

## E-Band, Active Frequency Multiplier

WR-12/X6/60-90GHz/0dBm Output Power

Model: TMAM-060090-0600-12

TMAM-060090-0600-12 is an active X4 frequency multiplier. The multiplier has an input frequency of 10 to 15 GHz with a typical input power of +5 dBm and an output frequency of 60 to 90 GHz with a typical output power of 0 dBm. The DC power requirement for the multiplier is +12 V DC/165 mA. The input port configuration is a female SMA connector and the output is a WR-12 waveguide with a UG-387/U-M anti-cocking flange.

### Features:

- Output Frequency: 60-90GHz
- Output Power: 0dBm 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  | 60  |     | 90  | GHz      |
| 输出功率 Output Power      |     | 0   |     | dBm      |
| 输入频率 Input Frequency   | 10  |     | 15  | GHz      |
| 输入功率 Input Power       | 3   | 5   | 7   | dBm      |
| 倍频次数 Multiply Factor   |     | 6   |     |          |
| 谐波 Harmonic            |     | -30 |     | dBc      |
| 供电电压 DC Voltage        |     | 12  |     | V        |
| 供电电流 DC Supply Current |     | 165 |     | mA       |

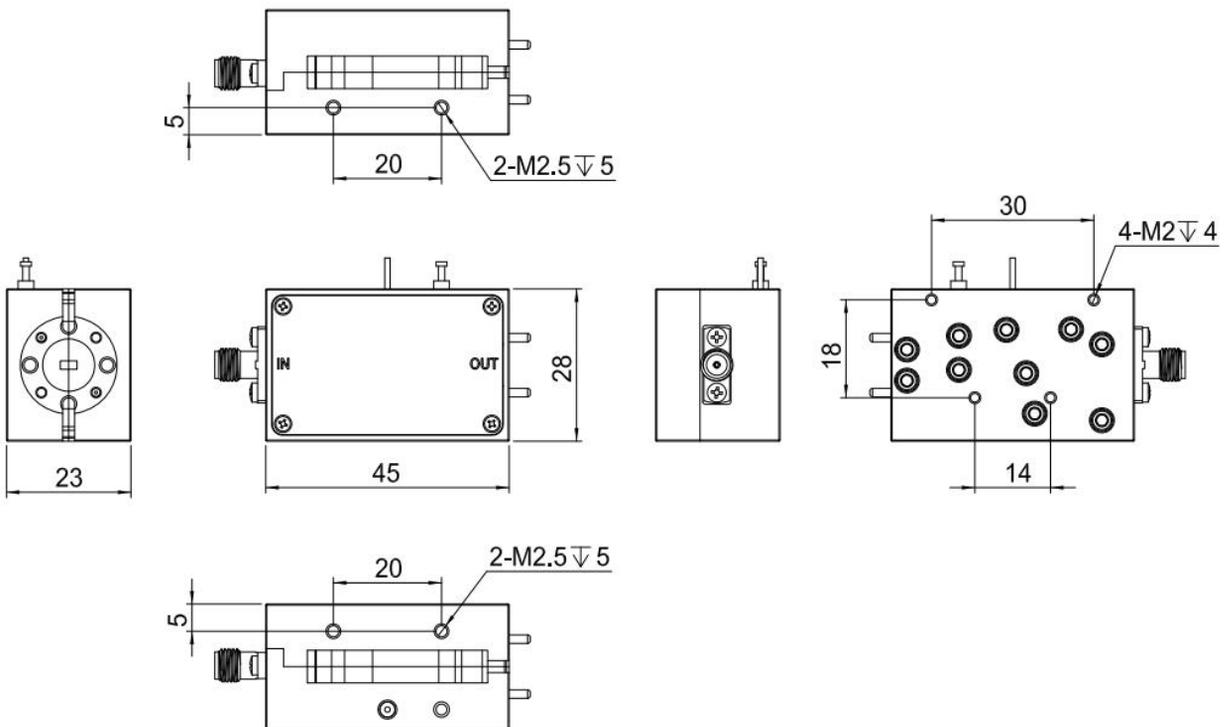
### 机械特性 Mechanical Specifications:

| 参数 Parameter          | 指标 Value       | 单位 Units |
|-----------------------|----------------|----------|
| 输出接口 Output Connector | WR-12/UG-387/U |          |
| 输入接口 Input Connector  | SMA Female     |          |
| 直流偏置 DC Bias          | Solder Pin     |          |

## 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



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

### 温度环境 Environmental Conditions:

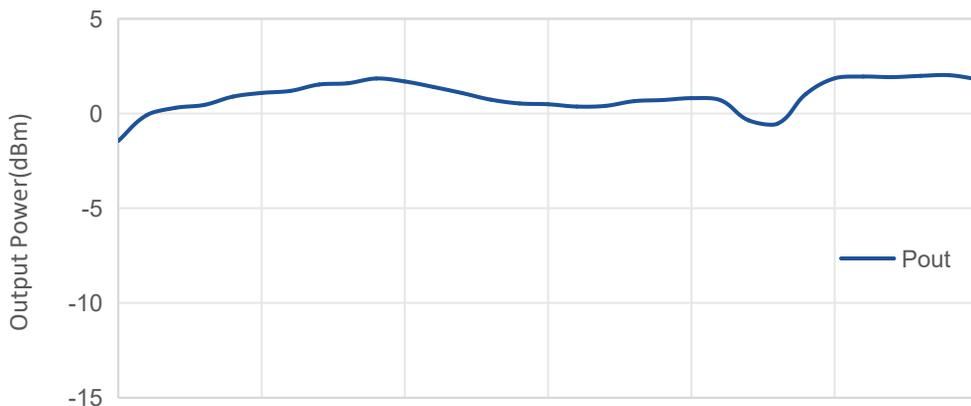
| 参数 Parameter                       | Min   | Typ | Max | 单位 Units |
|------------------------------------|---|-----|-----|----------|
| 操作温度 Operating Temperature         | -10   |     | +65 | °C       |
| 存储温度 Non-operating Temperature     | -45   |     | +85 | °C       |
| 相对湿度 Relative humidity             |   | 95  |     | %        |
| 海拔 Altitude                        | 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:

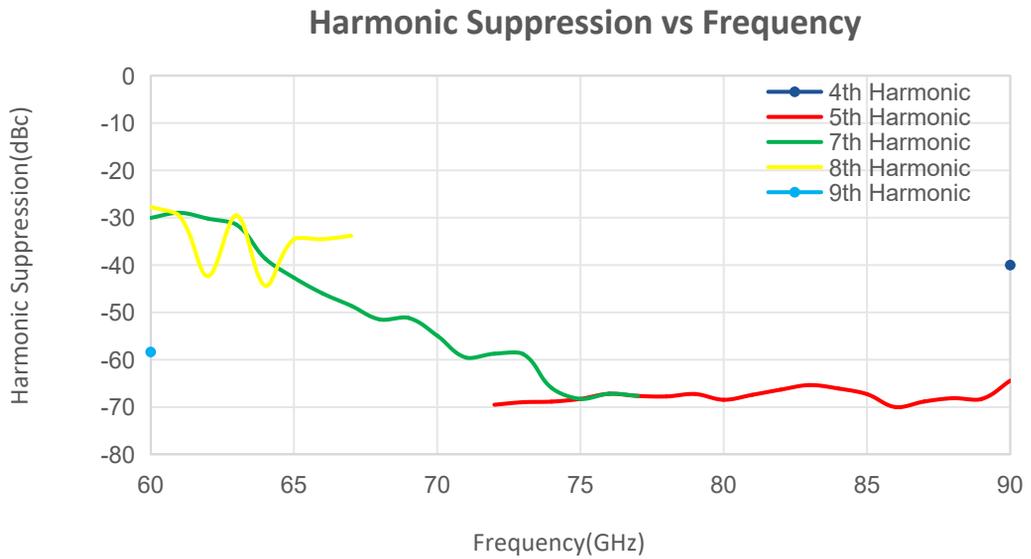
| 标准型号 Base Number    | 描述 Description   | 版本号 Revision |
|---------------------|--|--------------|
| TMAM-060090-0600-12 | Active Multiplier,X6,60-90GHz, Output Power:0dBm,WR-12/UG-387/U,SMA Female | Rev.1.1      |

### 典型曲线 Typical Performance Data:

Output Power vs Frequency



## 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.