

## Passive Frequency Multiplier

WR-5.1/X2/130-220GHz/8dBm Output Power

Model: TMPM-130220-0208-05

TMPM-130220-0208-05 is a WR-5.1 X2 passive multiplier that generates second order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 65 to 110 GHz at +18 dBm RF power to yield typical +8 dBm output power at 130 to 220 GHz. The multiplier is equipped with a WR-10 waveguide and UG-387/U-M flange as its input port and a WR-5.1 waveguide and UG-387/U-M flange as its output port.

### Features:

- Output Frequency: 130-220GHz
- Output Power: 8dBm Typ
- Compactness, High Power & Efficiency

### Applications:

- Frequency Extenders
- THz Systems
- Source Modules

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	130		220	GHz
Input Frequency	65		110	GHz
Output Power		8		dBm
Input Power		18	20	dBm
Multiply Factor		2		

### Mechanical Specifications:

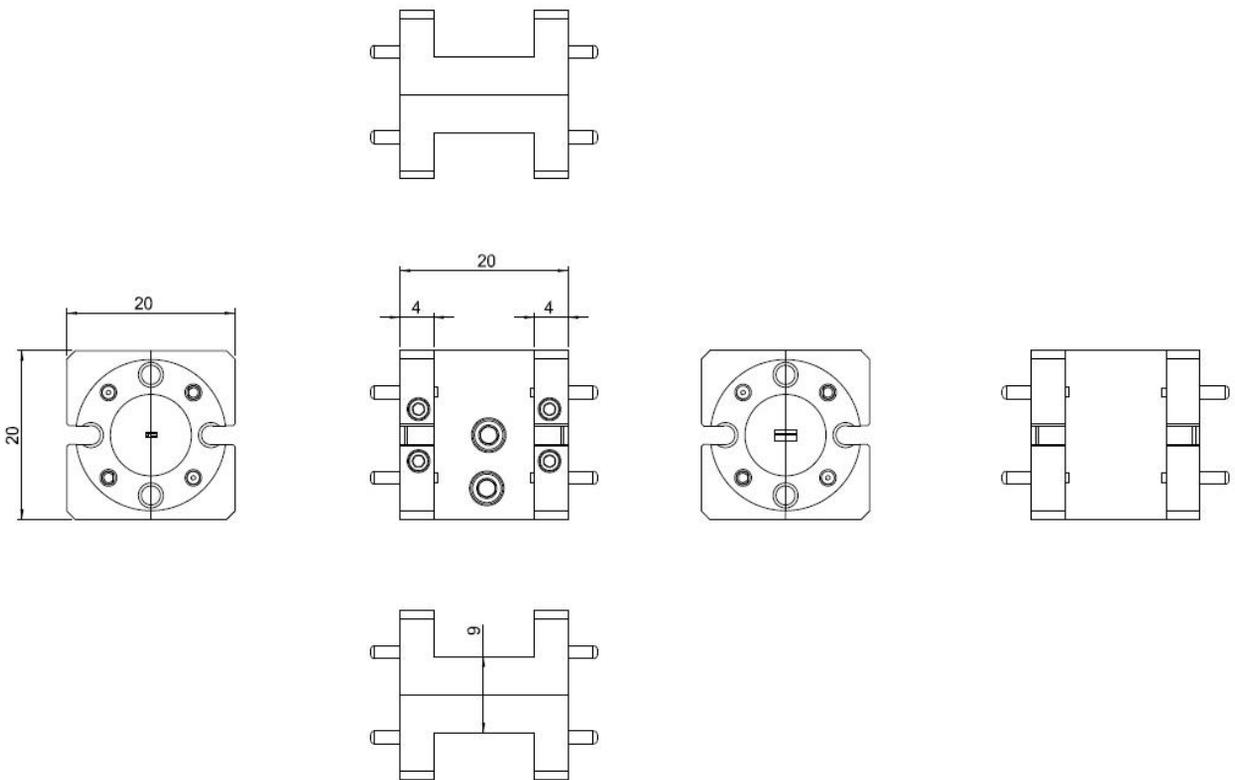
Parameter	Value	Units
Output Connector	WR-5.1/UG-387/U	
Input Connector	WR-10/UG-387/U	
Size	20*20*20	mm

### Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+21 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

### Outline Drawing:

Unit:mm



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

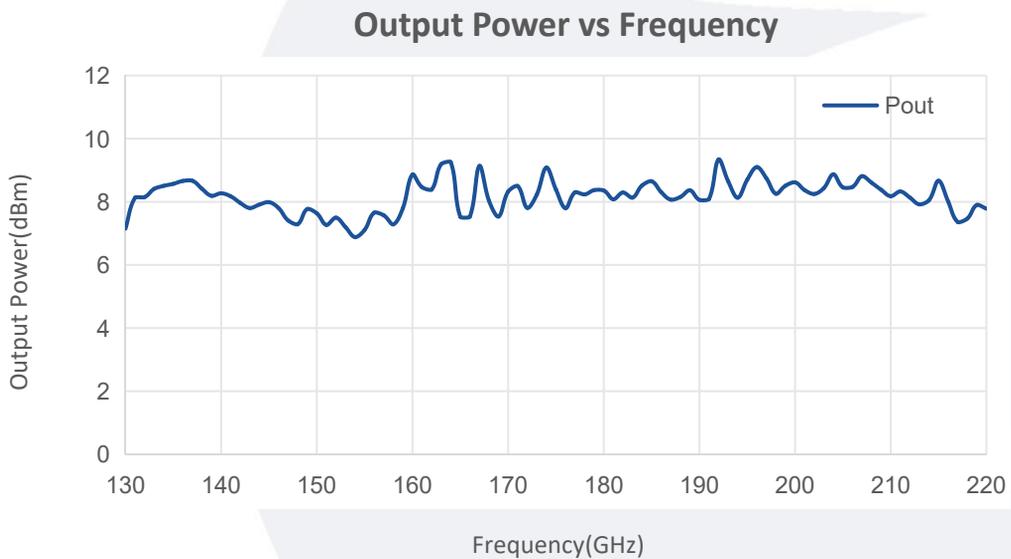
### Environmental Conditions:

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

### Ordering Information:

Base Number	Description	Revision
TMPM-130220-0208-05	Passive Frequency Doubler X2,130-220GHz, 8dBm Output Power,WR-5.1	Rev.1.1

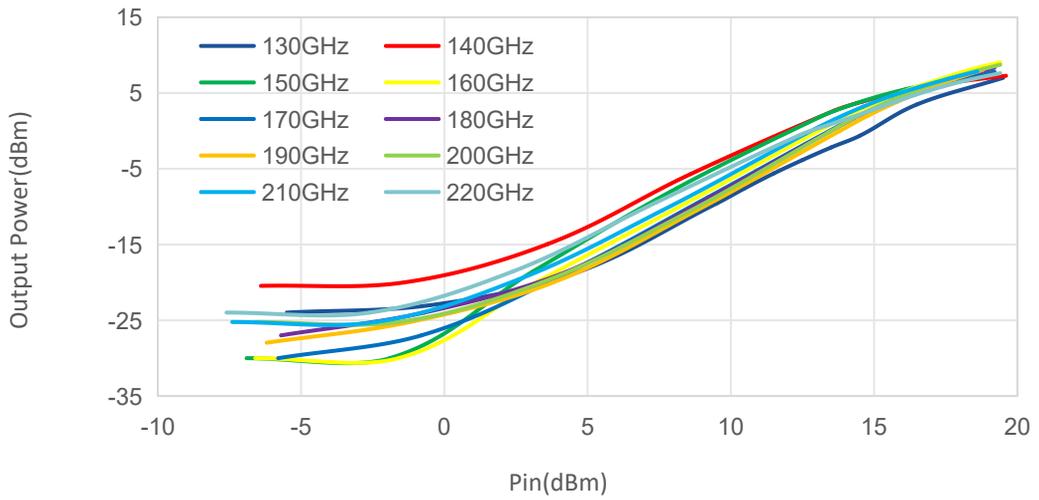
### Typical Performance Data:



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.

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**Pout@Pin vs Frequency**



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