

Passive Frequency Multiplier

WR-5.1/X2/130-220GHz/8dBm Output Power

Model: TMPM-130220-0208-05

TMPM-130220-0208-05 is a WR-5.1 X2 passive multiplier that generates second order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 65 to 110 GHz at +18 dBm RF power to yield typical +8 dBm output power at 130 to 220 GHz. The multiplier is equipped with a WR-10 waveguide and UG-387/U-M flange as its input port and a WR-5.1 waveguide and UG-387/U-M flange as its output port.

Features:

- Output Frequency: 130-220GHz
- Output Power: 8dBm 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 | 130 | | 220 | GHz |
| 输入频率 Input Frequency | 65 | | 110 | GHz |
| 输出功率 Output Power | | 8 | | dBm |
| 输入功率 Input Power | | 18 | 20 | dBm |
| 倍频次数 Multiply Factor | | 2 | | |

机械特性 Mechanical Specifications:

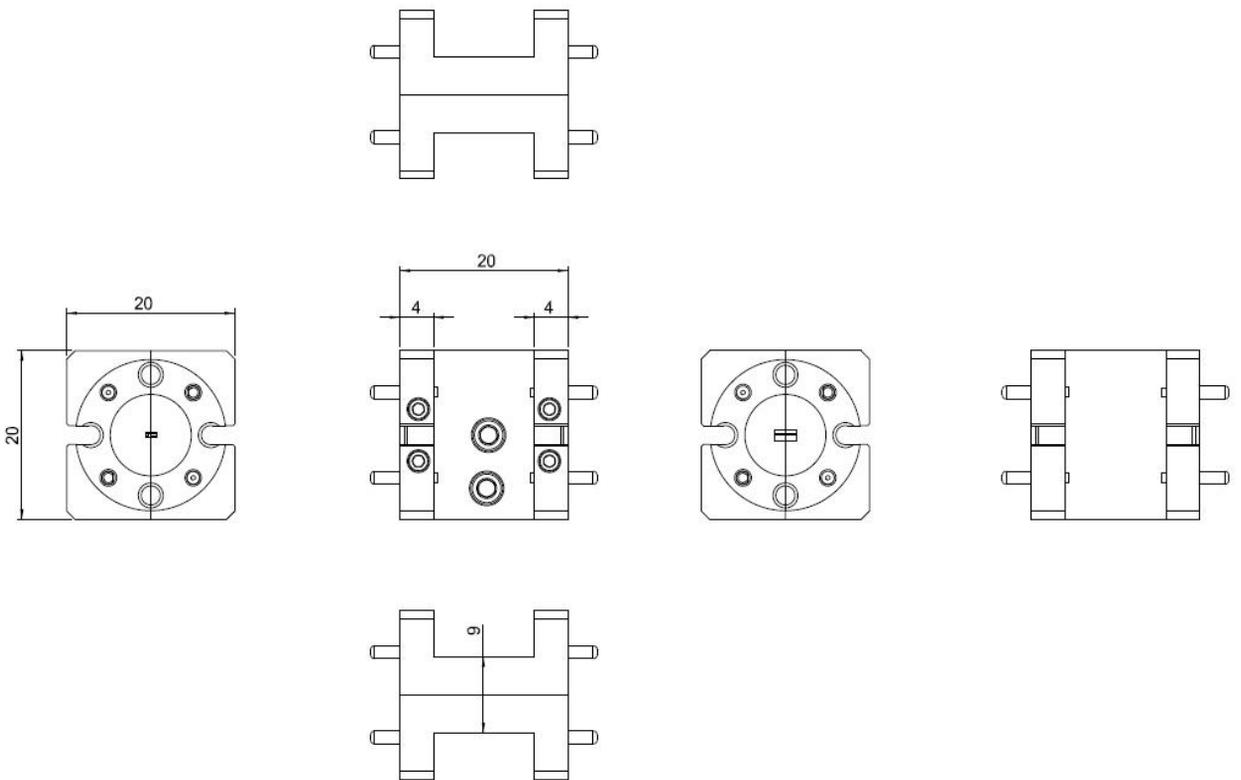
| 参数 Parameter | 指标 Value | 单位 Units |
|-----------------------|-----------------|----------|
| 输出接口 Output Connector | WR-5.1/UG-387/U | |
| 输入接口 Input Connector | WR-10/UG-387/U | |
| 尺寸 Size | 20*20*20 | mm |

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:

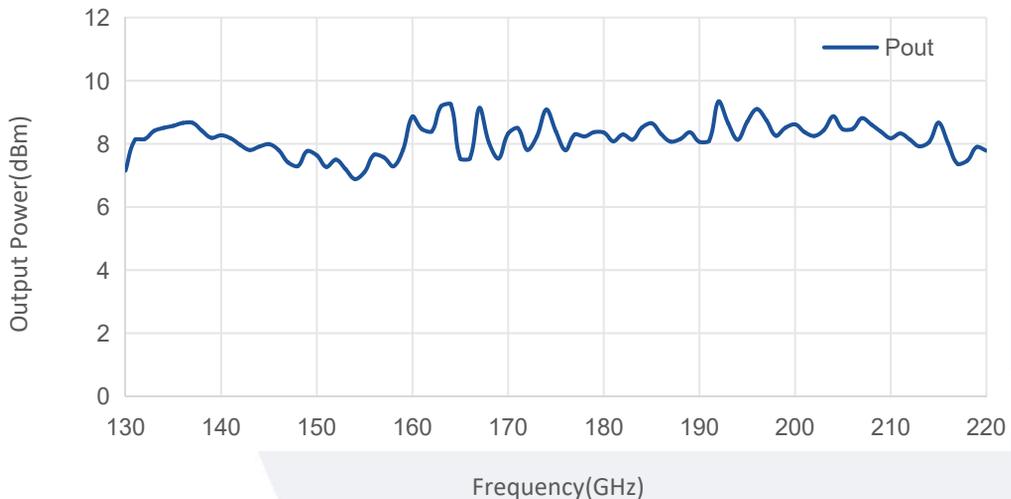
| 参数 Parameter | Min | Typ | Max | 单位 Units |
|------------------------------------|---|-----|-----|----------|
| 操作温度 Operating Temperature | -10 | | +65 | °C |
| 存储温度 Non-operating Temperature | -45 | | +85 | °C |
| 相对湿度 Relative humidity | | 95 | | % |
| 海拔 Altitude | 10,000 | | | feet |
| 震动 Shock / 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-130220-0208-05 | Passive Frequency Doubler X2,130-220GHz, 8dBm Output Power,WR-5.1 | Rev.1.1 |

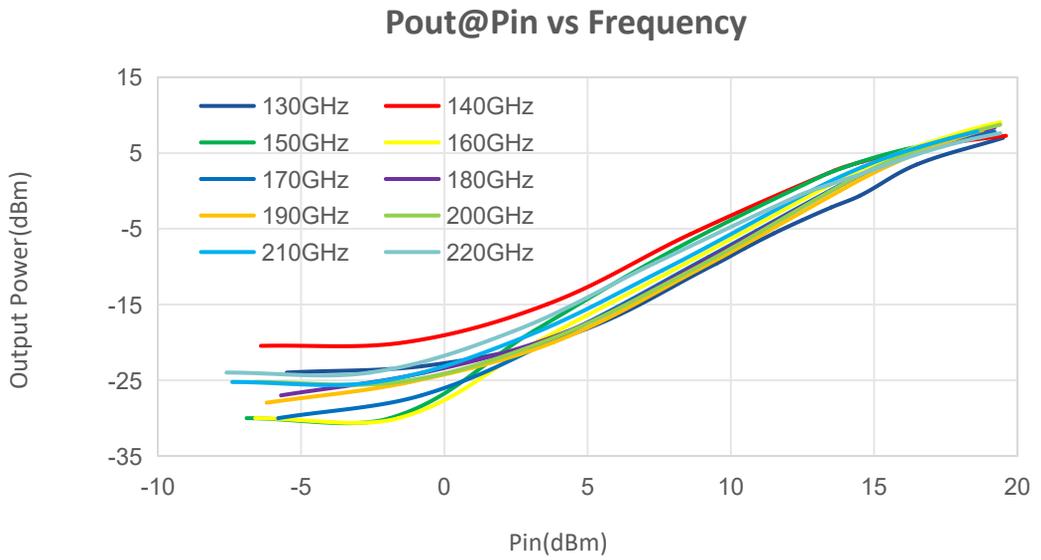
典型曲线 Typical Performance Data:

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.

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