

**Model: TLLA18G50G-42-50**
**Low Noise Amplifier**
**18-50GHz, NF:5.0dB, Gain:42dB, P1dB:13dBm**
**Feature:**

- Ultra Wide Band: 18-50GHz
- Gain: 42dB Typ
- Noise Figure: 5.0dB 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	18-50			GHz
增益 Gain	40	42		dB
增益平坦度 Gain Flatness		±2.5		dB
噪声系数 Noise Figure		5		dB
线性输出功率 Output P1dB	13	14		dBm
饱和输出功率 Output Psat		15		dBm
输入驻波 Input VSWR		2		:1
输出驻波 Output VSWR		2		:1
直流电压 DC Voltage		5	6	V DC
直流电流 DC Supply Current		280		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	2.4mm Female/2.4mm Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	44.8*29.2*11	mm
重量 Weight	50	g

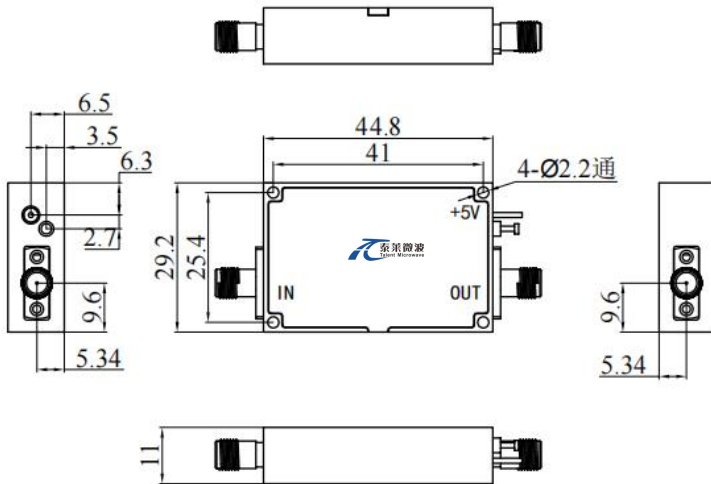
**绝对最大值 Absolute Maximum Ratings:**

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+6V
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(inches)



**\*\*\*Heat Sink Required During Operation**



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

温度环境 Environmental Conditions:

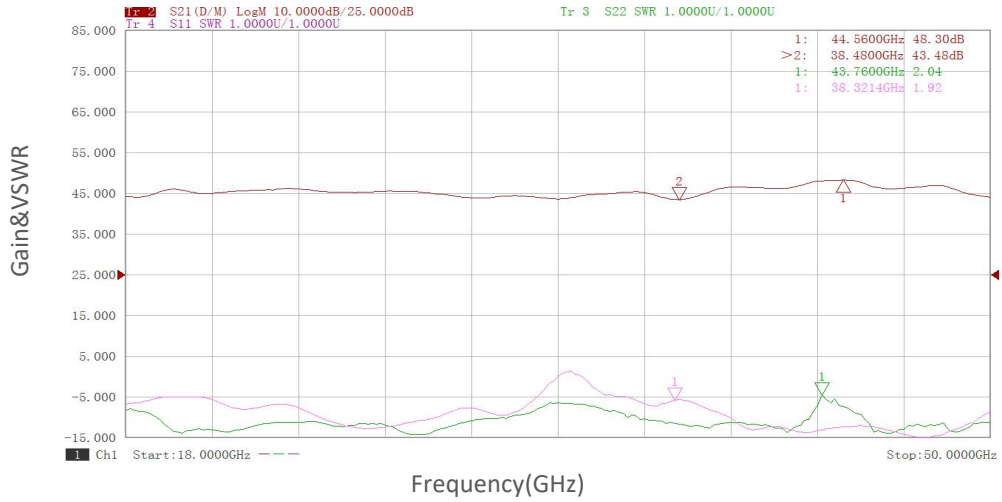
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

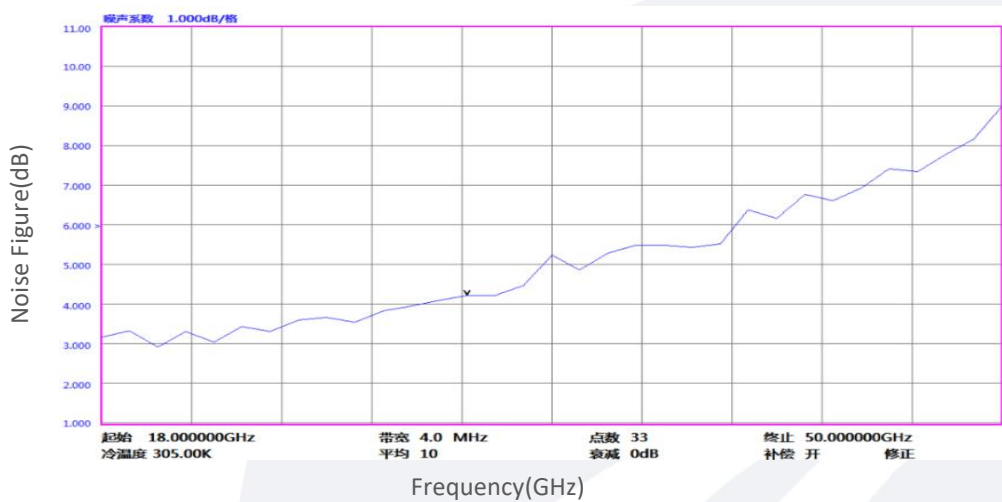
标准型号 Part Number	描述 Description	版本号 Revision
TLLA18G50G-42-50	Low Noise Amplifier, 18-50GHz, Noise Figure:5.0dB, Gain:42 dB,P1dB:13dBm,+5V DC,Without Heatsink	Rev.1.1
TLLA18G50G-42-50-HS	Low Noise Amplifier, 18-50GHz, Noise Figure:5.0dB, Gain:42 dB,P1dB:13dBm,+5V DC,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:

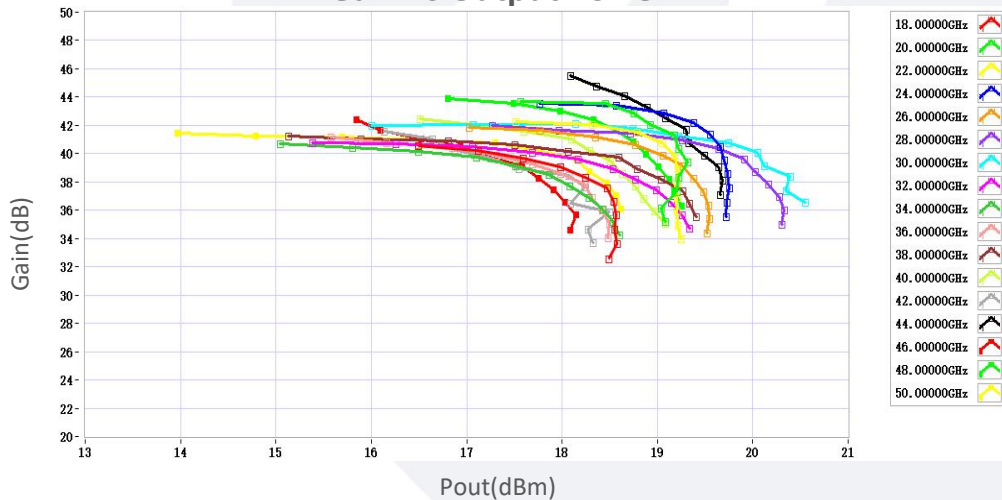
Gain&VSWR vs Frequency



Noise Figure vs Frequency

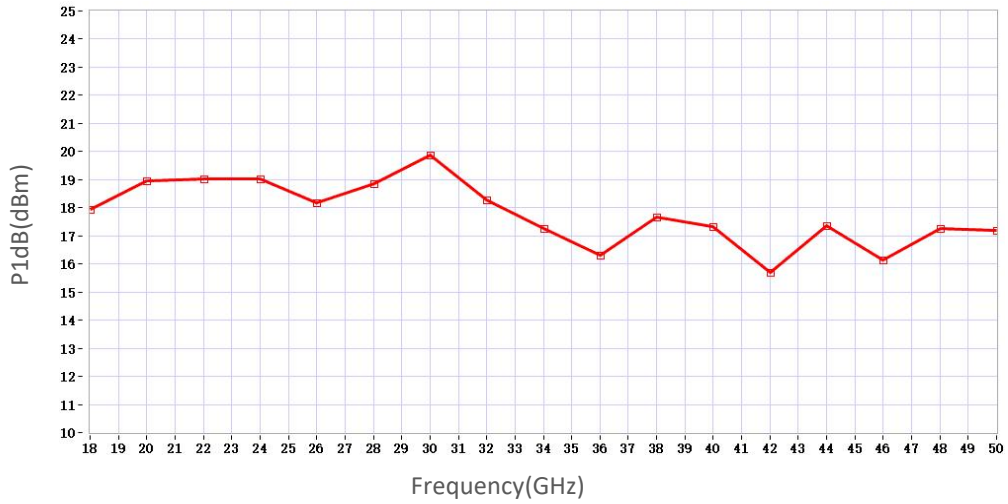


Gain vs Output Power

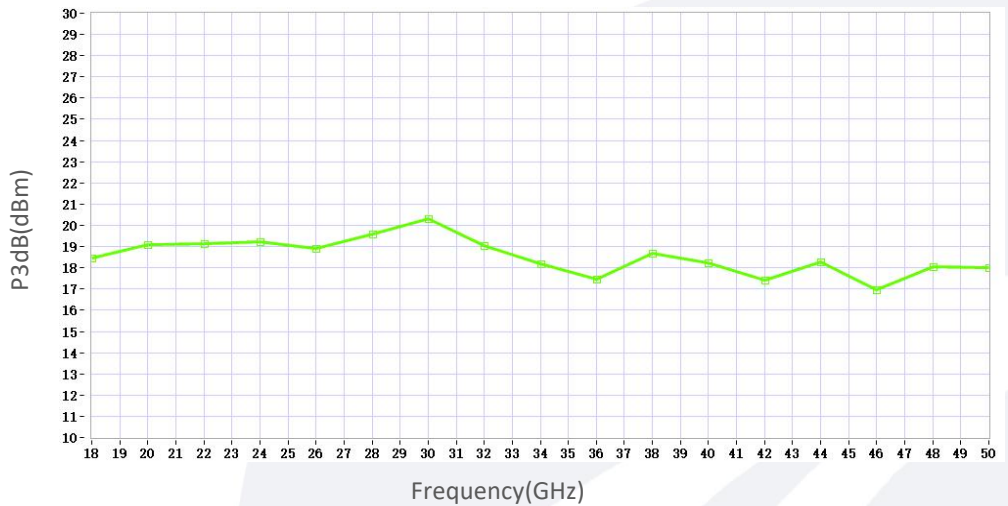


典型曲线 Typical Performance Data:

**P1dB vs Frequency**



**P3dB vs Frequency**



**Psat vs Frequency**

