

**Model: TMLA-060090-4045-12**
**Low Noise Amplifier**  
**60-90GHz, NF:4.5 dB, Gain:40 dB**
**Feature:**

- Ultra Wide Band: 60-90 GHz
- Gain: 40dB 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	60		90	GHz
小信号增益 Small Signal Gain		40		dB
噪声系数 Noise Figure		4.5		dB
输出功率1dB压缩点 Output P1dB		10		dBm
输入驻波 Input VSWR		2		:1
输出驻波 Output VSWR		2		:1
直流电压 DC Voltage		12		V DC
直流供电 DC power supply		50		mA

**机械特性 Mechanical Specifications:**

参数 Parameter	指标 Value	单位 Units
输入接口 Input Connector	WR-12/ UG-387/U	
输出接口 Output Connector	WR-12/ UG-387/U	
供电引脚 Power Supply Pin	Solder Pin	
尺寸 Size	45*30*23	mm

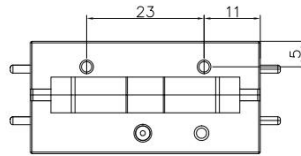
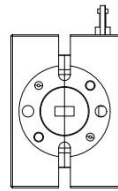
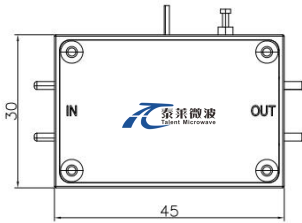
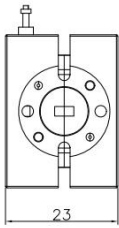
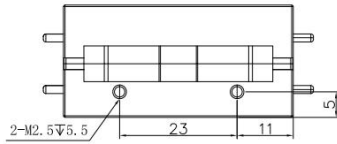
**绝对最大值 Absolute Maximum Ratings:**

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+15V
输入功率 RF Input Power	+10 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:**

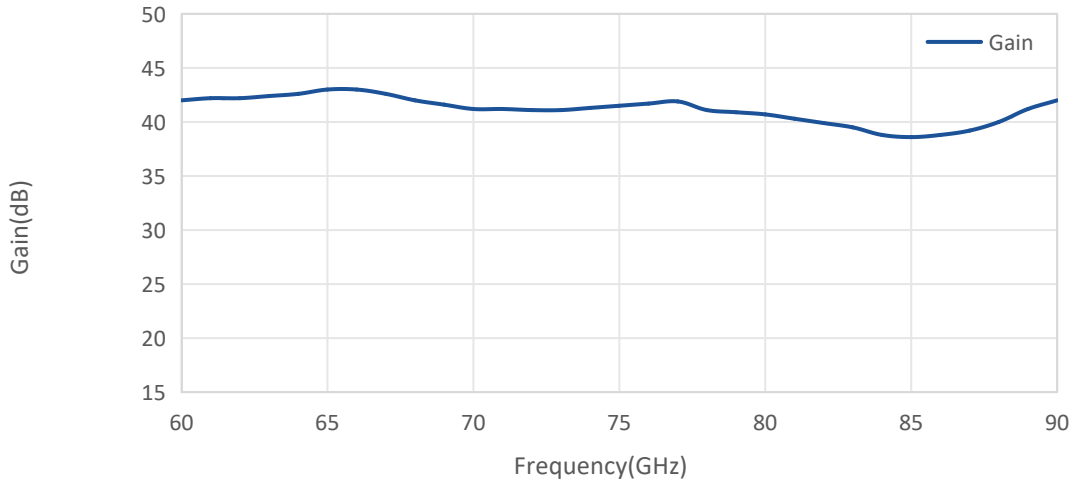
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-25		+65	°C
存储温度 Non-operating Temperature	-45		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

**订货信息 Ordering Information:**

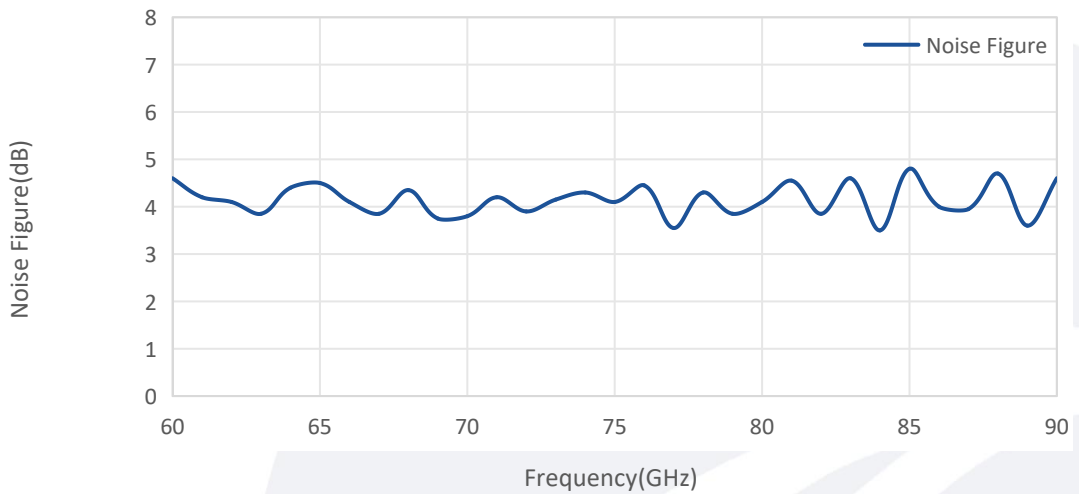
标准型号 Part Number	描述 Description	版本号 Revision
TMLA-060090-4045-12	Low Noise Amplifier,60-90GHz, Noise Figure:4.5dB, Gain:40dB,+12V DC,WR-12	Rev.1.1

典型曲线 Typical Performance Data:

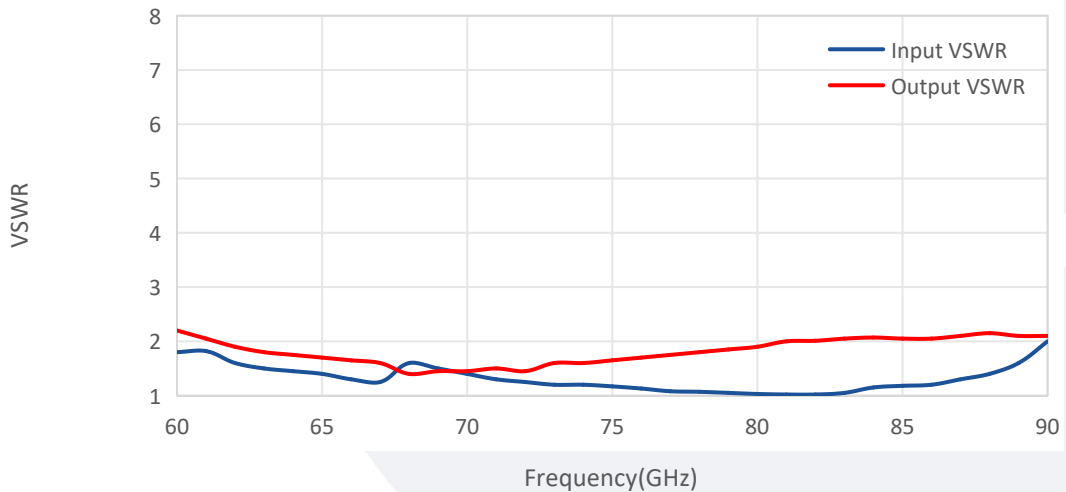
Gain vs Frequency



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.