Suzhou Talent Microwave,Inc
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Low Noise Amplifier

WR-12/60-90GHz/3.5dB NF/15dB Gain Model: TMLA-060090-1540-12

TMLA-060090-1540-12 is a E-Band low noise amplifier with a minimum small signal gain of 15 dB and a nominal noise figure of 3.5 dB across the frequency range of 60 to 90 GHz. The DC power requirement for the amplifier is +12 VDC /150 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:60-90GHz
- Gain: 15dB Min
- Noise Figure: 3.5dB Typ
- Unconditional stability

Applications:

- Passive Imaging
- 5G Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	60		90	GHz
Small Signal Gain	15			dB
Noise Figure		3.5		dB
Output P1dB	8			dBm
Input VSWR			2.5	:1
Output VSWR			2.5	:1
DC Voltage		12		V DC
DC Supply Current		150		mA

Mechanical Specifications:

Parameter	Value	Units
Input Connector	WR-12/ UG-387/U	
Output Connector	WR-12/ UG-387/U	
Power Supply Pin	Solder Pin	
Size	30*30*23	mm

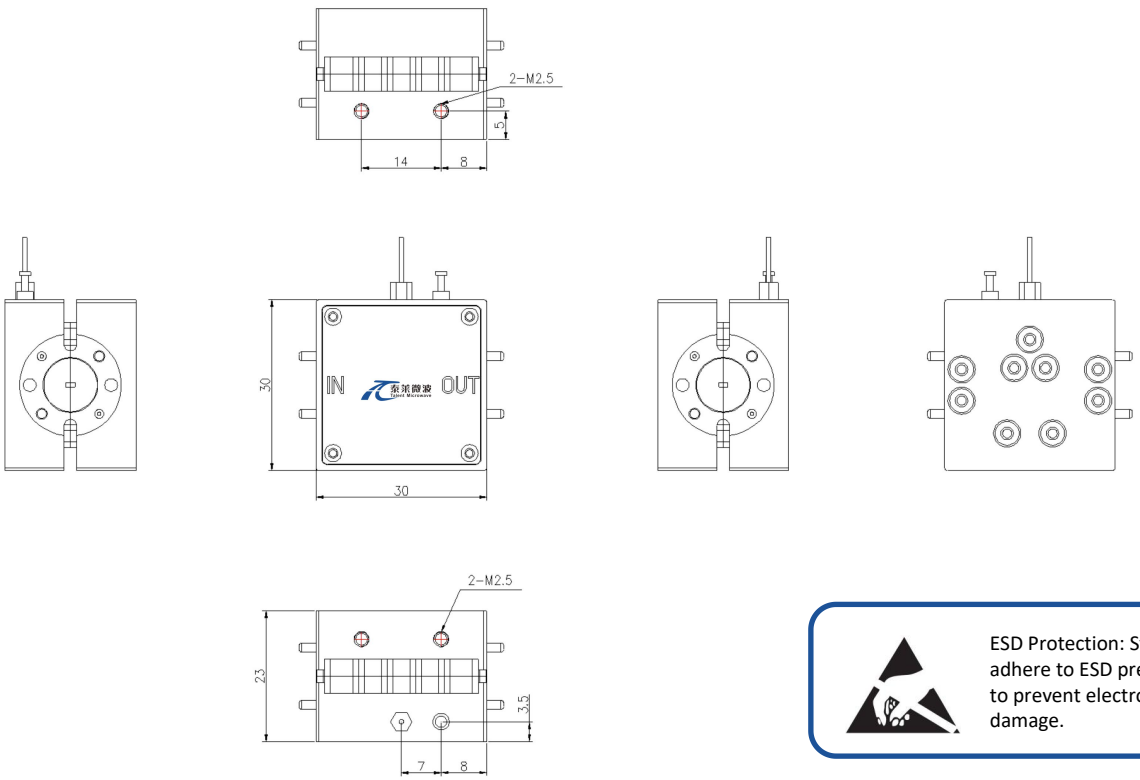
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Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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

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Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-40		+75	℃
Non-operating Temperature	-55		+85	℃
Relative humidity		95		%
Altitude	50,000			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-060090-1540-12	Low Noise Amplifier,60-90GHz, Noise Figure:3.5dB, Gain:15dB, +12V DC,WR-12	Rev.1.1