V-Band, Active Frequency Multiplier

WR-15/X4/ 50-75GHz /17dBm Output Power   Model: TMAM-050075-0417-15

TMAM-050075-0417-15 is an active X4 frequency multiplier. The multiplier has an input frequency of 12.5 to 18.75 GHz with a typical input power of +5 dBm and an output frequency of 50 to 75 GHz with a typical output power of +17 dBm. The DC power requirement for the multiplier is +12 V DC/135 mA. The input port configuration is a female SMA connector and the output is a WR-15 waveguide with a UG-385/U-M anti-cocking flange.

Features:

- Output Frequency:50-75GHz
- Output Power :17dBm Typ
- Low power consumption

Applications:

- Frequency Extenders
- THz Systems

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
输出频率 Output Frequency	50		75	GHz
输出功率 Output Power		17		dBm
输入频率 Input Frequency	12.5		18.75	GHz
输入功率 Input Power	3	5	7	dBm
倍频次数 Multiply Factor		4		
谐波抑制 Harmonic Suppression			-30	dBc
输入驻波 Input VSWR		2		:1
输出驻波 Output VSWR		2		:1
供电电压 DC Voltage		12		V
供电电流 DC Supply Current		135		mA

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输出接口 Output Connector	WR-15/UG-385/U	

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+15 V
输入功率 RF Input Power	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing: Unit:mm
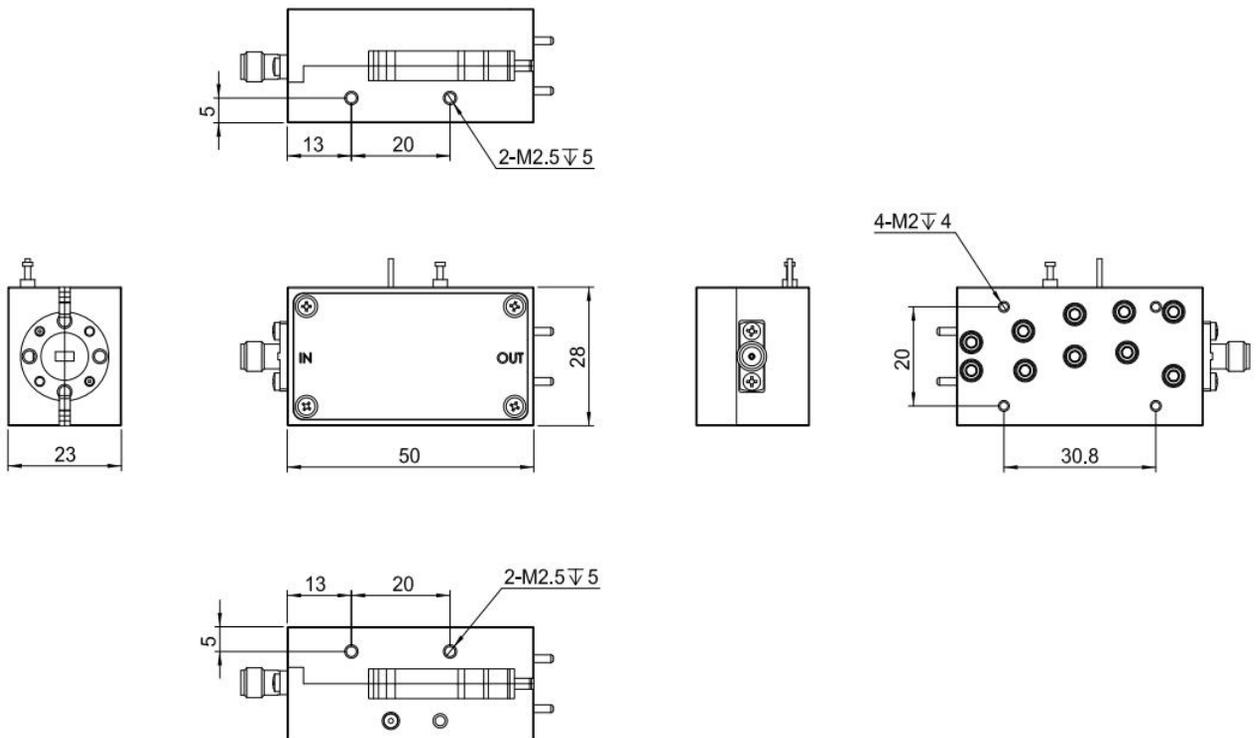
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	℃
存储温度 Non-operating Temperature	-45		+85	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			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			

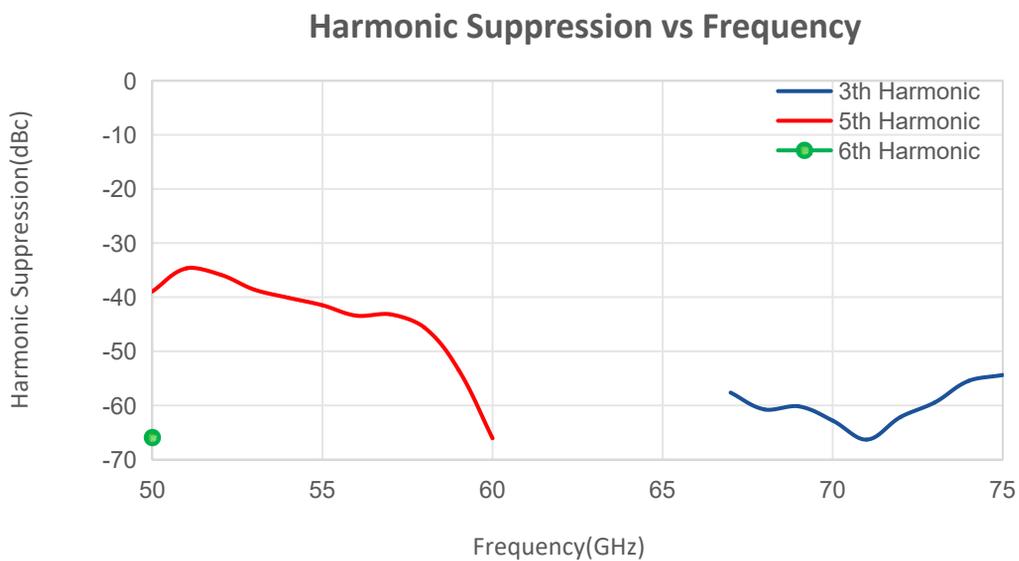## 订货信息 Ordering Information:

标准型号 Base Number	描述 Desciption	版本号 Revision
TMAM-050075-0417-15	Active Multiplier,X4,50-75GHz, Output Power:17dBm,WR-15/UG-385/U,SMA Female	Rev.1.1

典型曲线 Typical Performance Data:

Output Power vs Frequency

典型曲线 Typical Performance Data:

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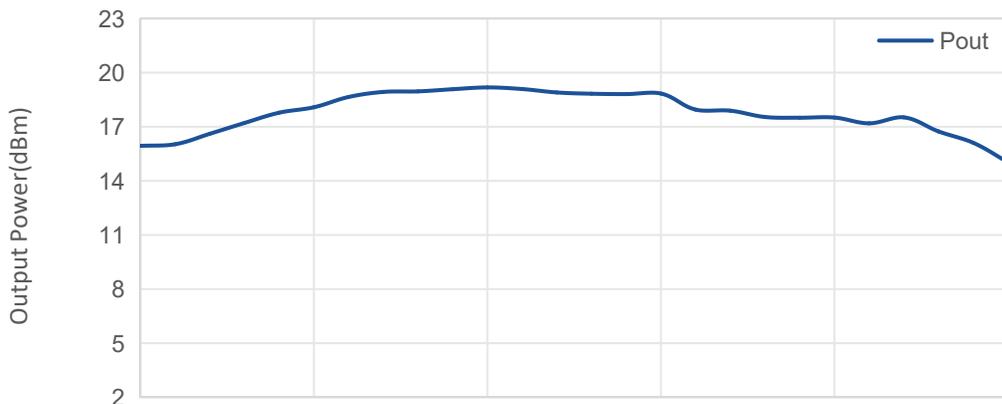
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.