

Low Noise Amplifier

WR-10/75-110GHz/4dB NF/36dB Gain

Model: TMLA-075110-3640-10

TMLA-075110-3640-10 is a W-Band low noise amplifier with a typical small signal gain of 36 dB and a nominal noise figure of 4 dB across the frequency range of 75 to 110 GHz. The DC power requirement for the amplifier is +12 VDC. The input and output port configuration offers an inline structure with WR-10 waveguides and UG-387/U-M anti-cocking flanges.

Features:

- Frequency range: 75-110GHz
- Gain: 36dB Typ
- Noise Figure: 4dB Typ
- Unconditional stability

Applications:

- Passive Imaging
- 5G Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	75		110	GHz
Small Signal Gain		36		dB
Output P1dB	10			dBm
Noise Figure		4		dB
Input VSWR		2.5		:1
Output VSWR		1.5		:1
DC Voltage		12		V DC

Mechanical Specifications:

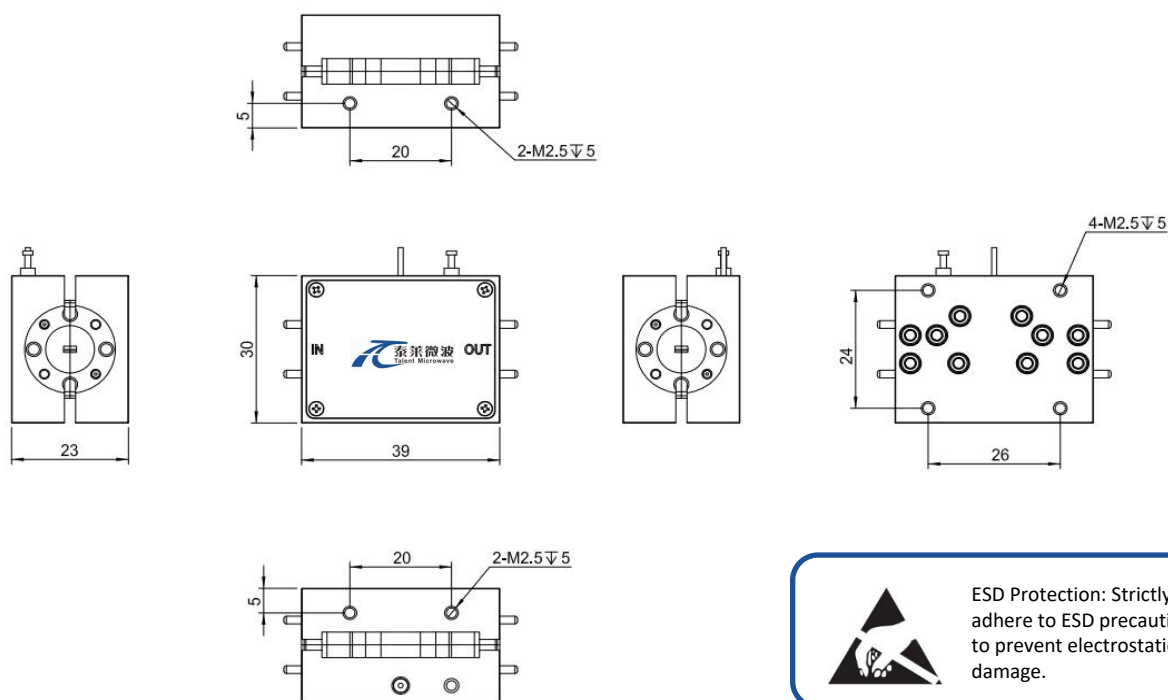
Parameter	Value	Units
Input Connector	WR-10/ UG-387/U	
Output Connector	WR-10/ UG-387/U	
Power Supply Pin	Solder Pin	
Size	39*30*23	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	0 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.

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-075110-3640-10	Low Noise Amplifier,75-110GHz, Noise Figure:4.0dB, Gain:36dB,+12V DC,WR-10	Rev.1.0