

# W-Band, Active Frequency Multiplier

## WR-10/X8/70-110GHz/13dBm Output Power

TMAM-070110-0813-10

TURAM-070110081310 is an active X8 frequency multiplier. The multiplier has an input frequency of 8.75 to 13.75 GHz with a typical input power of 0 dBm and an output frequency of 70 to 110 GHz with a typical output power of +13 dBm. The DC power requirement for the multiplier is +12 V DC. 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: 13dBm 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     | 70   |     | 110   | GHz      |
| 输出功率 Output Power         |      | 13  |       | dBm      |
| 输入频率 Input Frequency      | 8.75 |     | 13.75 | GHz      |
| 输入功率 Input Power          |      | 0   | 3     | dBm      |
| 倍频次数 Multiply Factor      |      | 8   |       |          |
| 谐波抑制 Harmonic Suppression |      | -20 |       | dBc      |
| 供电电压 DC Voltage           |      | 12  |       | V        |

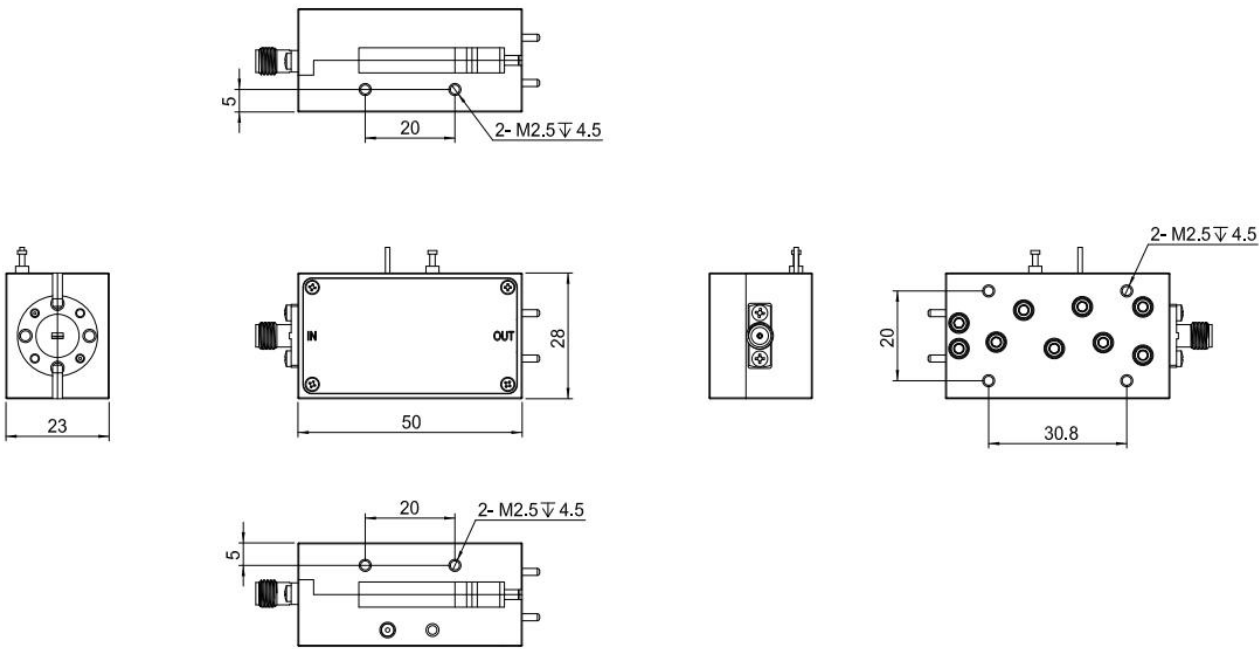
机械特性 Mechanical Specifications:

| 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     |          |

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          | +5 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.

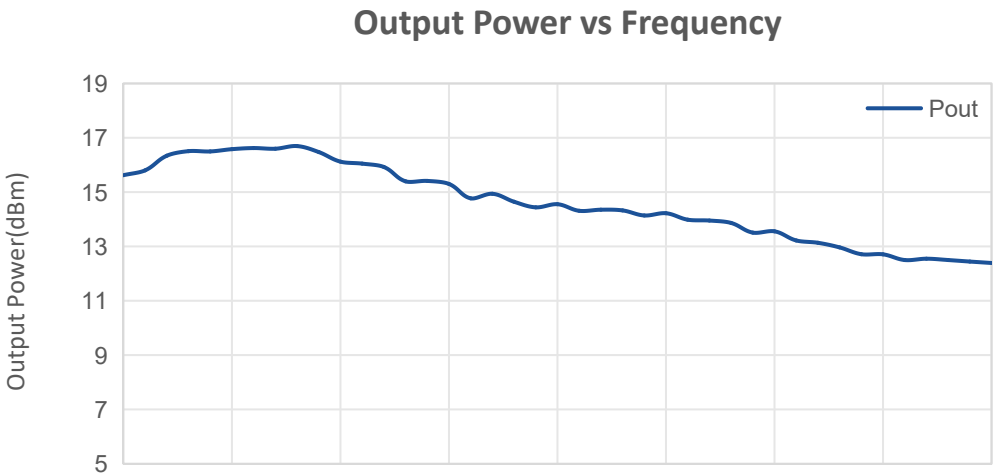
温度环境 Environmental Conditions:

| 参数 Parameter                       | Min                                                 | Typ | Max | 单位 Units |
|------------------------------------|-----------------------------------------------------|-----|-----|----------|
| 操作温度 Operating Temperature         | -10                                                 |     | +65 | ℃        |
| 存储温度 Non-operating Temperature     | -45                                                 |     | +85 | ℃        |
| 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  |     |     |          |

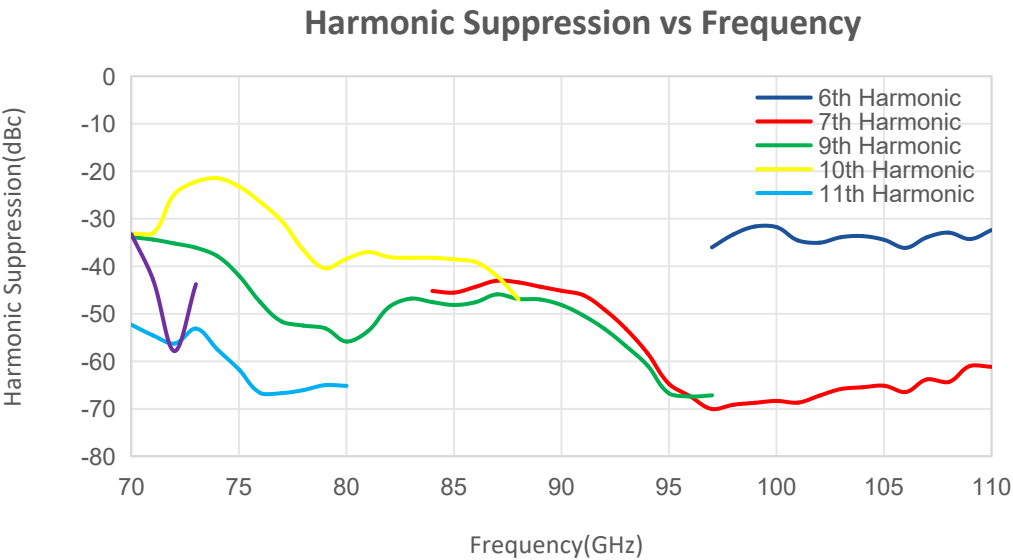
订货信息 Ordering Information:

| 标准型号 Base Number   | 描述 Description                                                               | 版本号 Revision |
|--------------------|------------------------------------------------------------------------------|--------------|
| TURAM-070110081310 | Active Multiplier,X8,70-110GHz, Output Power:13dBm,WR-10/UG-387/U,SMA Female | Rev.1.1      |

典型曲线 Typical Performance Data:



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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.