

Power Amplifier

WR-12/81-86GHz/15dB Gain/30dBm Psat

Model: TMPA-081086-1530-12

TMPA-081086-1530-12 is a power amplifier with a typical gain of 15 dB and a nominal Psat of 30 dBm across the frequency range of 81 to 86 GHz. The DC power requirement for the amplifier is +12 VDC/2.2 A. The input and output port configuration offers an inline structure with WR-12 waveguides and UG-387/U-M anticocking flanges.

Features:

- Frequency range: 81-86GHz
- Gain: 15dB Typ
- Output Power Psat: 30dBm Typ
- Good Power and Gain Flatness

Applications:

- Passive Imaging
- Communication Systems
- Radar Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	81		86	GHz
Gain		15		dB
Output Psat		30		dBm
Input VSWR		1.6		:1
Output VSWR		1.6		:1
DC Voltage		12		V DC
DC Supply Current		2.2		A

Mechanical Specifications:

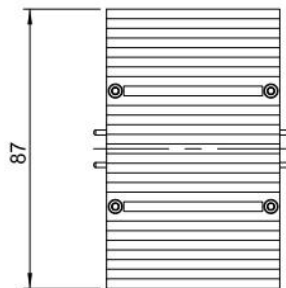
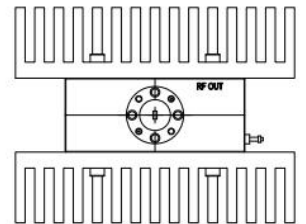
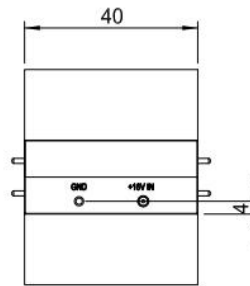
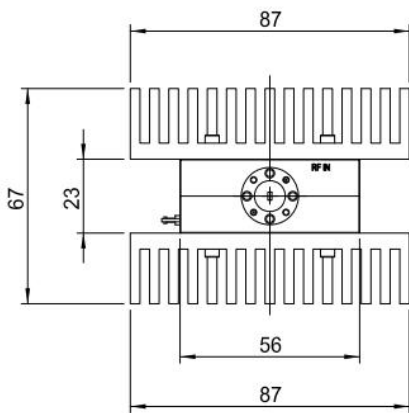
Parameter	Value	Units
Input /Output Connector	WR-12/UG-387/U	
DC Bias	Solder Pin	
Size	40*87*67 (With heatsink)	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+16 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:

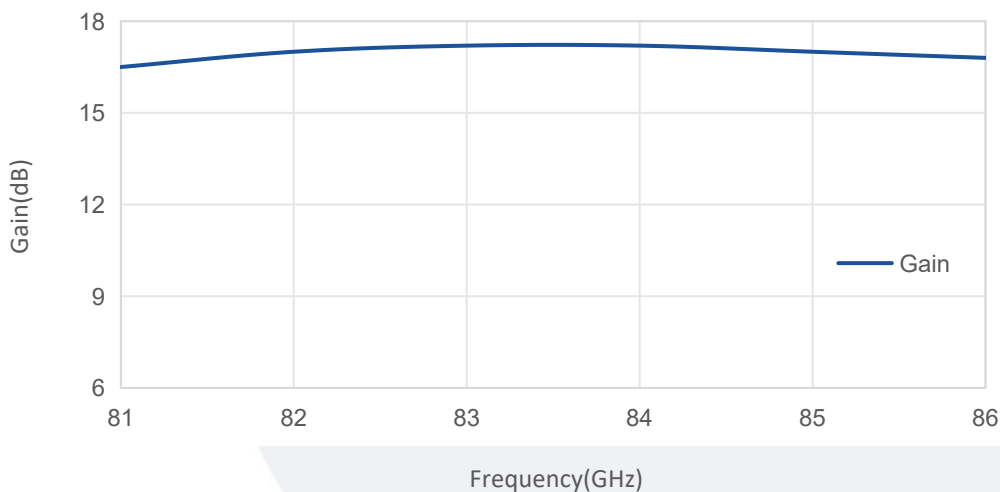
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TMPA-081086-1530-12	Power Amplifier, 81-86GHz, Gain: 15dB Type, Psat: 30dBm Type, +12V DC,WR-12, Without heatsink	Rev.1.1
TMPA-081086-1530-12-HS	Power Amplifier, 81-86GHz, Gain: 15dB Type, Psat: 30dBm Type, +12V DC,WR-12, With heatsink	Rev.1.1

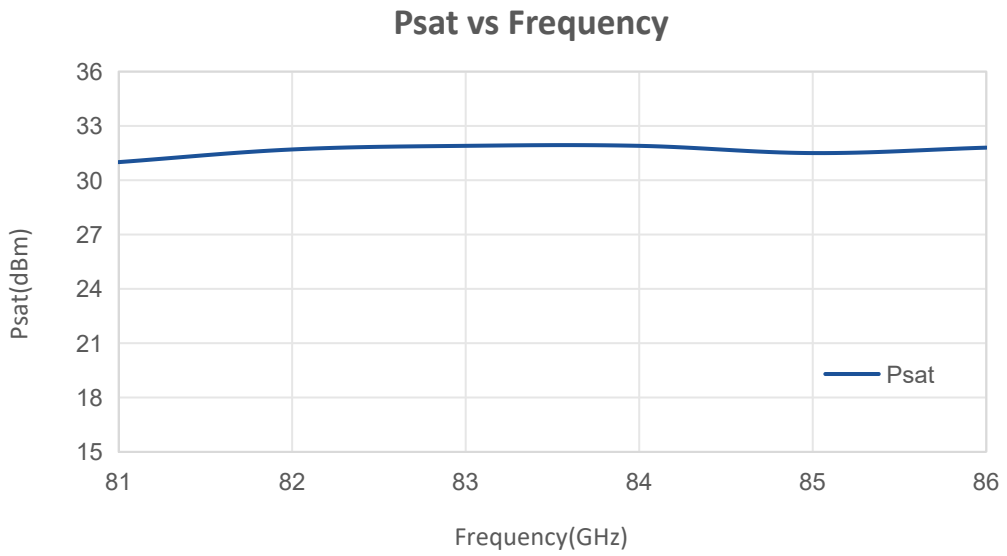
Typical Performance Data:

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.

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