

Passive Frequency Multiplier

WR-5.1/X3/140-220GHz/6dBm Output Power

Model: TPM-140220-0310-5.1

TPM-140220-0310-5.1 is a WR-5.1, X3 passive multiplier that generates second order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 46.66 to 73.33 GHz at +15 dBm RF power to yield typical +6 dBm output power at 140 to 220 GHz. The multiplier is equipped with a WR-15 waveguide and UG-385/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: 140-220GHz
- Output Power: 6dBm Typ
- Compactness, High Power & Efficiency

Applications:

- Frequency Extenders
- THz Systems
- Source Modules

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	140		220	GHz
Input Frequency	46.66		73.34	GHz
Output Power		6		dBm
Input Power	17		24	dBm
Multiply Factor		3		

Mechanical Specifications:

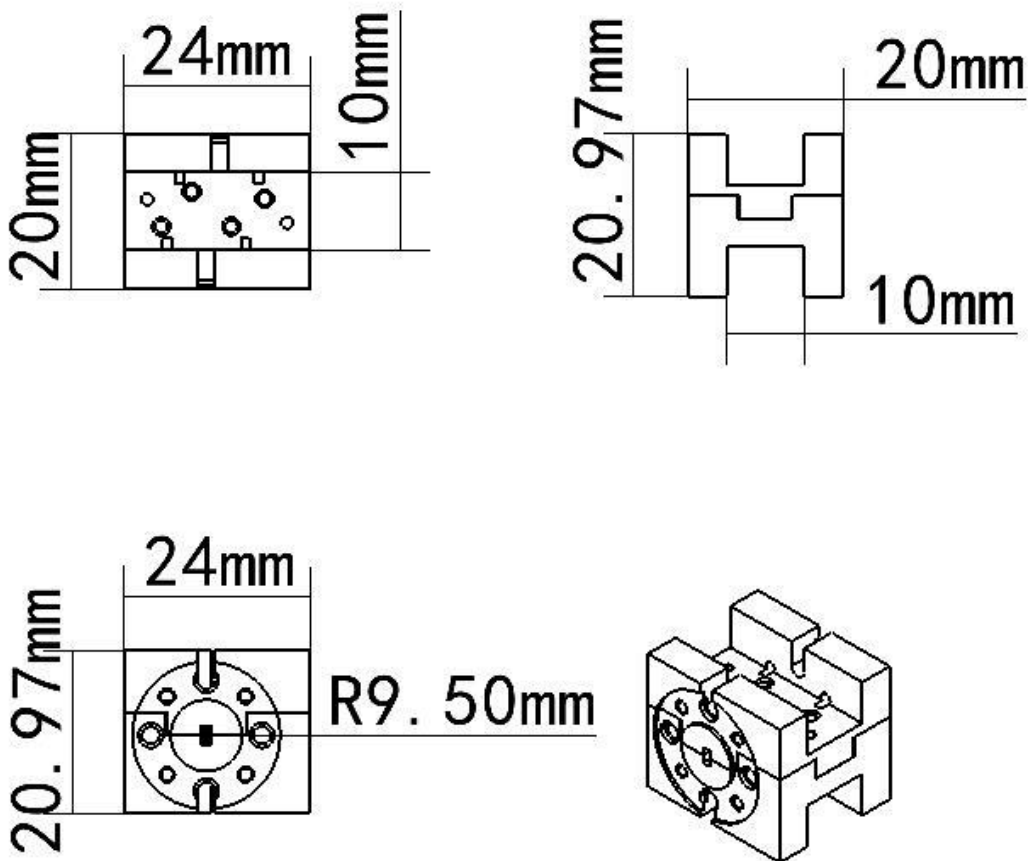
Parameter	Value	Units
Output Connector	WR-5.1/UG-387/U	
Input Connector	WR-15/UG-387/U	
Size	24*20*20.97	mm

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+24 dBm
ESD sensitivity (HBM)	Class 0, passed 150V

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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

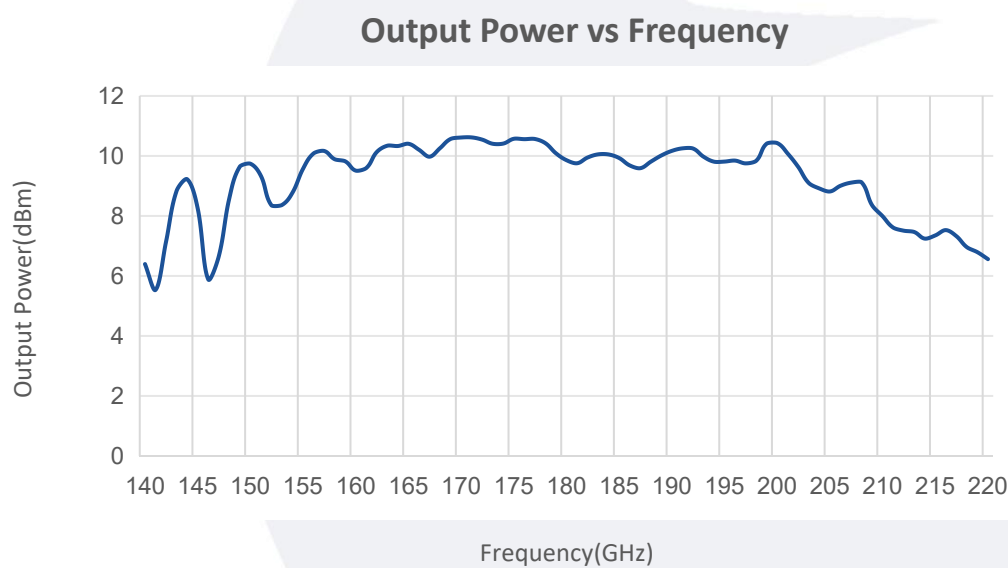
Environmental Conditions:

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-140220-0310-5.1	Passive Frequency Tripler X3,140-220GHz, 6dBm 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.