

## Low Noise Amplifier

**WR-4.3/210-260GHz/7dB NF/15dB Gain****Model: TMLA-210260-1970-04**

TMLA-210260-1970-04 is a H-Band low noise amplifier with a typical small signal gain of 15 dB and a nominal noise figure of 7 dB across the frequency range of 210 to 260 GHz. The DC power requirement for the amplifier is +5 VDC /35 mA. The input and output port configuration offers an inline structure with WR-4.3 waveguides and UG-387/U-M anti-cocking flanges.

### Features:

- Frequency range:210-260GHz
- Gain: 15dB Typ
- Noise Figure: 7dB Typ
- Unconditional stability

### Applications:

- Passive Imaging
- 5G Systems

## 电气特性 Electrical Characteristics:

| 参数 Parameter            | Min | Typ | Max | 单位 Units |
|-------------------------|-----|-----|-----|----------|
| 频率范围 Frequency range    | 210 |     | 260 | GHz      |
| 小信号增益 Small Signal Gain |     | 15  |     | dB       |
| 噪声系数 Noise Figure       |     | 7   |     | dB       |
| 输入驻波 Input VSWR         |     | 2.5 |     | :1       |
| 输出驻波 Output VSWR        |     | 3.5 |     | :1       |
| 直流电压 DC Voltage         |     | 5   |     | V DC     |
| 直流供电 DC power supply    |     | 35  |     | mA       |

## 机械特性 Mechanical Specifications:

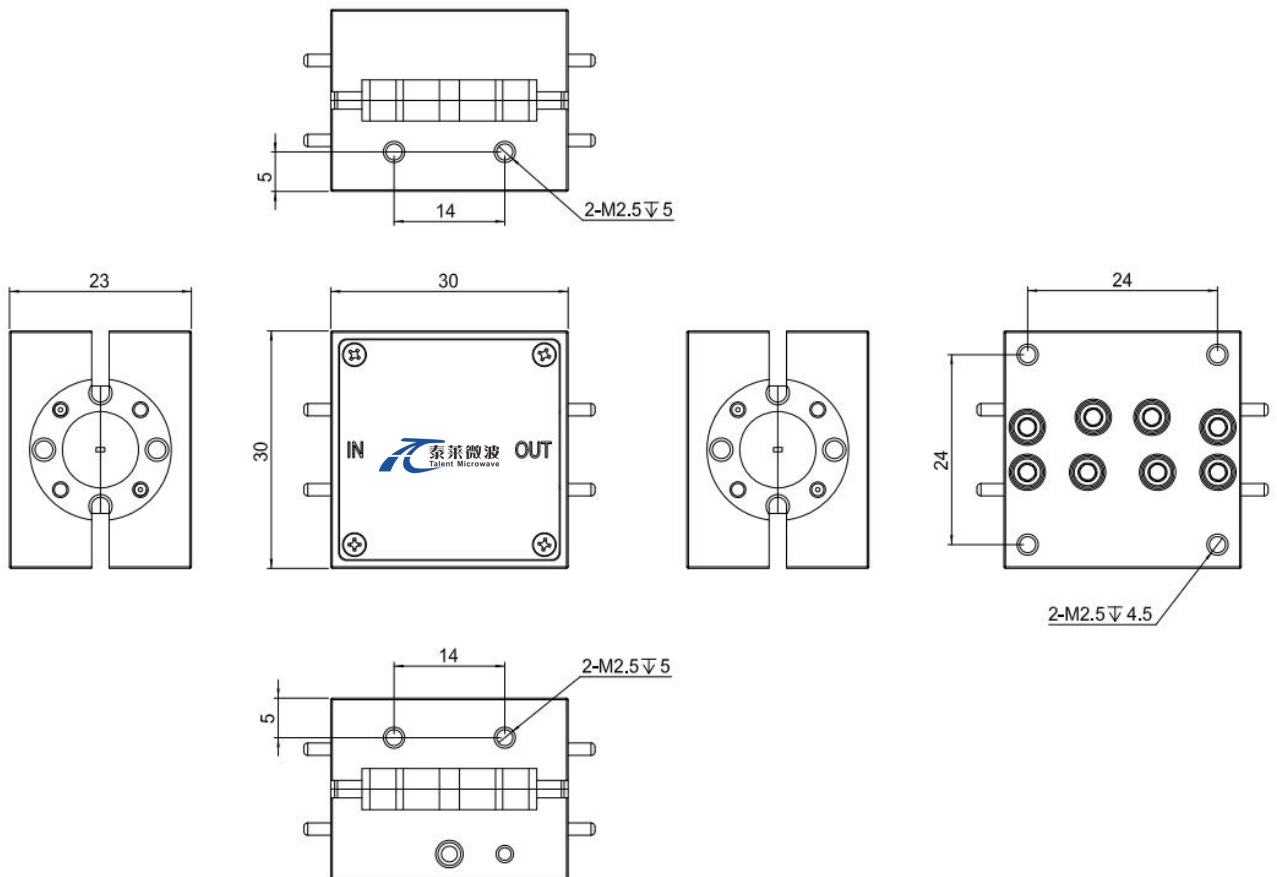
| 参数 Parameter          | 指标 Value         | 单位 Units |
|-----------------------|------------------|----------|
| 输入接口 Input Connector  | WR-4.3/ UG-387/U |          |
| 输出接口 Output Connector | WR-4.3/ UG-387/U |          |
| 供电引脚 Power Supply Pin | Solder Pin       |          |
| 尺寸 Size               | 30*30*23         | mm       |

## 绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter                 | 指标 Value             |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage   | +8 V                 |
| 输入功率 RF Input Power          | +10 dBm              |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |

## 外形图 Outline Drawing:

Unit:mm



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

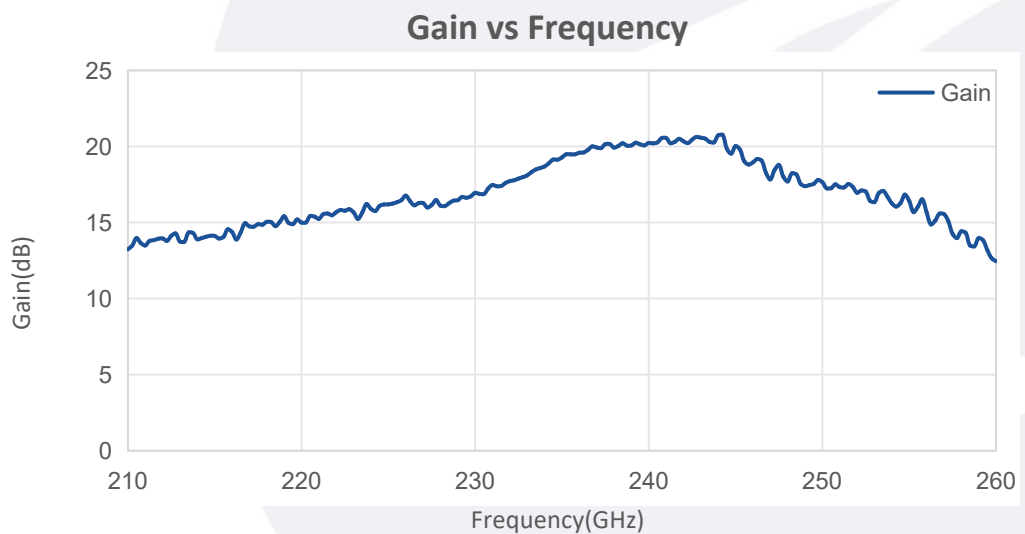
## 温度环境 Environmental Conditions:

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

## 订货信息 Ordering Information:

| 标准型号 Base Number    | 描述 Desciption                                                               | 版本号 Revision |
|---------------------|-----------------------------------------------------------------------------|--------------|
| TMLA-210260-1970-04 | Low Noise Amplifier,210-260GHz, Noise Figure:7.0dB, Gain:15dB,+5V DC,WR-4.3 | Rev.1.1      |

## 典型曲线 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.