

## Active Frequency Multiplier

### X4/ 18-67GHz /15dBm Output Power

**Model: TLAM-1867-0415-V**

TLAM-1867-0415-V is an active X4 frequency multiplier. The multiplier has an input frequency of 4.5 to 16.75 GHz with a typical input power of 0 dBm and an output frequency of 18 to 67 GHz with a typical output power of +15 dBm. The DC power requirement for the multiplier is +12 V DC/200 mA. The input port configuration is female SMA connector and output port configuration offers coax adapter structure with 1.85mm female.

#### Features:

- Output Frequency:18-67GHz
- Output Power :15dBm Typ
- Low power consumption
- 50 Ohm Matched Input / Output

#### Applications:

- Synthesizers
- Local oscillators

#### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	18		67	GHz
Output Power		+15		dBm
Input Frequency	4.5		16.75	GHz
Input Power	-2	0	4	dBm
Multiply Factor		4		
1st Harmonic		-20		dBc
2nd Harmonic		-18		dBc
3rd Harmonic		-12		dBc
5th Harmonic		-12		dBc
DC Voltage	+8	+12	+15	V
DC Supply Current		200		mA

#### Mechanical Specifications:

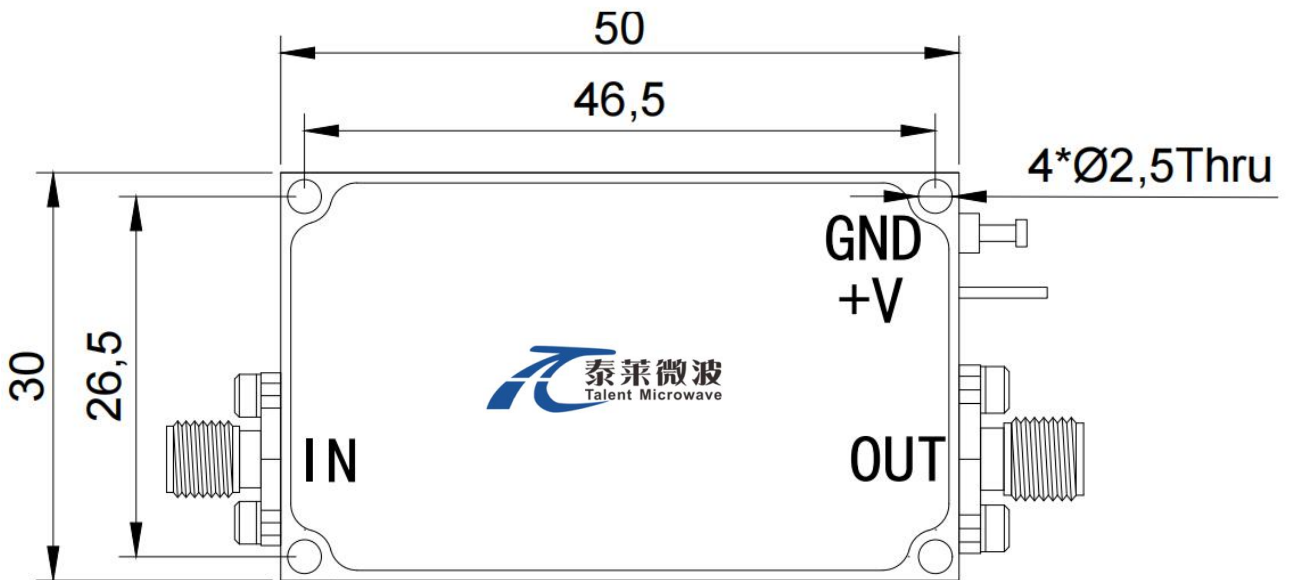
Parameter	Value	Units
Output Connector	1.85mm Female	
Input Connector	SMA Female	
DC Bias	Solder Pin	
Size	50*30*10	mm

### 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



**\*\*\*Heat Sink Required During Operation**



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

### Environmental Conditions:

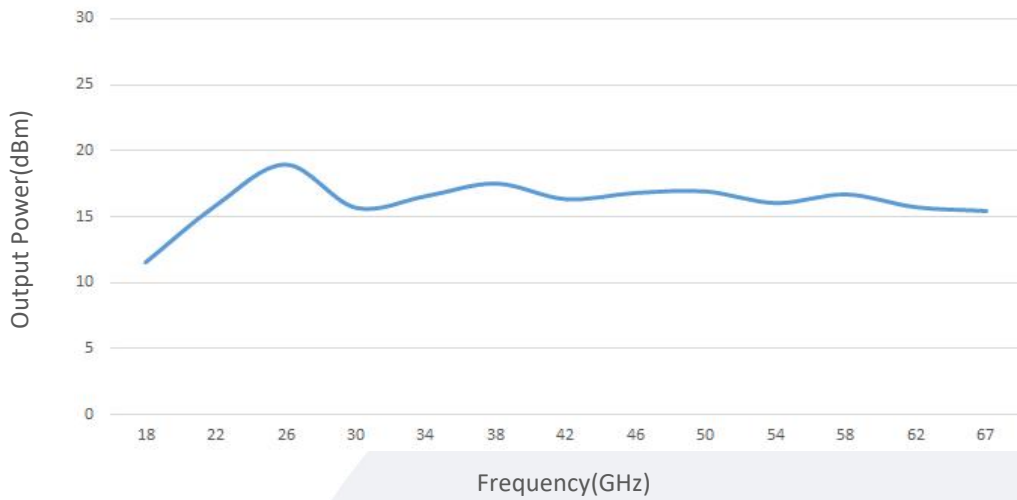
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude		10,000		feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

## Ordering Information:

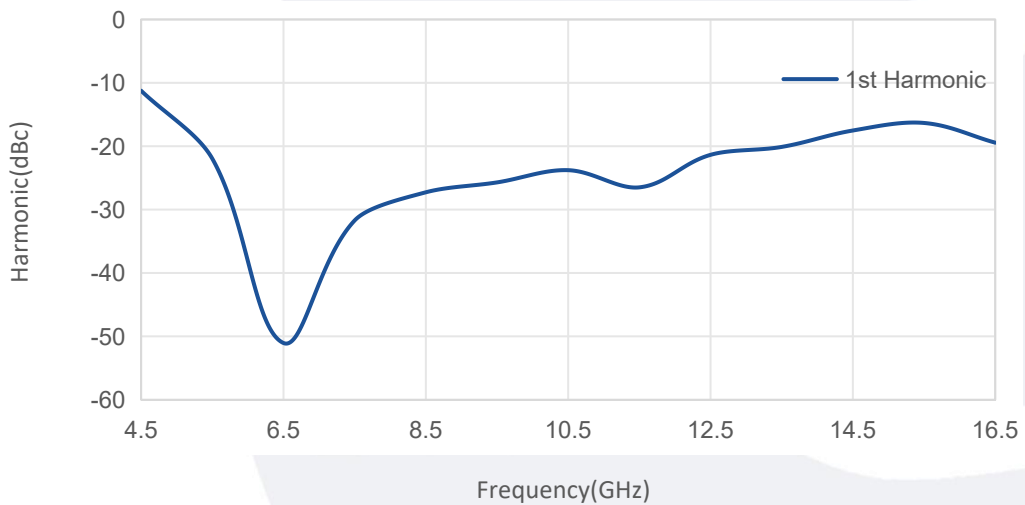
Base Number	Description	Revision
TLAM-1867-0415-V	Active Multiplier X4, 18-67 GHz ,+15 dBm Output Power	Rev.1.2

## Typical Performance Data:

### Output Power vs Frequency



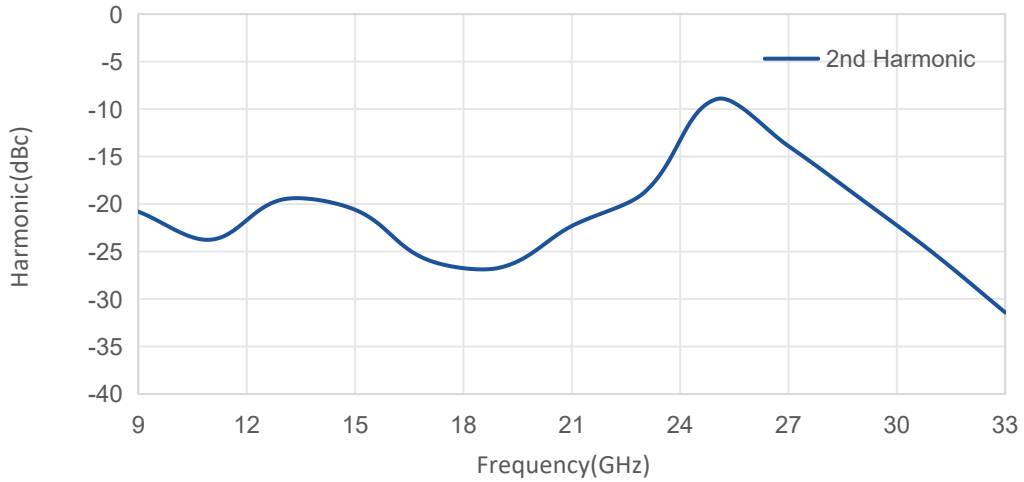
### 1st Harmonic vs Frequency



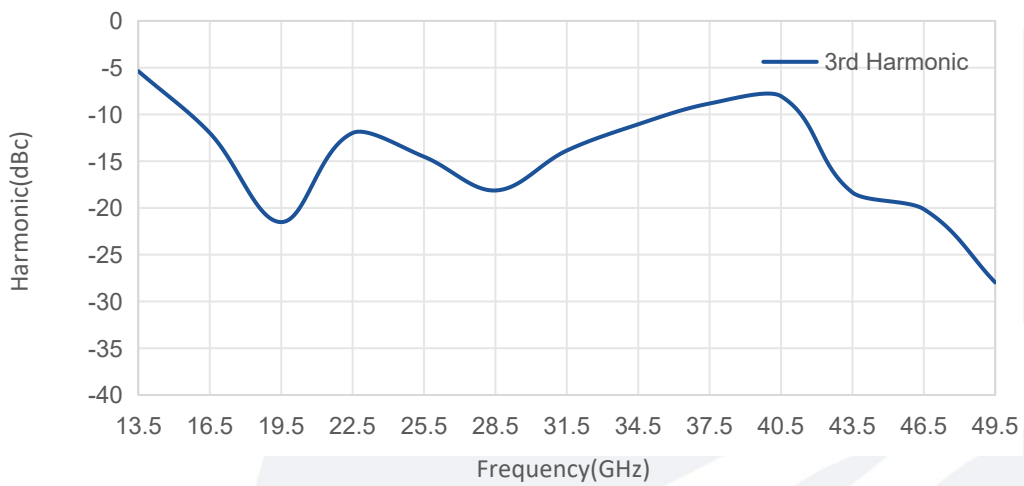
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

**Typical Performance Data:**

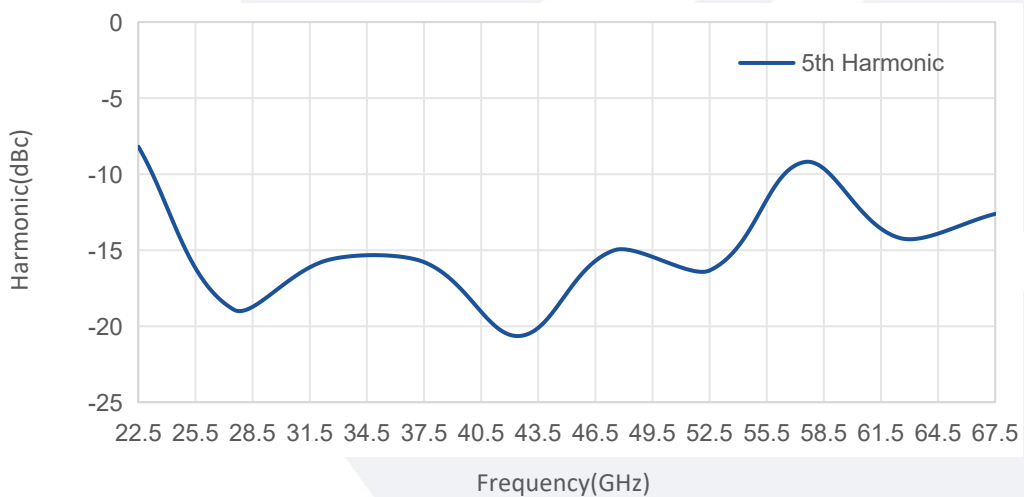
**2nd Harmonic vs Frequency**



**3rd Harmonic vs Frequency**



**5th Harmonic vs Frequency**



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