

Passive Frequency Multiplier

WR-6.5/X2/110-170GHz/8dBm Output Power

Model: TPM-110170-0208-06

TPM-110170-0208-06 is a WR-6.5, X2 passive multiplier that generates second order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 55 to 85 GHz at +20 dBm RF power to yield typical +8 dBm output power at 110 to 170 GHz. The multiplier is equipped with a WR-12 waveguide and UG-387/U-M flange as its input port and a WR-6.5 waveguide and UG-387/U-M flange as its output port.

Features:

- Output Frequency: 110-170GHz
- Output Power: 8dBm Typ
- Compactness,High Power&Efficiency

Applications:

- Frequency Extenders
- THz Systems
- Source Modules

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	110		170	GHz
Input Frequency	55		85	GHz
Output Power		8		dBm
Input Power			20	dBm
Multiply Factor		2		
Harmonic		-40		dBc

Mechanical Specifications:

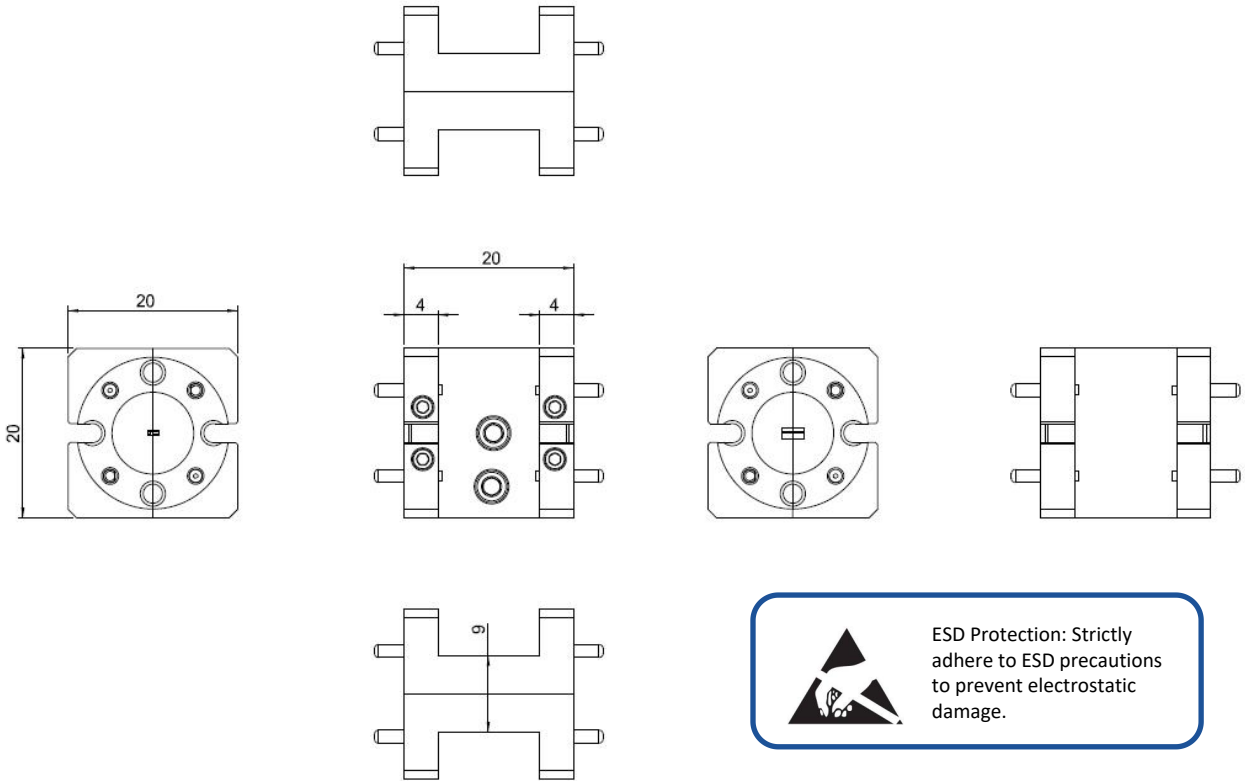
Parameter	Value	Units
Output Connector	WR-6.5/UG-387/U	
Input Connector	WR-12/UG-387/U	
Size	20*20*20	mm

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+20 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Environmental Conditions:

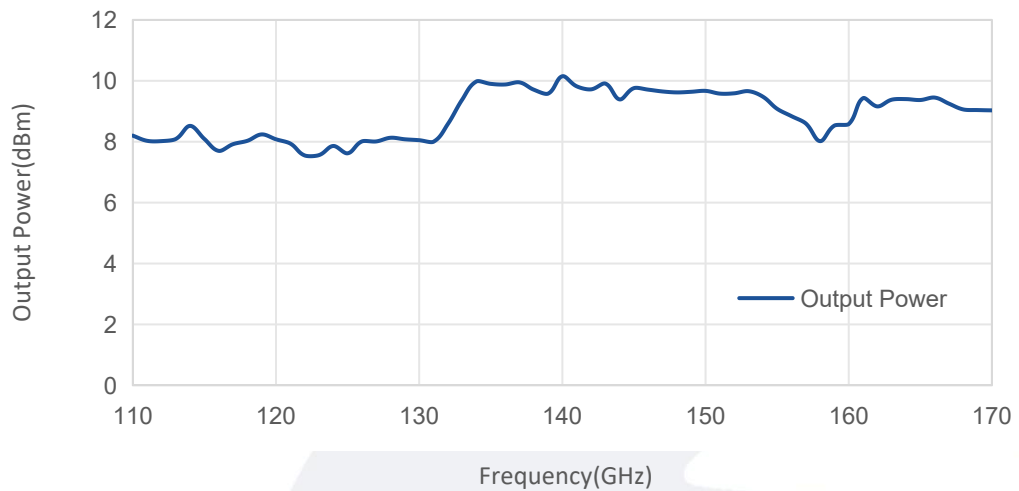
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

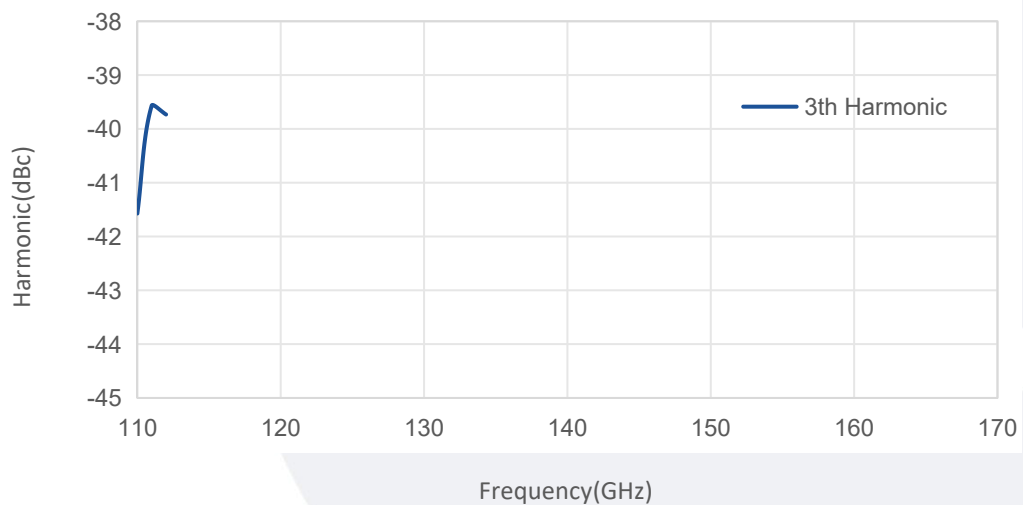
Base Number	Description	Revision
TMPM-110170-0208-06	Passive Frequency Multiplier X2,110-170GHz, 8dBm Output Power,WR-6.5	Rev.1.1

Typical Performance Data:

Output Power vs Frequency



Harmonic 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.