

**Model:TLPA1G18G-40-30**
**Power Amplifier**  
**1-18GHz,Gain:40dB,P1dB:27dBm**
**Feature:**

- Ultra Wide Band:1-18GHz
- Gain:38dB Min
- Psat Output Power:30dBm 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		1-18		GHz
增益 Gain	38	40		dB
增益平坦度 Gain Flatness		±2.5		dB
线性输出功率 Output P1dB	27			dBm
饱和输出功率 Output Psat		30		dBm
噪声系数 Noise Figure		4		dB
输入驻波 Input VSWR			2.2	:1
输出驻波 Output VSWR			2.2	:1
直流电压 DC Voltage		+15	+16	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	35.3*40.3*12	mm
重量 Weight	50	g

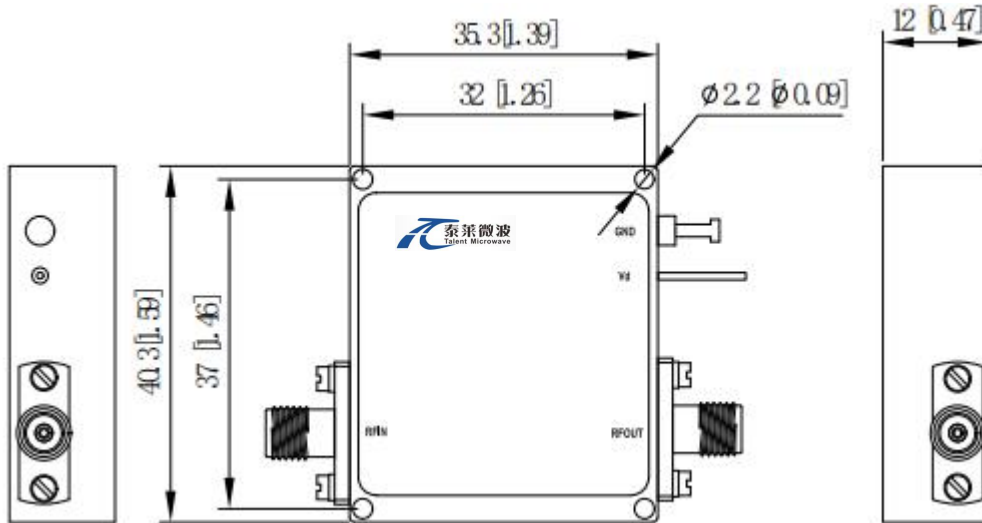
**绝对最大值 Absolute Maximum Ratings:**

参数Parameter	指标 Value
输入功率 RF Input Power	0dBm
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:

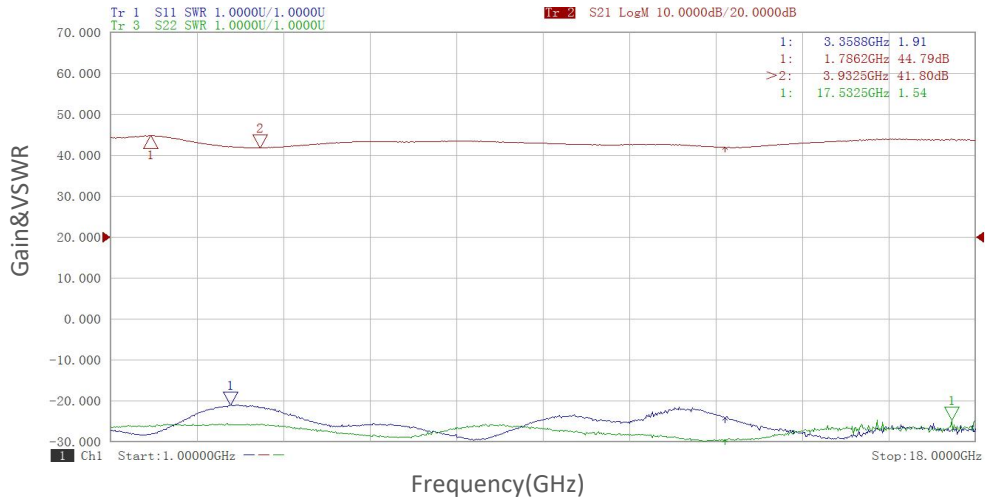
参数Parameter	Min	Typ	Max	单位Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	30,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half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

订货信息 Ordering Information:

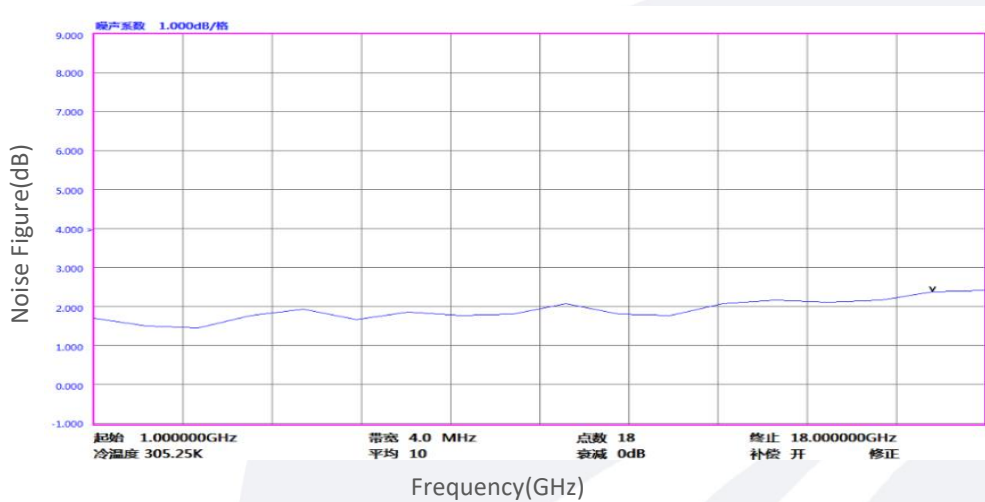
标准型号 Part Number	描述 Description	版本号Revision
TLPA1G18G-40-30	Power amplifier 1-18GHz,Gain:40dB,P1dB:27dBm,+15V DC,Without Heatsink.	Rev.1.1
TLPA1G18G-40-30-HS	Power amplifier 1-18GHz,Gain:40dB,P1dB:27dBm,+15V DC,With Heatsink.	Rev.1.1

典型曲线 Typical Performance Data:

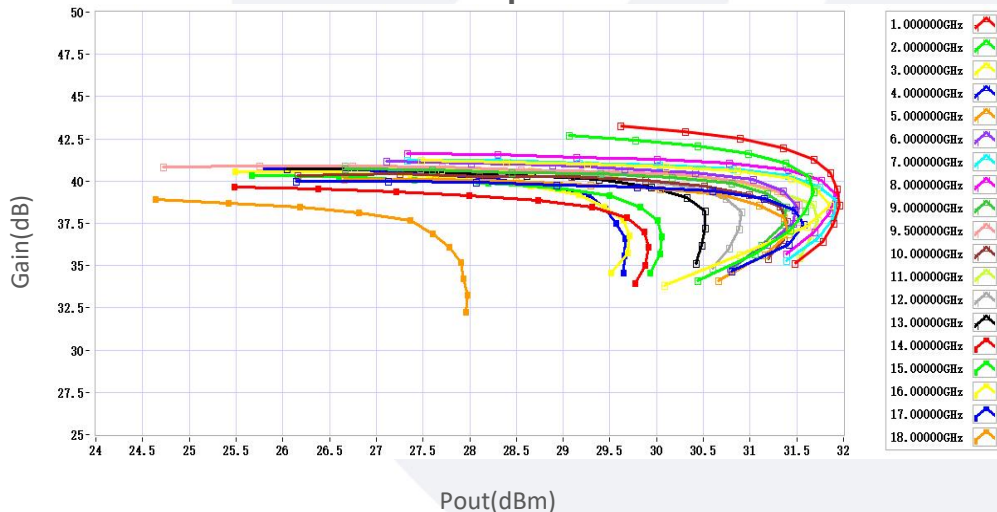
Gain&VSWR vs Frequency



Noise Figure vs Frequency

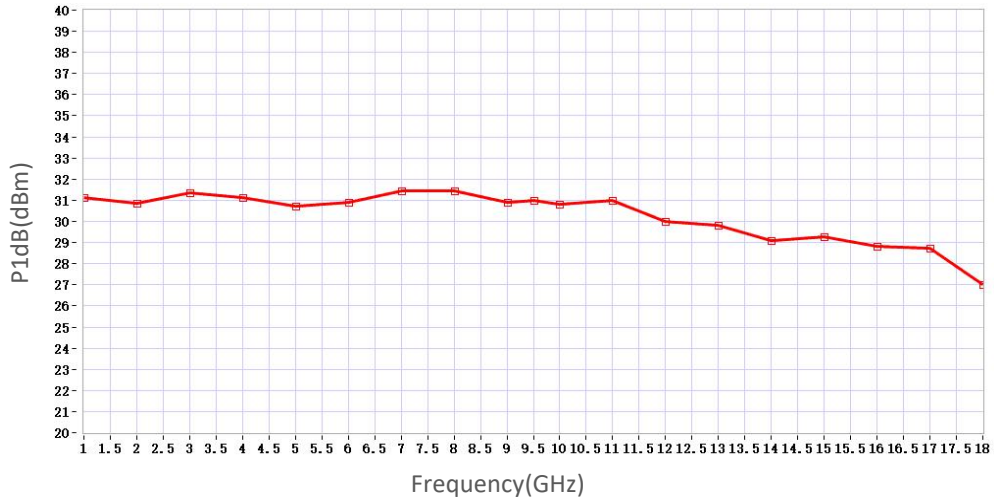


Gain vs Output Power

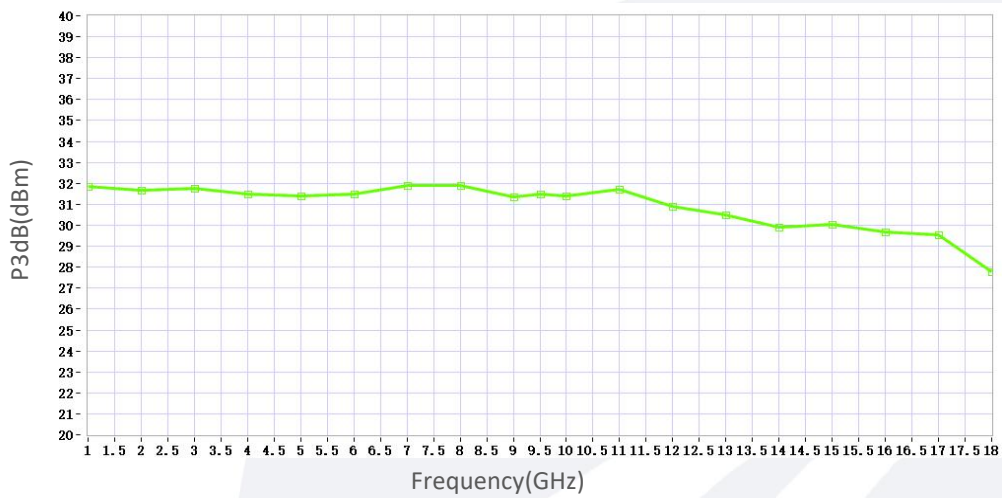


典型曲线 Typical Performance Data:

**P1dB vs Frequency**



**P3dB vs Frequency**



**Psat vs Frequency**

