

W-Band, Active Frequency Multiplier

WR-10/X6/75-110GHz/21dBm Output Power

Model: TMAM-075110-0621-10

TMAM-075110-0621-10 is an active X6 frequency multiplier. The multiplier has an input frequency of 12.5 to 18.34 GHz with a typical input power of +5 dBm and an output frequency of 75 to 110 GHz with a typical output power of +21 dBm. The DC power requirement for the multiplier is +16 V DC/150 mA. The input port configuration is a female SMA connector and the output is a WR-10 waveguide with a UG-387/U-M anti-cocking flange.

Features:

- Output Frequency: 75-110GHz
- Output Power: 21dBm Typ
- Low power consumption

Applications:

- Frequency Extenders
- THz Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	75		110	GHz
Output Power		21		dBm
Input Frequency	12.5		18.34	GHz
Input Power	3	5	7	dBm
Multiply Factor		6		
Harmonic		-20		dBc
DC Voltage		16		V
DC Supply Current		150		mA

Mechanical Specifications:

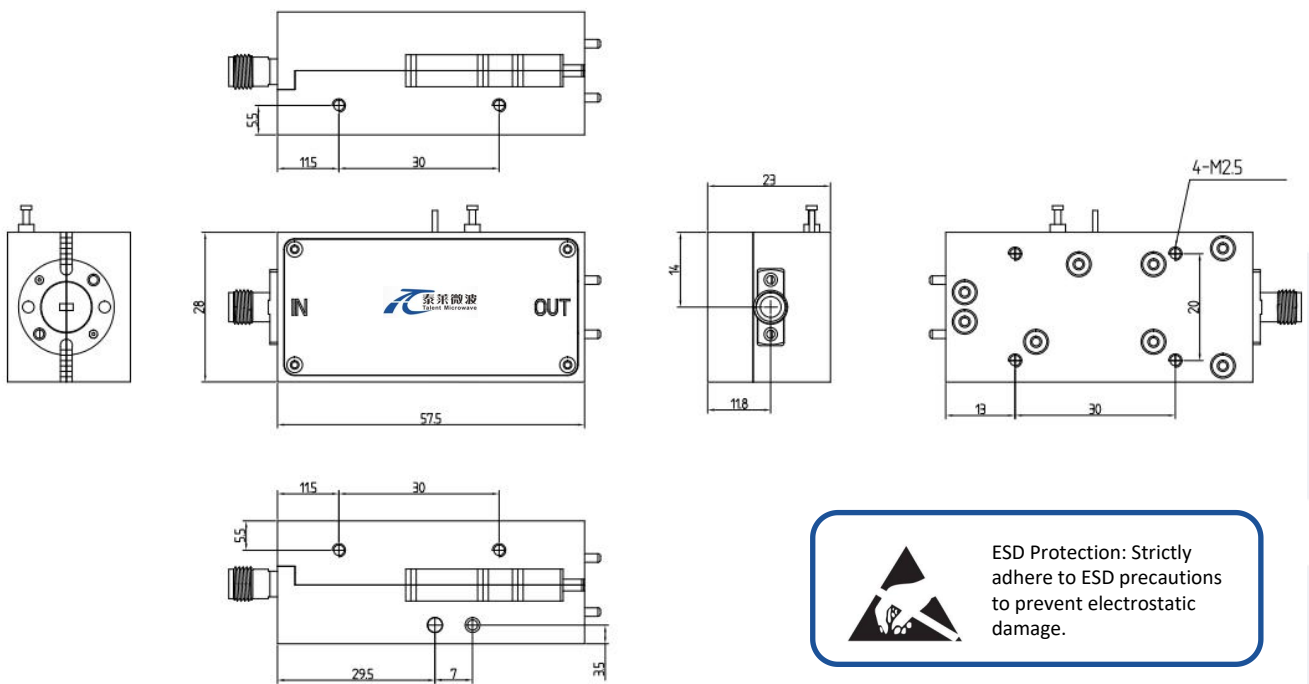
Parameter	Value	Units
Output Connector	WR-10/UG-387/U	
Input Connector	SMA Female	
DC Bias	Solder Pin	
Size	57.5*28*23	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+18 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:

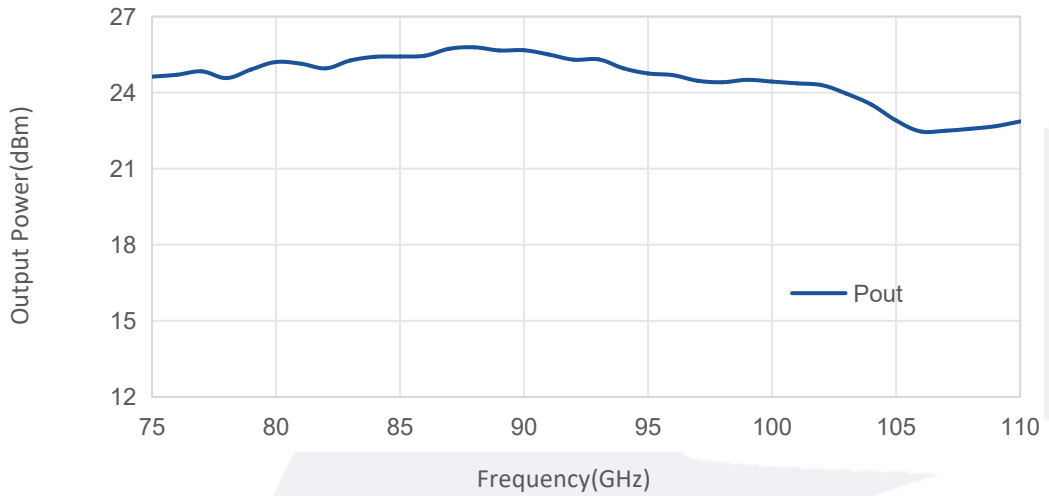
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

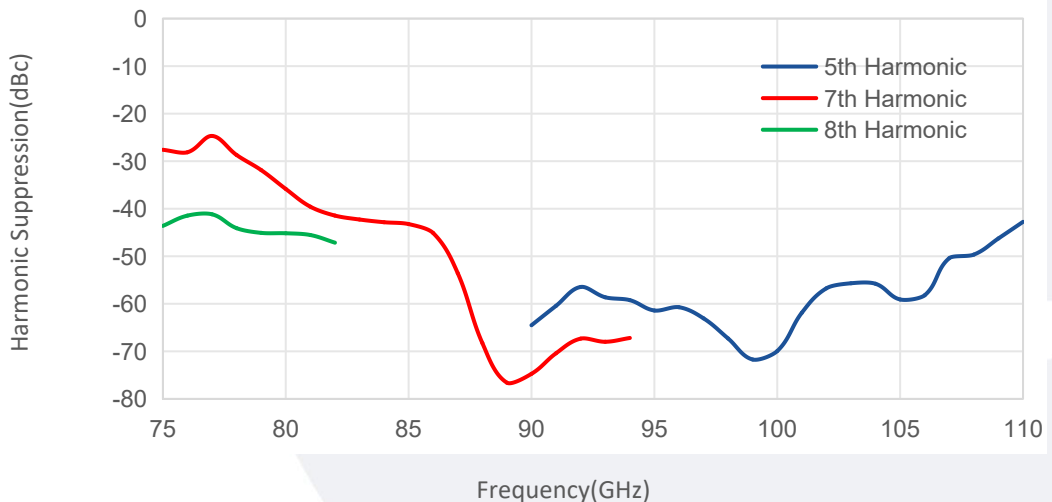
Base Number	Description	Revision
TMAM-075110-0621-10	Active Multiplier, X6, 75-110GHz, Output Power: 21dBm, WR-10/UG-387/U, SMA Female	Rev.1.1

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.