Suzhou Talent Microwave,Inc
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Active Frequency Multiplier

WR-12/X2/77-86GHz/25dBm Output Power Model: TMAM-077086-0225-12

TMAM-077086-0225-12 is an active X2 frequency multiplier. The multiplier has an input frequency of 38.5 to 43 GHz with a typical input power of +1 dBm and an output frequency of 77 to 86 GHz with a typical output power of +25 dBm. The DC power requirement for the multiplier is +5.5 V DC/1350 mA. The input port configuration is a female SMA connector and the output is a WR-12 waveguide with a UG-387/U-M anti-cocking flange.

Features:

- Output Frequency: 77-86GHz
- Output Power: 25dBm Typ
- Low power consumption

Applications:

- Frequency Extenders
- THz Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	77		86	GHz
Output Power	22	25	26.5	dBm
Input Frequency	38.5		43	GHz
Input Power	0	1	3	dBm
Multiply Factor		2		
Input Return Loss		-10		dB
Output Return Loss		-7		dB
DC Voltage		5.5		V
DC Supply Current		1350		mA

Mechanical Specifications:

Parameter	Value	Units
Output Connector	WR-12/UG-387/U	
Input Connector	SMA Female	
DC Bias	Solder Pin	

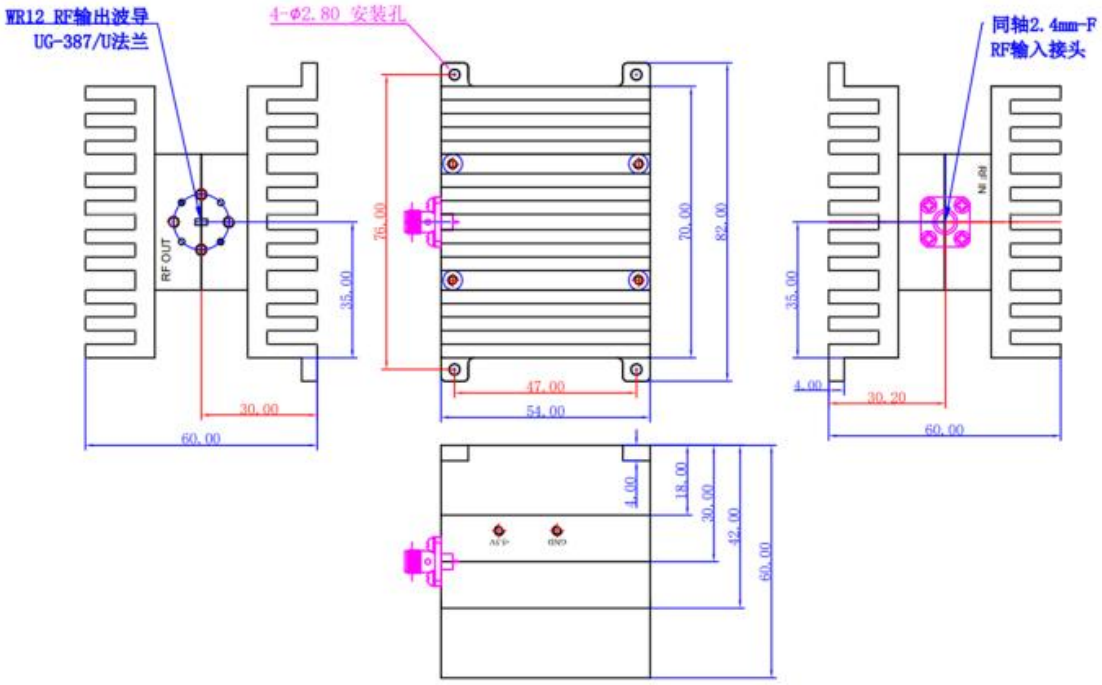
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Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	6 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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

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Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	℃
Non-operating Temperature	-45		+85	℃
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-077086-0225-12	Active Multiplier, X2, 77-86GHz, Output Power:25dBm,WR-12/UG-387/U,SMA Female	Rev.1.1