

F-Band Power Amplifier

WR-08/100-115GHz/32dB Gain/30 dBm Psat

Model: TMPA-100115-3230-08

TMPA-100115-3230-08 is a F-Band power amplifier with small signal gain of 32 dB and Psat of 30 dBm across the frequency range of 100 to 115 GHz. The DC power requirement for the amplifier is +16V DC/1.3 A. The input and output port configuration offers an inline structure with WR-8 waveguides and UG-387/U-M anticocking flanges.

Features:

- Frequency range: 100-115 GHz
- Gain: 32dB Typ
- Output Power Psat: 30 dBm Typ
- Good Power and Gain Flatness

Applications:

- F Band Communication
- Test Equipment
- Radar Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	100-115			GHz
Small Signal Gain		32		dB
Output Psat		30		dBm
Input VSWR		2.5		:1
DC Voltage		16		V DC
DC Current		1.3		A

Mechanical Specifications:

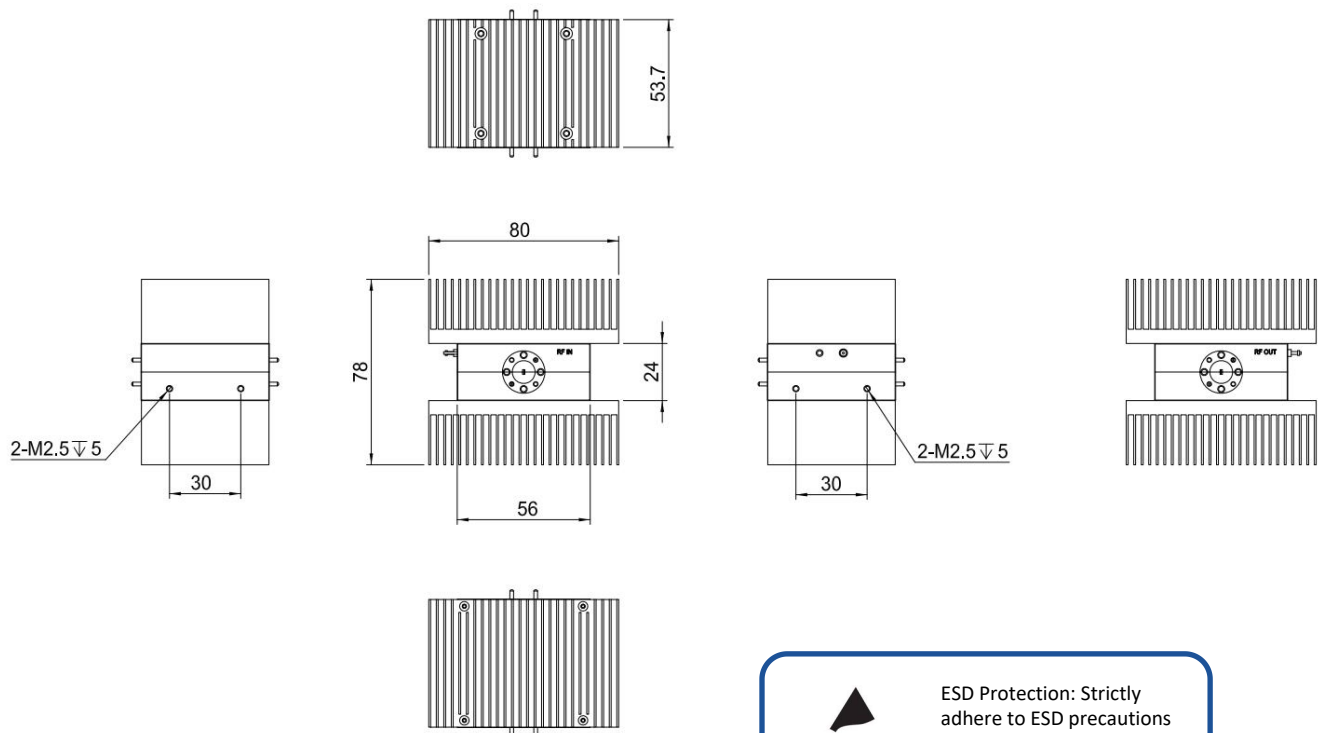
Parameter	Value	Units
Input /Output Connector	WR-08/UG-387/U	
Power Supply Pin	Solder Pin	
Size	80*78*53.7(With heatsink)	mm

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+15 dBm
Supply Bias Voltage	+18V DC
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



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

Environmental Conditions:

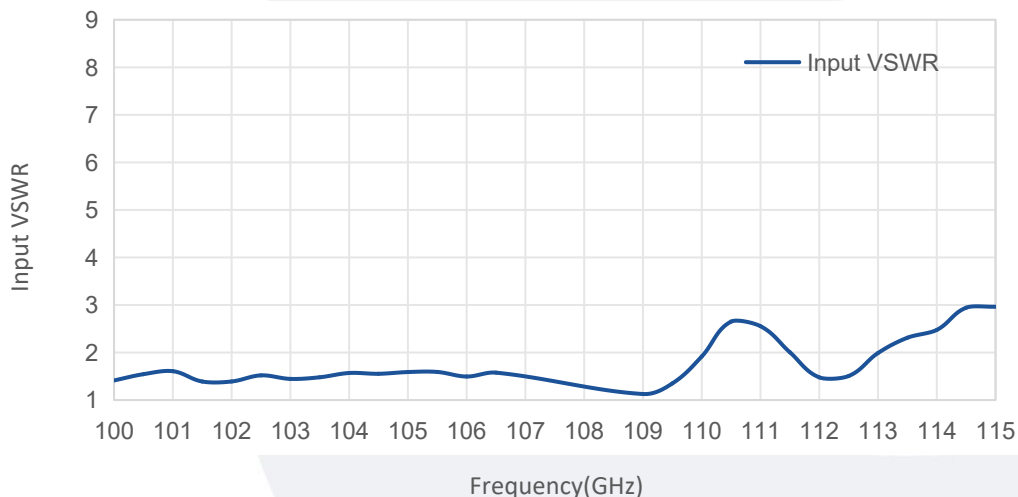
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TMPA-100115-3230-08	Power Amplifier, 110-170GHz, Gain:32 dB Typ, Psat:30 dBm Typ, 16V DC,WR-08,Without heatsink	Rev.1.1
TMPA-100115-3230-08-HS	Power Amplifier, 110-170GHz, Gain:32 dB Typ, Psat:30 dBm Typ, 16V DC,WR-08,With heatsink	Rev.1.1

Typical Performance Data:

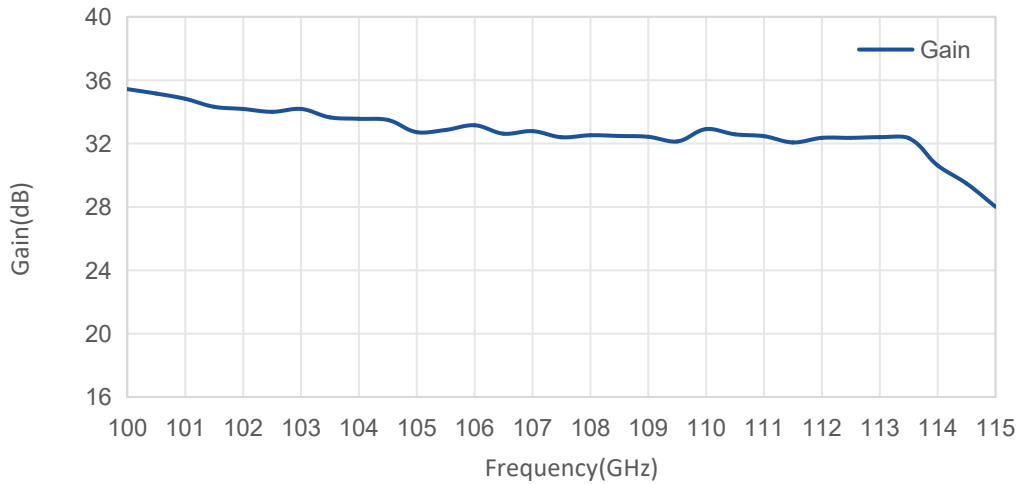
Input VSWR vs Frequency



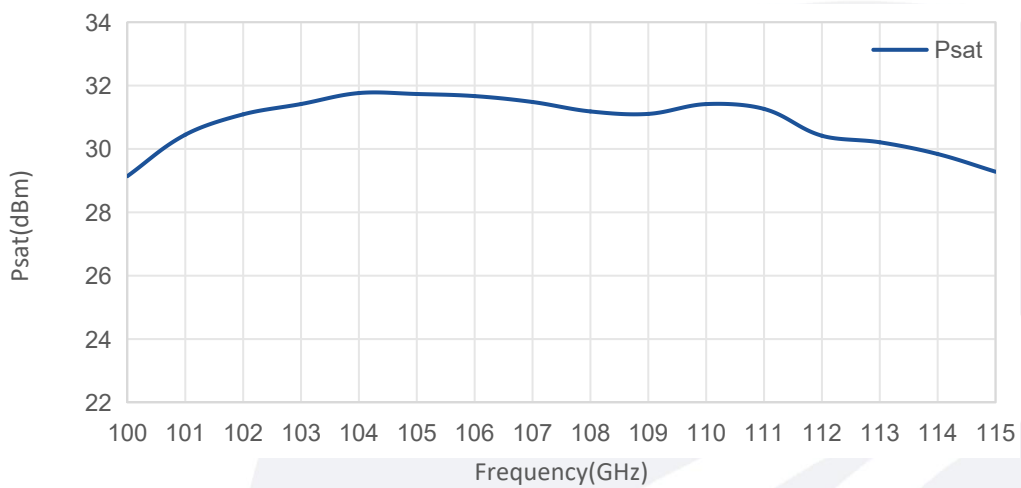
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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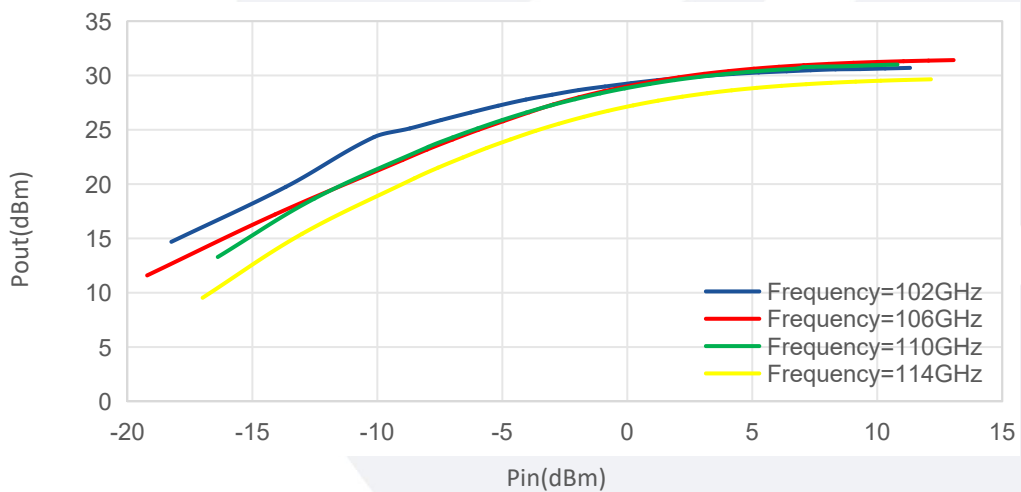
Gain vs Frequency



Psat vs Frequency



Pout@Pin vs Frequency



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