

Passive Frequency Multiplier

WR-2.2/X3/330-500GHz/-2dBm Output Power

Model: TPM-330500-03N2-2.2

TPM-330500-03N2-2.2 is a WR-2.2 X3 passive multiplier that generates second order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 110 to 166.67 GHz at +17 dBm RF power to yield typical -2 dBm output power at 330 to 500 GHz. The multiplier is equipped with a WR-6.5 waveguide and UG-387/U-M flange as its input port and a WR-2.2 waveguide and UG-387/U-M flange as its output port.

Features:

- Output Frequency: 330-500GHz
- Output Power : -2 dBm Typ
- Compactness, High Power & Efficiency

Applications:

- Frequency Extenders
- THz Systems
- Source Modules

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
输出频率 Output Frequency	330		500	GHz
输入频率 Input Frequency	110		166.67	GHz
输出功率 Output Power		-2		dBm
输入功率 Input Power	15	17	19	dBm
倍频次数 Multiply Factor		3		

机械特性 Mechanical Specifications:

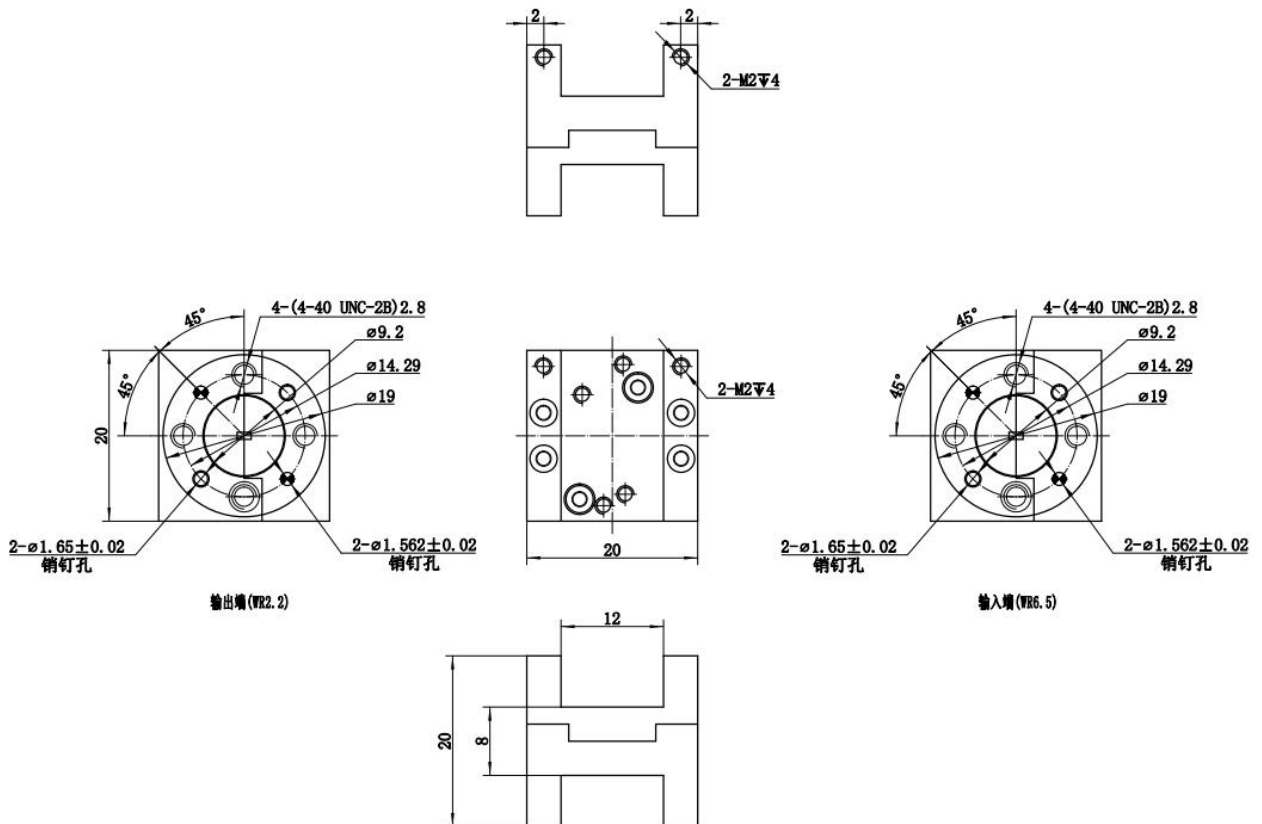
参数 Parameter	指标 Value	单位 Units
输出接口 Output Connector	WR-2.2/UG-387/U	
输入接口 Input Connector	WR-6.5/UG-387/U	
尺寸 Size	20*20*20	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	+21 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm



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

温度环境 Environmental Conditions:

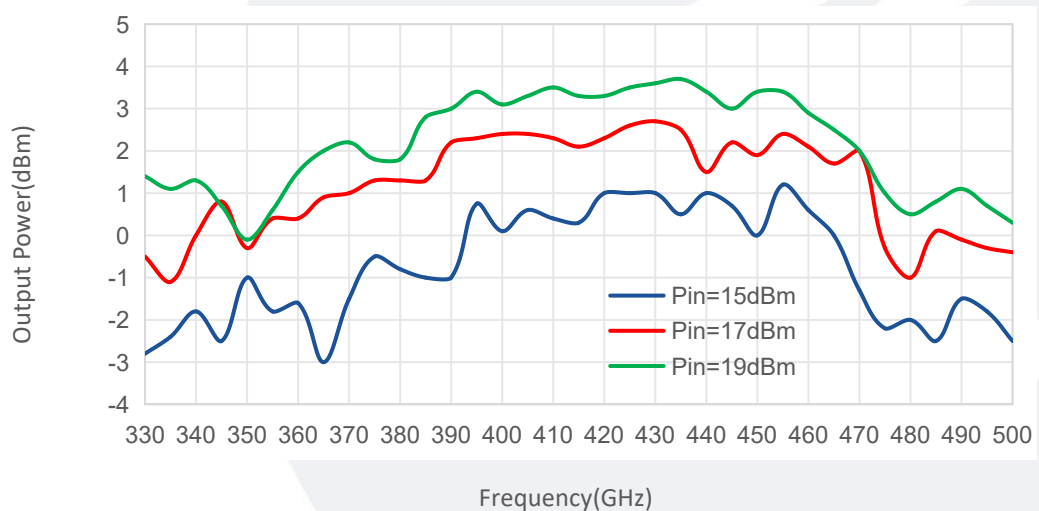
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-55		+85	°C
存储温度 Non-operating Temperature	-65		+150	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TMPM-330500-03N2-2.2	Passive Frequency Tripler X3,330-500GHz, -2dBm Output Power,WR-2.2	Rev.1.1

典型曲线 Typical Performance Data:

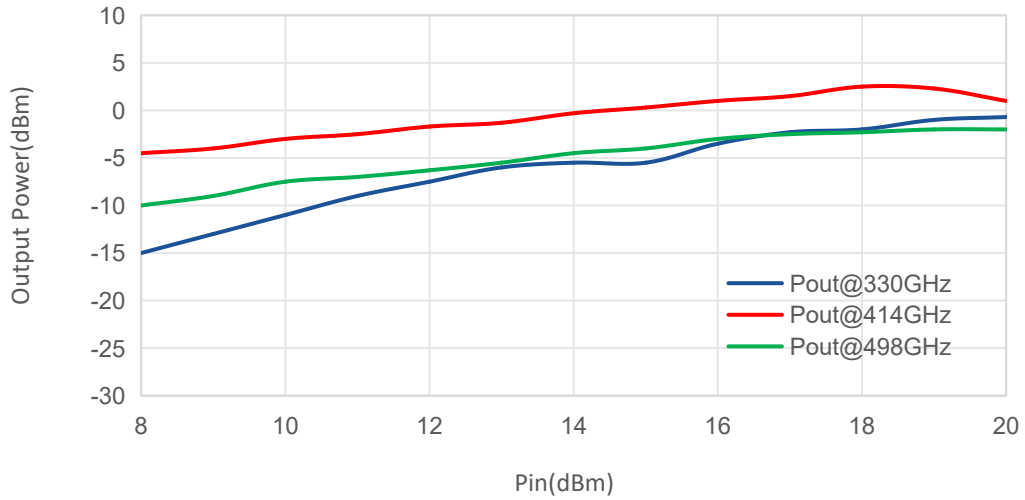
Output Power vs Frequency



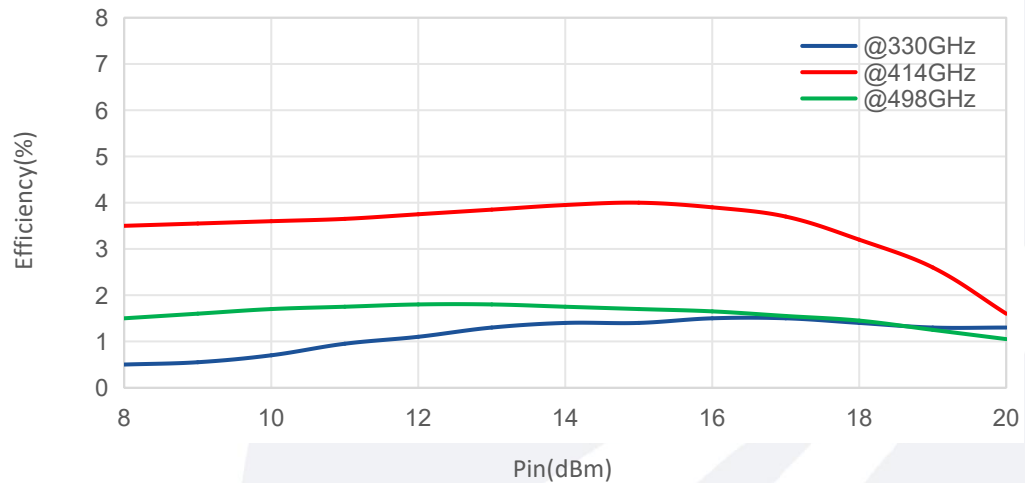
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

Output Power vs Pin



Multiplication Efficiency vs Pin



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