



# AT-AM2-2050-22XC2

Active Multiplier x2, 20-50GHz Pout=+22dBm

## Active X2, 20-50GHz Broadband, High Power



### Description:

AT-AM2-2050-22T is a broadband frequency doubler. The doubler has an input frequency of 10-25 GHz with a typical output +22dBm from 20-50GHz.

The integrated input and 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 2.4mm Female. Other port configurations are available under different requirement.

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

### Feature

- ✓ Frequency: 20-50GHz
- ✓ Pout: +22dBm typical
- ✓ Input: 10-25GHz
- ✓ Low Harmonics

### Application

- ✓ 28/39GHz 5G Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

## Electronical Specifications:

Parameter	Min	Typical	Max
Input Frequency	10GHz		25GHz
Input Power	+12	+15dBm	+18
Multiplier Factor		X2	
Output Frequency	20GHz		50GHz
Output Power	+20	+22dBm	
1 <sup>st</sup> /3 <sup>rd</sup> Harmonic Suppression		-20dBc	
Drain Voltage		+5V	+8V
Current		500mA	800mA
Spec Temp		25C	





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## Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	2.4mm Female
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	80g
Size:	45x34x9.5mm

## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+20dBm
Operating Temperature	-40 to +85C
Storage Temperature	-55 to +125C

### 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



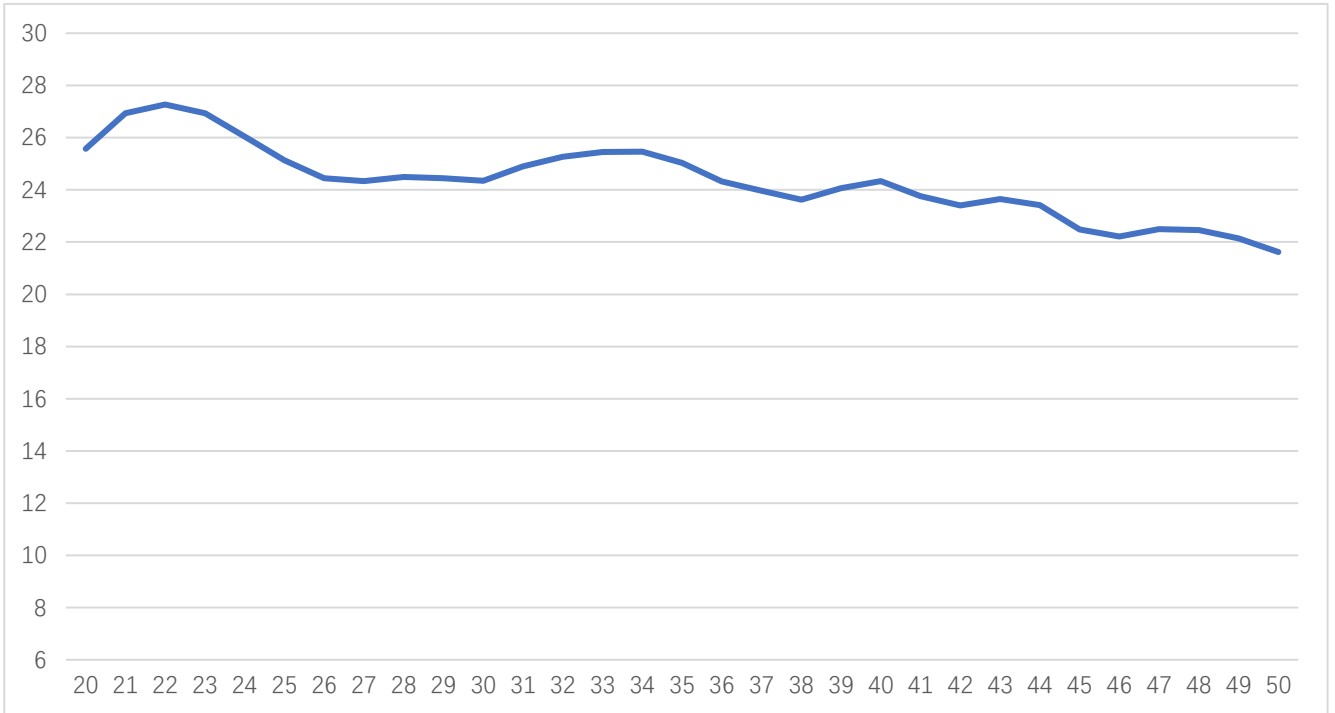


# AT-AM2-2050-22XC2

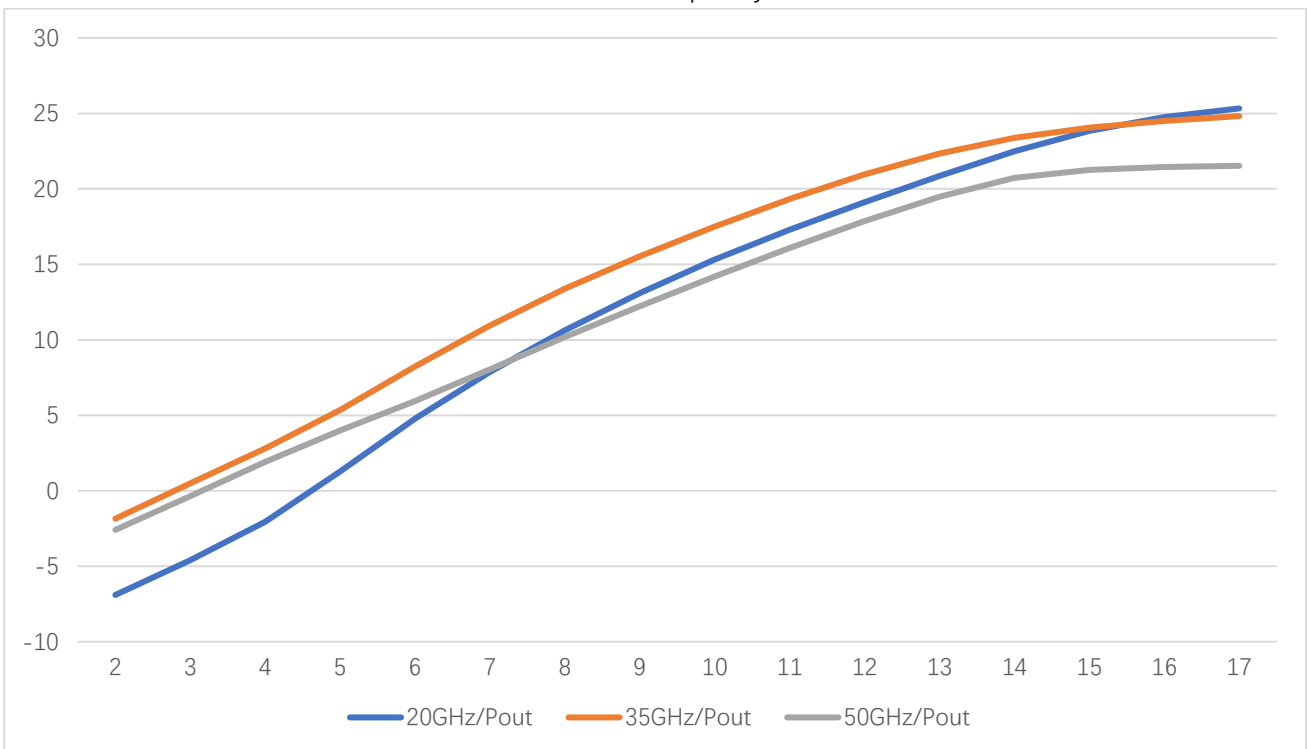
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## Test Data (25C)

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



Pout vs Frequency



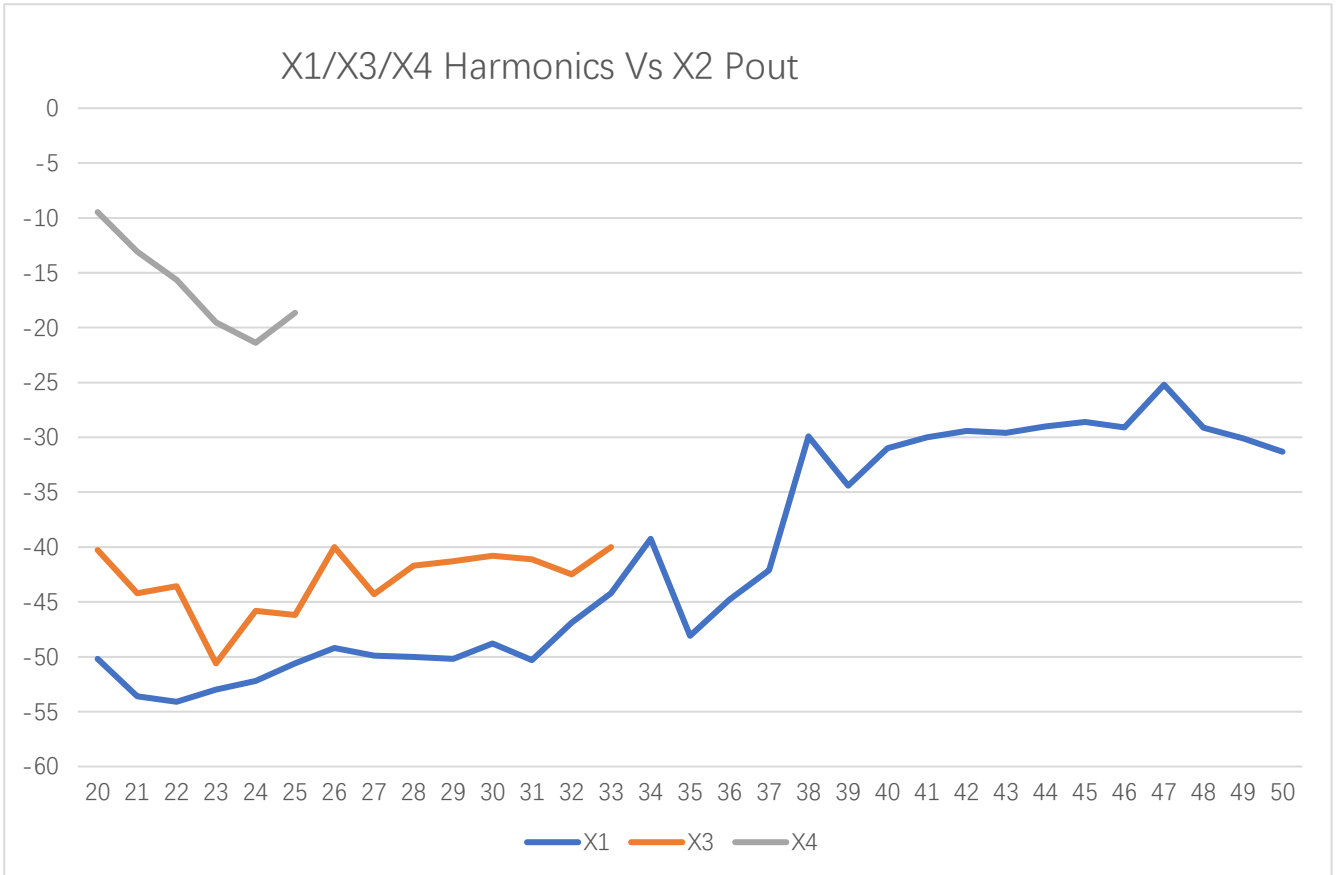
Pout vs Pin at 20/35/50GHz





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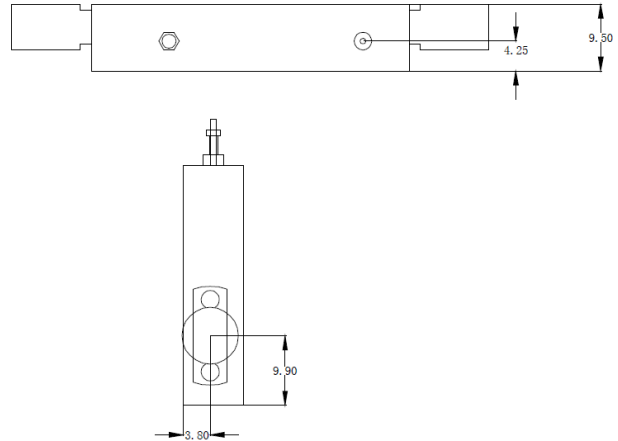
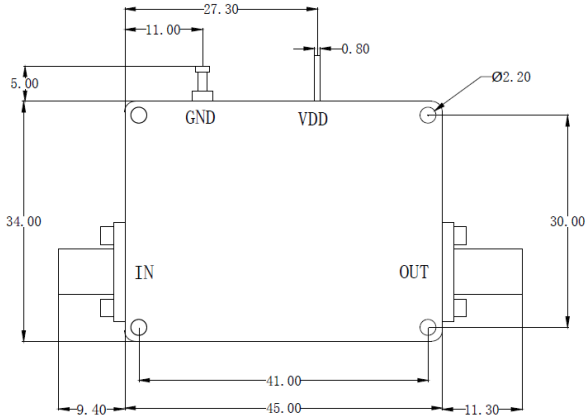
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X1/X3/X4 Harmonics vs X2 Pout

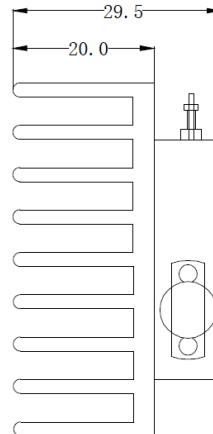
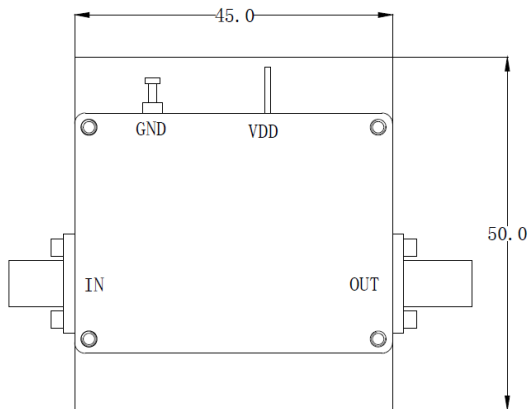


**Dimension:** (Unit:mm)



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

Note: Female Default. Contact with us for other types.



Including a small heatsink without Fan if output Power higher than +20dBm.  
Customers can removed it or use their own heatsink according to actual situation.

Heat Sink Required During Operation if case Temp higher than 50C

