

Low Noise Amplifier

WR-4.3/210-230GHz/7dB NF/36dB Gain

Model: TMLA-210230-4070-04

TMLA-210230-4070-04 is a low noise amplifier with a typical small signal gain of 36 dB across the frequency range of 210 to 230 GHz. The DC power requirement for the amplifier is +12 VDC/24 mA. The input and output port configuration offers an inline structure with WR-4.3 waveguides and UG-387/U-M anti-cocking flanges.

Features:

- Frequency range: 210-230GHz
- Gain: 36dB Typ
- Noise Figure: 7dB Typ
- Unconditional stability

Applications:

- Passive Imaging
- 5G Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	210		230	GHz
Small Signal Gain		36		dB
Noise Figure		7		dB
Input VSWR		3.5		:1
Output VSWR		4.5		:1
DC Voltage		12		V DC
DC Supply Current		24		mA

Mechanical Specifications:

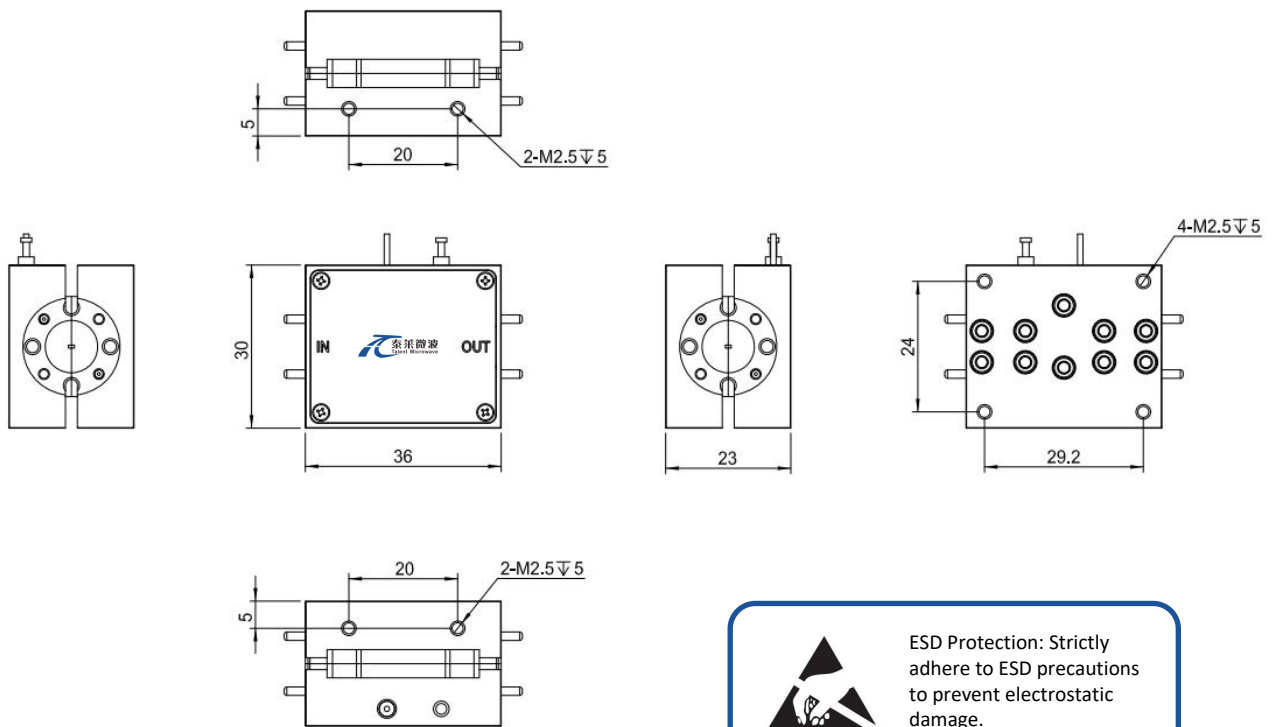
Parameter	Value	Units
Input Connector	WR-4.3/ UG-387/U	
Output Connector	WR-4.3/ UG-387/U	
Power Supply Pin	Solder Pin	
Size	36*30*23	mm


Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



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

Environmental Conditions:

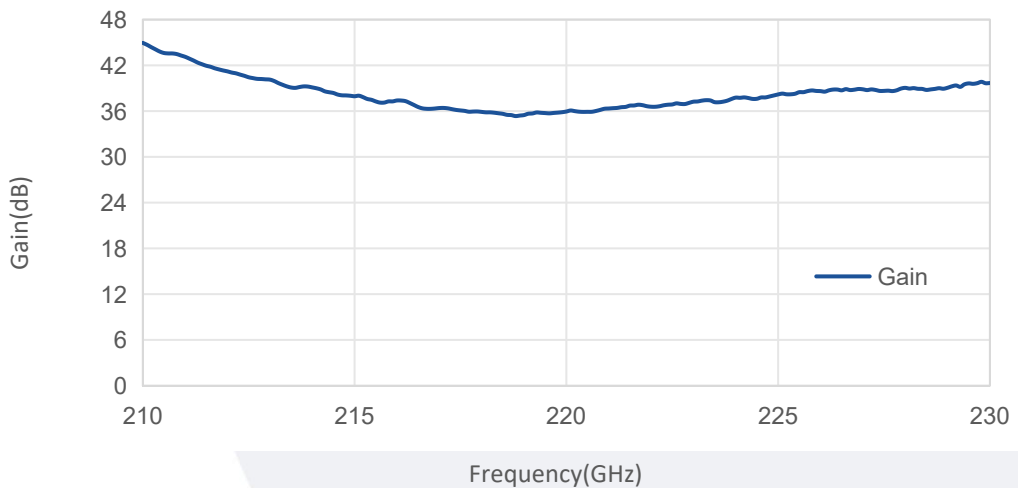
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TMLA-210230-4070-04	Low Noise Amplifier,210-230GHz, Noise Figure: 7dB, Gain: 36dB,+12V DC,WR-4.3	Rev.1.0

Typical Performance Data:

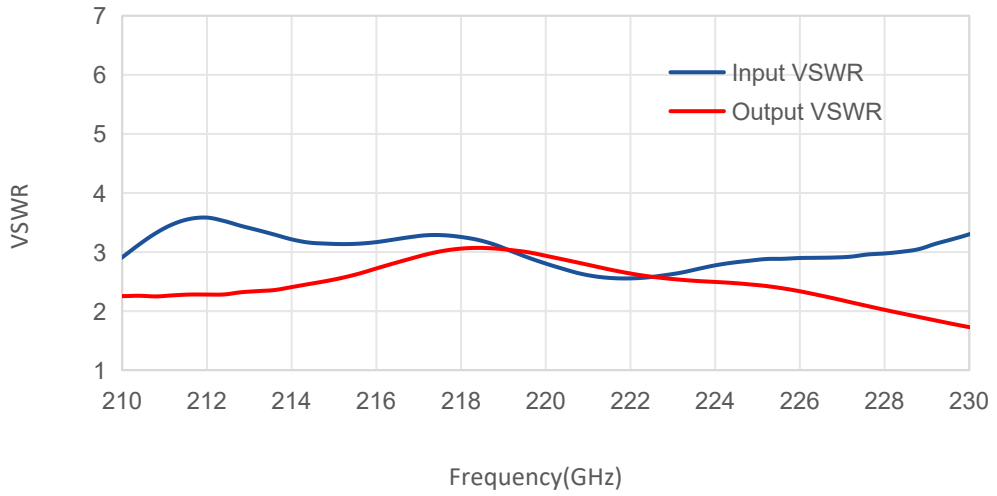
Gain vs Frequency



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.

Typical Performance Data:

VSWR vs Frequency



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