

Passive Frequency Multiplier

WR-4.3/X3/170-260GHz/7.5dBm Output Power

Model: TPM-170260-0310-4.3

TPM-170260-0310-4.3 is a WR-4.3, X3 passive multiplier that generates second order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 170 to 260 GHz at +21 dBm RF power to yield typical +7.5 dBm output power at 170 to 260 GHz. The multiplier is equipped with a WR-12 waveguide and UG-387/U-M flange as its input port and a WR-4.3 waveguide and UG-387/U-M flange as its output port.

Features:

- Output Frequency: 170-260GHz
- Output Power : 7.5dBm Typ
- Compactness,High Power&Efficiency

Applications:

- Frequency Extenders
- THz Systems
- Source Modules

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	170		260	GHz
Input Frequency	56		87	GHz
Output Power		7.5		dBm
Input Power	10	21	25	dBm
Multiply Factor		3		

Mechanical Specifications:

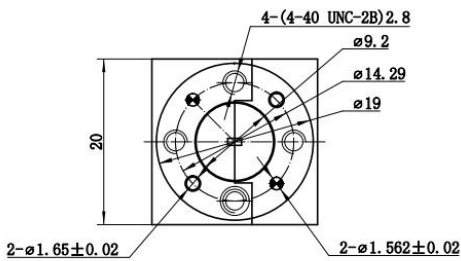
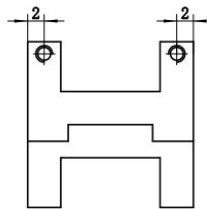
Parameter	Value	Units
Output Connector	WR-4.3/UG-387/U	
Input Connector	WR-12/UG-387/U	
Size	30*26*20	mm

Absolute Maximum Ratings:

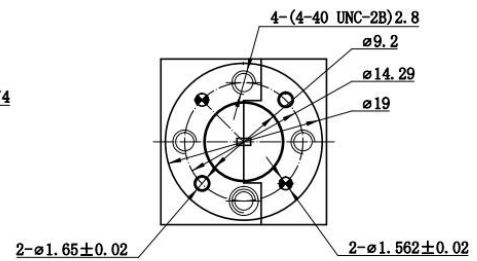
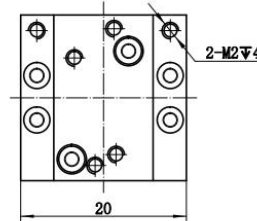
Parameter	Value
RF Input Power	+25 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

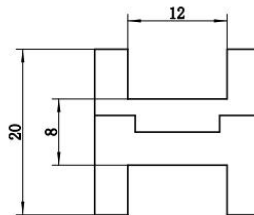
Unit:mm; Tolerance:±0.1mm



WR4.3



WR12.2



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

Environmental Conditions:

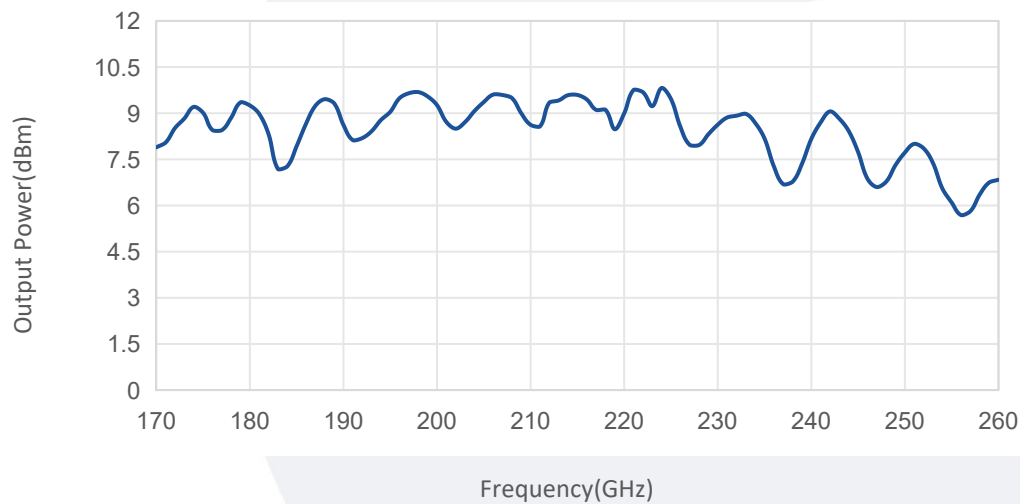
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TMPM-170260-0310-4.3	Passive Frequency Tripler X3,170-260GHz, 7.5dBm Output Power,WR-4.3	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.