

# **Power Amplifier Module**

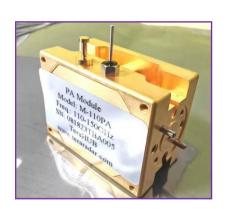
## **Product Features**

• Frequency: 110-150GHz

• Small signal gain: 18dB

Psat: 15dBm

DC power supply



## **Electrical Specs:**

| Parameter                 | Minimum | Typical | Maximum |
|---------------------------|---------|---------|---------|
| Frequency Range           | 110GHz  |         | 150GHz  |
| Small Signal Gain         |         | 18dB    |         |
| Saturated Output Power    |         | 15dBm   |         |
| Input Power               |         | 5dBm    | 10dBm   |
| Input VSWR                |         | 2.5     |         |
| Output VSWR               |         | 2.5     |         |
| Drain Positive Voltage    |         | +7V     | +20 V   |
| Saturation current        |         | 250 mA  |         |
| Specification Temperature | 5℃      | +25 ℃   | 35℃     |
| Operating Temperature     | -55 ℃   |         | +85°C   |

## **Mechanical Specs:**

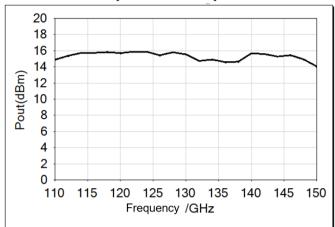
| Item         | Specification             |  |
|--------------|---------------------------|--|
| Input        | WR06 waveguide, UG-387/UM |  |
| Output       | WR06 waveguide, UG-387/UM |  |
| Bias         | Solder Pin                |  |
| Size (W×L×H) | 40mm×30mm×22mm            |  |

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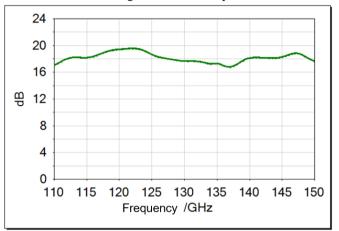


### **Measured Performance:** (Vd=7V, Id=250mA, TA=+25°C)

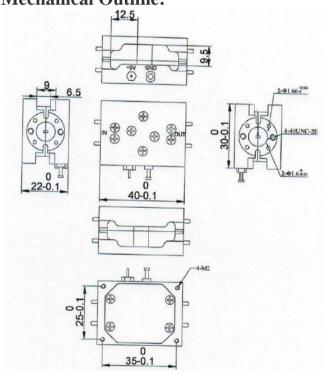
Saturated Output Power vs. Freq. @Pin=5dBm



Small Signal Gain vs. Freq.



### **Mechanical Outline:**



#### Interface definition

| Symbol | Function        |
|--------|-----------------|
| IN     | RF input        |
| OUT    | RF output       |
| Vd     | Power supply+7V |
| GND    | Ground          |

#### Notes:

- 1) Electrostatic protection: Please strictly abide by the ESD protection requirements to avoid electrostatic damage;
- 2) When in use, the module should be grounded first, and then powered on;
- 3) It is necessary to ensure good heat dissipation during use;
- 4) The dimensions of the module can be customized according to user requirements;
- 5) Please contact terahub if you have any questions.

#### Notes:

- 1. Datasheet may be changed according to update of MMIC, Raw materials, process, and so on.
- 2. This data is the typical performance for the reference.

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