

Power Amplifier

WR-08/88-117GHz/18dB Gain/23dBm Psat

Model: TMPA-088117-1823-08

TMPA-088117-1823-08 is a power amplifier with a typical small signal gain of 18 dB and a nominal Psat of 23 dBm across the frequency range of 88 to 117 GHz. The DC power requirement for the amplifier is +18 VDC/260 mA. The input and output port configuration offers an inline structure with WR-08 waveguides and UG-387/U-M anticocking flanges.

Features:

- Frequency range: 88-117GHz
- Gain: 18dB Typ
- Output Power Psat: 23dBm Typ
- Good Power and Gain Flatness

Applications:

- Passive Imaging
- Communication Systems
- Radar Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	88		117	GHz
Small Signal Gain		18		dB
Gain Flatness		±1		dB
Output Psat		23		dBm
Input VSWR		1.5		:1
Output VSWR		1.2		:1
DC Voltage		18		V DC
DC Supply Current		260		mA

Mechanical Specifications:

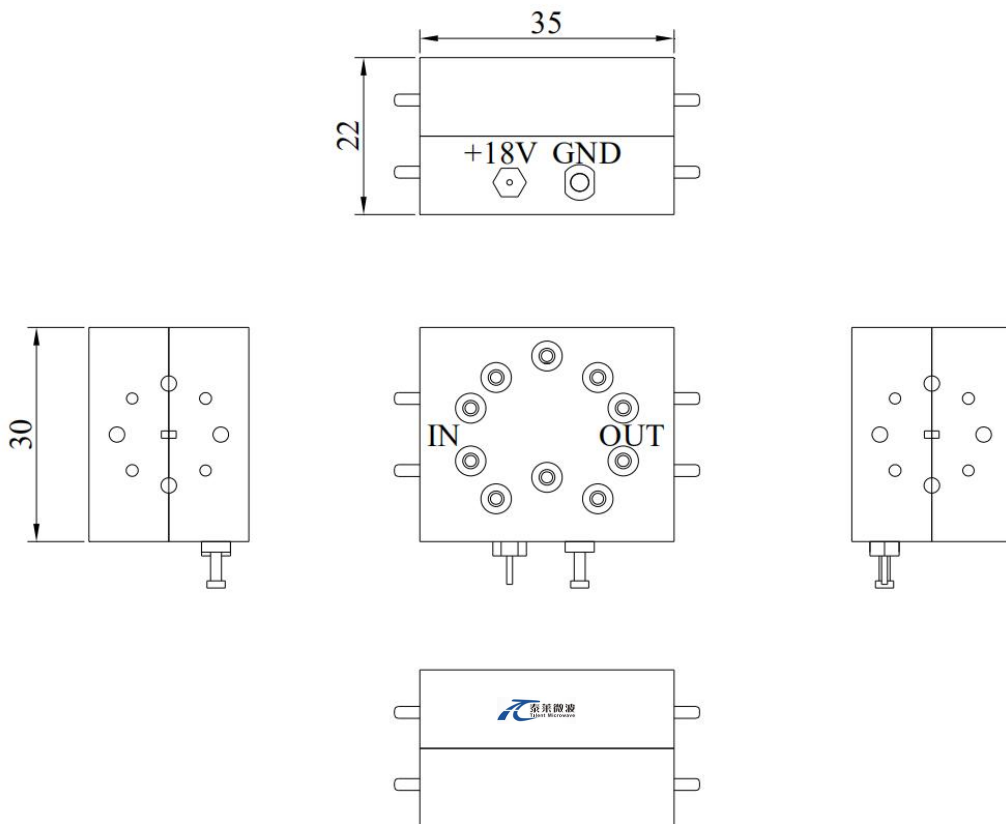
Parameter	Value	Units
Input /Output Connector	WR-08/UG-387/U	
DC Bias	Solder Pin	
Size	35*30*22	mm

Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



*****Heat Sink Required During Operation**



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

Environmental Conditions:

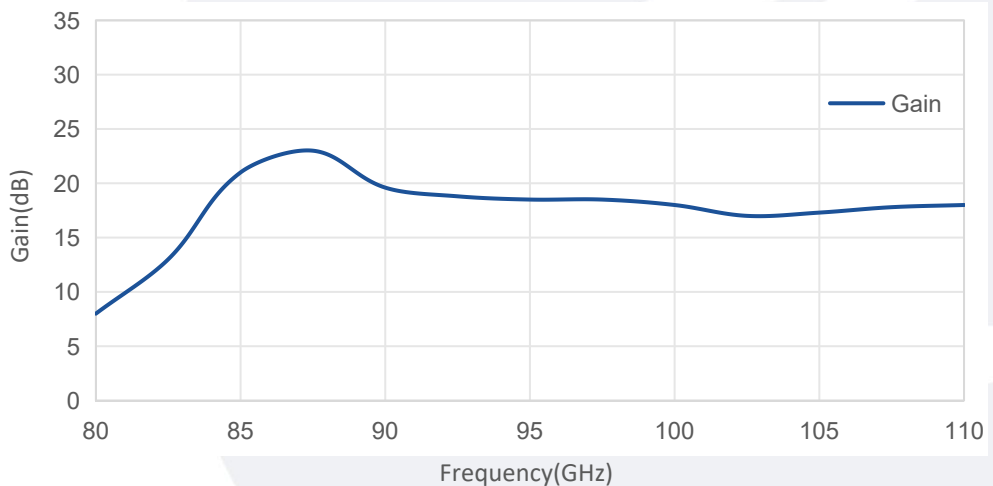
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TMPA-088117-1823-08	Power Amplifier, 88-117GHz, Gain: 18dB Type, Psat: 23dBm Type, +18V DC,WR-08, Without heasink	Rev.1.1
TMPA-088117-1823-08-HS	Power Amplifier, 88-117GHz, Gain: 18dB Type, Psat: 23dBm Type, +18V DC,WR-08, With heasink	Rev.1.1

Typical Performance Data:

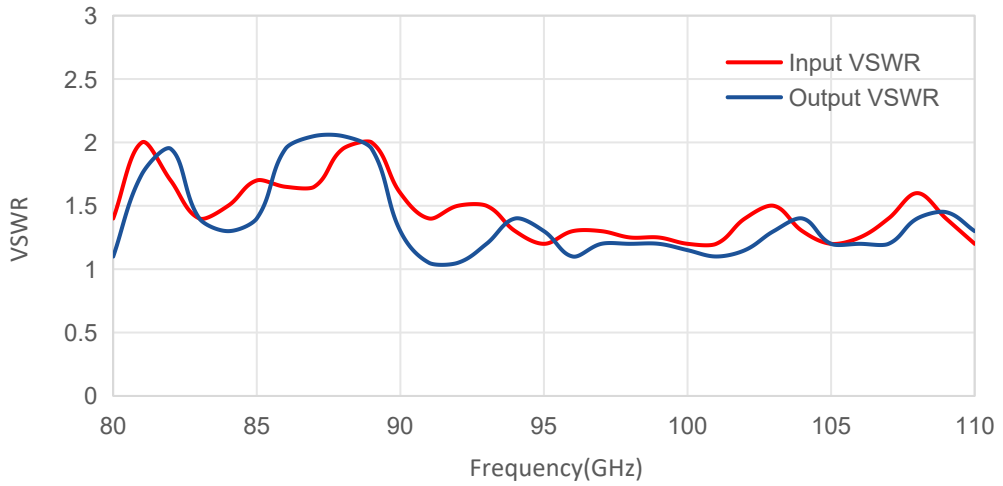
Gain vs Frequency



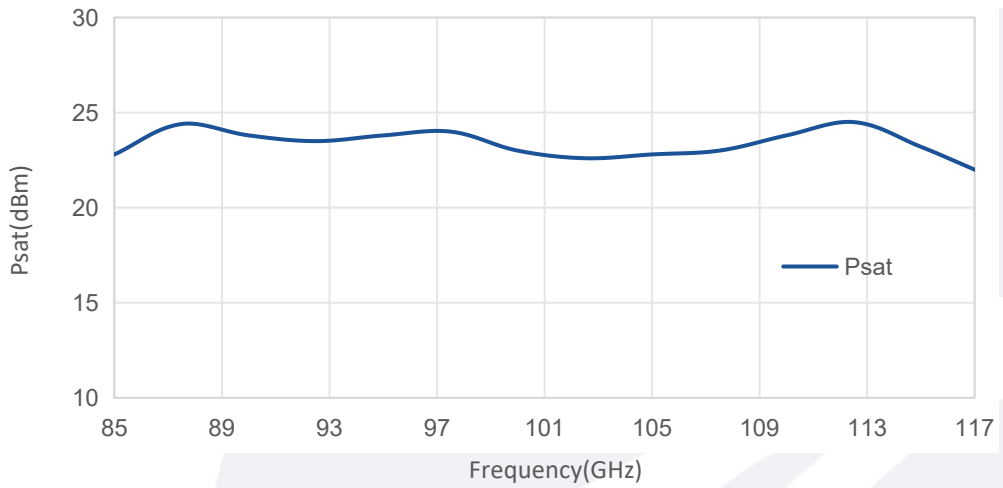
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

VSWR vs Frequency



Psat 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.