

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

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	310		340	GHz
Gain		16		dB
Noise Figure		9		dB
Input VSWR		2		:1
Output VSWR		3		:1
DC Voltage		12		V DC
DC Supply Current		70		mA

Mechanical Specifications:

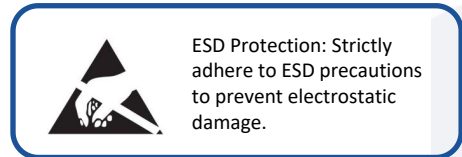
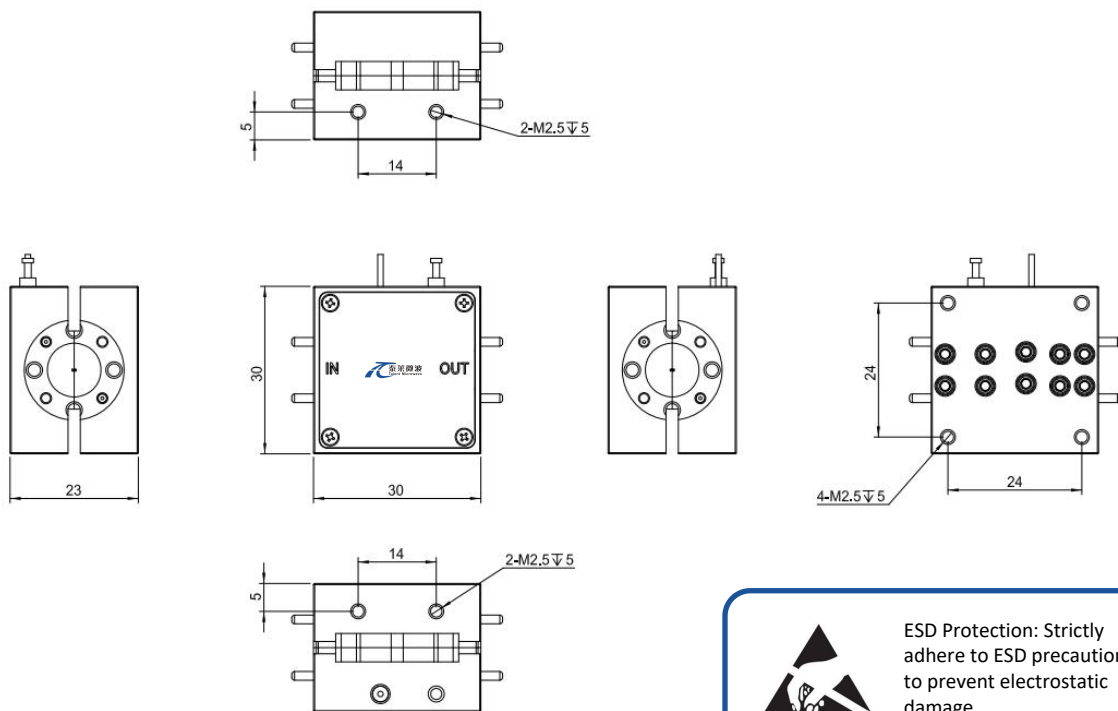
Parameter	Value	Units
Input Connector	WR-2.8/ UG-387/U	
Output Connector	WR-2.8/ UG-387/U	
Power Supply Pin	Solder Pin	
Size	30*30*23	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	TBD
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



Environmental Conditions:

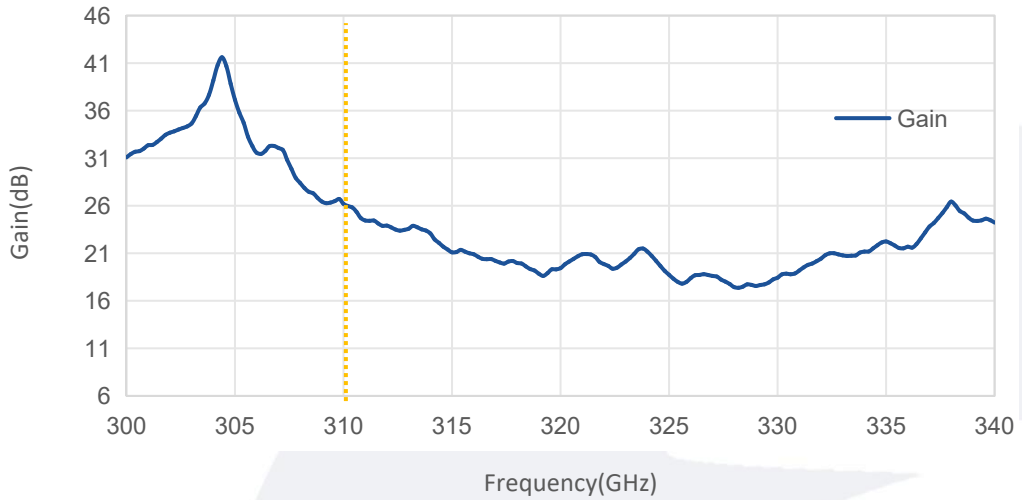
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	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

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.