

U-Band, Active Frequency Multiplier

WR-19/X4/40-60GHz /+1dBm Output Power

Model: TMAM-040060-0401-19

TMAM-040060-0401-19 is an active X4 frequency multiplier. The multiplier has an input frequency of 10 to 15 GHz with a typical input power of +0 dBm and an output frequency of 40 to 60 GHz with a typical output power of +1 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-19 waveguide with a UG-383/U-M anti-cocking flange.

Features:

- Output Frequency: 40-60 GHz
- Output Power : +1dBm Typ
- Low power consumption

Applications:

- Frequency Extenders
- THz Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	40		60	GHz
Output Power		1		dBm
Input Frequency	10		15	GHz
Input Power		0	3	dBm
Multiply Factor		4		
Harmonic Suppression			-30	dBc
DC Voltage		12		V

Mechanical Specifications:

Parameter	Value	Units
Output Connector	WR-19/UG-383/U	
Input Connector	SMA Female	
DC Bias	Solder Pin	
Size	50*30*30	mm

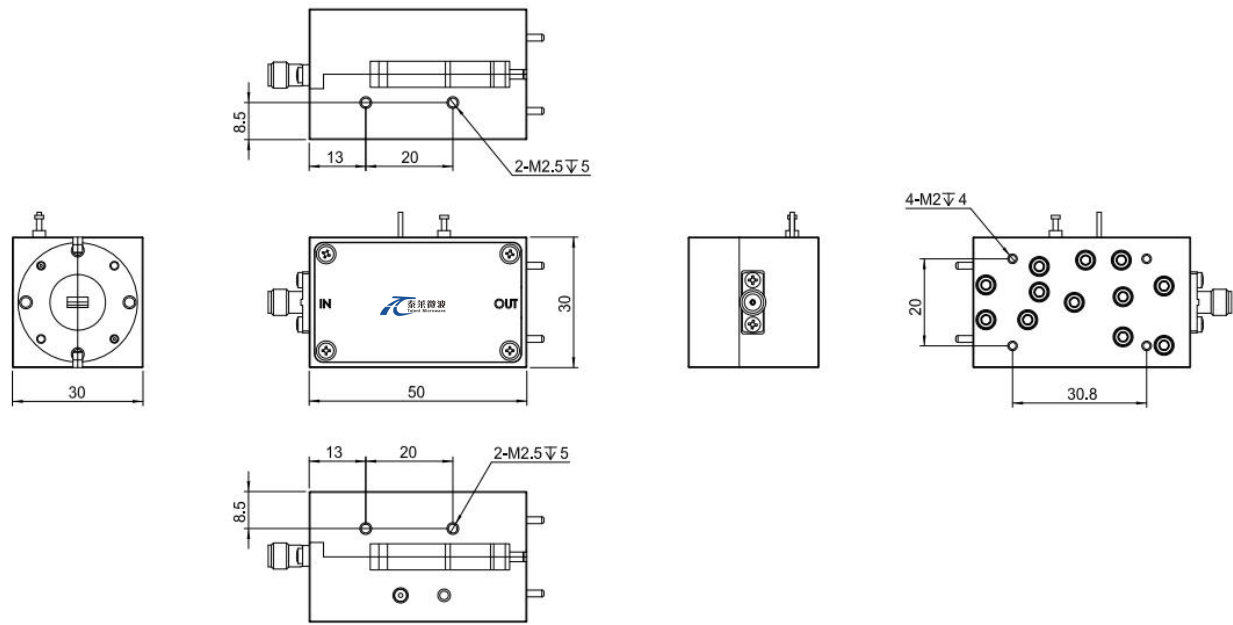
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

Regulatory Compliance:



Environmental Conditions:

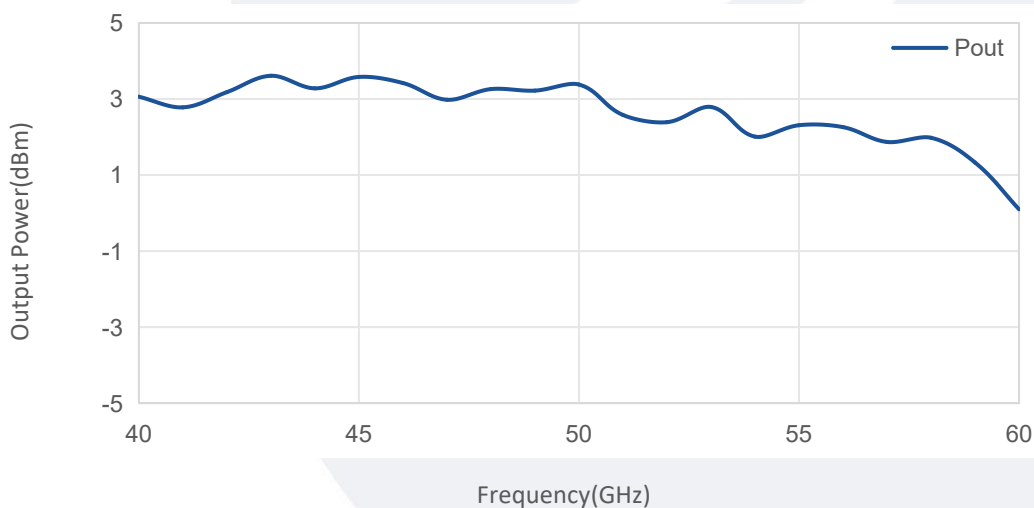
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TMAM-040060-0401-19	Active Multiplier,X4,40-60GHz, Output Power:+1dBm,WR-19/UG-383/U,SMA Female	Rev.1.1

Typical Performance Data:

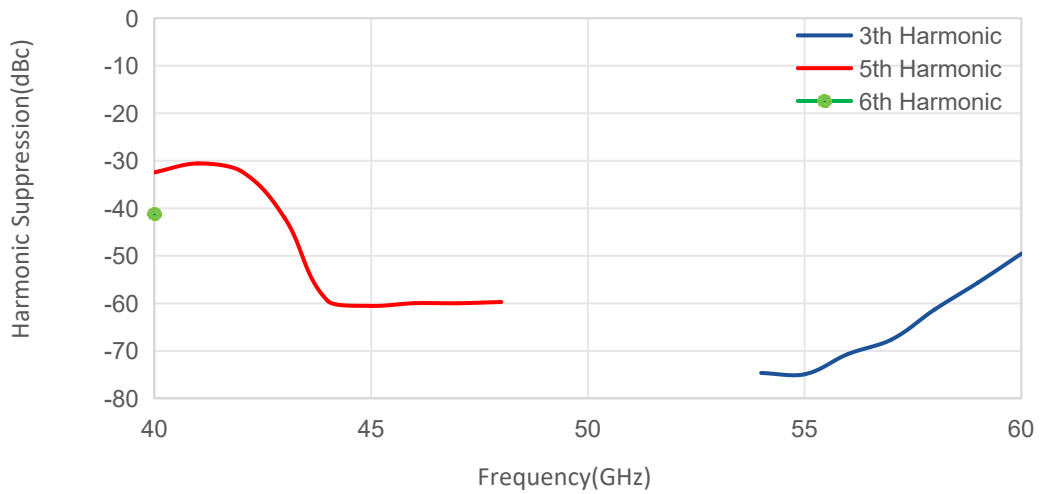
Output Power vs Frequency



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



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.