

Power Amplifier

WR-19/40-60GHz/30dB Gain/21dBm Psat

Model: TMPA-040060-2521-19

TMPA-040060-2521-19 is a power amplifier with a typical small signal gain of 30 dB and a nominal Psat of 21 dBm across the frequency range of 40 to 60 GHz. The DC power requirement for the amplifier is +5 VDC/850 mA. The input and output port configuration offers an inline structure with WR-19 waveguides and UG-383/U-M antcocking flanges.

Features:

- Frequency range: 40-60GHz
- Gain: 30dB Typ
- Output Power Psat: 21dBm Typ
- Good Power and Gain Flatness

Applications:

- Passive Imaging
- Communication Systems
- Radar Systems

Electrical Characteristics:

| Parameter | Min | Typ | Max | Units |
|-------------------|-----|-----|-----|-------|
| Frequency range | 40 | | 60 | GHz |
| Small Signal Gain | 25 | 30 | | dB |
| Output Psat | 20 | 21 | | dBm |
| Input VSWR | | 2.2 | | :1 |
| Output VSWR | | 2.2 | | :1 |
| DC Voltage | | 5 | | V DC |
| DC Supply Current | | 850 | | mA |

Mechanical Specifications:

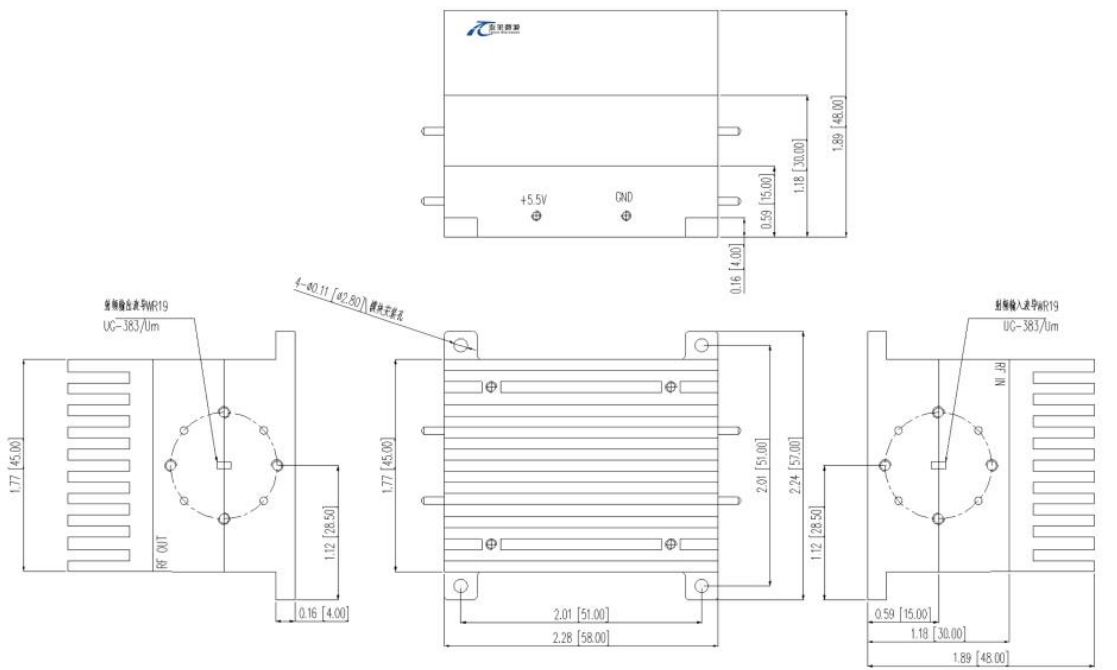
| Parameter | Value | Units |
|-------------------------|-------------------------|-------|
| Input /Output Connector | WR-19/UG-383/U | |
| DC Bias | Solder Pin | |
| Size | 58*57*48(With heatsink) | mm |

Absolute Maximum Ratings:

| Parameter | Value |
|-----------------------|----------------------|
| Supply Bias Voltage | +5 V |
| RF Input Power | +5 dBm |
| ESD sensitivity (HBm) | Class 0, passed 150V |

Outline Drawing:

Unit:mm



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-040060-2521-19 | Power Amplifier, 40-60GHz, Gain: 30dB Type, P _{sat} : 21dBm Type, +5V DC,WR-19 | Rev.1.0 |