

Low Noise Amplifier

WR-12/75-90GHz/5.5dB NF/33dB Gain

Model: TMLA-075090-3355-12

TMLA-075090-3355-12 is a low noise amplifier with a typical small signal gain of 33 dB and a nominal noise figure of 5.5 dB across the frequency range of 75 to 90 GHz. The DC power requirement for the amplifier is +12 VDC/100 mA. The input and output port configuration offers an inline structure with WR-12 waveguides and UG-387/U-M anti-cocking flanges.

Features:

- Frequency range: 75-90GHz
- Gain: 33dB Typ
- Noise Figure: 5.5dB 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	75		90	GHz
小信号增益 Small Signal Gain		33		dB
噪声系数 Noise Figure		5.5		dB
输出功率1dB压缩点 Output P1dB		10		dBm
输入驻波 Input VSWR		2.5		:1
输出驻波 Output VSWR		2		:1
直流电压 DC Voltage		12		V DC
直流电流 DC Supply Current		100		mA

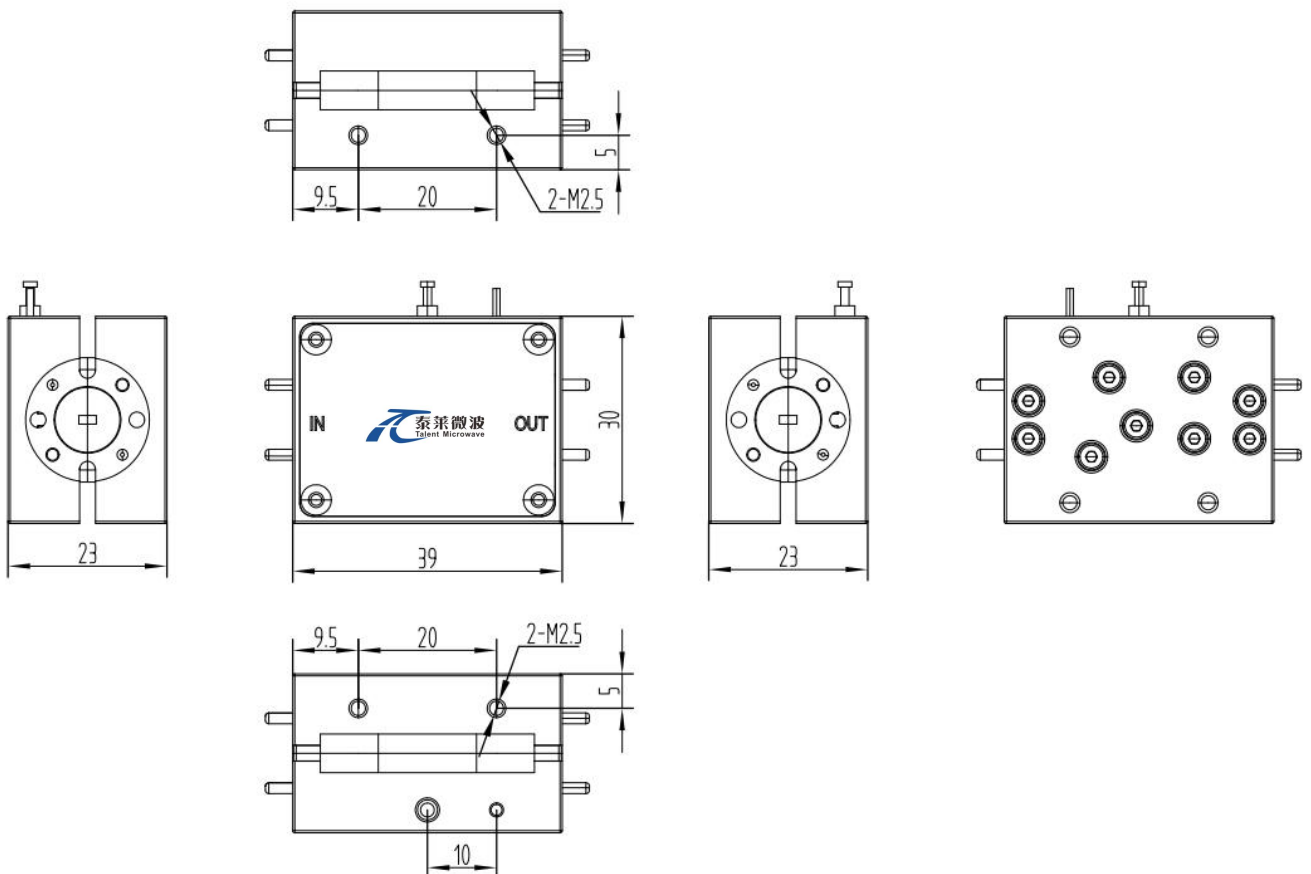
机械特性 Mechanical Specifications:

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	39*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	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing: Unit:mm



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

温度环境 Environmental Conditions:

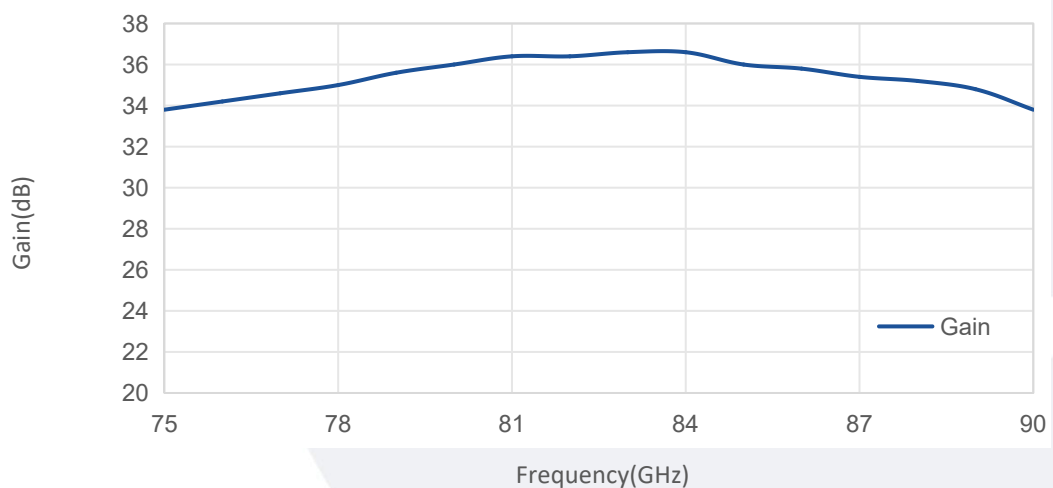
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TMLA-075090-3355-12	Low Noise Amplifier,75-90GHz, Noise Figure:5.5dB, Gain:33dB,+12V DC,WR-12	Rev.1.1

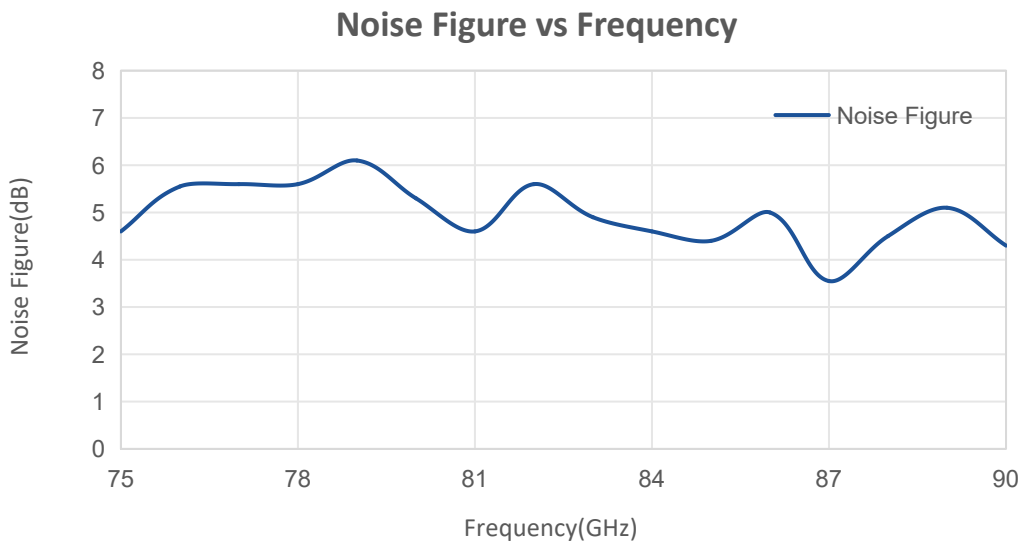
典型曲线 Typical Performance Data:

Gain 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.

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