

**Model: TLLA15G30G-50-40**
**Low Noise Amplifier**
**15-30GHz, NF:4dB, Gain:50dB, P1dB:14dBm**
**Feature:**

- Ultra Wide Band: 15-30GHz
- Gain: 50dB Min
- Noise Figure: 4dB Max
- 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	15-30			GHz
增益 Gain	50			dB
增益平坦度 Gain Flatness		±2.0		dB
噪声系数 Noise Figure			4.0	dB
线性输出功率 Output P1dB	14	16		dBm
输入驻波 Input VSWR		2.0	2.2	:1
输出驻波 Output VSWR		2.0	2.2	:1
直流电压 DC Voltage	+8	+12	+15	V DC
直流电流 DC Supply Current		160		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/SMA Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	44.8*29.2*11	mm
重量 Weight	55	g

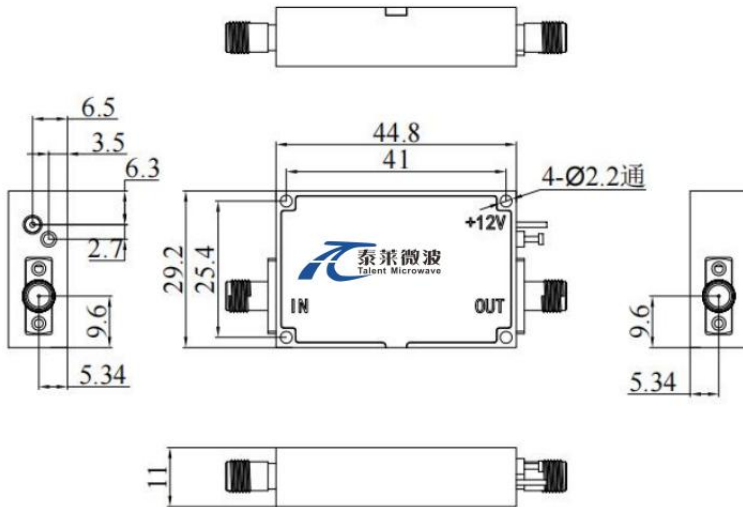
**绝对最大值 Absolute Maximum Ratings:**

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


**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:

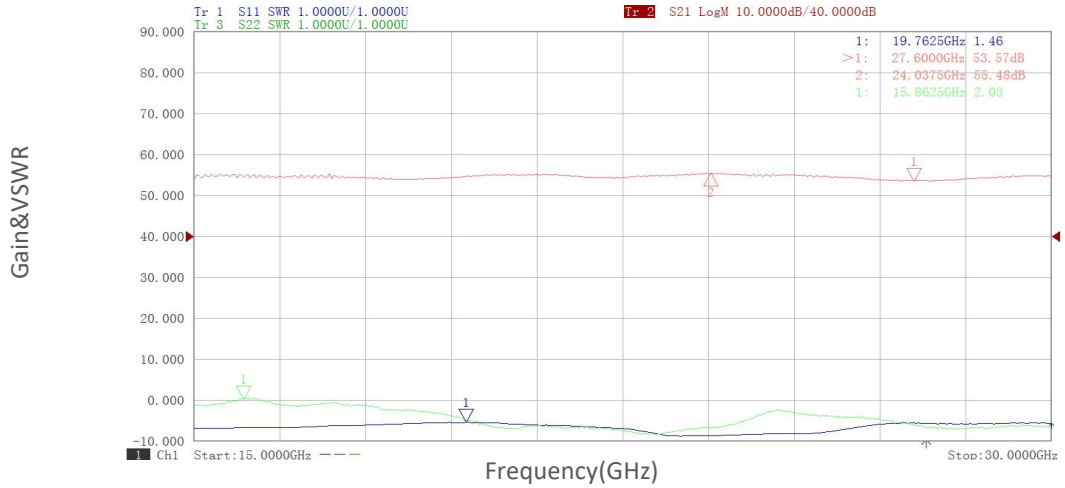
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

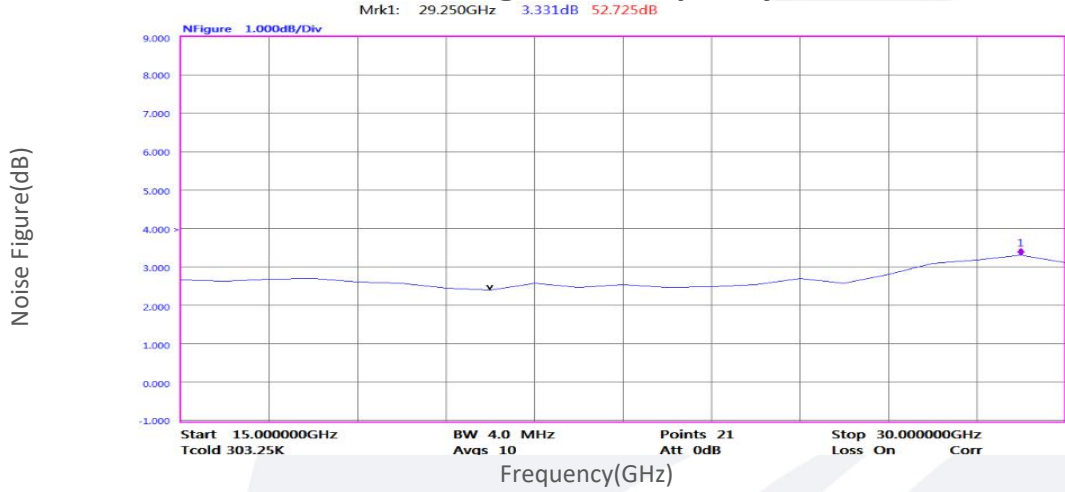
标准型号 Part Number	描述 Description	版本号 Revision
TLLA15G30G-50-40	Low Noise Amplifier, 15-30GHz, Noise Figure:4dB, Gain:50 dB,P1dB:14dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA15G30G-50-40-HS	Low Noise Amplifier, 15-30GHz, Noise Figure:4dB, Gain:50 dB,P1dB:14dBm,+12V DC,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:

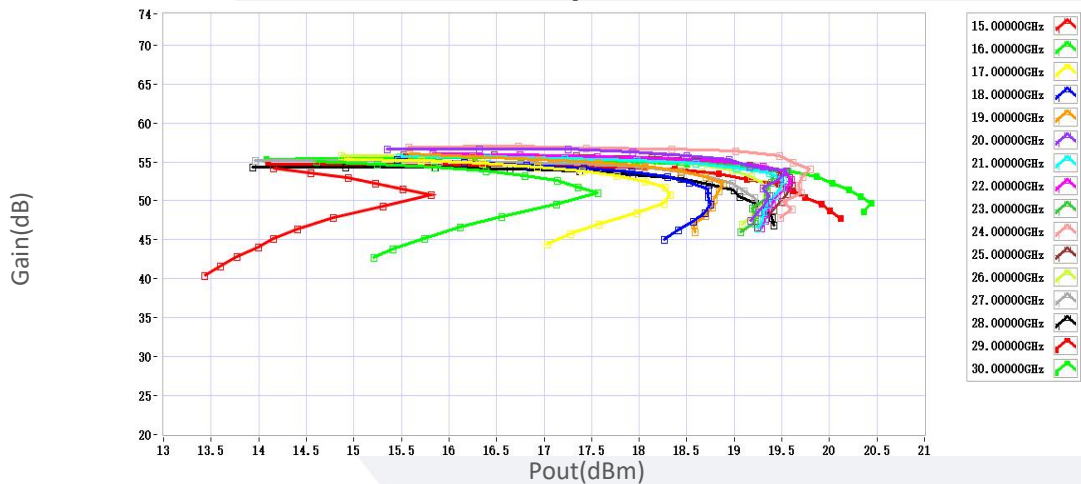
Gain&VSWR vs Frequency



Noise Figure vs Frequency



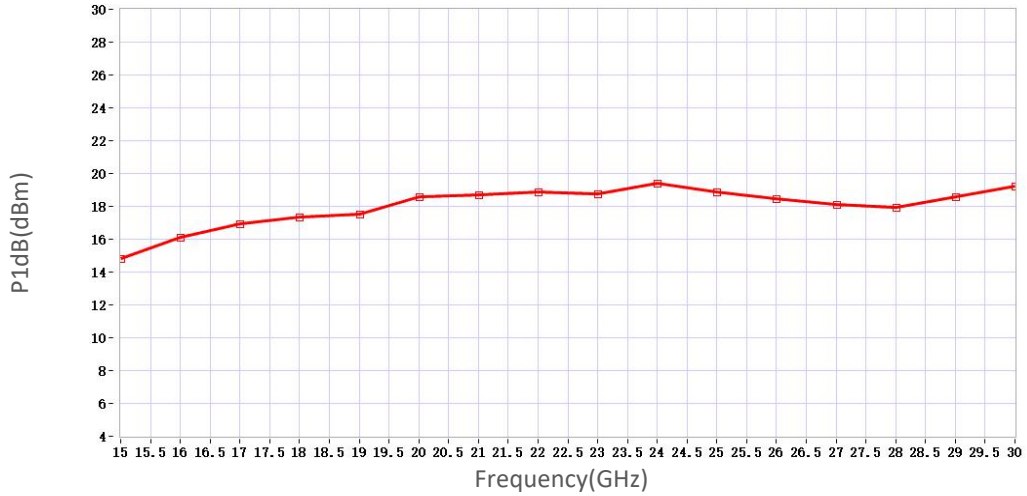
Gain vs Output Power



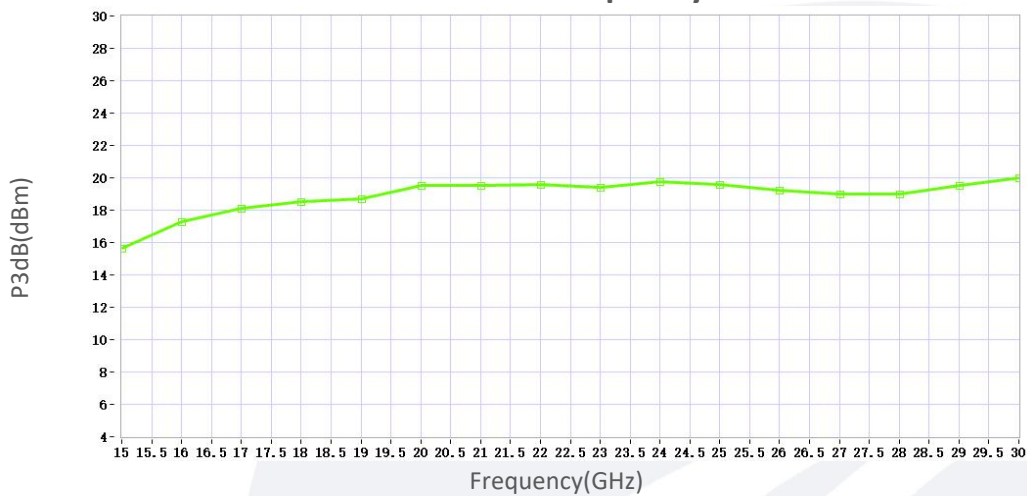
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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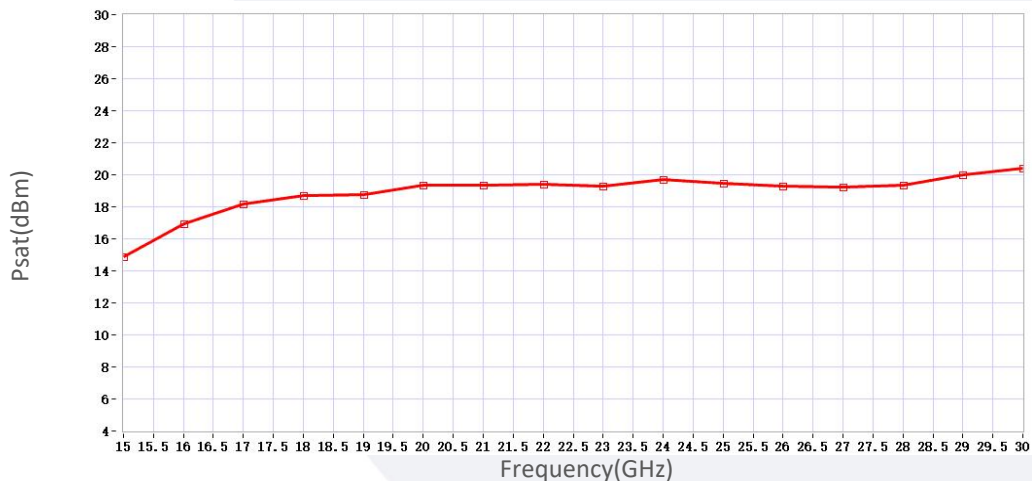
**P1dB vs Frequency**



**P3dB vs Frequency**



**Psat vs Frequency**



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