

**Model: TLLA10M40G-30-30**
**Low Noise Amplifier**
**0.01-18GHz, NF:3.0dB, Gain:30dB, P1dB:21dBm**
**18-40GHz, NF:5.5dB, Gain:29dB, P1dB:19dBm**
**Feature:**

- Ultra Wide Band: 0.01-40GHz
- Gain: 30dB Typ@0.01-18GHz
- Noise Figure: 3.0dB Typ@0.01-18GHz
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

**电气特性 Electrical Specifications:**

参数 Parameter	Min	Typ	Max	Min	Typ	Max	单位 Units
频率范围 Frequency range	0.01-18		18-40				GHz
增益 Gain	25	30		24	29		dB
增益平坦度 Gain Flatness		±3			±2.5		dB
噪声系数 Noise Figure		3			5.5		dB
线性输出功率 Output P1dB	18	21		16	19		dBm
饱和输出功率 Output Psat		23			21		dBm
输出三阶交调 Output IP3		31			28		dBm
输入驻波 Input VSWR		1.8			2		:1
输出驻波 Output VSWR		1.8			2		:1
直流电压 DC Voltage	12						V DC
直流电流 DC Supply Current			350	400			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	2.92mm Female/2.92mm Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	30*48*12(Without Heatsink) 30*92*27(With Heatsink)	mm
重量 Weight	40	g

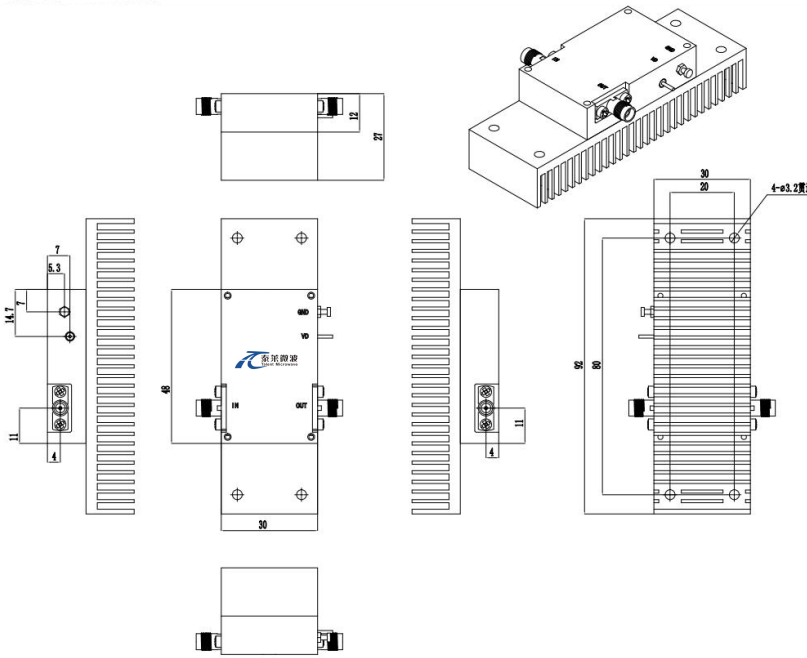
**绝对最大值 Absolute Maximum Ratings:**

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+15V
输入功率 RF Input Power	2 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



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

温度环境 Environmental Conditions:

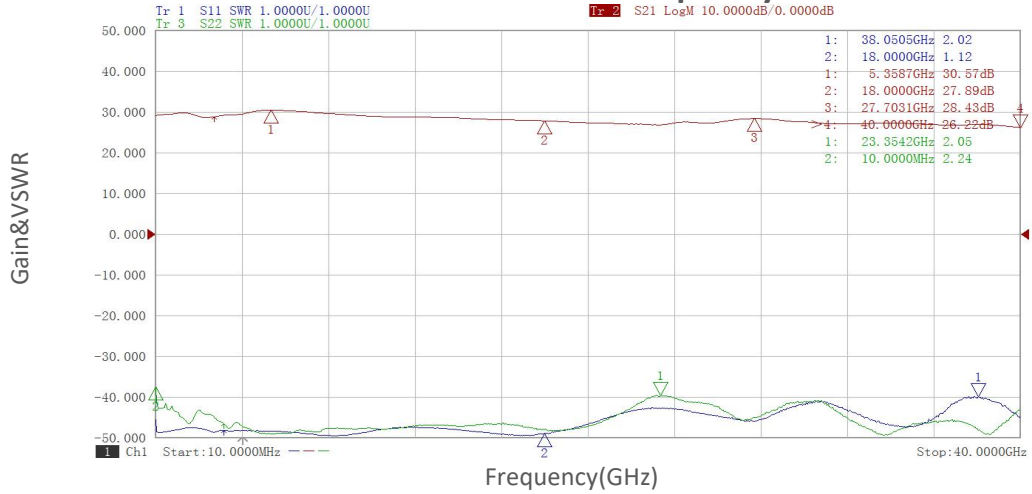
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc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

订货信息 Ordering Information:

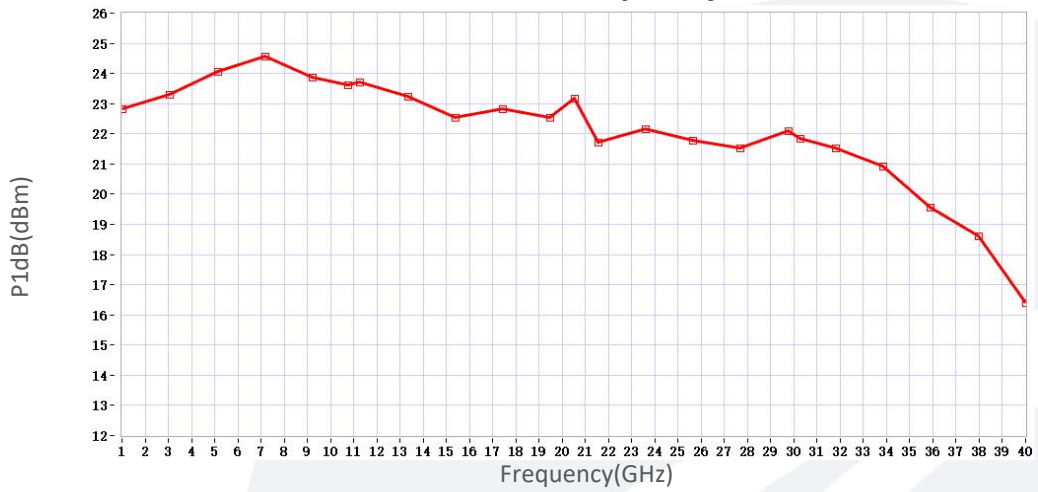
标准型号 Part Number	描述 Description	版本号 Revision
TLLA10M40G-30-30	Low Noise Amplifier, 0.01-18GHz, Noise Figure:3.0dB, Gain:30 dB,P1dB:21dBm,18-40GHz, Noise Figure:5.5dB, Gain:29 dB,P1dB:19dBm+12V DC,Without Heatsink	Rev.1.1

典型曲线 Typical Performance Data:

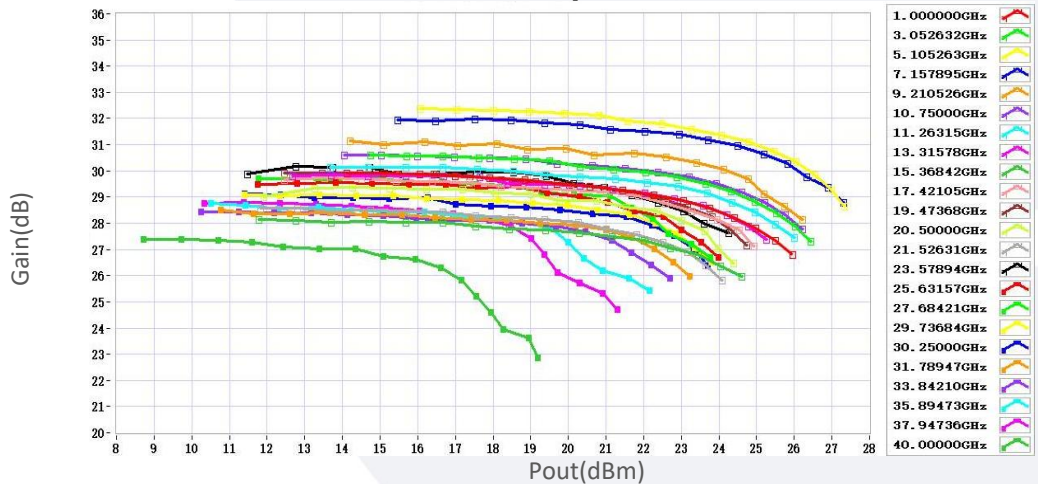
Gain&VSWR vs Frequency



P1dB 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.