

**Model: TLLA1G18G-50-30**
**Low Noise Amplifier**
**1-18GHz, NF:2.0dB, Gain:50dB, P1dB:10dBm**
**Feature:**

- Ultra Wide Band: 1-18GHz
- Gain:50dB Min
- Noise Figure: 2.0dB 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		1-18		GHz
增益 Gain		50		dB
增益平坦度 Gain Flatness		±2.0		dB
噪声系数 Noise Figure		2.0	3.0	dB
线性输出功率 Output P1dB		15		dBm
输入驻波 Input VSWR		1.7		:1
输出驻波 Output VSWR		1.7		:1
直流电压 DC Voltage	+8	+12	+15	V DC
直流电流 DC Supply Current		90		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	SMA Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	44.8*29.2*11	mm
重量 Weight	50	g

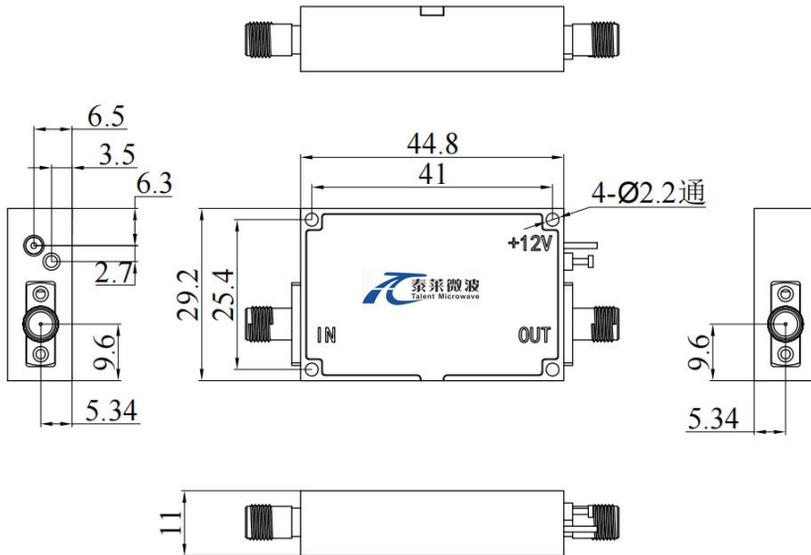

 Available 220V System  
 Benchtop Amplifier

**绝对最大值 Absolute Maximum Ratings:**

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

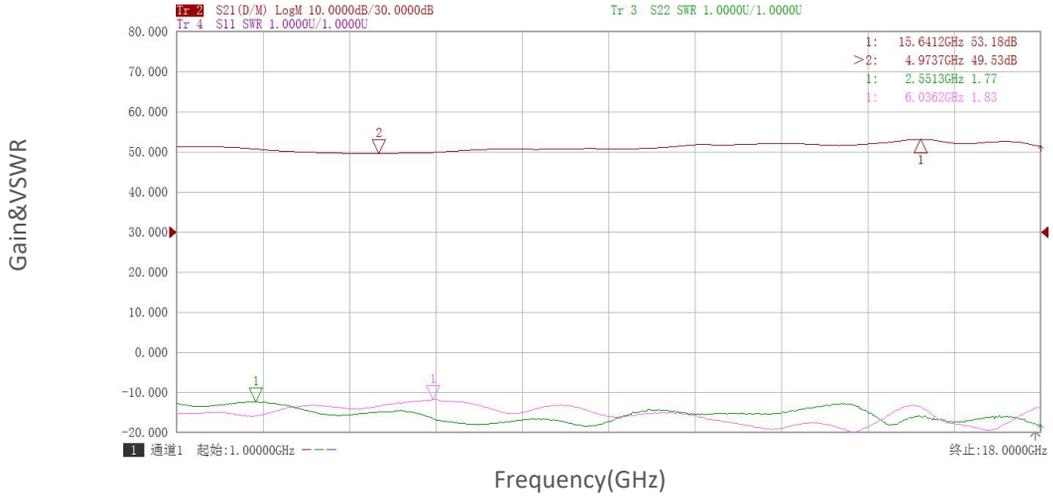
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-40		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

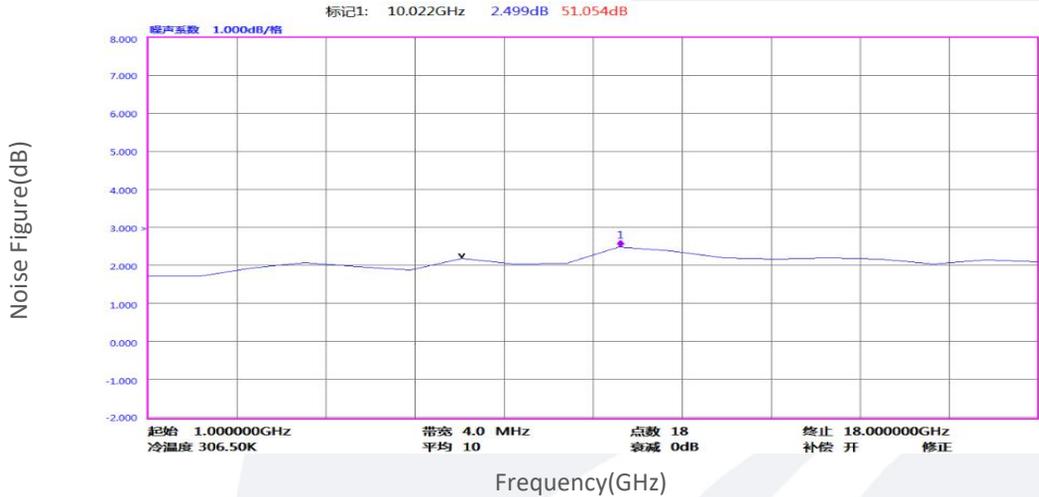
标准型号 Part Number	描述 Description	版本号 Revision
TLLA1G18G-50-30	Low Noise Amplifier, 1-18GHz, Noise Figure:2.0dB, Gain:50 dB,P1dB:15dBm,12V DC,Without Heatsink	Rev.1.1
TLLA1G18G-50-30-HS	Low Noise Amplifier, 1-18GHz, Noise Figure:2.0dB, Gain:50 dB,P1dB:15dBm,12V DC,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:

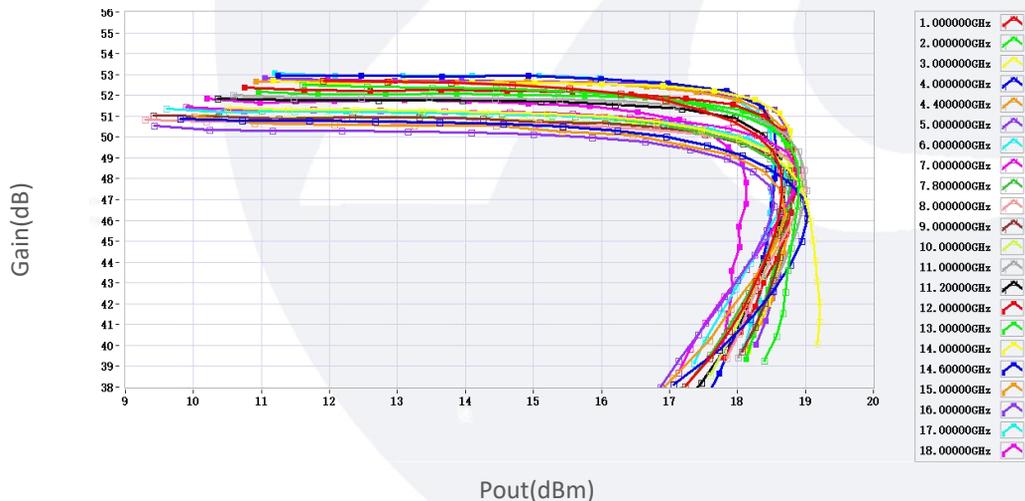
### Gain&VSWR vs Frequency



### Noise Figure vs Frequency

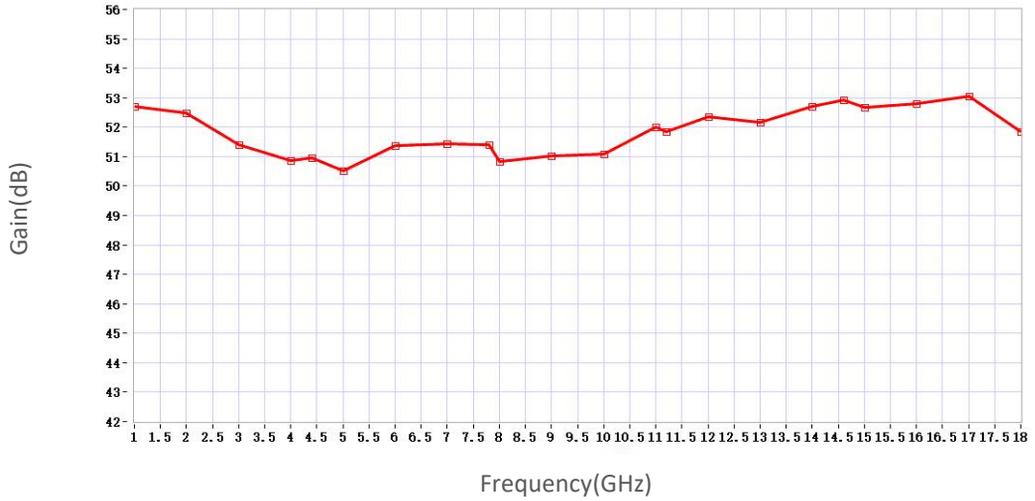


### Gain vs Output Power

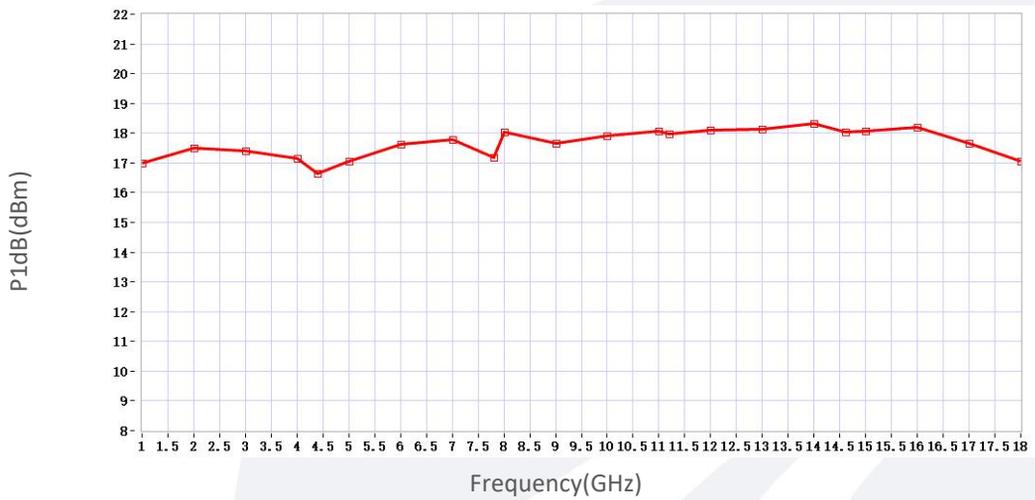


典型曲线 Typical Performance Data:

Gain vs Frequency



P1dB vs Frequency



P3dB vs Frequency

