

V-Band, Active Frequency Multiplier

WR-15/X4/45-70GHz /7dBm Output Power

Model: TMAM-045070-0407-15

TMAM-045070-0407-15 is an active X4 frequency multiplier. The multiplier has an input frequency of 11.25 to 17.5 GHz with a typical input power of +5 dBm and an output frequency of 45 to 70 GHz with a typical output power of +7 dBm. The DC power requirement for the multiplier is +12 V DC/110 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: 45-70GHz
- Output Power :7dBm Typ
- Low power consumption

Applications:

- Frequency Extenders
- THz Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	45		70	GHz
Output Power		7		dBm
Input Frequency	11.25		17.5	GHz
Input Power	3	5	7	dBm
Multiply Factor		4		
Harmonic Suppression		-15		dBc
DC Voltage		12		V
DC Supply Current		110		mA

Mechanical Specifications:

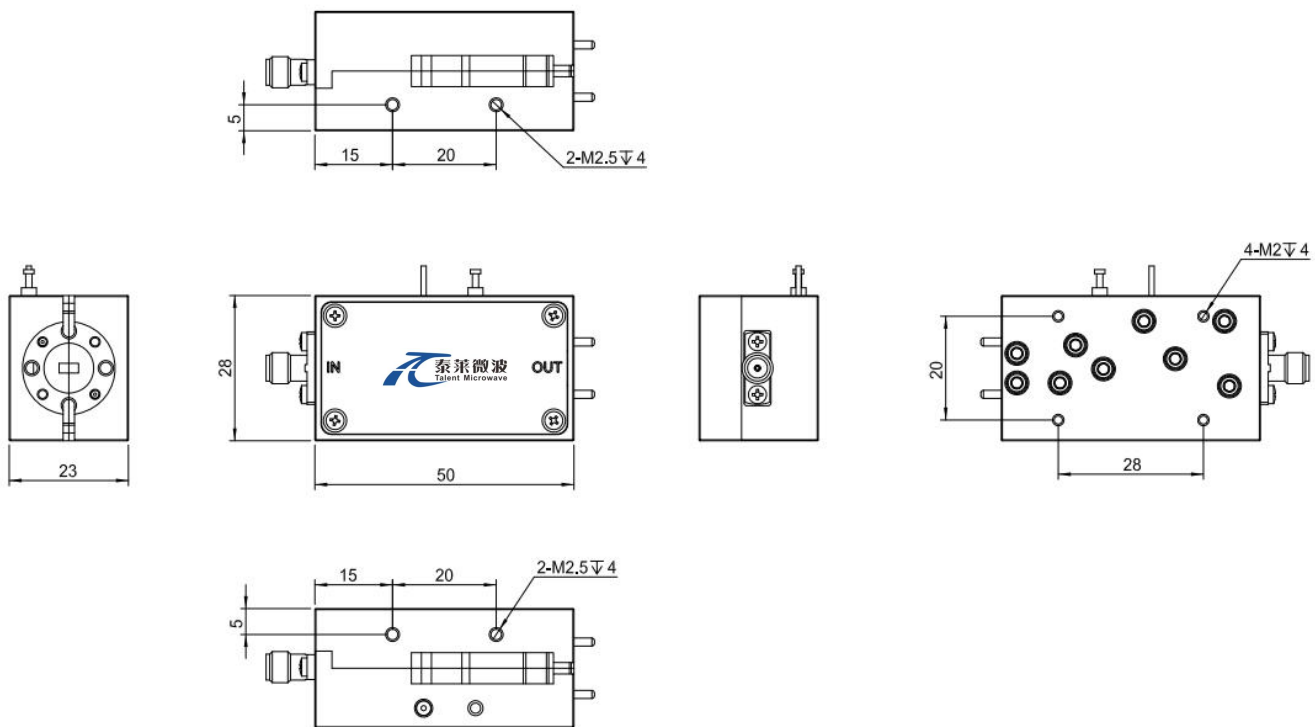
Parameter	Value	Units
Output Connector	WR-15/UG-385/U	
Input Connector	SMA Female	
DC Bias	Solder Pin	
Size	50*28*23	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



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

Environmental Conditions:

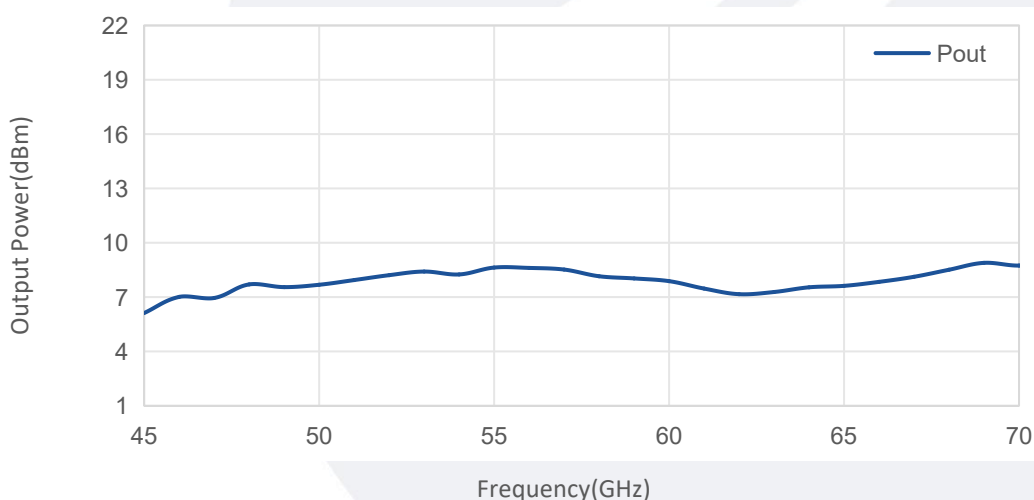
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TMAM-045070-0407-15	Active Multiplier,X4,45-70GHz, Output Power:7dBm,WR-15/UG-385/U,SMA Female	Rev.1.1

Typical Performance Data:

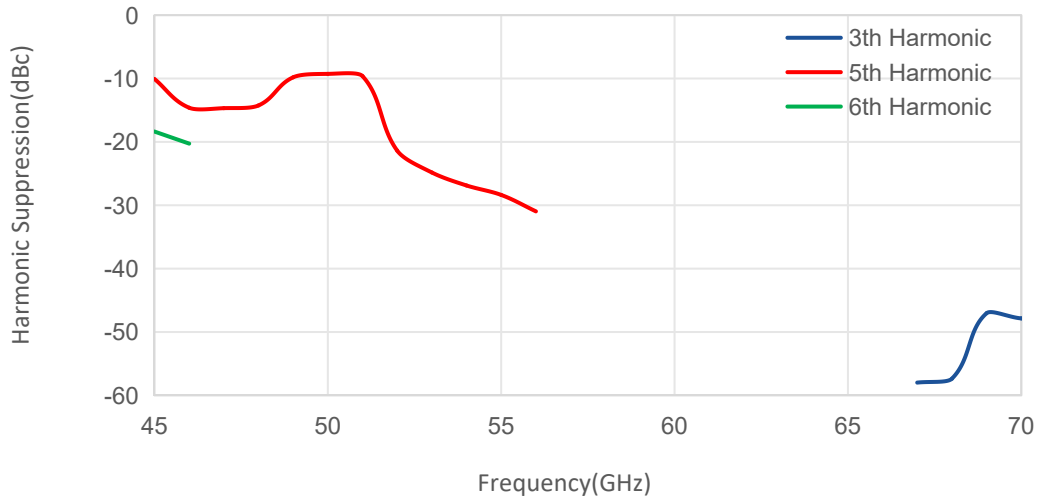
Output Power vs Frequency



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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