

## Power Amplifier

WR-10/75-90GHz/17dB Gain/16dBm Psat

Model: TMPA-075090-1716-10

TMPA-075090-1716-10 is a power amplifier with a typical gain of 17 dB and a nominal Psat of 16 dBm across the frequency range of 75 to 90 GHz. The DC power requirement for the amplifier is +12 VDC/70 mA. The input and output port configuration offers an inline structure with WR-10 waveguides and UG-387/U-M antcocking flanges.

### Features:

- Frequency range: 75-90GHz
- Gain: 17dB Typ
- Output Power Psat: 16dBm Typ
- Good Power and Gain Flatness

### Applications:

- Passive Imaging
- Communication Systems
- Radar Systems

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	75		90	GHz
Gain		17		dB
Output Psat		16		dBm
Input VSWR		2.3		:1
Output VSWR		2		:1
DC Voltage		12		V DC
DC Supply Current		70		mA

### Mechanical Specifications:

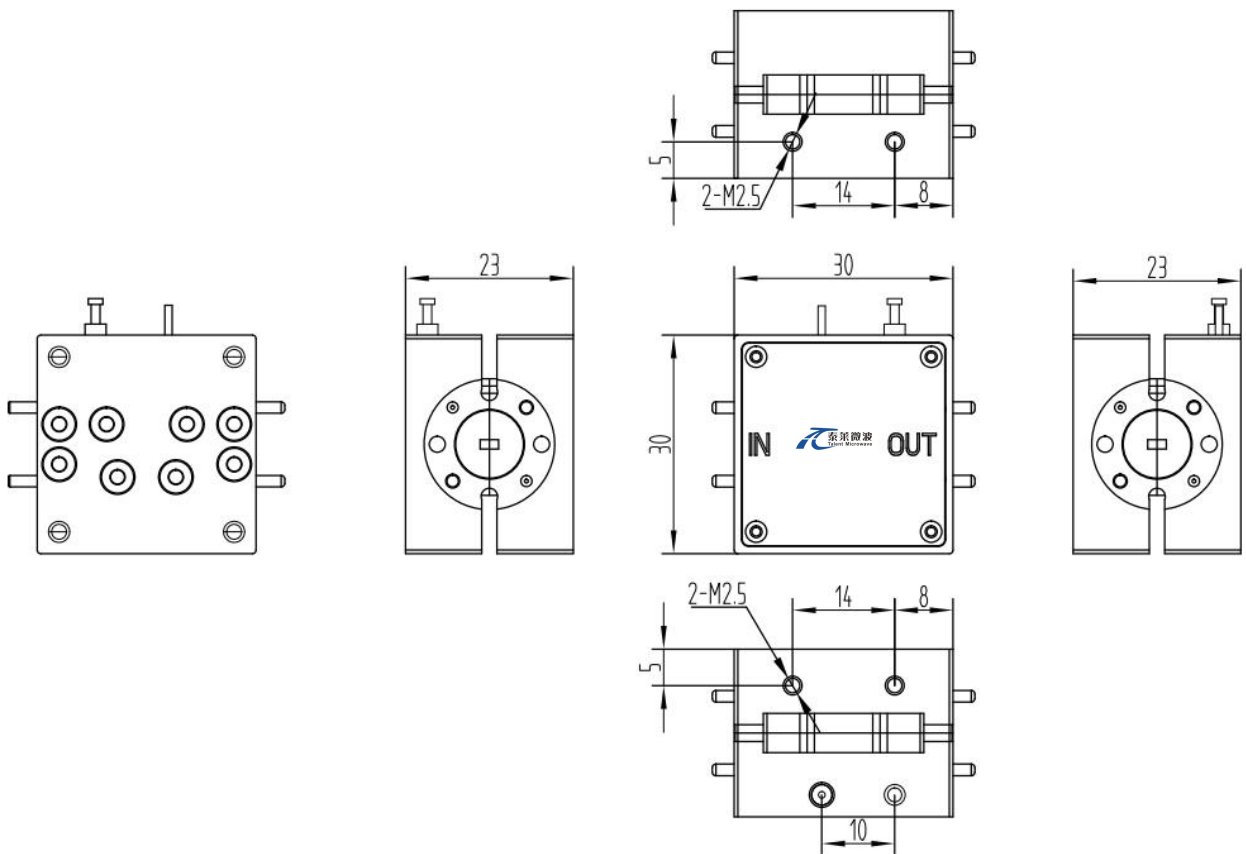
Parameter	Value	Units
Input /Output Connector	WR-10/UG-387/U	
DC Bias	Solder Pin	
Size	30*30*23	mm

### 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; Tolerance:±0.1mm



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



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

## Environmental Conditions:

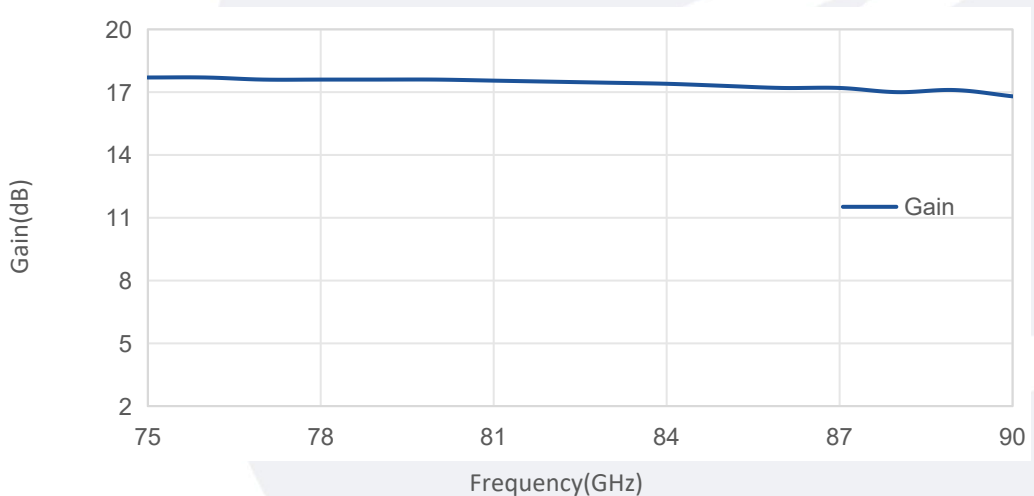
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

## Ordering Information:

Base Number	Description	Revision
TMPA-075090-1716-10	Power Amplifier, 75-90GHz, Gain: 17dB Type, Psat: 16dBm Type, +12V DC,WR-10, Without heatsink	Rev.1.1
TMPA-075090-1716-10-HS	Power Amplifier, 75-90GHz, Gain: 17dB Type, Psat: 16dBm Type, +12V DC,WR-10, With heatsink	Rev.1.1

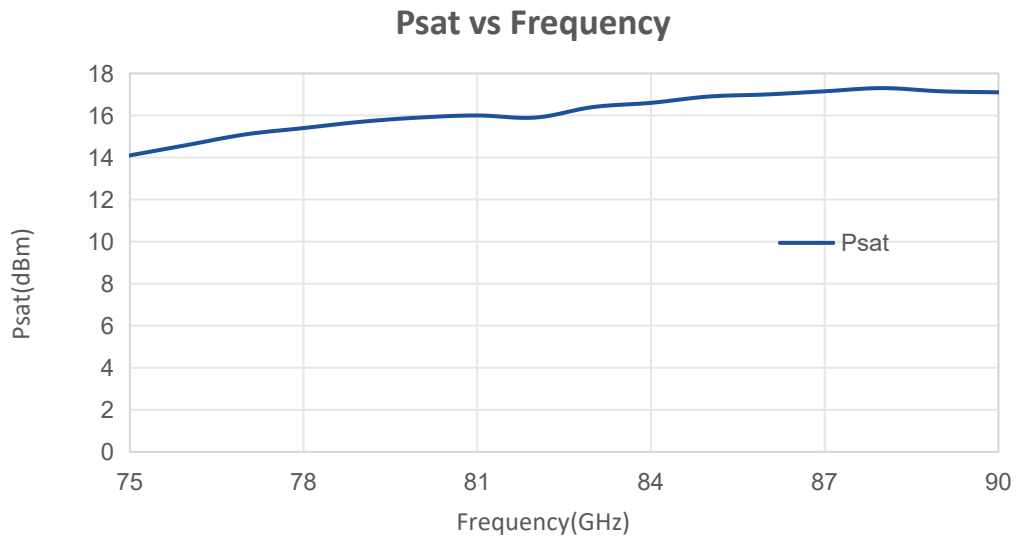
## Typical Performance Data:

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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