

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

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	90		140	GHz
Output Power		3		dBm
Input Frequency	7.5		11.67	GHz
Input Power		0	3	dBm
Multiply Factor		12		
Harmonic Suppression		-15		dBc
DC Voltage		12		V

Mechanical Specifications:

Parameter	Value	Units
Output Connector	WR-08/UG-387/U	
Input Connector	SMA Female	
DC Bias	Solder Pin	
Size	42*28*23	mm

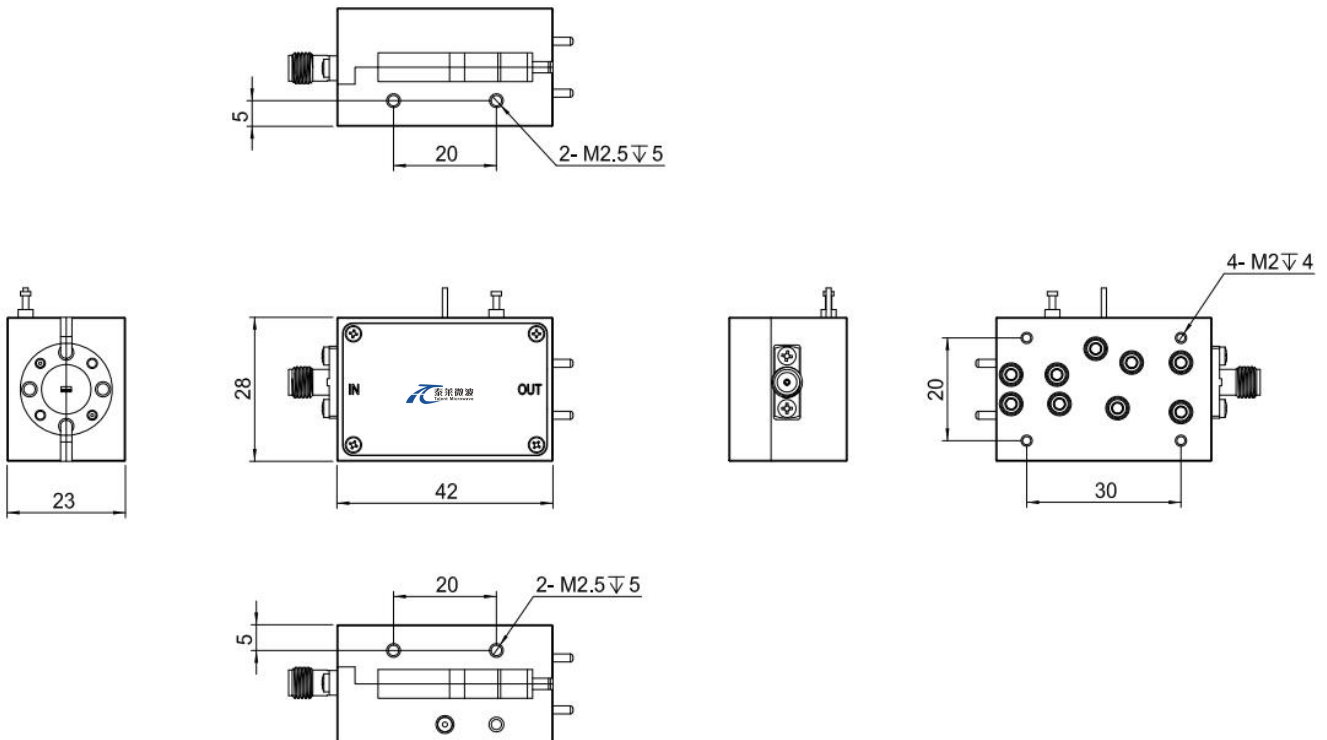
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

Regulatory Compliance:



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

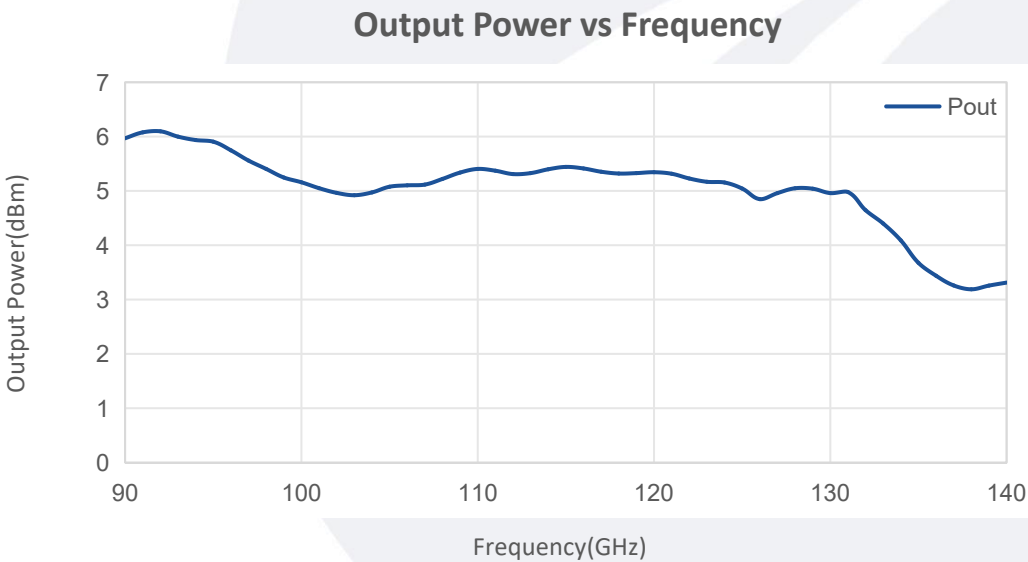
Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	50,000			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	Desciption	Revision
TMAM-090140-1203-08	Active Multiplier,X12,90-140GHz, Output Power:3dBm,WR-08/UG-387/U,SMA Female	Rev.1.1

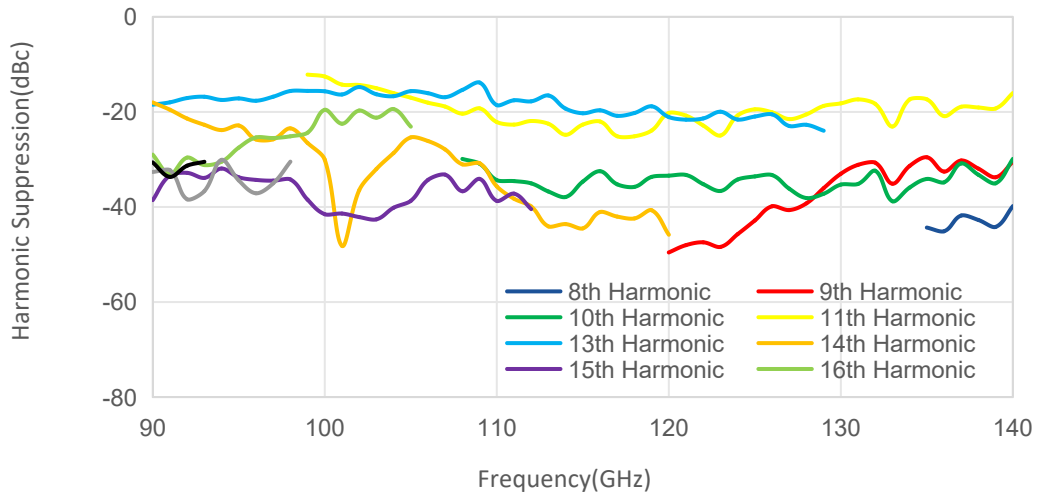
Typical Performance Data:



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.

Typical Performance Data:

Harmonic Suppression vs Frequency



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