

## W-Band, Active Frequency Multiplier

WR-10/X6/75-110GHz /12dBm Output Power

Model: TMAM-075110-0612-10

TMAM-075110-0612-10 is an active X6 frequency multiplier. The multiplier has an input frequency of 12.5 to 18.33 GHz with a typical input power of +5 dBm and an output frequency of 75 to 110 GHz with a typical output power of +12 dBm. The DC power requirement for the multiplier is +12 V DC/130 mA. The input port configuration is a female SMA connector and the output is a WR-10 waveguide with a UG-387/U-M anti-cocking flange.

### Features:

- Output Frequency:70-110GHz
- Output Power :12dBm Typ
- Low power consumption

### Applications:

- Frequency Extenders
- THz Systems

## 电气特性 Electrical Characteristics:

| 参数 Parameter               | Min  | Typ | Max   | 单位 Units |
|----------------------------|------|-----|-------|----------|
| 输出频率 Output Frequency      | 75   |     | 110   | GHz      |
| 输出功率 Output Power          |      | 12  |       | dBm      |
| 输入频率 Input Frequency       | 12.5 |     | 18.33 | GHz      |
| 输入功率 Input Power           | 3    | 5   | 7     | dBm      |
| 倍频次数 Multiply Factor       |      | 6   |       |          |
| 谐波抑制 Harmonics Suppression |      | -20 |       | dBc      |
| 输入驻波 Input VSWR            |      | 2   |       | :1       |
| 输出驻波 Output VSWR           |      | 2   |       | :1       |
| 供电电压 DC Voltage            |      | 12  |       | V        |
| 供电电流 DC Supply Current     |      | 130 |       | mA       |

## 机械特性 Mechanical Specifications:

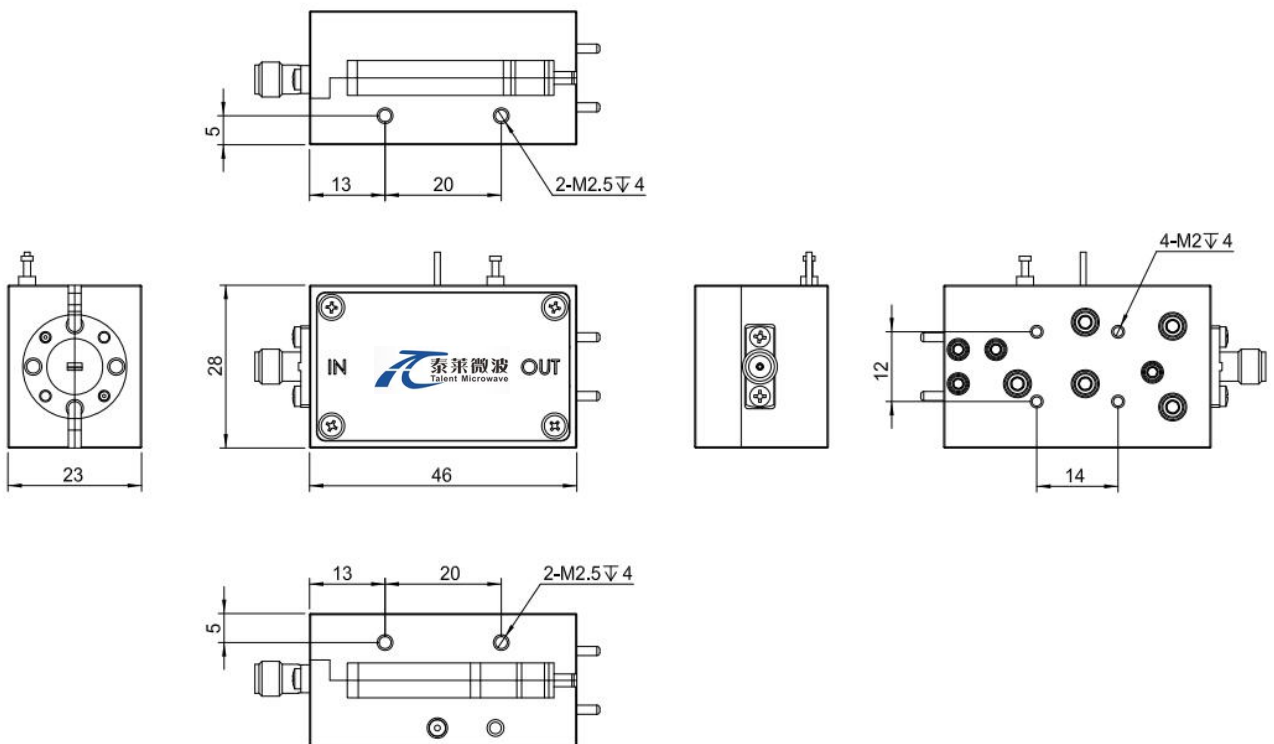
| 参数 Parameter          | 指标 Value       | 单位 Units |
|-----------------------|----------------|----------|
| 输出接口 Output Connector | WR-10/UG-387/U |          |
| 输入接口 Input Connector  | SMA Female     |          |
| 直流偏置 DC Bias          | Solder Pin     |          |
| 尺寸 Size               | 46*28*23       | mm       |

## 绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter                 | 指标 Value             |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage   | +15 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



## 温度环境 Environmental Conditions:

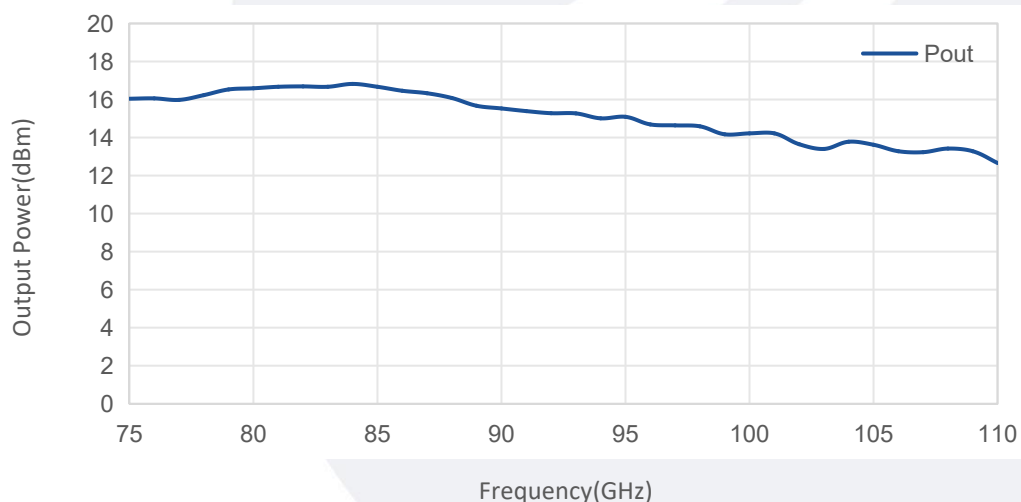
| 参数 Parameter                       | Min                                                 | Typ | Max | 单位 Units |
|------------------------------------|-----------------------------------------------------|-----|-----|----------|
| 操作温度 Operating Temperature         | -10                                                 |     | +65 | °C       |
| 存储温度 Non-operating Temperature     | -45                                                 |     | +85 | °C       |
| 相对湿度 Relative humidity             |                                                     | 95  |     | %        |
| 海拔 Altitude                        | 50,000                                              |     |     | 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 Description                                                                      | 版本号 Revision |
|---------------------|-------------------------------------------------------------------------------------|--------------|
| TMAM-075110-0612-10 | W-Band,Active Multiplier,X6,75-110GHz, Output Power:12dBm,WR-10/UG-387/U,SMA Female | Rev.1.1      |

## 典型曲线 Typical Performance Data:

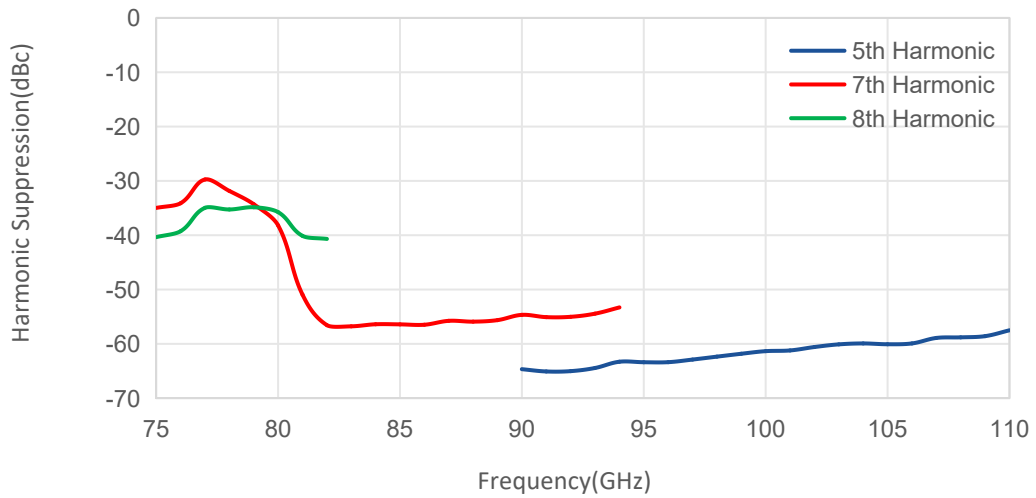
Output Power vs Frequency



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.

## 典型曲线 Typical Performance Data:

### Harmonic Suppression vs Frequency



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.