

**Model: TMLA-090140-2045-08**
**Low Noise Amplifier**  
**90-140GHz, NF:4.5 dB, Gain:20 dB**
**Feature:**

- Ultra Wide Band: 90-140 GHz
- Gain: 20dB Typ
- Noise Figure: 4.5dB Typ
- Unconditional stability

**电气特性 Electrical Specifications:**

参数Parameter	Min	Typ	Max	单位Units
频率范围 Frequency range	90		140	GHz
增益 Gain		20		dB
增益平坦度 Gain Flatness		±2		dB
噪声系数 Noise Figure		4.5		dB
输出功率1dB压缩点 Output P1dB		-2		dBm
输入驻波 Input VSWR		2.2		:1
输出驻波 Output VSWR		2.2		:1
直流电压 DC Voltage		12		V DC
直流供电 DC power supply		40		mA

**机械特性 Mechanical Specifications:**

参数 Parameter	指标 Value	单位 Units
输入接口 Input Connector	WR-08/ UG-387/U	
输出接口 Output Connector	WR-08/ UG-387/U	
供电引脚 Power Supply Pin	Solder Pin	
尺寸 Size	30*30*23	mm

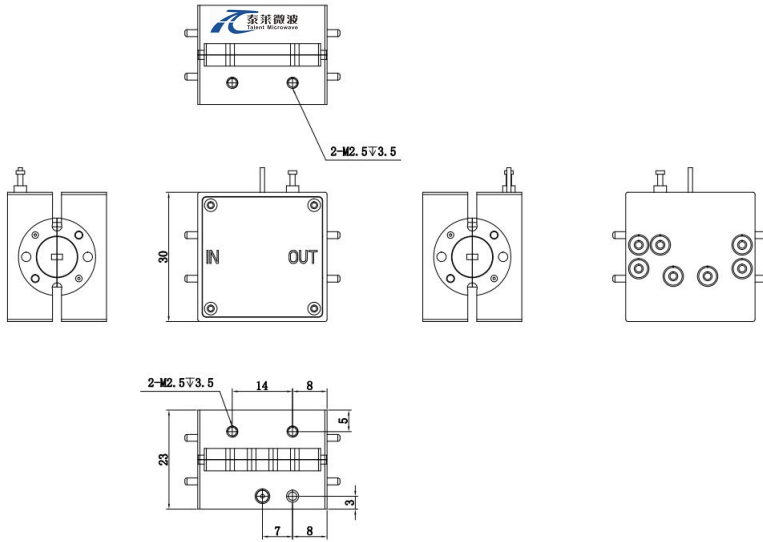
**绝对最大值 Absolute Maximum Ratings:**

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+15 V
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



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

温度环境 Environmental Conditions:

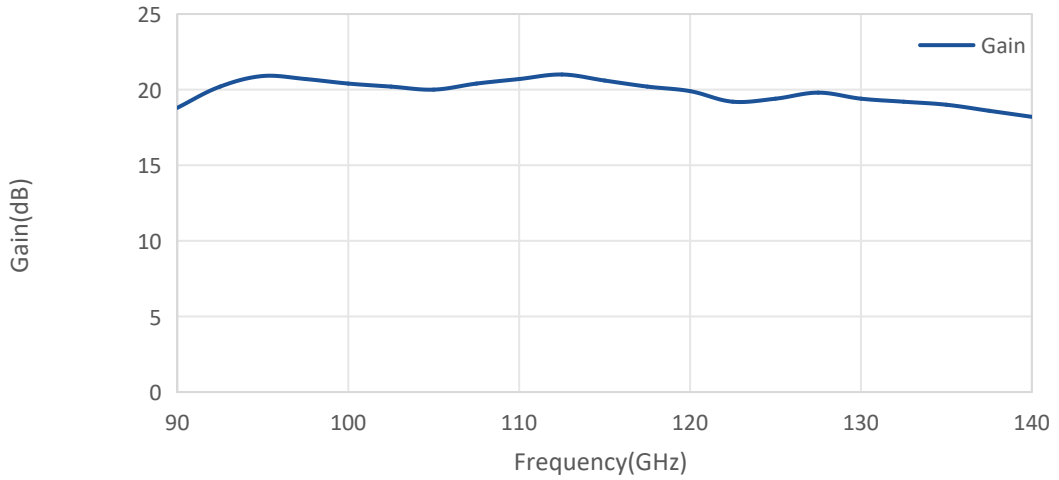
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-55		+85	°C
存储温度 Non-operating Temperature	-45		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc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

订货信息 Ordering Information:

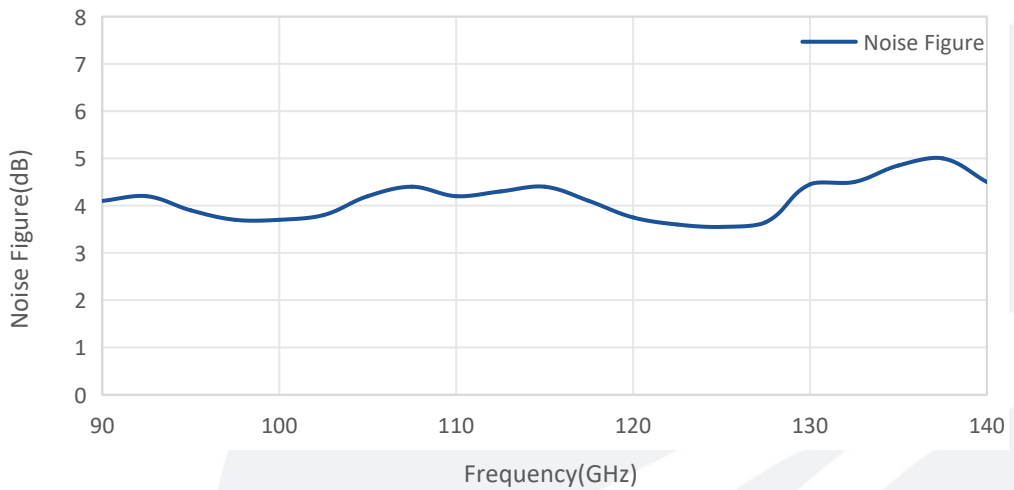
标准型号 Part Number	描述 Description	版本号 Revision
TMLA-090140-2045-08	Low Noise Amplifier 90-140GHz, Noise Figure:4.5dB, Gain:20dB,+12V DC,WR-08	Rev.1.1

典型曲线 Typical Performance Data:

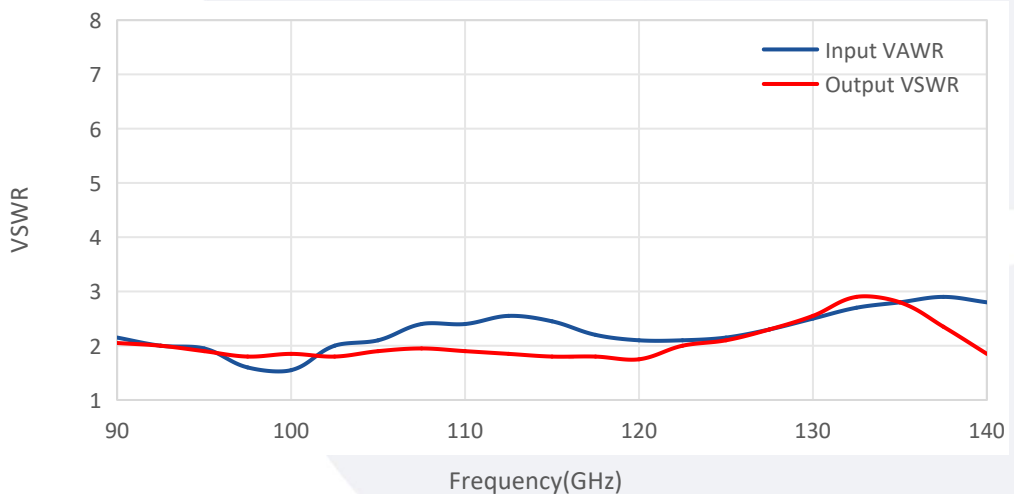
**Gain vs Frequency**



**Noise Figure vs Frequency**



**VSWR vs Frequency**



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.