

## D-Band, Active Frequency Multiplier

WR-6.5/X12/ 110-170GHz/4dBm Output Power

Model: TMAM-110170-1204-06

TMAM-110170-1204-06 is an active X12 frequency multiplier. The multiplier has an input frequency of 9.16 to 14.17 GHz with a typical input power of +5 dBm and an output frequency of 110 to 170 GHz with a typical output power of +4 dBm. The DC power requirement for the multiplier is +12 V DC/290 mA. The input port configuration is a female SMA connector and the output is a WR-6.5 waveguide with a UG-387/U-M anti-cocking flange.

### Features:

- Output Frequency: 110-170GHz
- Output Power: 4dBm 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	110		170	GHz
输出功率 Output Power	2	4		dBm
输入频率 Input Frequency	9.16		14.17	GHz
输入功率 Input Power	3	5	7	dBm
倍频次数 Multiply Factor		12		
谐波抑制 Harmonic Suppression		-20		dBc
供电电压 DC Voltage		12		V
供电电流 DC Supply Current		290		mA

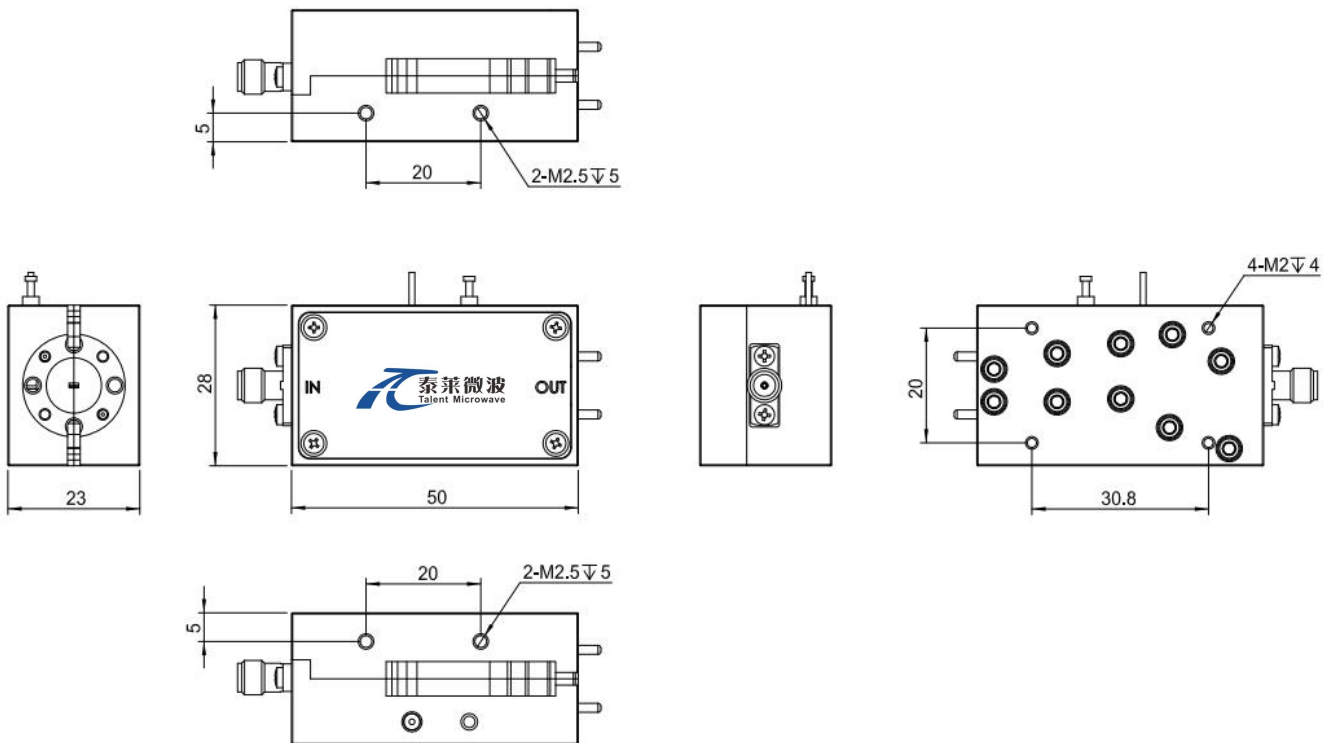
### 机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输出接口 Output Connector	WR-6.5/UG-387/U	
输入接口 Input Connector	SMA Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	50*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:

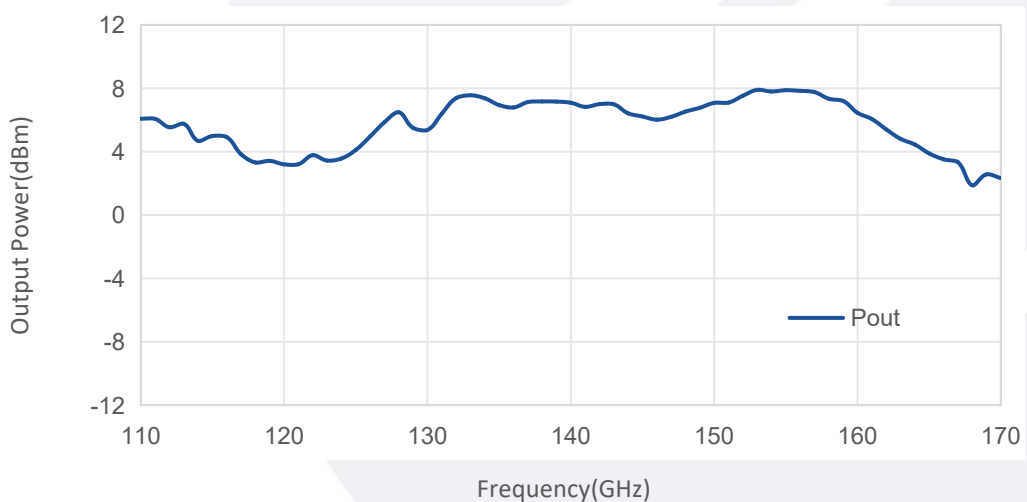
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half 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-110170-1204-06	Active Multiplier,X12,110-170GHz, Output Power:4dBm,WR-6.5/UG-387/U,SMA Female	Rev.1.1

## 典型曲线 Typical Performance Data:

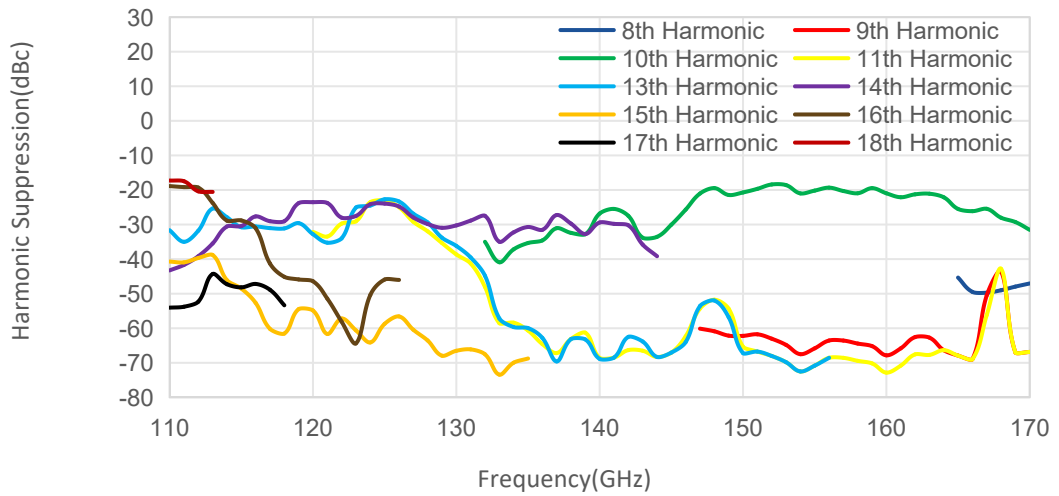
Output Power vs Frequency



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.