

Passive Frequency Multiplier

WR-6.5/X3/105-170GHz/8dBm Output Power

Model: TPM-105170-0308-06

TPM-105170-0308-06 is a WR-6.5, X3 passive multiplier that generates second order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 105 to 170 GHz at +21 dBm RF power to yield typical +8 dBm output power at 105 to 170 GHz. The multiplier is equipped with 1.85mm female coax adapter as its input port and a WR-6.5 waveguide and UG-387/U-M flange as its output port.

Features:

- Output Frequency: 105-170GHz
- Output Power : 8dBm Typ
- Compactness, High Power & Efficiency

Applications:

- Frequency Extenders
- THz Systems
- Source Modules

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	105		170	GHz
Input Frequency	35		57	GHz
Output Power		8		dBm
Input Power	19	21	23	dBm
Multiply Factor		3		
Conversion Efficiency		4		%

Mechanical Specifications:

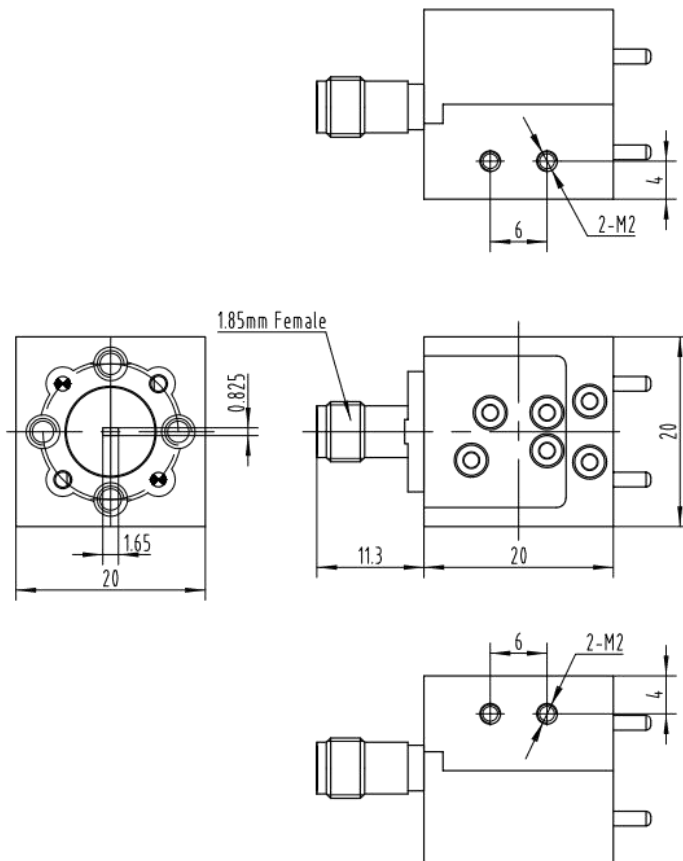
Parameter	Value	Units
Output Connector	WR-6.5/UG-387/U	
Input Connector	1.85mm Female	
Size	20*20*20	mm

Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm



Regulatory Compliance:



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

Environmental Conditions:

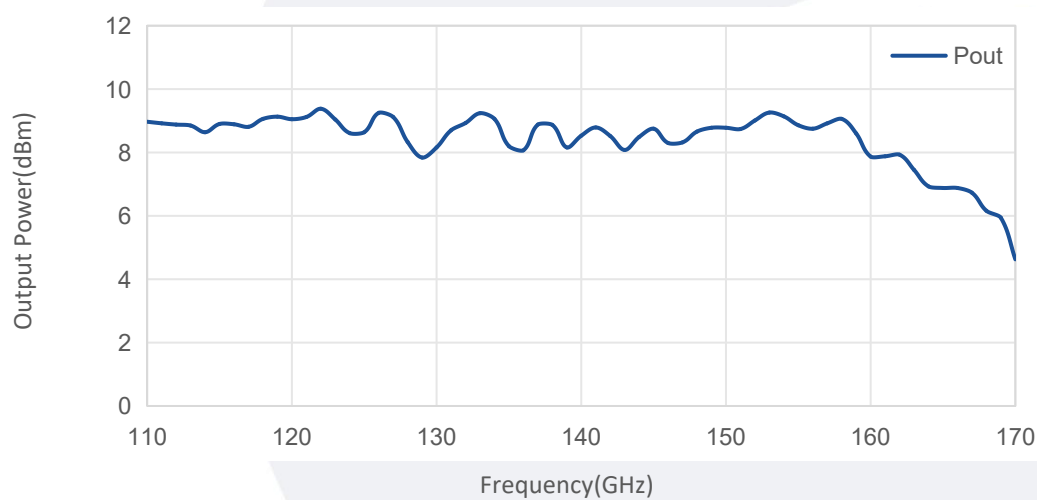
Parameter	Min	Typ	Max	Units
Operating Temperature	-55		+85	°C
Non-operating Temperature	-60		+125	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TMPM-105170-0308-06	Passive Frequency Tripler X3,105-170GHz, 8dBm Output Power,WR-6.5	Rev.1.1

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.