

G-Band Power Amplifier

WR-5.1/140-220GHz/18dB Gain/12dBm Psat

Model: TMPA-140220-2013-05

TMPA-140220-2013-05 is a G-Band power amplifier with a typical small signal gain of 18 dB and a nominal Psat of 12 dBm across the frequency range of 140 to 220 GHz. The DC power requirement for the amplifier is +12 VDC. The input and output port configuration offers an inline structure with WR-5.1 waveguides and UG-387/U-M anticocking flanges.

Features:

- Frequency range: 140-220GHz
- Gain: 18dB Typ
- Output Power Psat: 12dBm Typ
- Good Power and Gain Flatness

Applications:

- Passive Imaging
- Communication Systems
- Radar Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	140		220	GHz
Small Signal Gain		18		dB
Output Psat		12		dBm
DC Voltage		12		V DC

Mechanical Specifications:

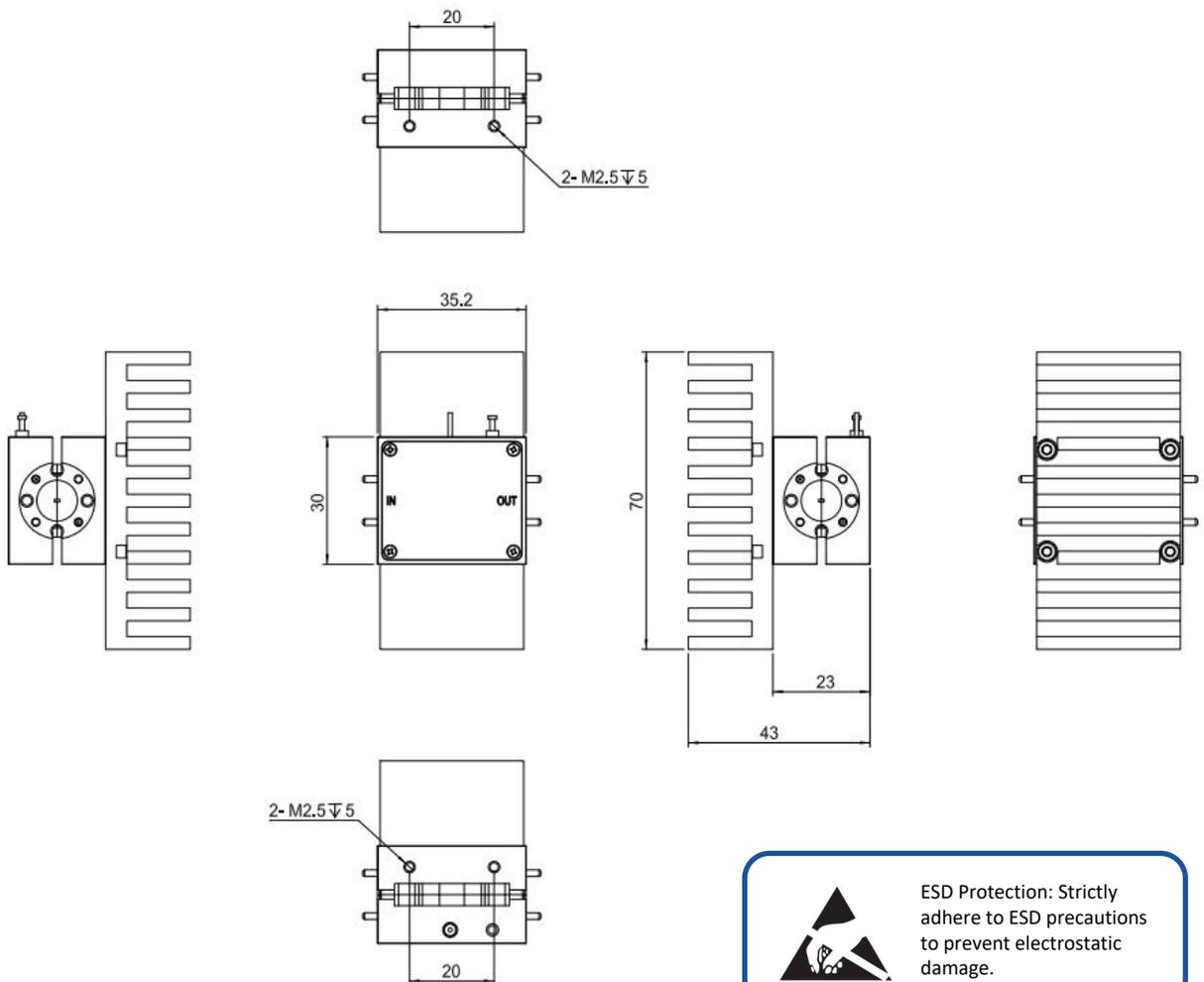
Parameter	Value	Units
Input /Output Connector	WR-5.1/UG-387/U	
DC Bias	Solder Pin	
Size	35.2*30*23(Without heatsink) 35.2*70*43(With heatsink)	mm

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



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

Environmental Conditions:

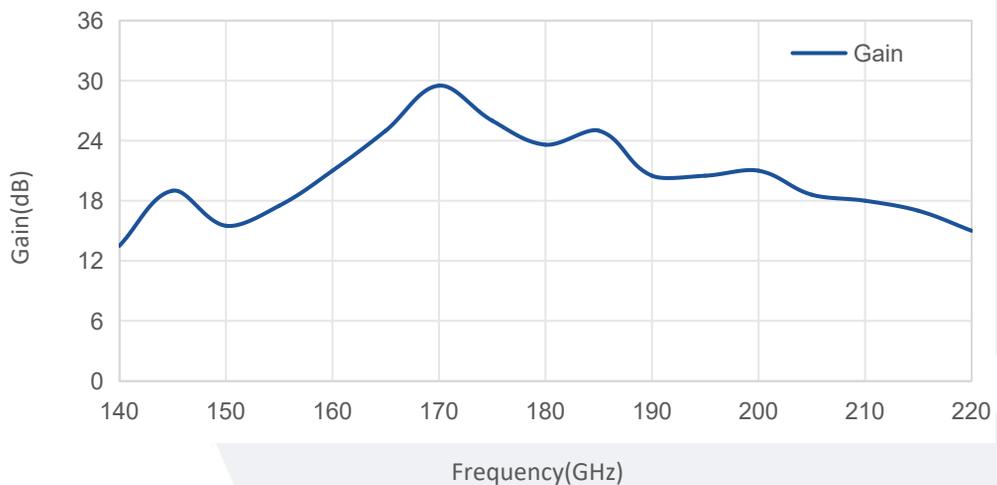
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TMPA-140220-2013-05	Power Amplifier, 140-220GHz, Gain: 18dB Type, P _{sat} : 12dBm Type, +12V DC, WR-5.1	Rev.1.1

Typical Performance Data:

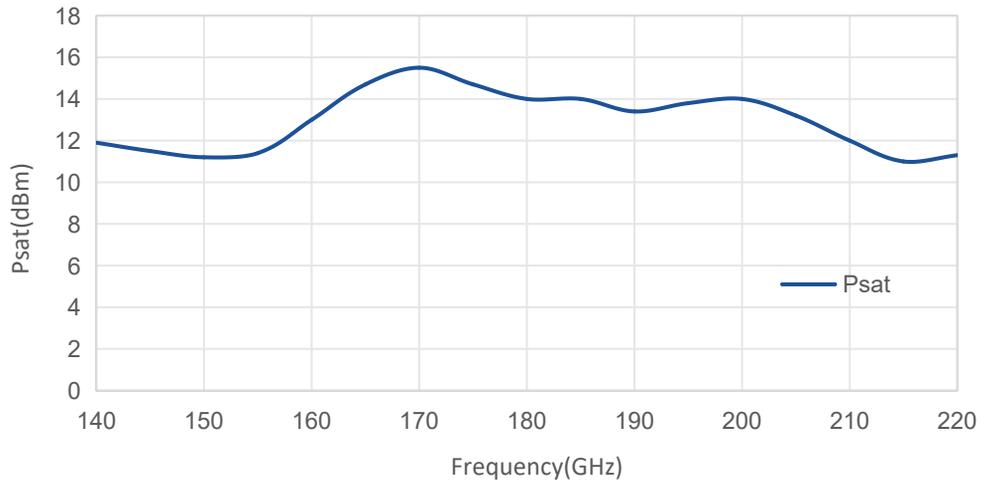
Gain vs Frequency



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.

Typical Performance Data:

Psat vs Frequency



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