

## F-Band, Active Frequency Multiplier

### WR-08/X12/100-115GHz/10dBm Output Power Model: TMAM-100115-1210-08

TMAM-100115-1210-08 is an active X12 frequency multiplier. The multiplier has an input frequency of 8.33 to 9.59 GHz with a typical input power of 5 dBm and an output frequency of 100 to 115 GHz with a typical output power of +10 dBm. The DC power requirement for the multiplier is +12 V DC/450 mA. The input port configuration is a female SMA connector and the output is a WR-08 waveguide with a UG-387/U-M anti-cocking flange.

#### Features:

- Output Frequency: 100-115GHz
- Output Power: 10dBm 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	100		115	GHz
输出功率 Output Power	8	10	12	dBm
输入频率 Input Frequency	8.33		9.59	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		450		mA

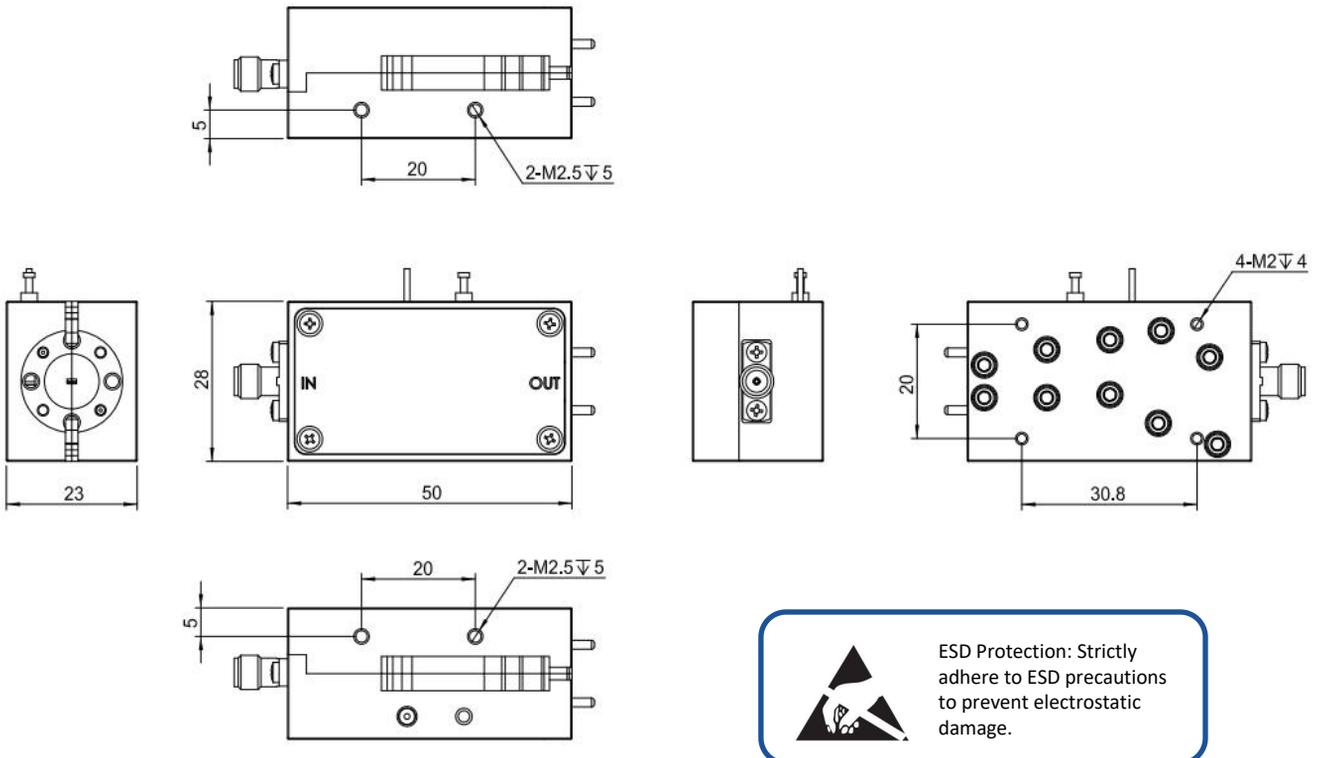
### 机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输出接口 Output Connector	WR-08/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	+10dBm
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.

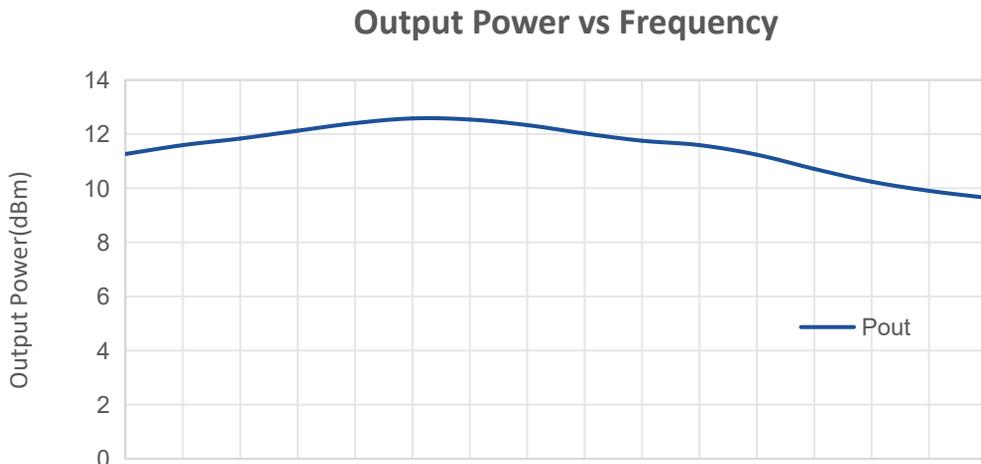
### 温度环境 Environmental Conditions:

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:

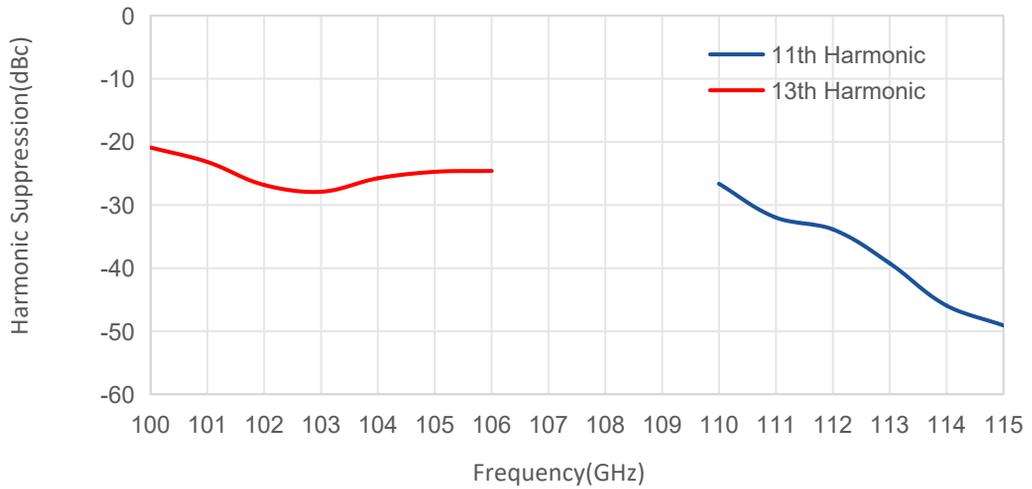
标准型号 Base Number	描述 Description	版本号 Revision
TMAM-100115-1210-08	Active Multiplier,X12,100-115GHz, Output Power:10dBm,WR-08/UG-387/U,SMA Female	Rev.1.1

### 典型曲线 Typical Performance Data:



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### 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.