

Power Amplifier

WR-4.3/200-230GHz/20dB Gain/15dBm Psat**Model: TMPA-200230-1217-04**

TMPA-200230-1217-04 is a power amplifier with a typical small signal gain of 20 dB and a nominal Psat of 15 dBm across the frequency range of 200 to 230 GHz. The DC power requirement for the amplifier is +12 VDC/130 mA. The input and output port configuration offers an inline structure with WR-4.3 waveguides and UG-387/U-M anticocking flanges.

Features:

- Frequency range: 200-230GHz
- Gain: 20dB Typ
- Output Power Psat: 15dBm Typ
- Good Power and Gain Flatness

Applications:

- Passive Imaging
- Communication Systems
- Radar Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	200		230	GHz
Small Signal Gain		20		dB
Output Psat		15		dBm
Input VSWR		4.5		:1
DC Voltage		12		V DC
DC Supply Current		130		mA

Mechanical Specifications:

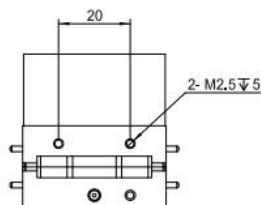
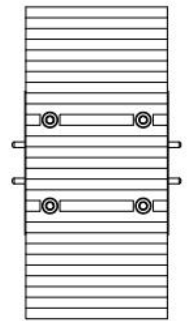
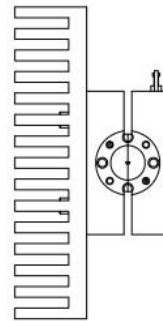
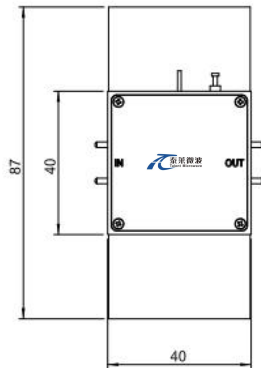
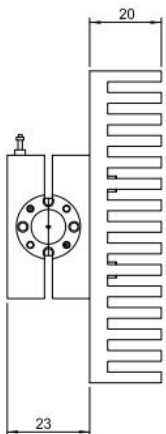
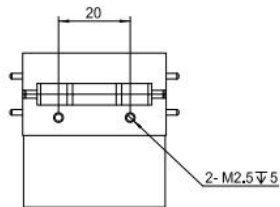
Parameter	Value	Units
Input /Output Connector	WR-4.3/UG-387/U	
DC Bias	Solder Pin	
Size	40*40*23(Without heatsink) 40*87*43(With heatsink)	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+14 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:

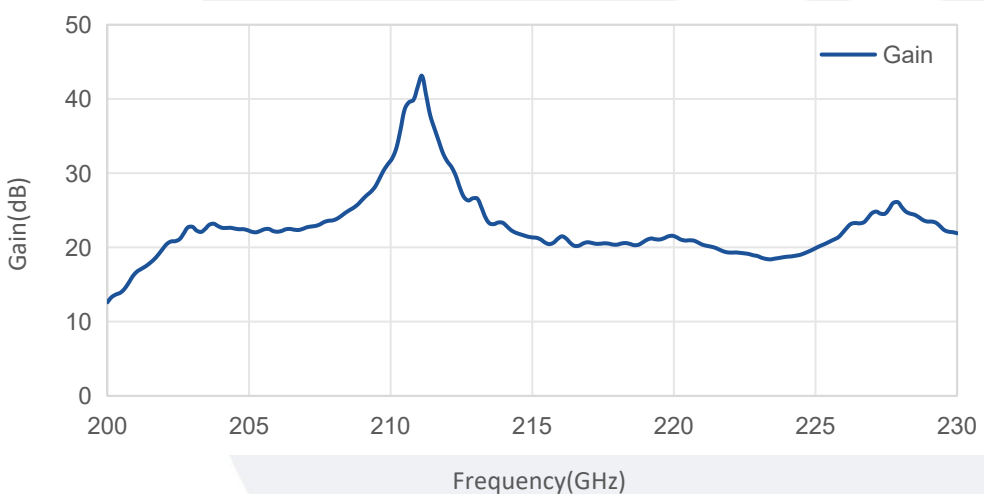
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TMPA-200230-1217-04	Power Amplifier, 200-230GHz, Gain: 20dB Type, Psat: 15dBm Type, +12V DC,WR-4.3, Without heasink	Rev.1.0
TMPA-200230-1217-04-HS	Power Amplifier, 200-230GHz, Gain: 20dB Type, Psat: 15dBm Type, +12V DC,WR-4.3, With heatsink	Rev.1.0

Typical Performance Data:

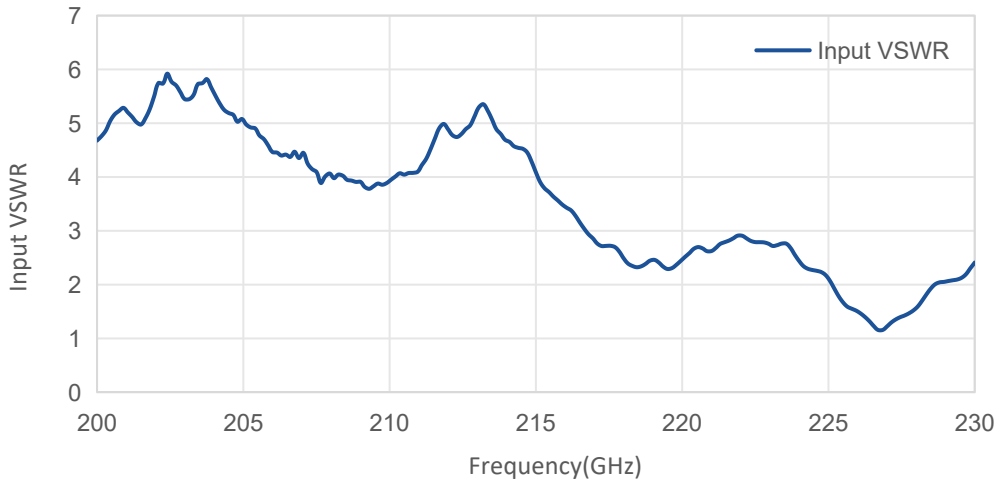
Gain vs Frequency



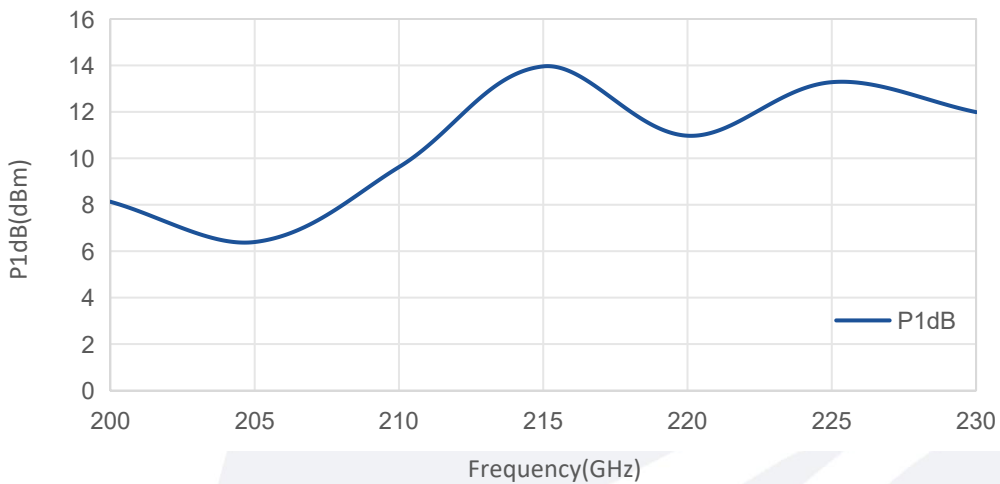
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

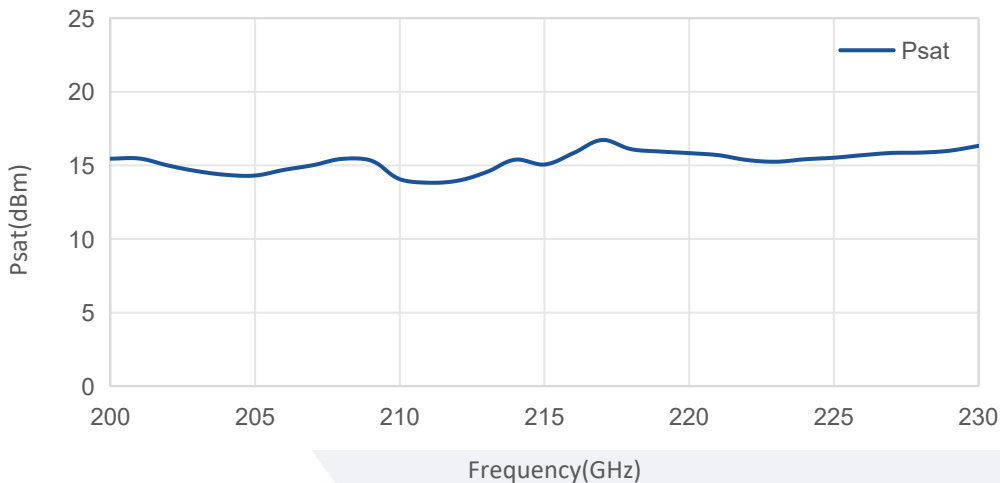
Input VSWR vs Frequency



P1dB vs Frequency



Psat vs Frequency



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