

## Power Amplifier

WR-12/76-81GHz/30dB Gain/28dBm Psat

Model: TMPA-076081-3028-12

TMPA-076081-3028-12 is a power amplifier with a typical small signal gain of 30 dB and a nominal Psat of 28 dBm across the frequency range of 76 to 81 GHz. The DC power requirement for the amplifier is +17 VDC/650 mA. The input and output port configuration offers an inline structure with WR-12 waveguides and UG-387/U-M antcocking flanges.

### Features:

- Frequency range: 76-81GHz
- Gain: 30dB Typ
- Output Power Psat: 28dBm Typ
- Good Power and Gain Flatness

### Applications:

- Passive Imaging
- Communication Systems
- Radar Systems

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	76		81	GHz
Small Signal Gain	29	30		dB
Output Psat	27	28		dBm
Input VSWR		2	2.3	:1
Output VSWR		2	2.3	:1
DC Voltage		17	18	V DC
DC Supply Current		650		mA

### Mechanical Specifications:

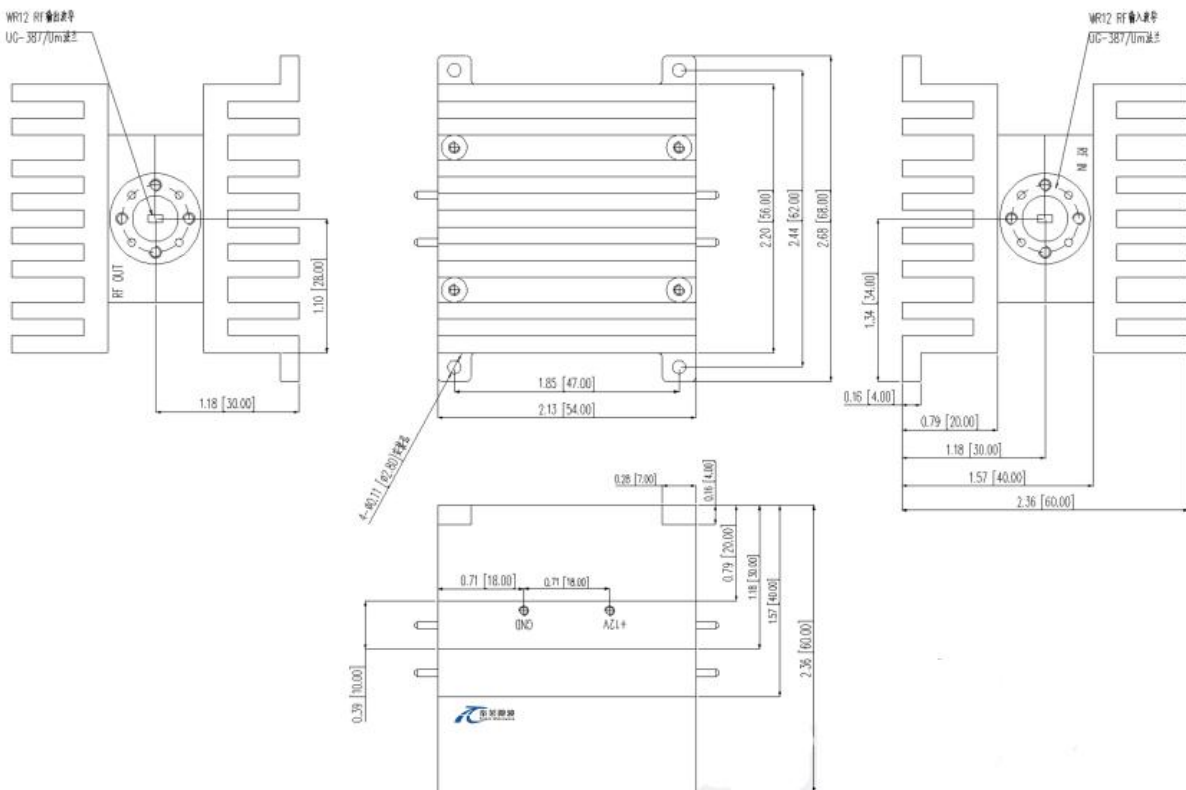
Parameter	Value	Units
Input /Output Connector	WR-12/UG-387/U	
DC Bias	Solder Pin	
Size	54*68*60(With heatsink)	mm

### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+19 V
RF Input Power	TBD
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:

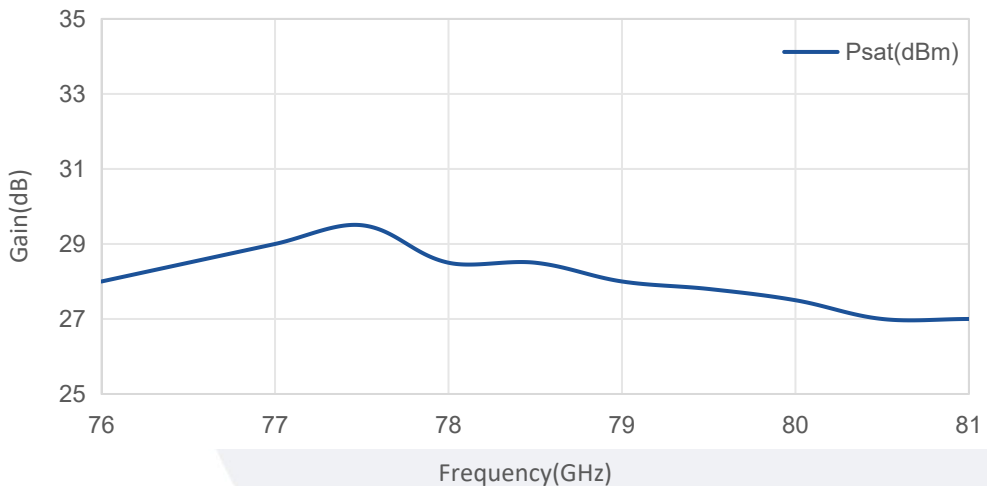
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

### Ordering Information:

Base Number	Description	Revision
TMPA-076081-3028-12	Power Amplifier, 76-81GHz, Gain: 30dB Type, Psat: 28dBm Type, +17V DC,WR-12, Without heasink	Rev.1.1
TMPA-076081-3028-12-HS	Power Amplifier, 76-81GHz, Gain: 30dB Type, Psat: 28dBm Type, +17V DC,WR-12, 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.