

## Active X2, 18-44GHz Frequency Doubler

2022-7-1



### Description:

AT-AM2-1844-20XC is a broadband frequency doubler. The doubler has an input frequency of 9-22 GHz with a typical output +20dBm from 18-44GHz.

The integrated output buffers deliver high output power at a low drive level. The doubler also has a typical harmonic suppression. The input port is SMA female, and the output is 2.92mm Male in default and 2.4mm Male is available according to request..

More information, please visit [www.atmicrowave.com](http://www.atmicrowave.com)

### Feature

- ✓ Frequency: 18-44GHz
- ✓ Pout: +20dBm typical
- ✓ Input: 9-22GHz
- ✓ Low Harmonics

### Application

- ✓ 5G Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

### Electronical Specifications:

Parameter	Min	Typical	Max
Input Frequency		9-22GHz	
Input Power	+2	+3dBm	+6
Multiplier Factor		X2	
Output Frequency		18-44GHz	
Output Power	+17	20dBm	
1 <sup>st</sup> Harmonic Suppression	-10dBc	-25dBc	
3 <sup>rd</sup> Harmonic Suppression	-20dBc	-25dBc	
4 <sup>th</sup> Harmonic Suppression	-10dBc	-15dBc	
Drain Voltage	+5V	+8V	
Current		250mA	
Spec Temp		+25C	





# AT-AM2-1844-20XC

Active Multiplier x2, 18-44Hz Pout=+20dBm

## Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	2.92mm Male
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	80g
Size:	30x30x14mm

## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+15dBm
Operating Temperature	-20 to +70C
Storage Temperature	-65 to +150C

**Note:** -40 to 85C operating Temp range is available according to request.

### Notes:

- ✓ Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
- ✓ This data is only for reference, not for guaranteed specifications.
- ✓ Please contact AT Microwave team to make sure you have the most current data.
- ✓ Always pay attention to the temperature of the case, heatsink and fan are required if case temperature exceeds over 50C.

## Part Number Selection Guide

Item	Description
PN	Stand Module with DC Power Supply
<b>PN-LCBT</b>	<b>L</b> ow Cost, <b>C</b> ompact <b>B</b> ench- <b>T</b> op, +220V Supply with AC/DC Adapter



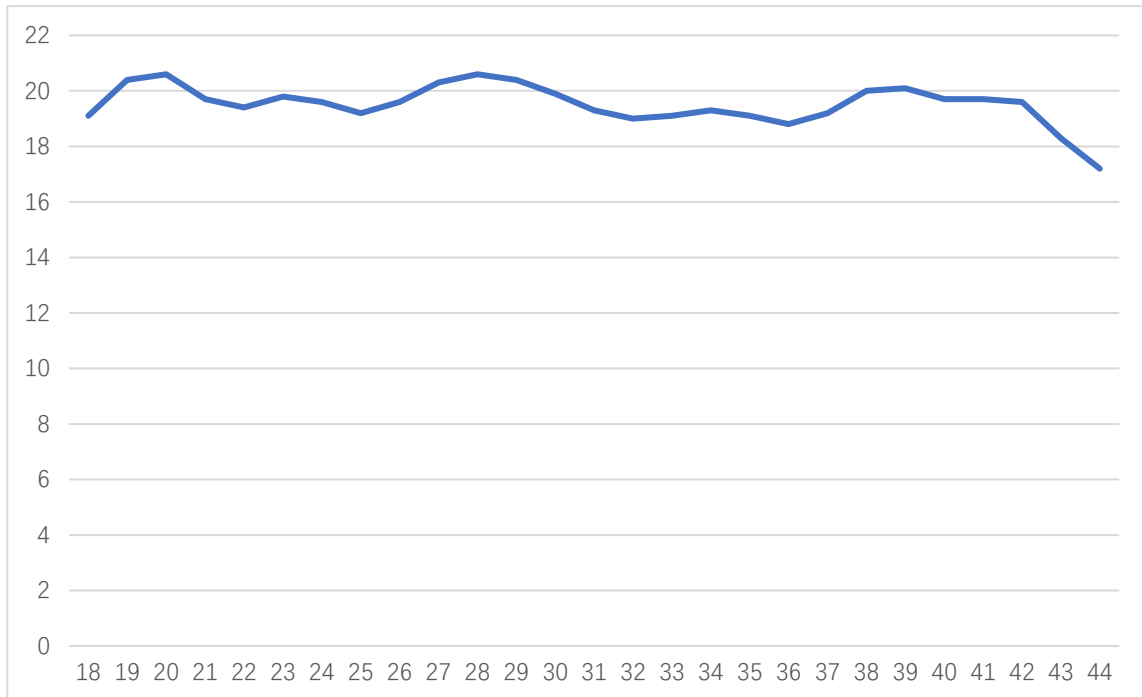


# AT-AM2-1844-20XC

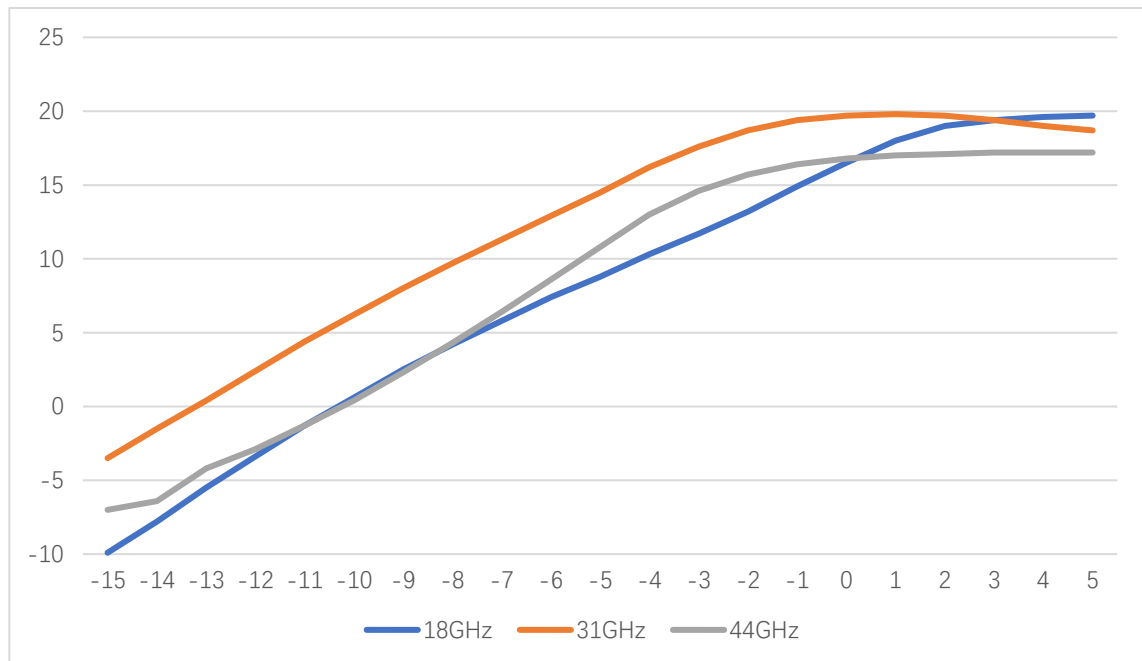
Active Multiplier x2, 18-44Hz Pout=+20dBm

## Test Data (25C)

Please note that test curves will vary slightly from unit to unit.

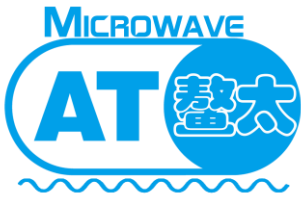


Pout vs Frequency, Pin=+3dBm



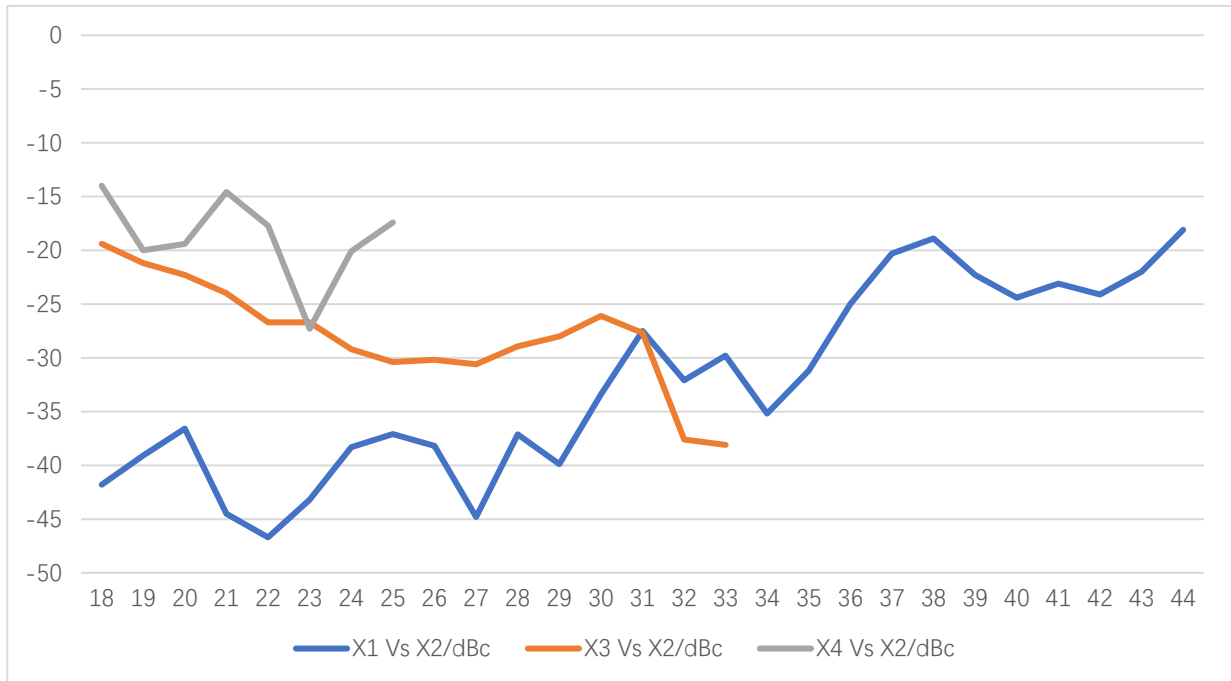
Pout vs Pin at 18/31/44GHz





# AT-AM2-1844-20XC

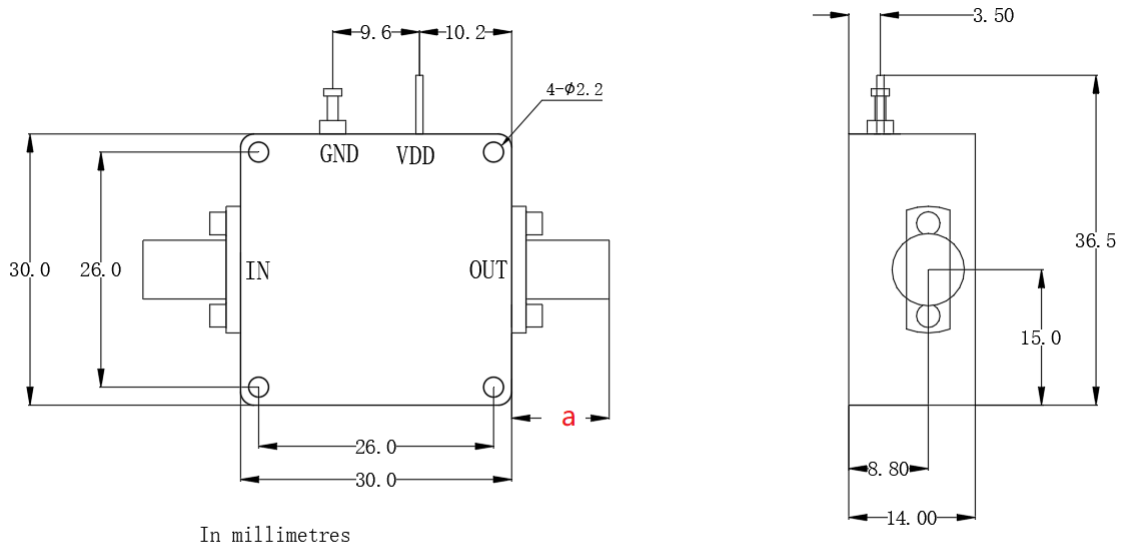
Active Multiplier x2, 18-44Hz Pout=+20dBm



Harmonics vs X2 Pout



## Dimension:



	<26.5GHz	<40GHz	<50GHz	<67GHz
Connector	SMA	2.92mm	2.4mm	1.85mm
Lenth of a	9.4mm	9.5mm	10.8mm	11.3mm

Heat Sink Required If Case Temp Higher Than 50C

