

## E-Band, Active Frequency Multiplier

### WR-12/X3/60-90GHz /16dBm Output Power

Model: TMAM-060090-0313-12

TMAM-060090-0313-12 is an active X3 frequency multiplier. The multiplier has an input frequency of 20 to 30 GHz with a typical input power of +5 dBm and an output frequency of 60 to 90 GHz with a typical output power of +16 dBm. The DC power requirement for the multiplier is +12 V DC/230 mA. The input port configuration is a female 2.92mm 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 :16dBm 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	13	16		dBm
输入频率 Input Frequency	20		30	GHz
输入功率 Input Power	3	5	7	dBm
倍频次数 Multiply Factor		3		
谐波抑制 Harmonic Suppression		-30		dBc
供电电压 DC Voltage		12		V
供电电流 DC Supply Current		230		mA

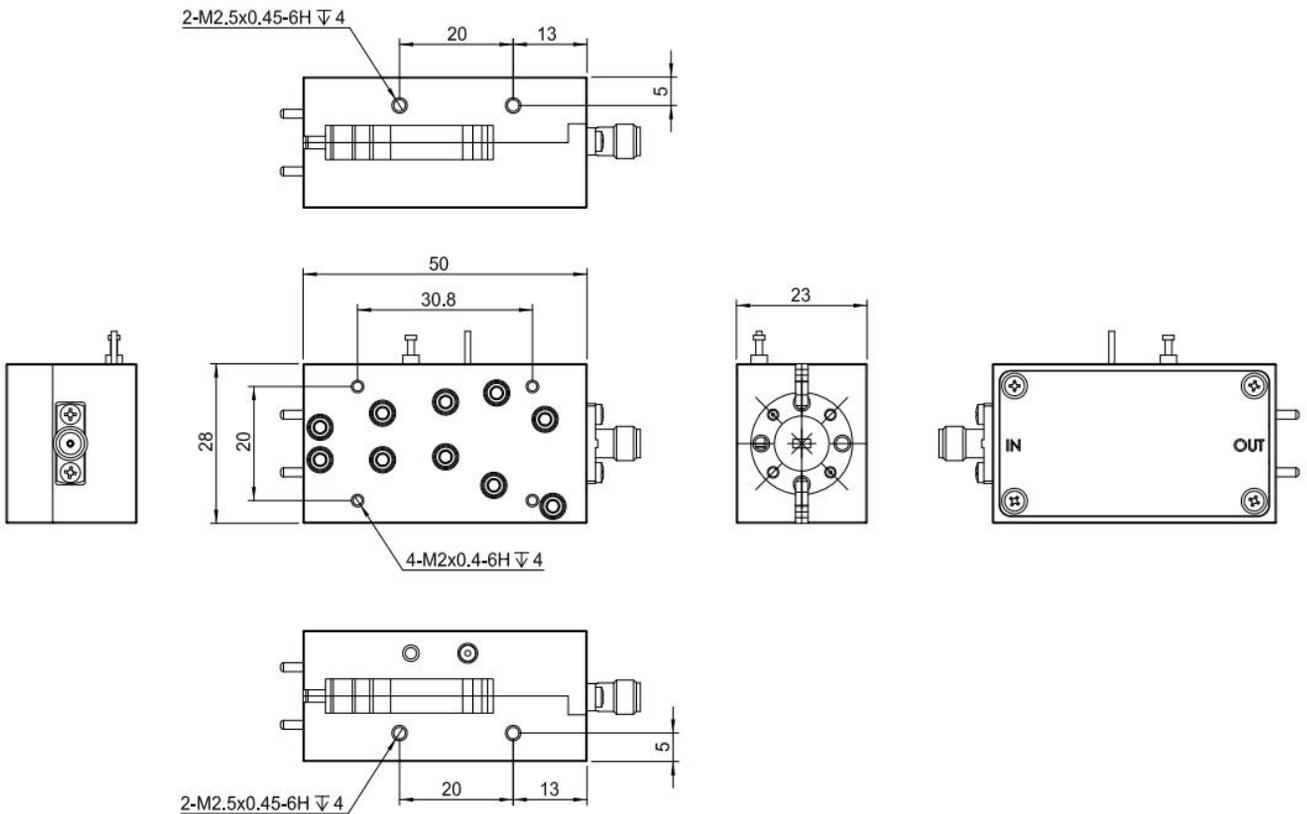
## 机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输出接口 Output Connector	WR-12/UG-387/U	

## 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:

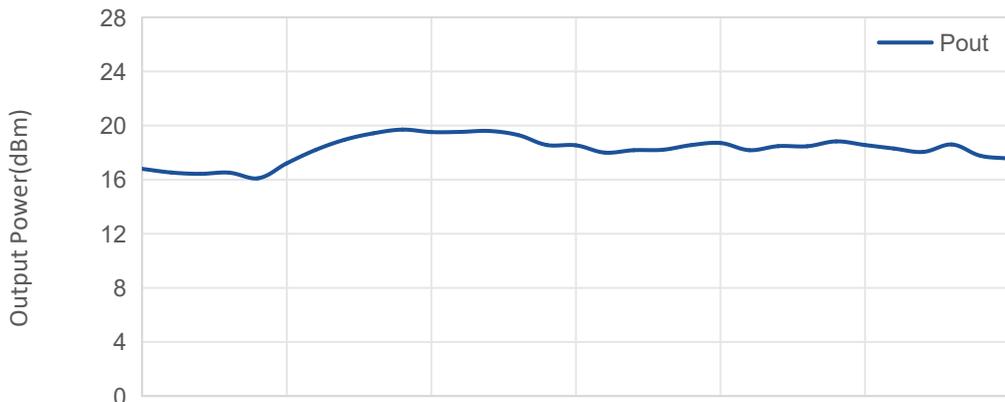
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

### 订货信息 Ordering Information:

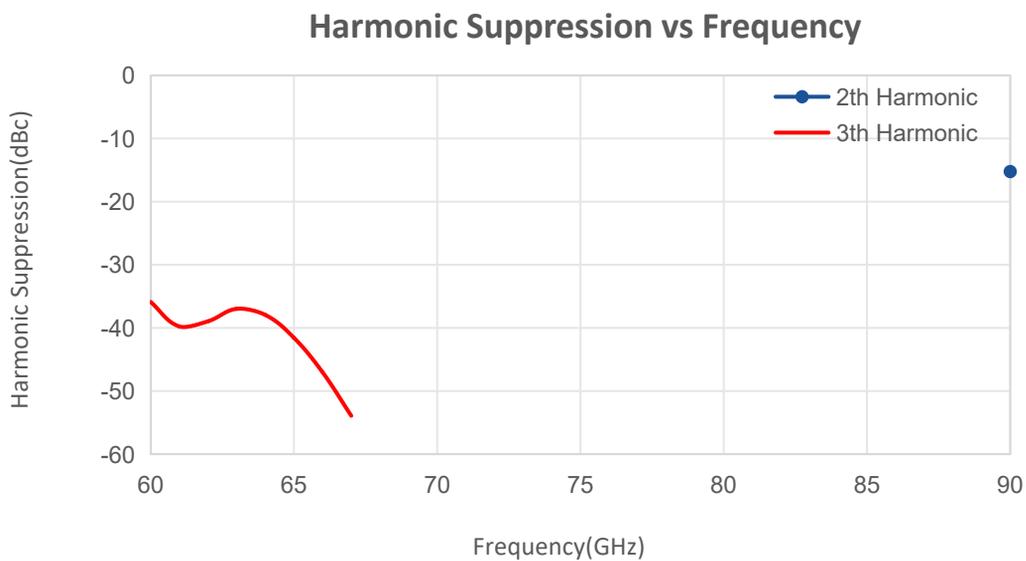
标准型号 Base Number	描述 Description	版本号 Revision
TMAM-060090-0313-12	Active Multiplier,X3,60-90GHz, Output Power:16dBm,WR-12/UG-387/U,2.92mm Female	Rev.1.1

### 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.