Suzhou Talent Microwave,Inc
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# Power Amplifier

## WR-6.5/110-150GHz/35dB Gain/15dBm Psat  Model: TMPA-110150-3515-06

TMPA-110150-3515-06 is a power amplifier with a typical small signal gain of 35 dB and a nominal Psat of 15 dBm across the frequency range of 110 to 150 GHz. The DC power requirement for the amplifier is +5 VDC/450 mA. The input and output port configuration offers an inline structure with WR-6.5 waveguides and UG-387/U-M anticocking flanges.

## Features:

- Frequency range: 110-150GHz
- Gain: 35dB Typ
- Output Power Psat: 15dBm Typ
- Good Power and Gain Flatness

## Applications:

- Passive Imaging
- Communication Systems
- Radar Systems

## Electrical Characteristics:

| Parameter | Min | Typ | Max | Units |
|---|---|---|---|---|
| Frequency range | 110 | | 150 | GHz |
| Small Signal Gain | | 35 | | dB |
| Output Psat | | 15 | | dBm |
| Input VSWR | | 2 | | :1 |
| Output VSWR | | 2 | | :1 |
| DC Voltage | | 5 | | V DC |
| DC Supply Current | | 450 | | mA |

## Mechanical Specifications:

| Parameter | Value | Units |
|---|---|---|
| Input /Output Connector | WR-6.5/UG-387/U | |
| DC Bias | Solder Pin | |
| Size | 50*30*23 | mm |

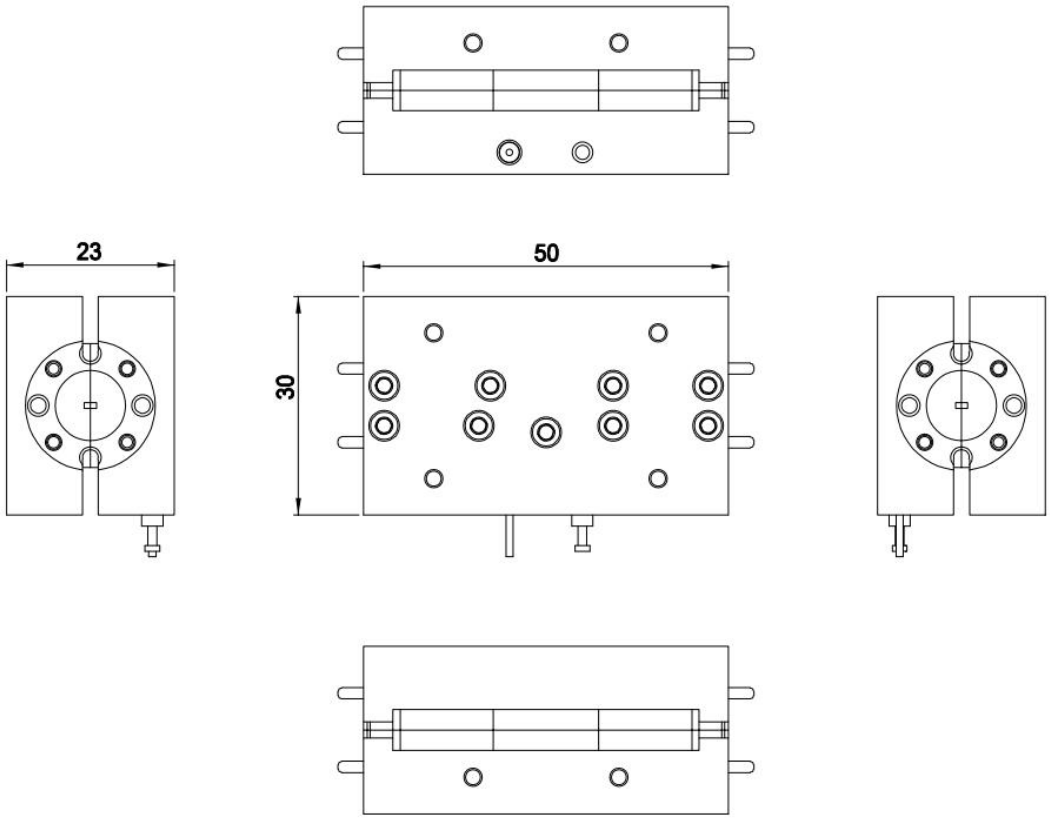
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## Absolute Maximum Ratings:

| Parameter | Value |
|---|---|
| Supply Bias Voltage | TBD |
| RF Input Power | +11 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.

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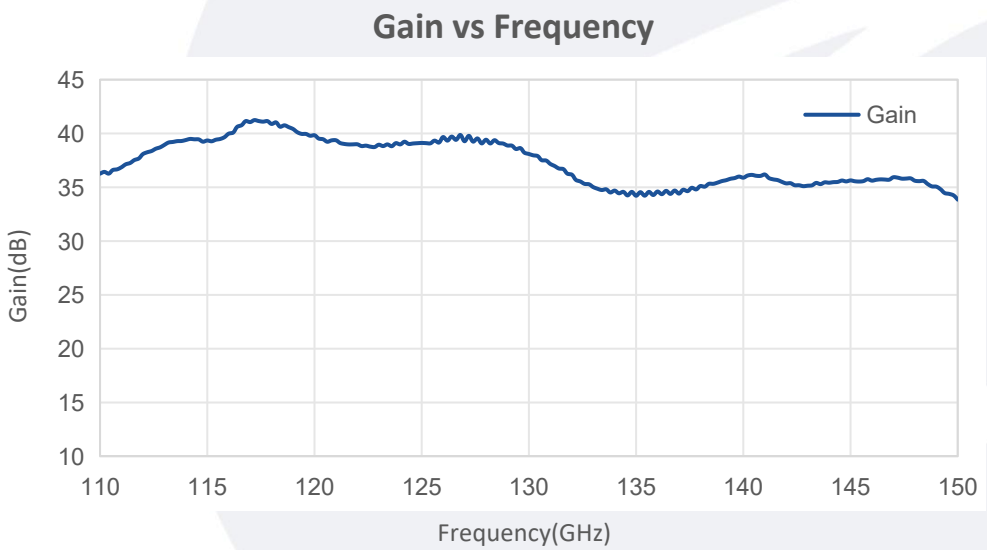
## Environmental Conditions:

| Parameter | Min | Typ | Max | Units |
|---|---|---|---|---|
| Operating Temperature | -10 | | +65 | ℃ |
| Non-operating Temperature | -45 | | +85 | ℃ |
| 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-110150-3515-06 | Power Amplifier, 110-150GHz, Gain: 35dB Type, Psat: 15dBm Type, +5V DC,WR-6.5, Without heasink | Rev.1.1 |
| TMPA-110150-3515-06-HS | Power Amplifier, 110-150GHz, Gain: 35dB Type, Psat: 15dBm Type, +5V DC,WR-6.5, With heatsink | Rev.1.1 |

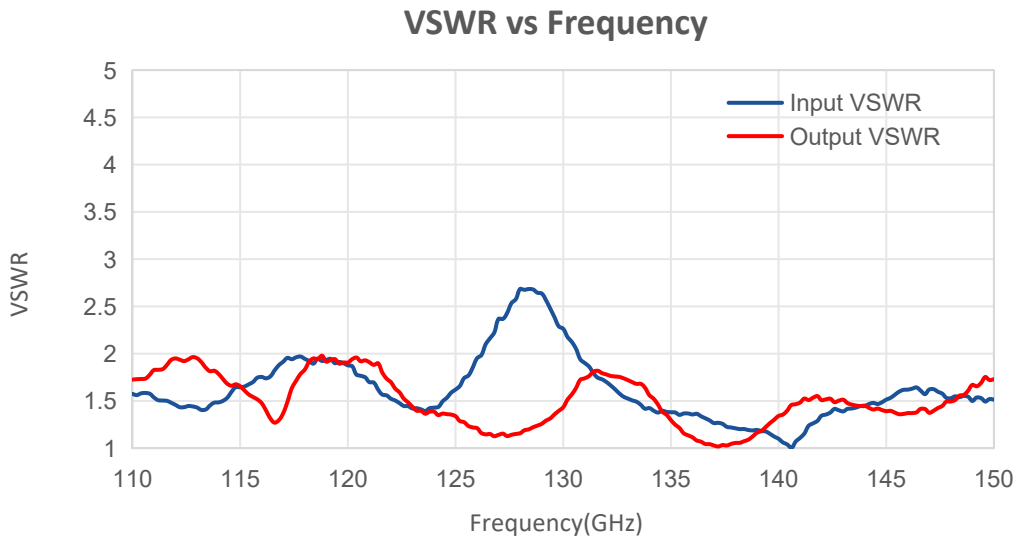
## Typical Performance Data:

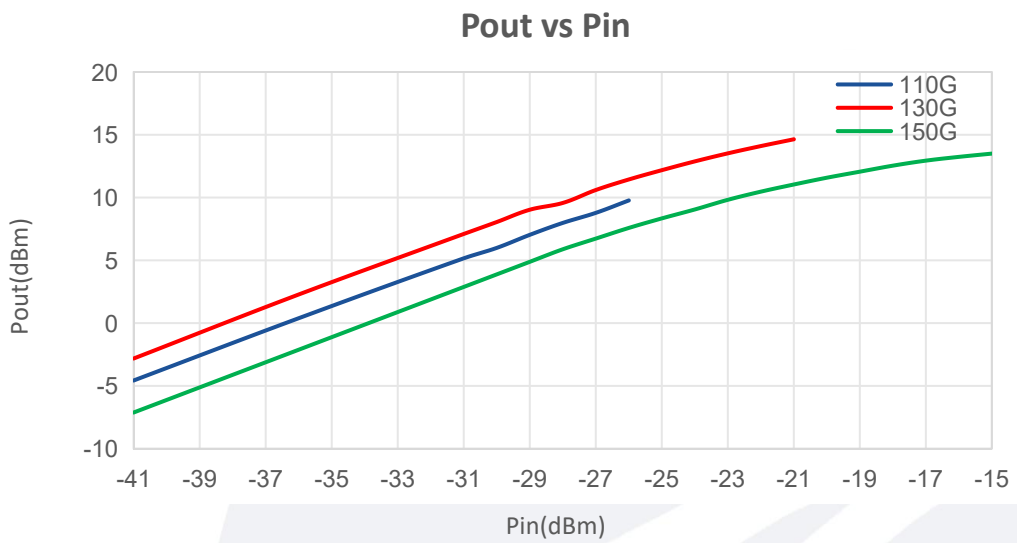


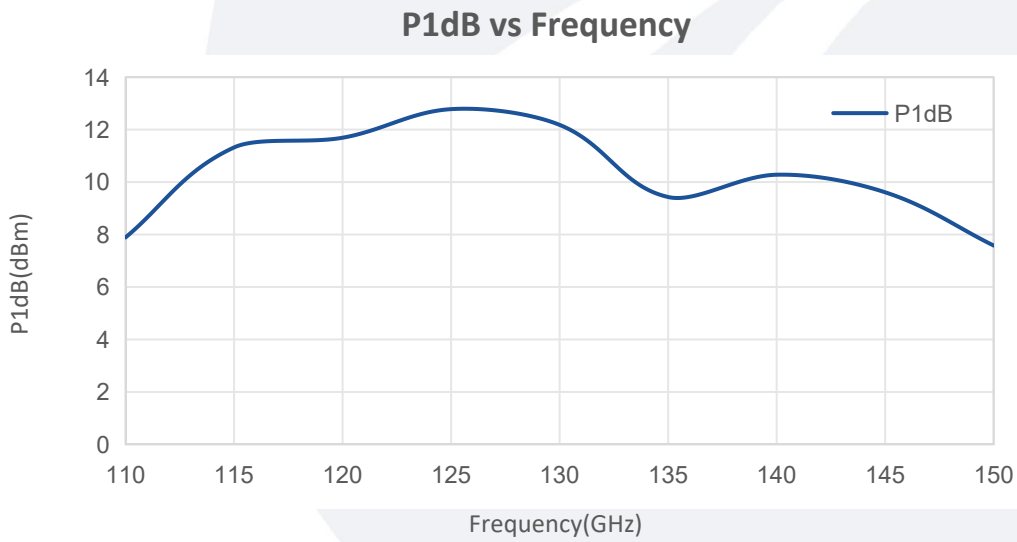

Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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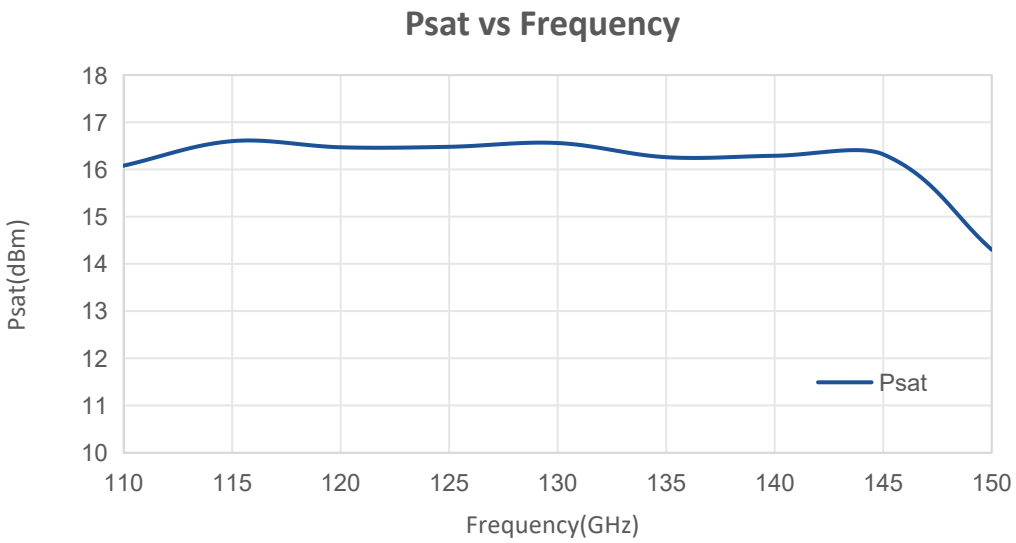




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