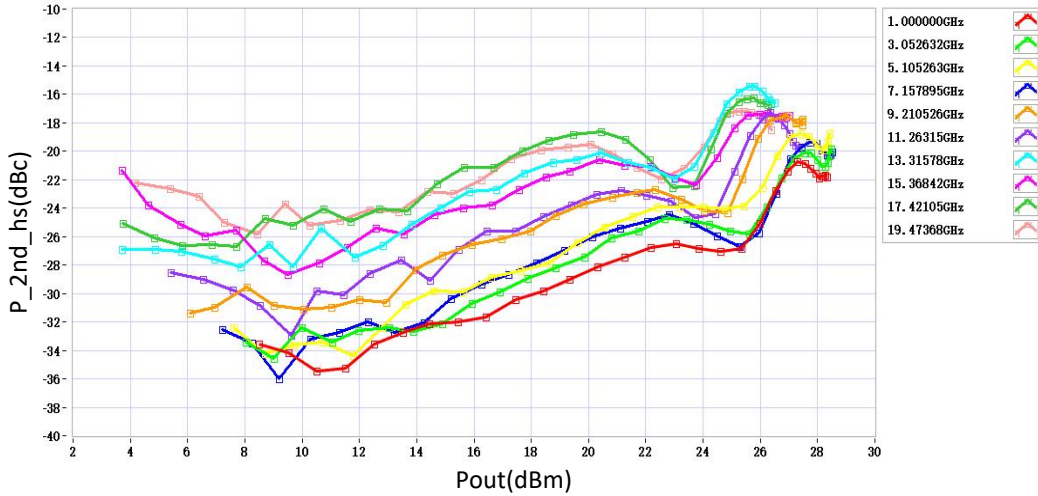


**PSat vs Frequency**

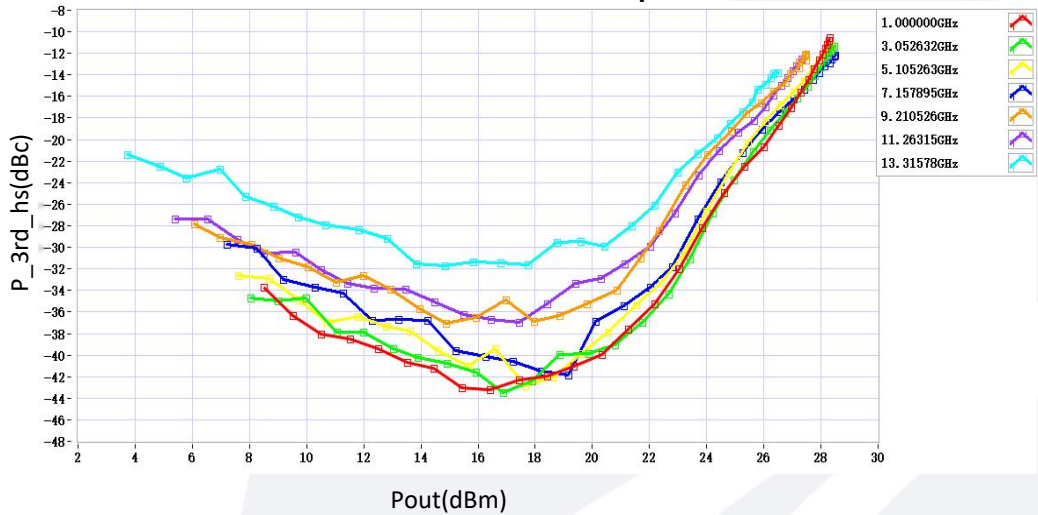


典型曲线 Typical Performance Data:

2nd Harmonic vs Output Power



3rd Harmonic vs Output Power



Current vs Output Power

