

Active Frequency Multiplier

WR-22/X4/33-50GHz/19dBm Output Power

Model: TMAM-033050-0415-22

TMAM-033050-0415-22 is an active X4 frequency multiplier. The multiplier has an input frequency of 8.25 to 12.5 GHz with a typical input power of +5 dBm and an output frequency of 33 to 50 GHz with a typical output power of +19 dBm. The DC power requirement for the multiplier is +12 V DC/195 mA. The input port configuration is a female SMA connector and the output is a WR-22 waveguide with a UG-383/U-M anti-cocking flange.

Features:

- Output Frequency: 33-50GHz
- Output Power: 19dBm Typ
- Low power consumption

Applications:

- Frequency Extenders
- THz Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	33		50	GHz
Output Power		19		dBm
Input Frequency	8.25		12.5	GHz
Input Power	3	5	7	dBm
Multiply Factor		4		
Harmonic Suppression		-20		dBc
DC Voltage		12		V
DC Supply Current		195		mA

Mechanical Specifications:

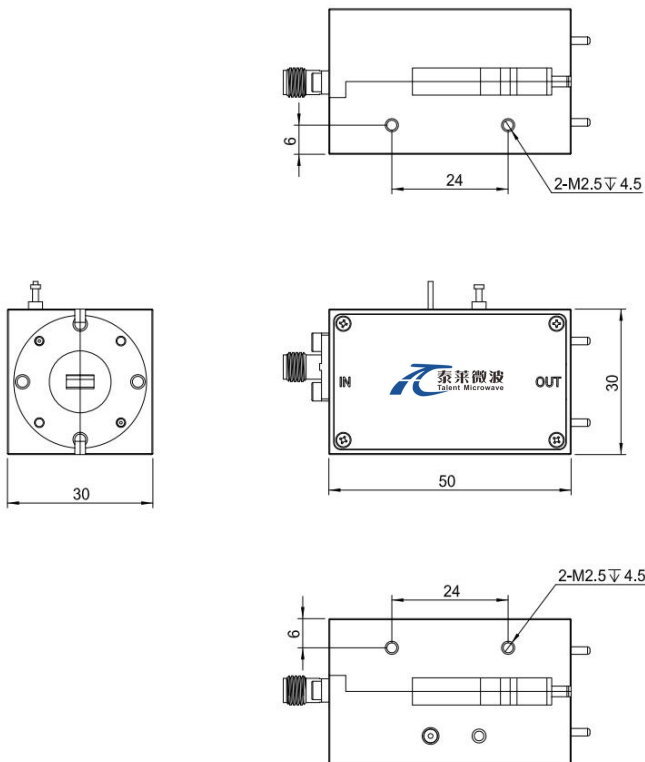
Parameter	Value	Units
Output Connector	WR-22/UG-383/U	
Input Connector	SMA Female	
DC Bias	Solder Pin	
Size	50*30*30	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+10 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.

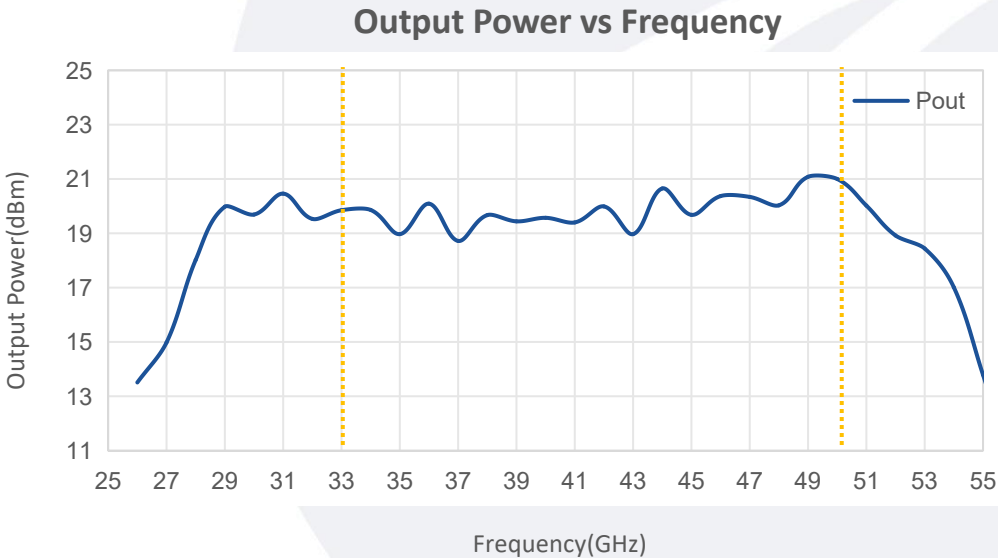
Environmental Conditions:

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	Description	Revision
TMAM-033050-0415-22	Active Multiplier,X4,33-50GHz, Output Power:19dBm,WR-22/UG-383/U,SMA Female	Rev.1.1

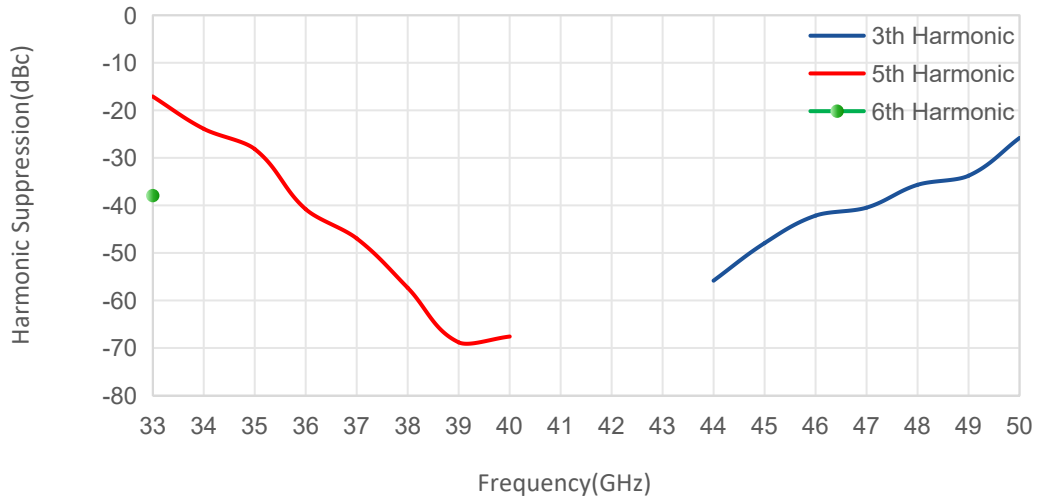
Typical Performance Data:



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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