

## Power Amplifier

**WR-10/90-94GHz/22dB Gain/28dBm Psat**

**Model: TMPA-090094-2027-10**

TMPA-090094-2027-10 is a power amplifier with a typical small signal gain of 22 dB and a nominal Psat of 28 dBm across the frequency range of 90 to 94 GHz. The DC power requirement for the amplifier is +20 VDC/580 mA. The input and output port configuration offers an inline structure with WR-10 waveguides and UG-387/U-M antickocking flanges.

### Features:

- Frequency range: 90-94GHz
- Gain: 22dB 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	90		94	GHz
Small Signal Gain	20	22		dB
Output Psat	27	28	29	dBm
Input VSWR		2		:1
Output VSWR		2		:1
DC Voltage		20		V DC
DC Supply Current		580		mA

### Mechanical Specifications:

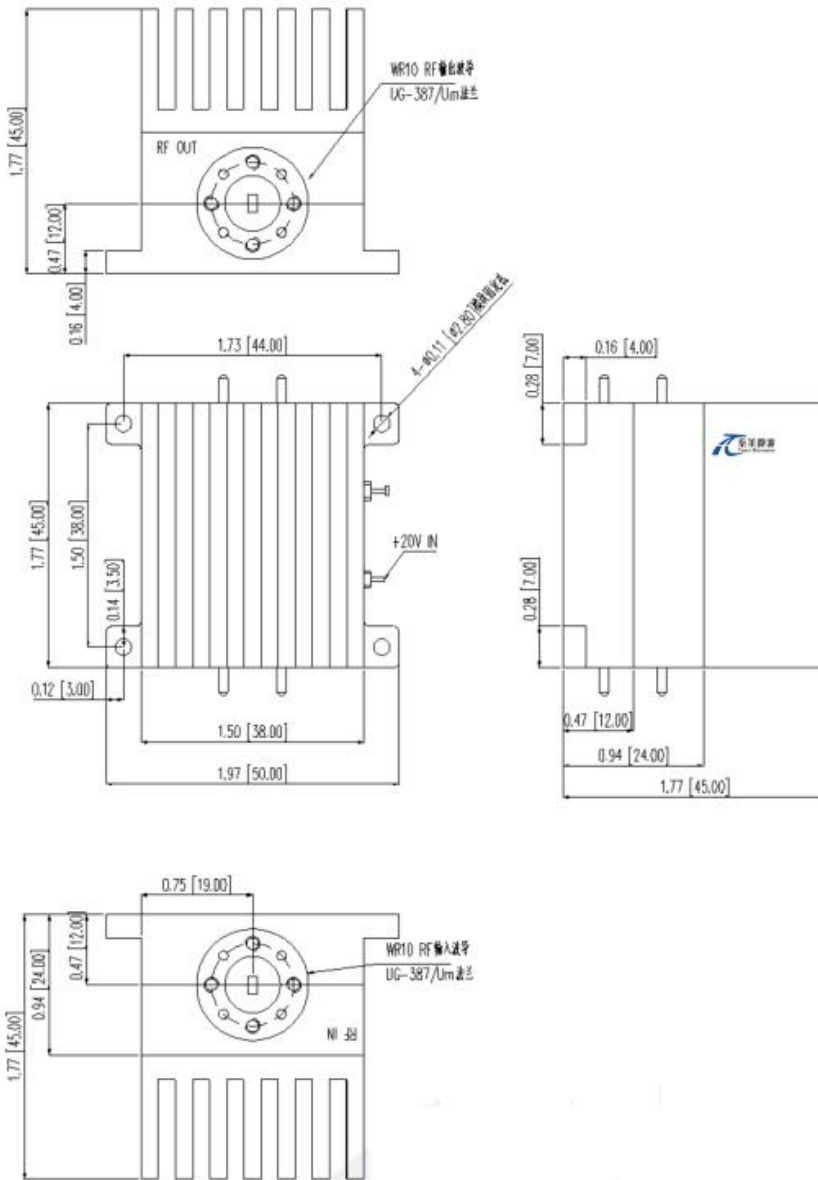
Parameter	Value	Units
Input /Output Connector	WR-10/UG-387/U	
DC Bias	Solder Pin	
Size	50*45*24(Without heatsink) 50*45*45(With Heatsink)	mm

### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+10 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-090094-2027-10	Power Amplifier, 90-94GHz, Gain: 22dB Type, Psat: 28dBm Type, +12V DC,WR-10, Without heasink	Rev.1.1
TMPA-090094-2027-10-HS	Power Amplifier, 90-94GHz, Gain: 22dB Type, Psat: 28dBm Type, +12V DC,WR-10, With heasink	Rev.1.1