

F-Band, Active Frequency Multiplier

WR-08/X12/90-140GHz/3dBm Output Power

Model: TMAM-090140-1203-08

TMAM-090140-1203-08 is an active X12 frequency multiplier. The multiplier has an input frequency of 7.5 to 11.67 GHz with a typical input power of 0 dBm and an output frequency of 90 to 140 GHz with a typical output power of +3 dBm. The DC power requirement for the multiplier is +12 V DC. The input port configuration is a female SMA connector and the output is a WR-08 waveguide with a UG-387/U-M anti-cocking flange.

Features:

- Output Frequency: 90-140GHz
- Output Power: 3dBm 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	90		140	GHz
输出功率 Output Power		3		dBm
输入频率 Input Frequency	7.5		11.67	GHz
输入功率 Input Power		0	3	dBm
倍频次数 Multiply Factor		12		
谐波抑制 Harmonic Suppression		-15		dBc
供电电压 DC Voltage		12		V

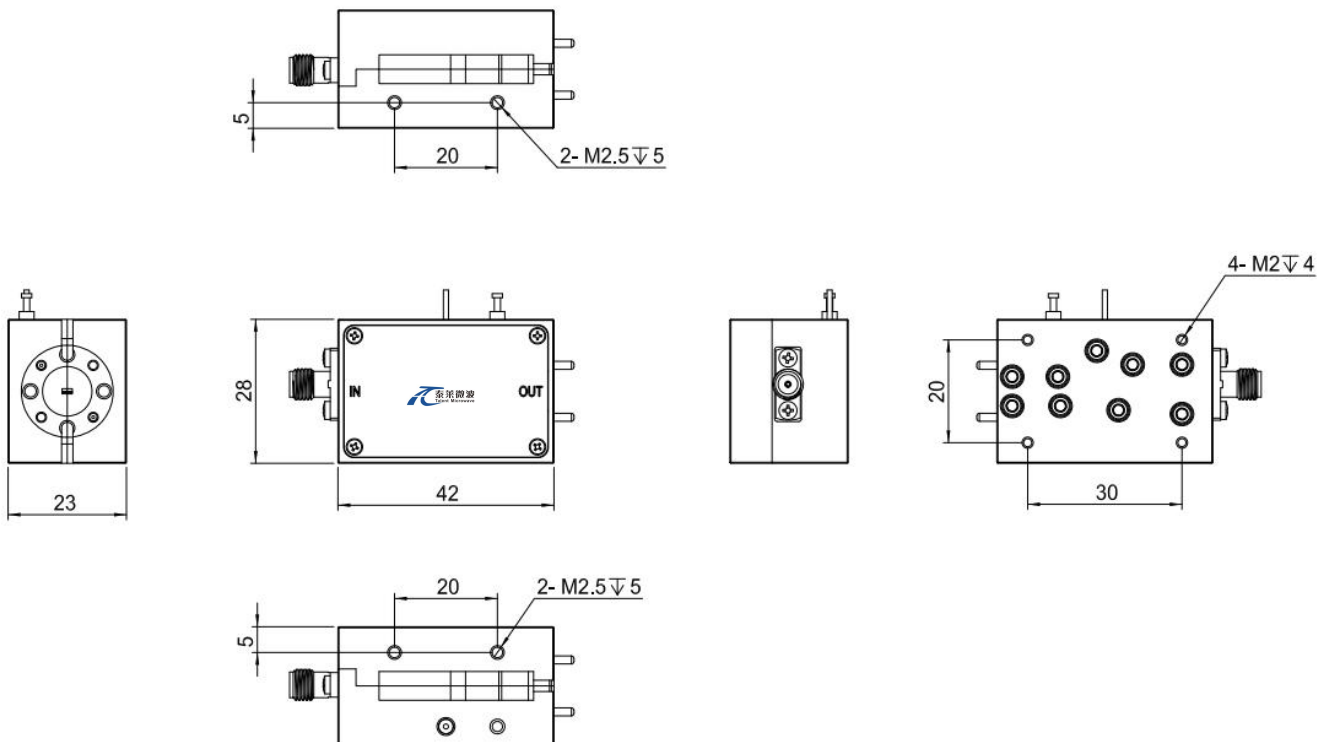
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输出接口 Output Connector	WR-08/UG-387/U	
输入接口 Input Connector	SMA Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	42*28*23	mm

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	+5 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.

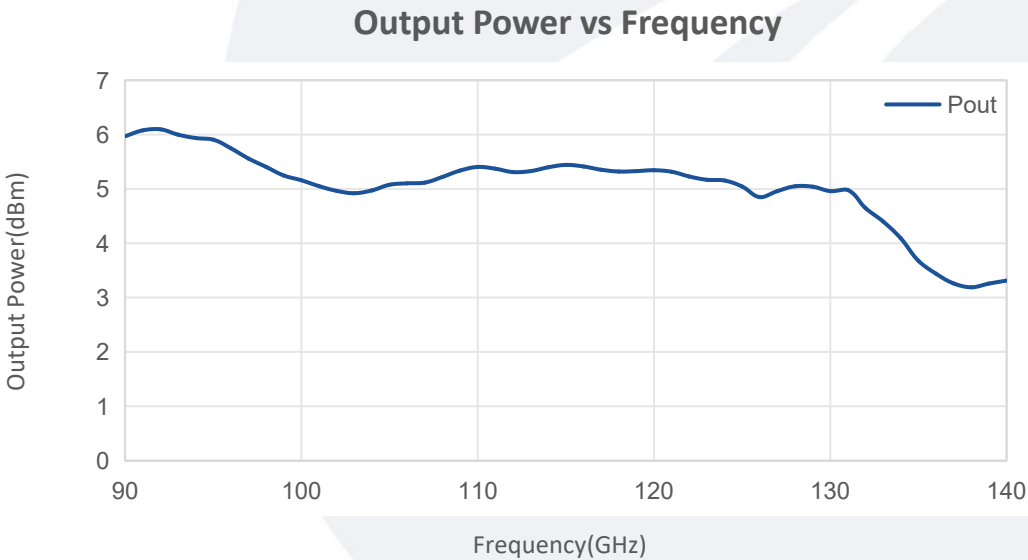
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	℃
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 Description	版本号 Revision
TMAM-090140-1203-08	Active Multiplier,X12,90-140GHz, Output Power:3dBm,WR-08/UG-387/U,SMA Female	Rev.1.1

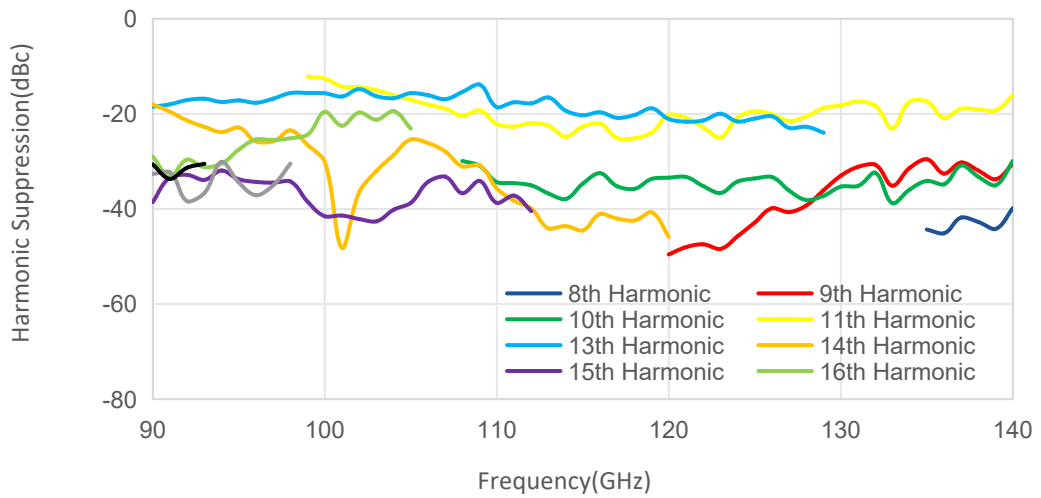
典型曲线 Typical Performance Data:



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:

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.