

F-Band, Active Frequency Multiplier

WR-08/X8/85-140GHz/20dBm Output Power

Model: TMAM-085140-0820-08

TMAM-085140-0820-08 is an active X8 frequency multiplier. The multiplier has an input frequency of 10.625 to 17.5 GHz with a typical input power of +5 dBm and an output frequency of 85 to 140 GHz with output power of +20 dBm. The DC power requirement for the multiplier is +12 V DC/400 mA. 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: 85-140 GHz
- Output Power :20 dBm Typ
- Low power consumption

Applications:

- Frequency Extenders
- THz Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	85		140	GHz
Output Power		20		dBm
Input Frequency	10.625		17.5	GHz
Input Power	3	5	7	dBm
Multiply Factor		8		
Harmonic Suppression		-20		dBc
DC Voltage		12		V
DC Supply Current		400		mA

Mechanical Specifications:

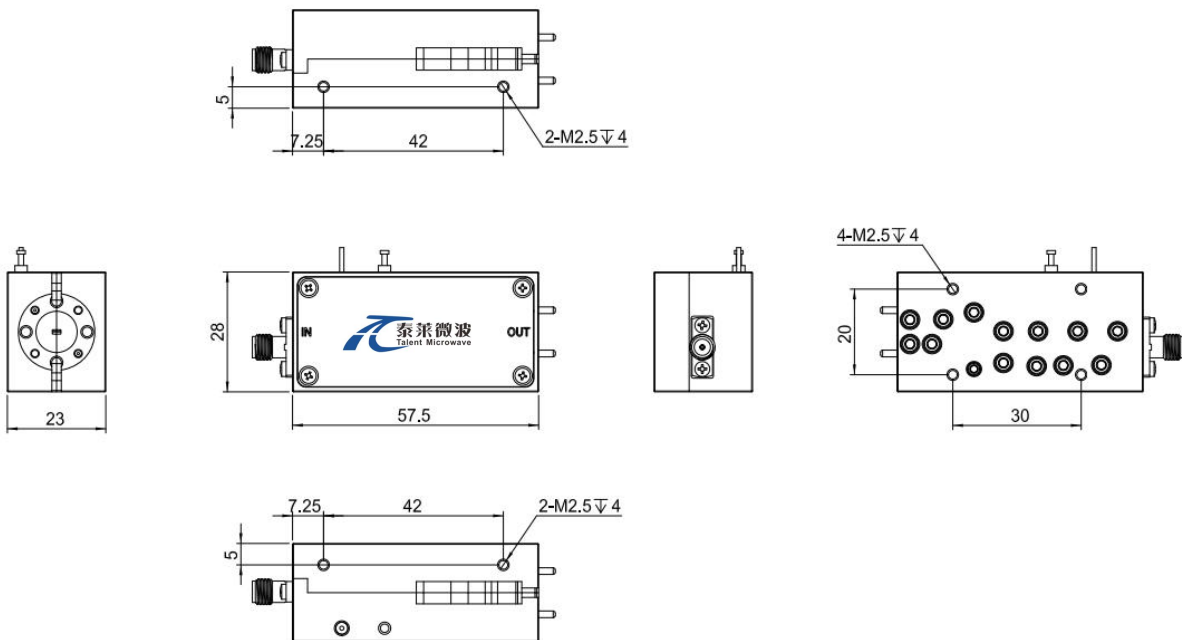
Parameter	Value	Units
Output Connector	WR-08/UG-387/U	
Input Connector	SMA Female	
DC Bias	Solder Pin	
Size	57.5*28*23	mm

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; Tolerance:±0.1mm



Environmental Conditions:

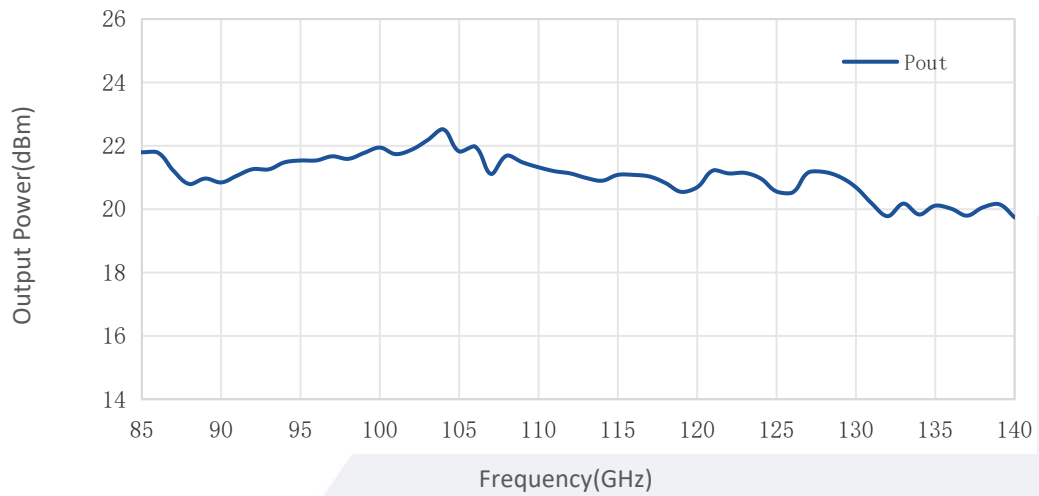
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

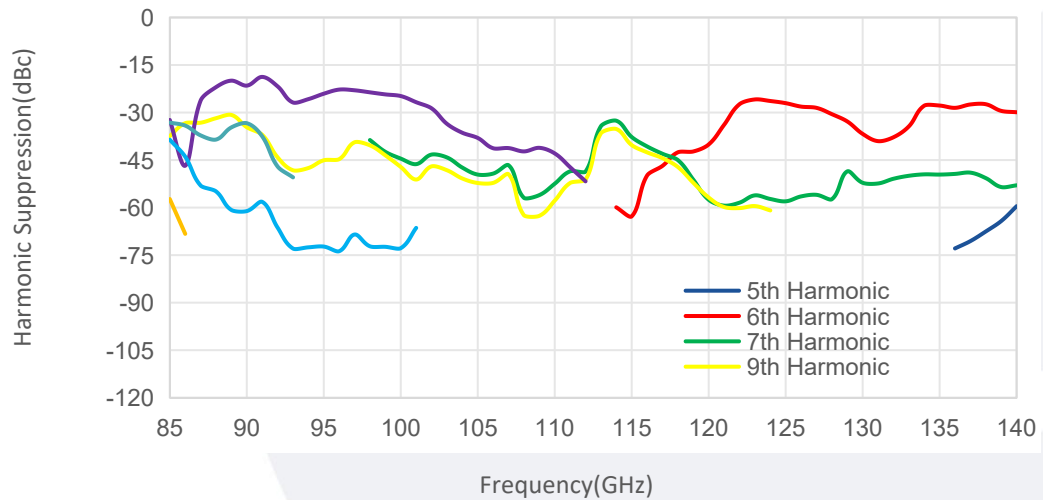
Base Number	Description	Revision
TMAM-085140-0820-08	Active Multiplier,X8,85-140 GHz, Output Power:20dBm,WR-08/UG-387/U,SMA Female	Rev.1.1

Typical Performance Data:

Output Power vs Frequency



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.