

Passive Frequency Multiplier

WR-10/X2/75-110GHz/2dBm Output Power

Model: TMPM-075110-0202-10

TMPM-075110-0202-10 is a WR-10 X2 passive multiplier that generates second order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 37.5 to 55 GHz at +16 dBm RF power to yield typical +2 dBm output power at 75 to 110 GHz. The multiplier is equipped with a 1.85mm female coax connector as its input port and a WR-10 waveguide and UG-387/U-M flange as its output port.

Features:

- Output Frequency: 75-110GHz
- Output Power: 2dBm Typ
- Compactness, High Power & Efficiency

Applications:

- Frequency Extenders
- THz Systems
- Source Modules

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	75		110	GHz
Input Frequency	37.5		55	GHz
Output Power	-1	2	4	dBm
Input Power	13	16	18	dBm
Multiply Factor		2		
Input VSWR		2		:1
Output VSWR		2.5		:1

Mechanical Specifications:

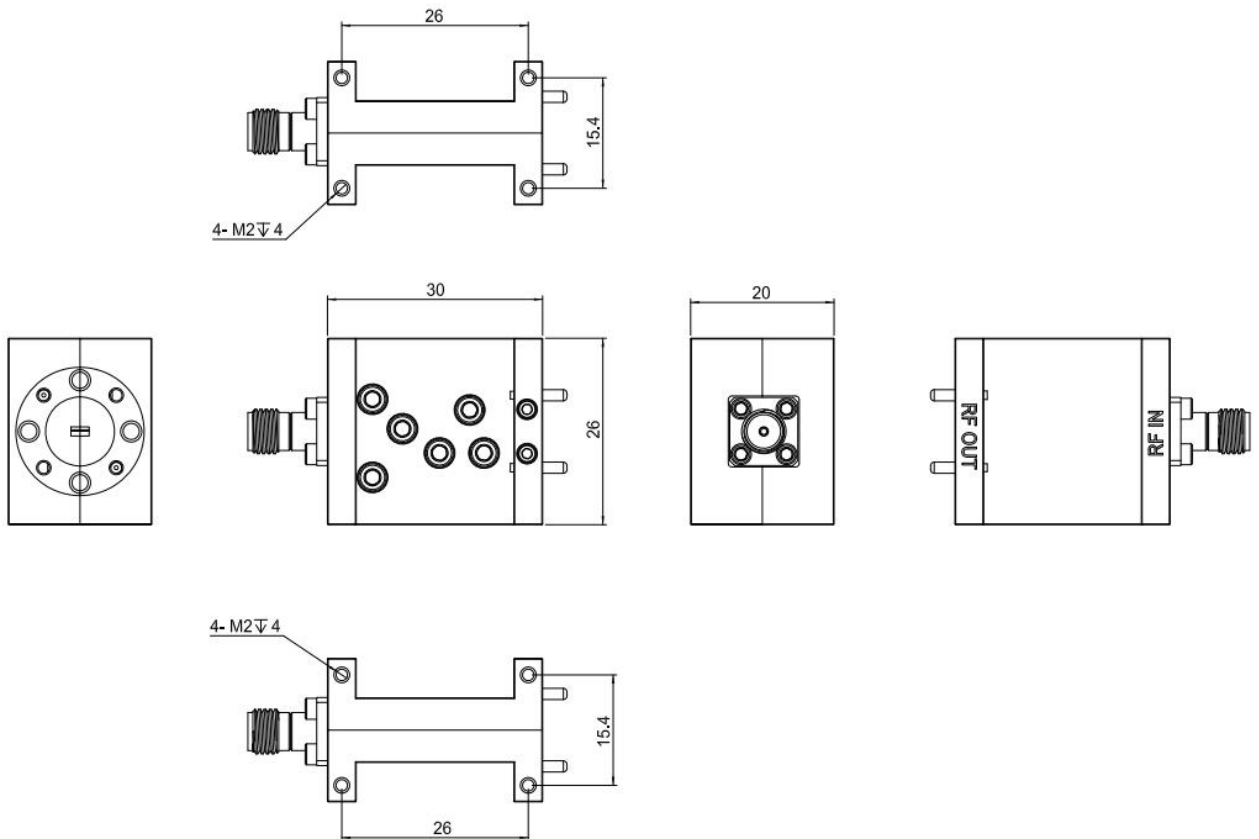
Parameter	Value	Units
Output Connector	WR-10/UG-387/U	
Input Connector	1.85mm Female	
Size	30*26*20	mm

Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm



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

Environmental Conditions:

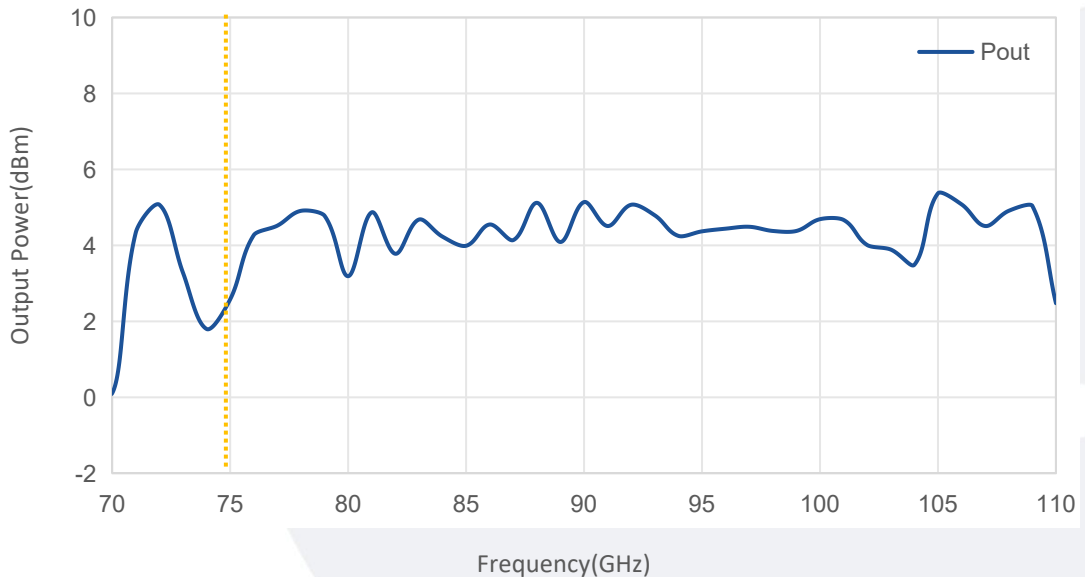
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TMPM-075110-0202-10	Passive Frequency Multiplier X2,75-110GHz, 2dBm Output Power,WR-10	Rev.1.1

Typical Performance Data:

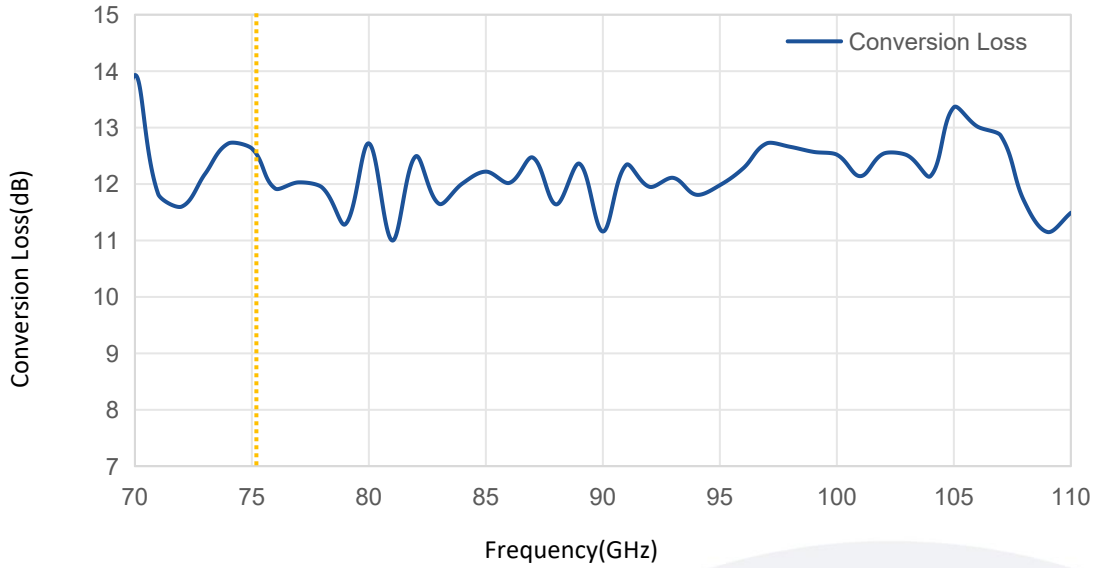
Output Power vs Frequency



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.

Typical Performance Data:

Conversion Loss vs IF Frequency



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