

## Passive Frequency Multiplier

WR-10/X2/75-110GHz/2dBm Output Power

Model: TPM-075110-0202-10

TMPM-075110-0202-10 is a WR-10 X2 passive multiplier that generates second order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 37.5 to 55 GHz at +16 dBm RF power to yield typical +2 dBm output power at 75 to 110 GHz. The multiplier is equipped with a 1.85mm female coax connector as its input port and a WR-10 waveguide and UG-387/U-M flange as its output port.

### Features:

- Output Frequency: 75-110GHz
- Output Power: 2dBm Typ
- Compactness, High Power & Efficiency

### Applications:

- Frequency Extenders
- THz Systems
- Source Modules

### 电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
输出频率 Output Frequency	75		110	GHz
输入频率 Input Frequency	37.5		55	GHz
输出功率 Output Power	-1	2	4	dBm
输入功率 Input Power	13	16	18	dBm
倍频次数 Multiply Factor		2		
输入驻波 Input VSWR		2		:1
输出驻波 Output VSWR		2.5		:1

### 机械特性 Mechanical Specifications:

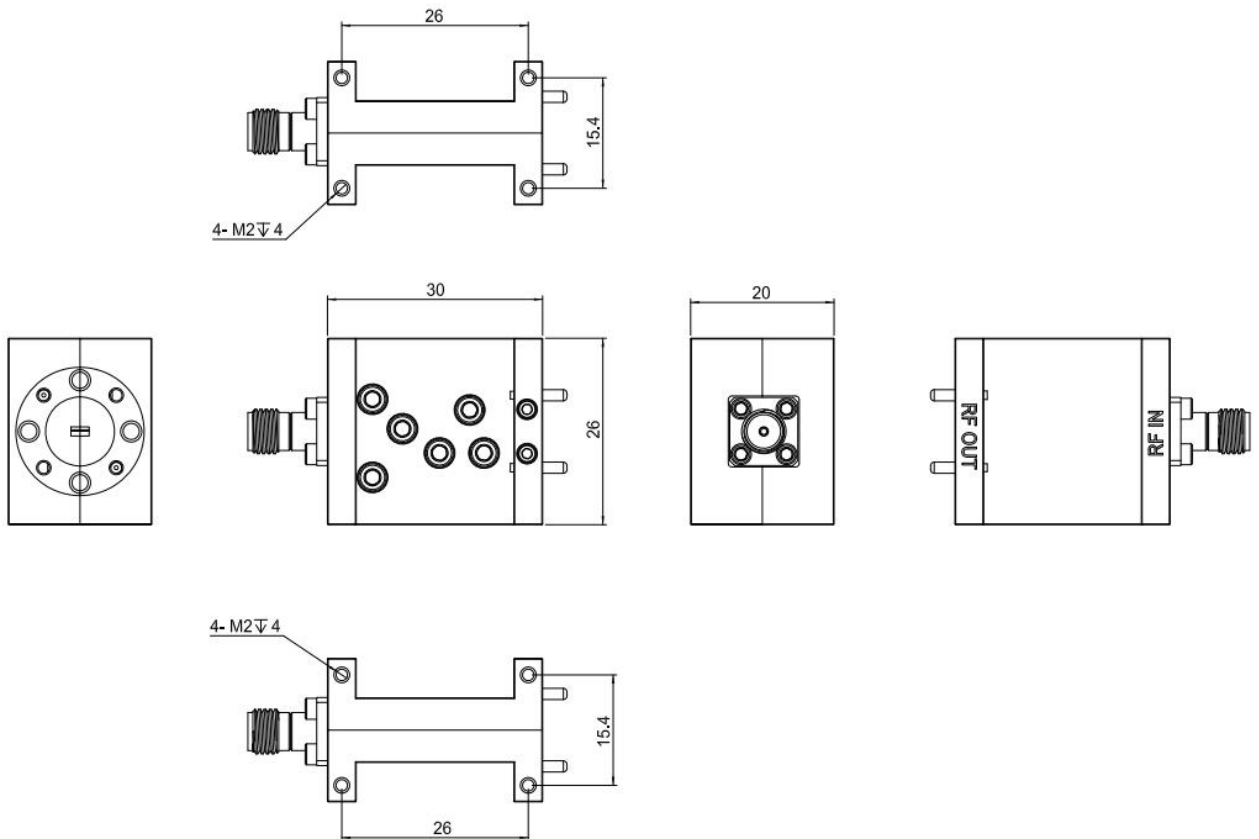
参数 Parameter	指标 Value	单位 Units
输出接口 Output Connector	WR-10/UG-387/U	
输入接口 Input Connector	1.85mm Female	
尺寸 Size	30*26*20	mm

## 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	+25 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:

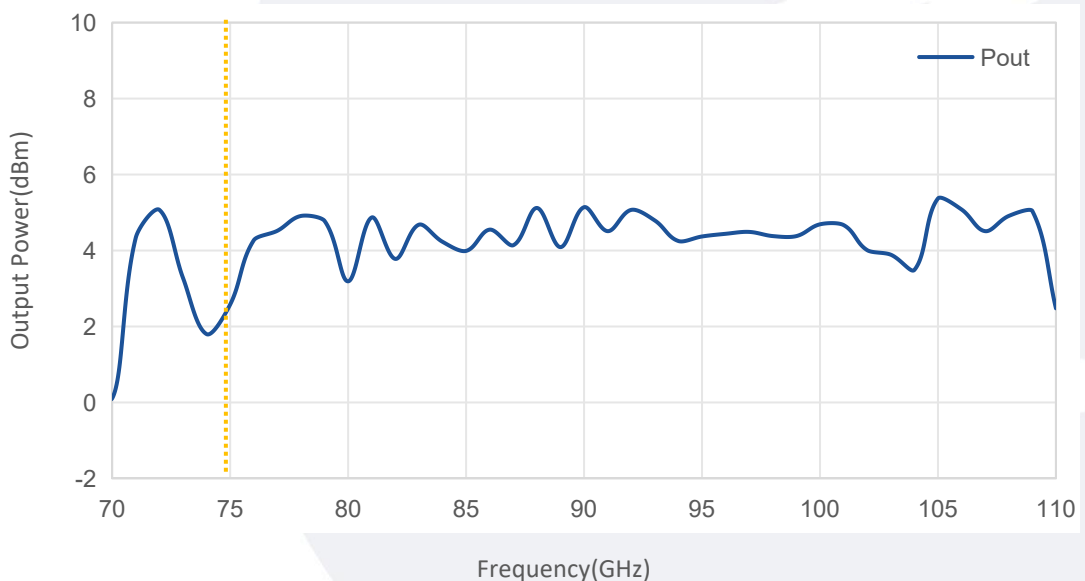
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half 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
TMPM-075110-0202-10	Passive Frequency Multiplier X2,75-110GHz, 2dBm Output Power,WR-10	Rev.1.1

## 典型曲线 Typical Performance Data:

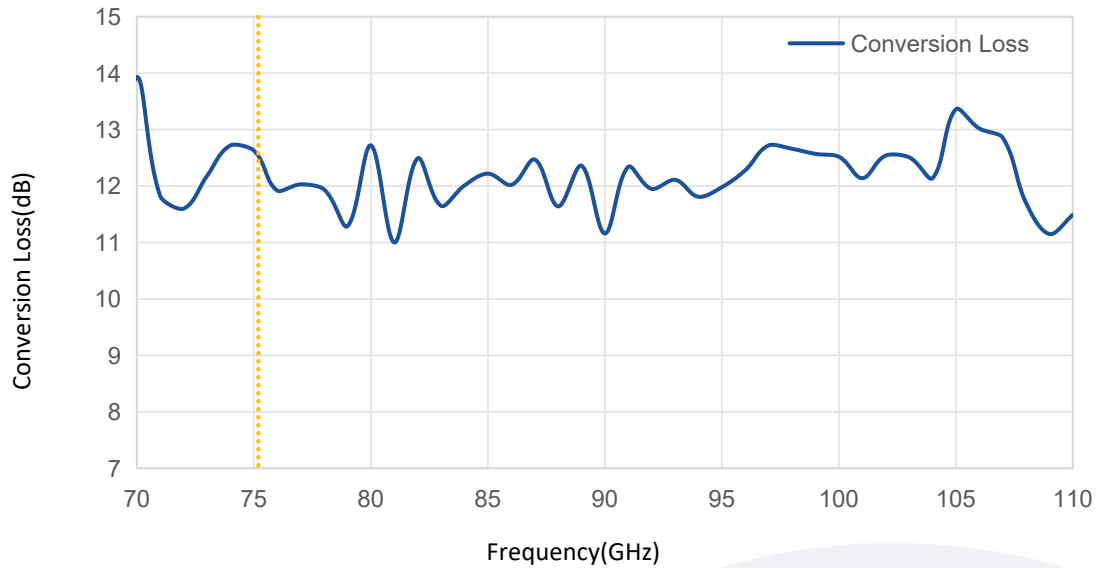
Output Power vs Frequency



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:

### Conversion Loss vs IF 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.