

G-Band, Active Frequency Multiplier

WR-5.1/X12/140-220GHz/-10dBm Output Power

Model: TMAM-140220-12N8-05

TMAM-140220-12N8-05 is an active X12 frequency multiplier. The multiplier has an input frequency of 11.66 to 18.34 GHz with a typical input power of 0 dBm and an output frequency of 140 to 220 GHz with a typical output power of -10 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-5.1 waveguide with a UG-387/U-M anti-cocking flange.

Features:

- Output Frequency: 140-220GHz
- Output Power: -10dBm Typ
- Low power consumption

Applications:

- Frequency Extenders
- THz Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	140		220	GHz
Output Power		-10		dBm
Input Frequency	11.66		18.34	GHz
Input Power		0	3	dBm
Multiply Factor		12		
Harmonic Suppression		-20		dBc
DC Voltage		12		V

Mechanical Specifications:

Parameter	Value	Units
Output Connector	WR-5.1/UG-387/U	
Input Connector	SMA Female	
DC Bias	Solder Pin	
Size	50*28*23	mm

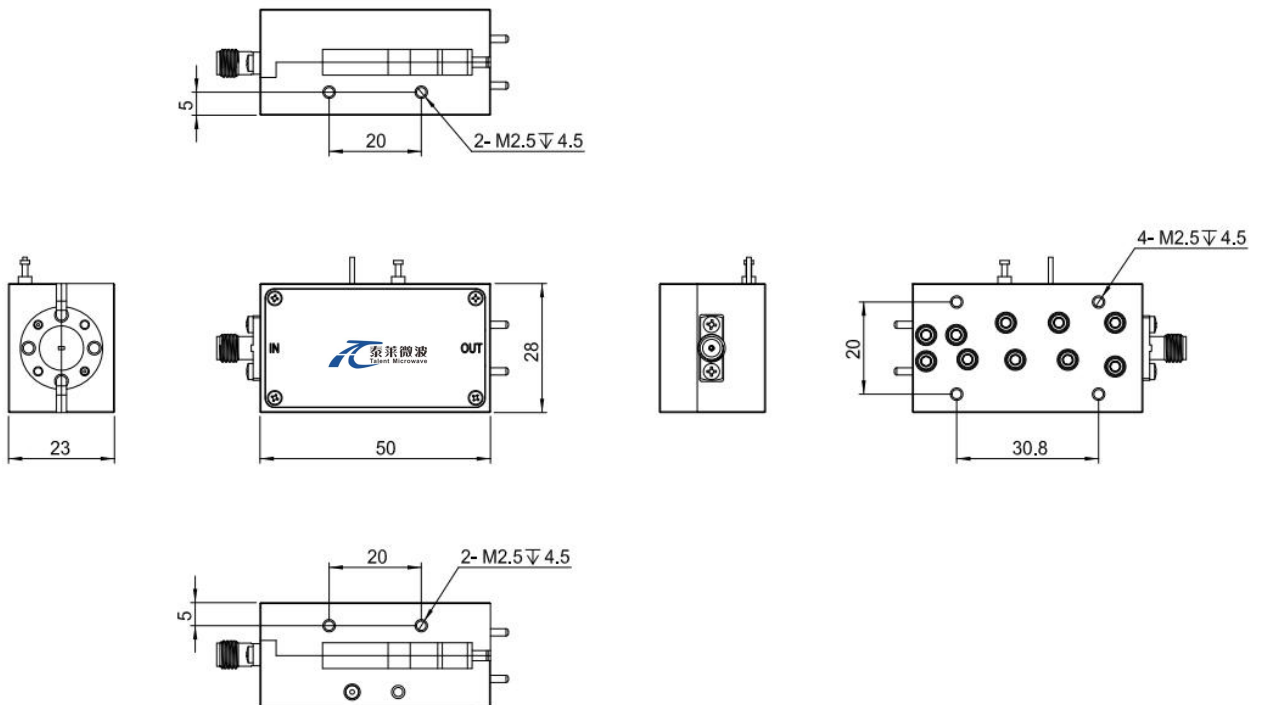
Absolute Maximum Ratings:

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:

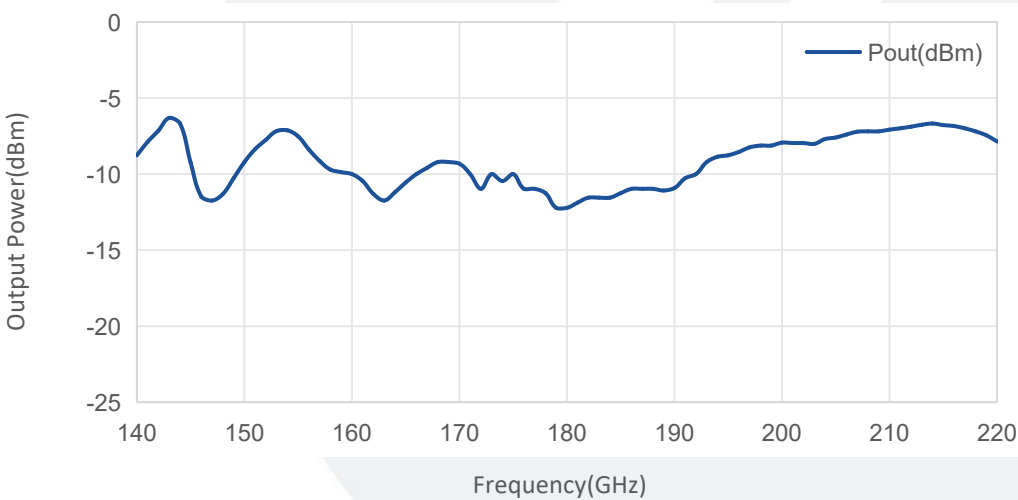
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Desciption	Revision
TMAM-140220-12N8-05	Active Multiplier,X12,140-220GHz, Output Power:0dBm,WR-5.1/UG-387/U,SMA Female	Rev.1.1

Typical Performance Data:

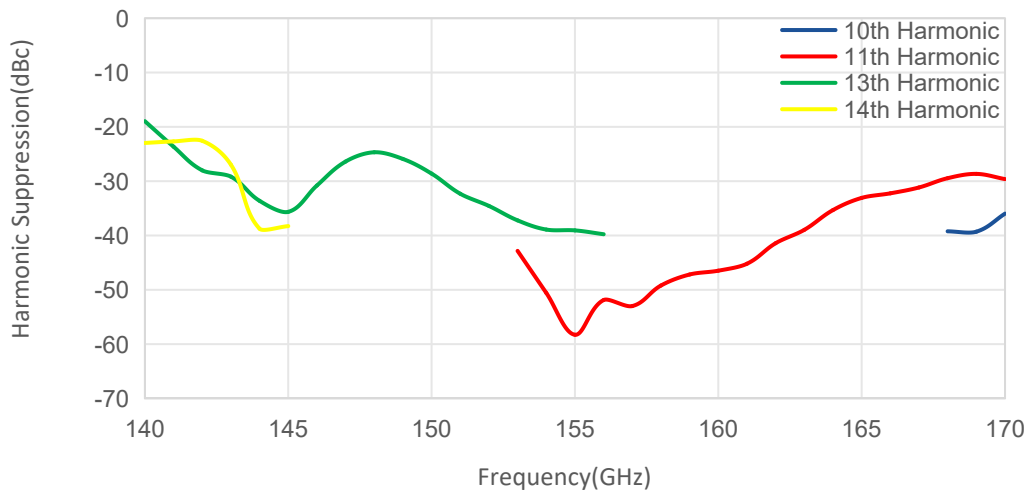
Output Power vs Frequency



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.

Typical Performance Data:

Harmonic Suppression vs Frequency



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