泰莱微波 Talent Microwave

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Low Noise Amplifier

WR-08/90-140GHz/4.5dB NF/40dB Gain Model: TMLA-090140-4045-08

TMLA-090140-4045-08 is a F-Band low noise amplifier with a typical small signal gain of 40 dB and a nominal noise figure of 4.5 dB across the frequency range of 90 to 140 GHz. The DC power requirement for the amplifier is +12 V DC/40 mA. The input and output port configuration offers an inline structure with WR-08 waveguides and UG-387/U-M anti-cocking flanges.

Features:

- Frequency range:90-140GHz
- Gain: 40dB Typ
- Noise Figure: 4.5dB Typ
- Unconditional stability

Applications:

- Passive Imaging
- 5G Systems

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	90		140	GHz
小信号增益 Small Signal Gain		40		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
直流电流 DC Supply Current		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	39*30*23	mm

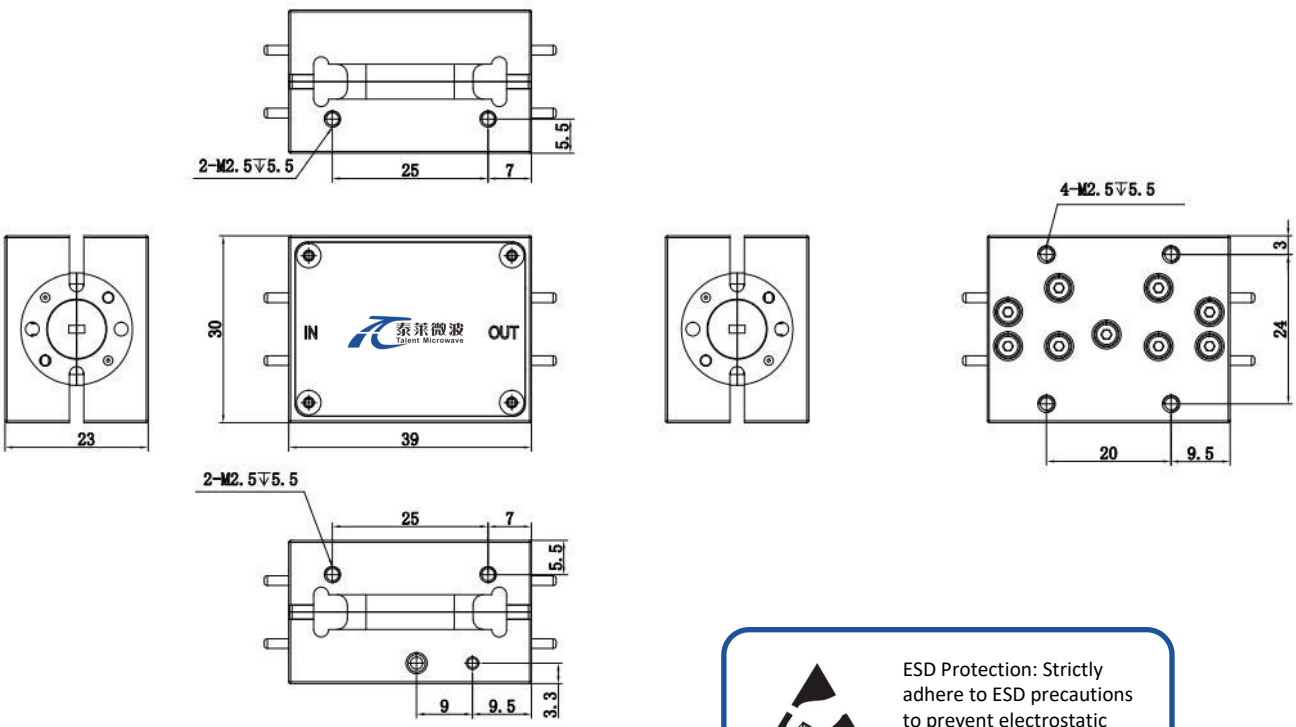
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绝对最大值 Absolute Maximum Ratings:

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

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

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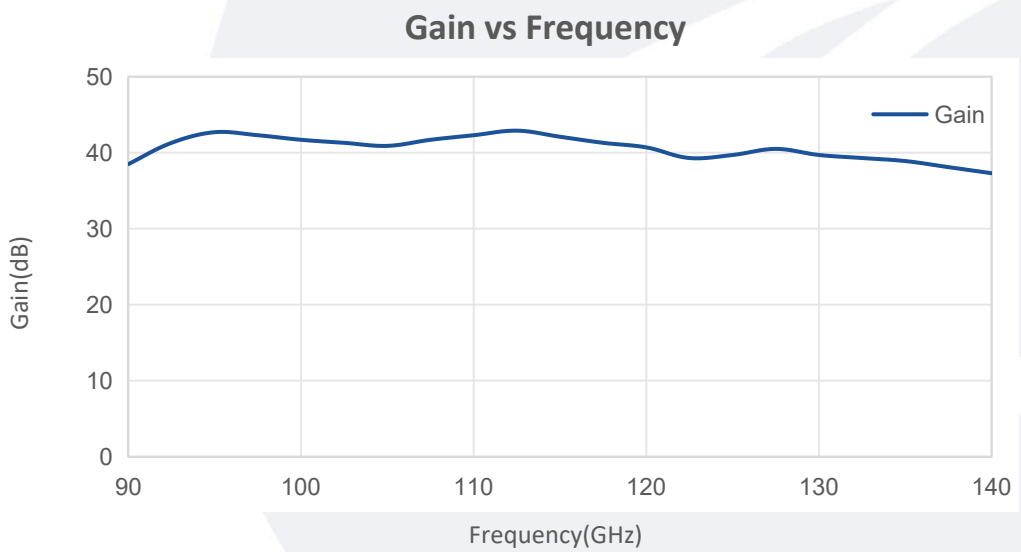
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	℃
存储温度 Non-operating Temperature	-45		+85	℃
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 Base Number	描述 Description	版本号 Revision
TMLA-090140-4045-08	Low Noise Amplifier,90-140GHz, Noise Figure:4.5dB, Gain:40dB,+12V DC,WR-08	Rev.1.0

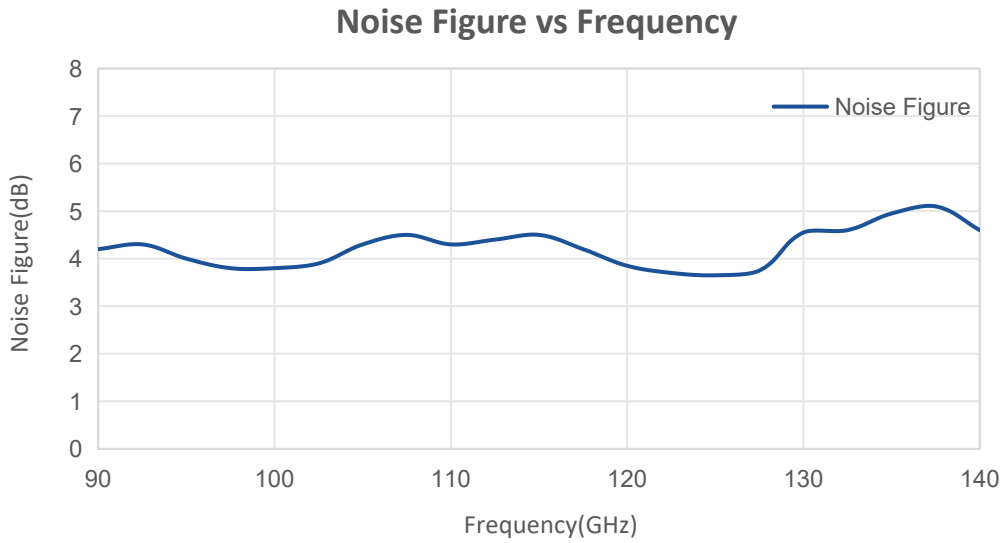
典型曲线 Typical Performance Data:

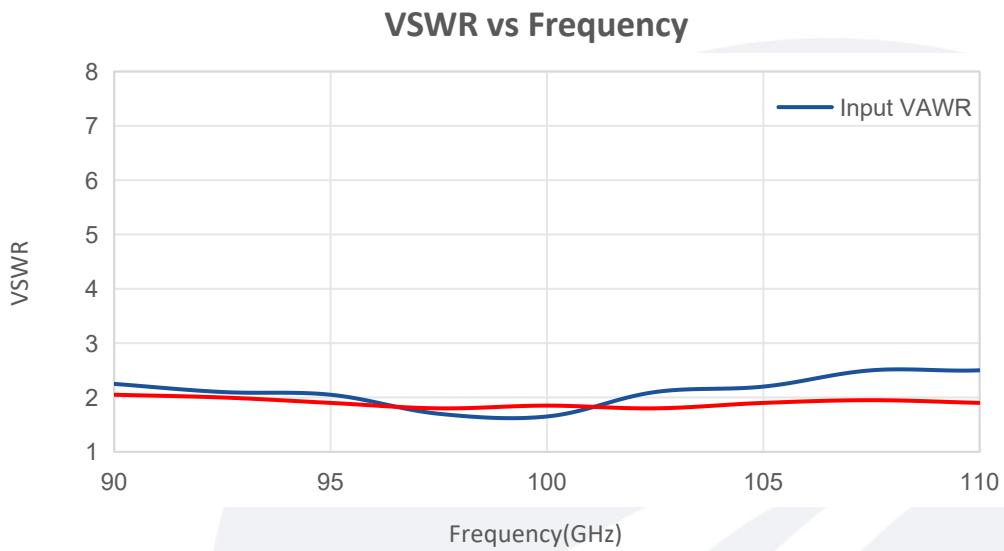


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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