

## D-Band, Active Frequency Multiplier

### WR-6.5/X12/110-170GHz/17dBm Output Power

**Model: TMAM-110170-1217-06**

TMAM-110170-1217-06 is an active X12 frequency multiplier. The multiplier has an input frequency of 9.16 to 14.17 GHz with a typical input power of 5 dBm and an output frequency of 110 to 170 GHz with a typical output power of +17 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-6.5 waveguide with a UG-387/U-M anti-cocking flange.

### Features:

- Output Frequency: 110-170GHz
- Output Power: 17dBm Typ
- Low power consumption

### Applications:

- Frequency Extenders
- THz Systems

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	110		170	GHz
Output Power		17		dBm
Input Frequency	9.16		14.17	GHz
Input Power		5		dBm
Multiply Factor		12		
Harmonic Suppression		-15		dBc
DC Voltage		12		V

### Mechanical Specifications:

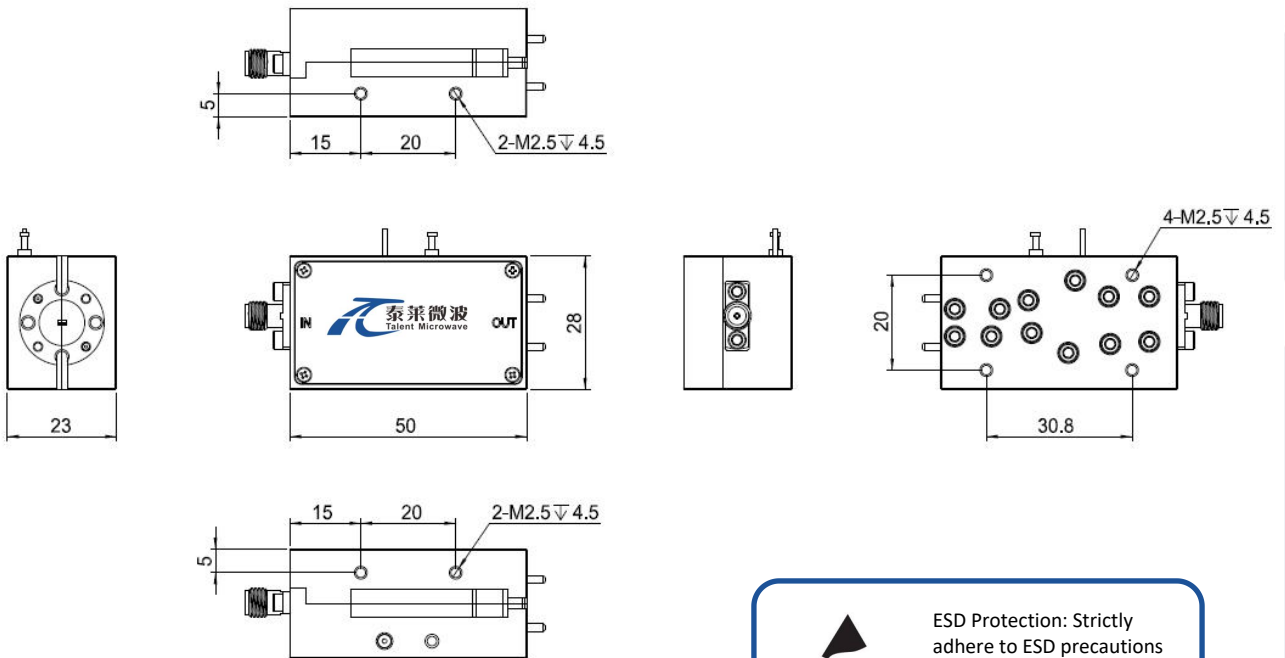
Parameter	Value	Units
Output Connector	WR-6.5/UG-387/U	
Input Connector	SMA Female	
DC Bias	Solder Pin	
Size	50*28*23	mm

### Absolute Maximum Ratings:

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

### Outline Drawing:

Unit:mm



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

### Environmental Conditions:

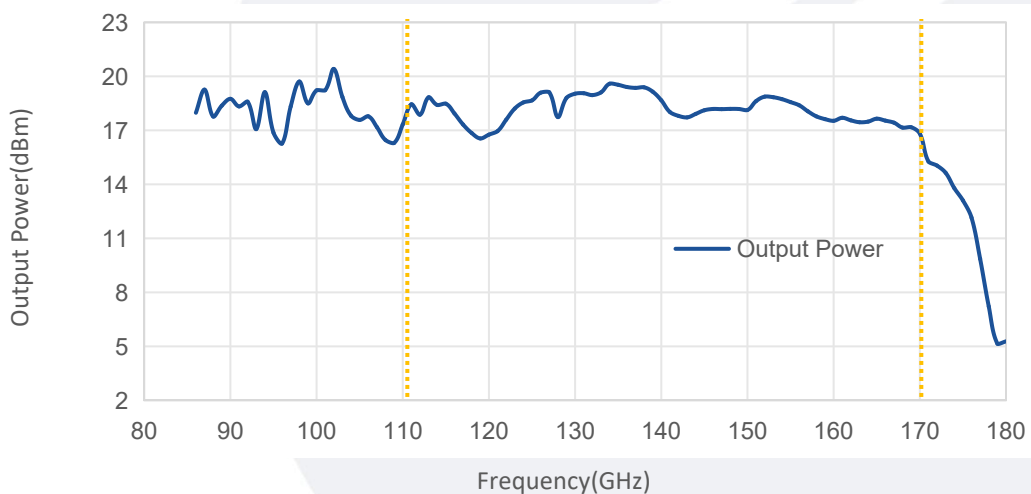
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

### Ordering Information:

Base Number	Description	Revision
TMAM-110170-1217-06	Active Multiplier,X12,110-170GHz, Output Power:17dBm,WR-6.5/UG-387/U,SMA Female	Rev.1.1

### Typical Performance Data:

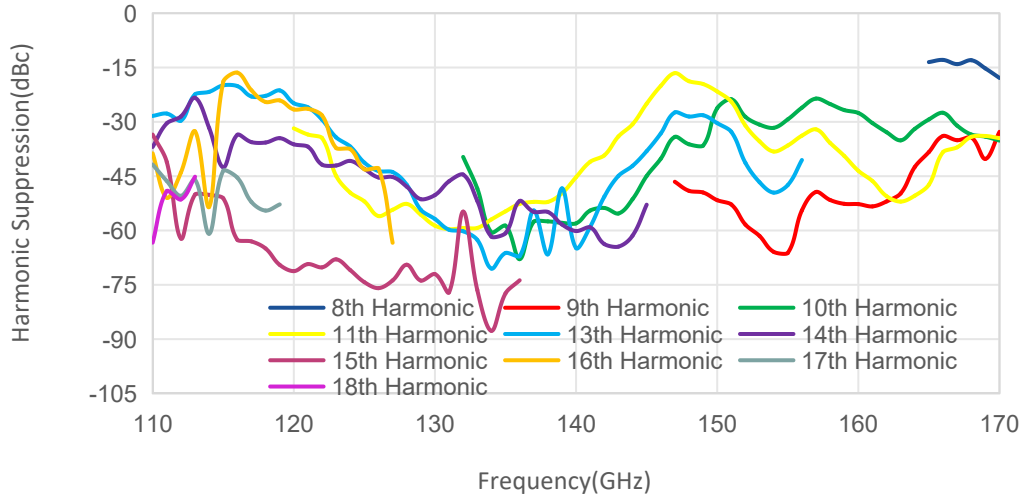
Output Power vs Frequency



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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