

## Low Noise Amplifier

WR-2.8/310-340GHz /9.0 NF/16dB Gain

Model: TMLA-310340-1690-2.8

TMLA-310340-1690-2.8 is a low noise amplifier with a typical small signal gain of 16 dB and a nominal noise figure of 9.0 dB across the frequency range of 310 to 340 GHz. The DC power requirement for the amplifier is +12 VDC/70 mA. The input and output port configuration offers an inline structure with WR-2.8 waveguides and UG-387/U-M anti-cocking flanges.

### Features:

- Frequency range:310-340GHz
- Gain: 16dB Typ
- Noise Figure: 9.0dB 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	310		340	GHz
增益 Gain		16		dB
噪声系数 Noise Figure		9		dB
输入驻波 Input VSWR		2		:1
输出驻波 Output VSWR		3		:1
直流电压 DC Voltage		12		V DC
直流电流 DC Supply Current		70		mA

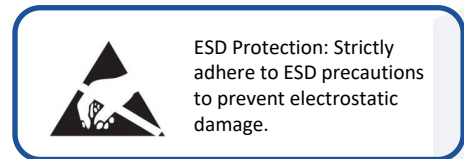
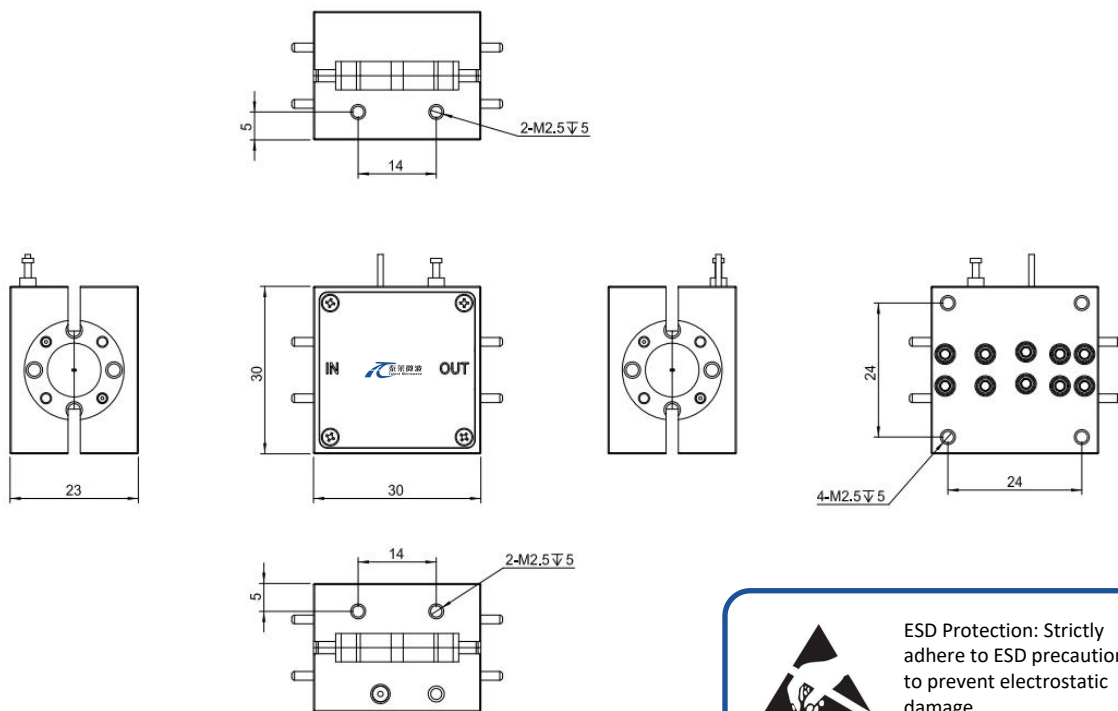
## 机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入接口 Input Connector	WR-2.8/ UG-387/U	
输出接口 Output Connector	WR-2.8/ 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	TBD
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

### 外形图 Outline Drawing: Unit:mm



### 温度环境 Environmental Conditions:

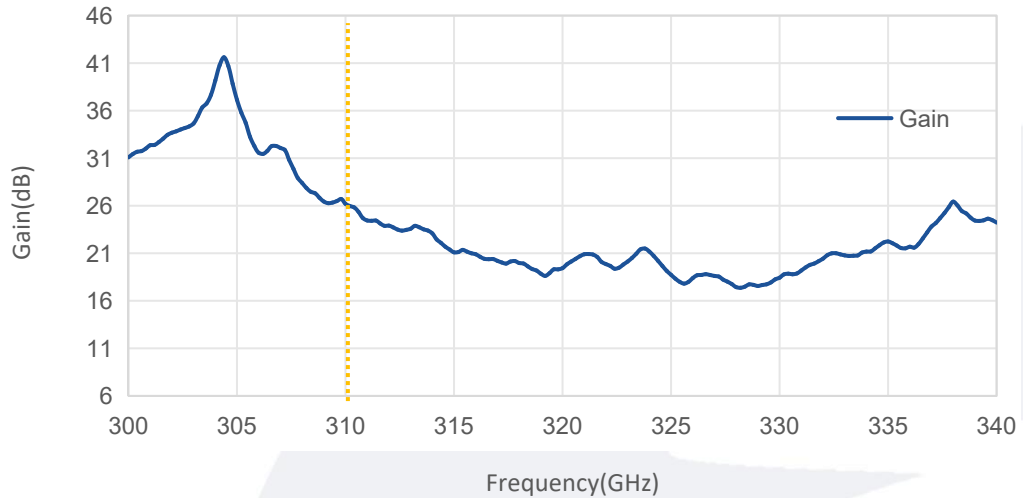
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half 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-310340-1690-2.8	Low Noise Amplifier, 310-340GHz, Noise Figure: 9.0dB, Gain: 16dB, +12V DC, WR-2.8	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.