

Active X2, 18-44GHz Frequency Doubler

2021-5-30



Description:

AT-AM2-1844-13XC is a broadband frequency doubler. The doubler has an input frequency of 9-22 GHz with a typical output +13dBm 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

Feature

- ✓ Frequency: 18-44GHz
- ✓ Pout: +13dBm 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	+10	13dBm	
1 st Harmonic Suppression	-10dBc	-25dBc	
3 rd Harmonic Suppression	-20dBc	-25dBc	
4 th Harmonic Suppression	-10dBc	-15dBc	
Drain Voltage		+5	+8V
Current		250mA	
Spec Temp		+25C	





AT-AM2-1844-13C

Active Multiplier x2, 18-44Hz Pout=+13dBm

Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	2.92mm Male
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	80g
Size:	30x30x9.5mm

Absolute Maximum Ratings Table

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

Note: -44 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.

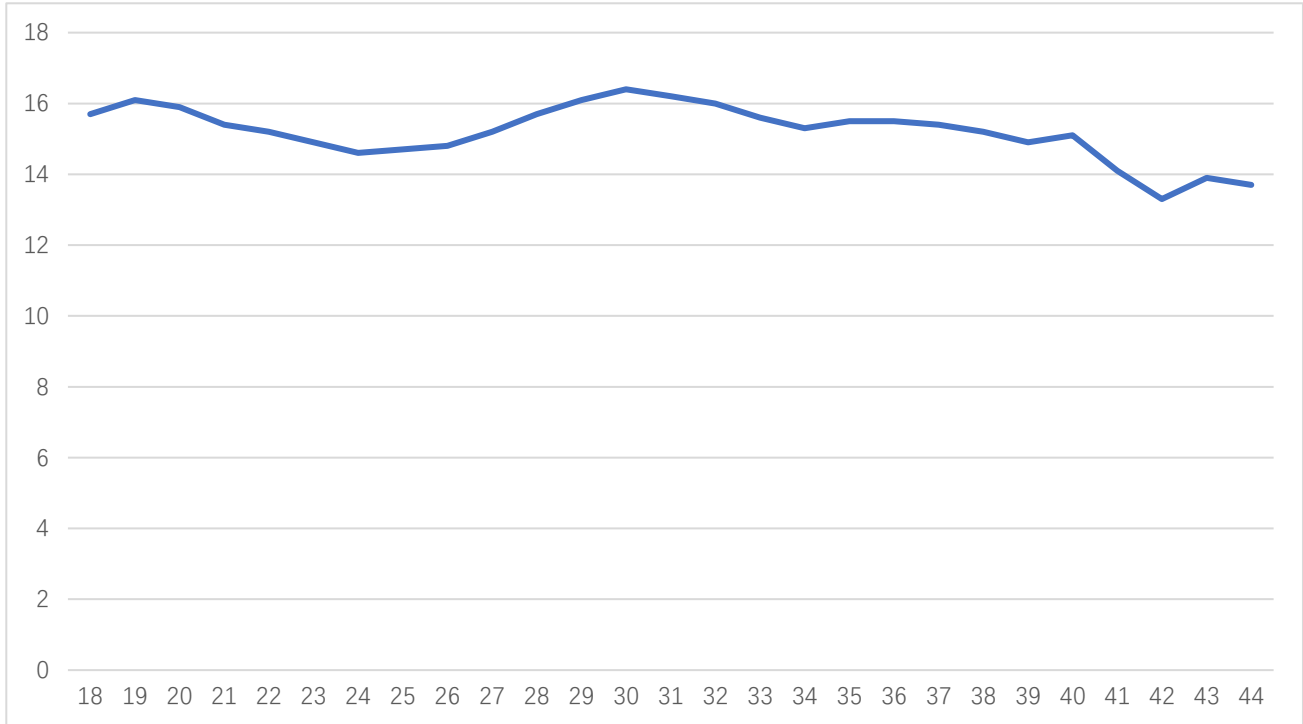




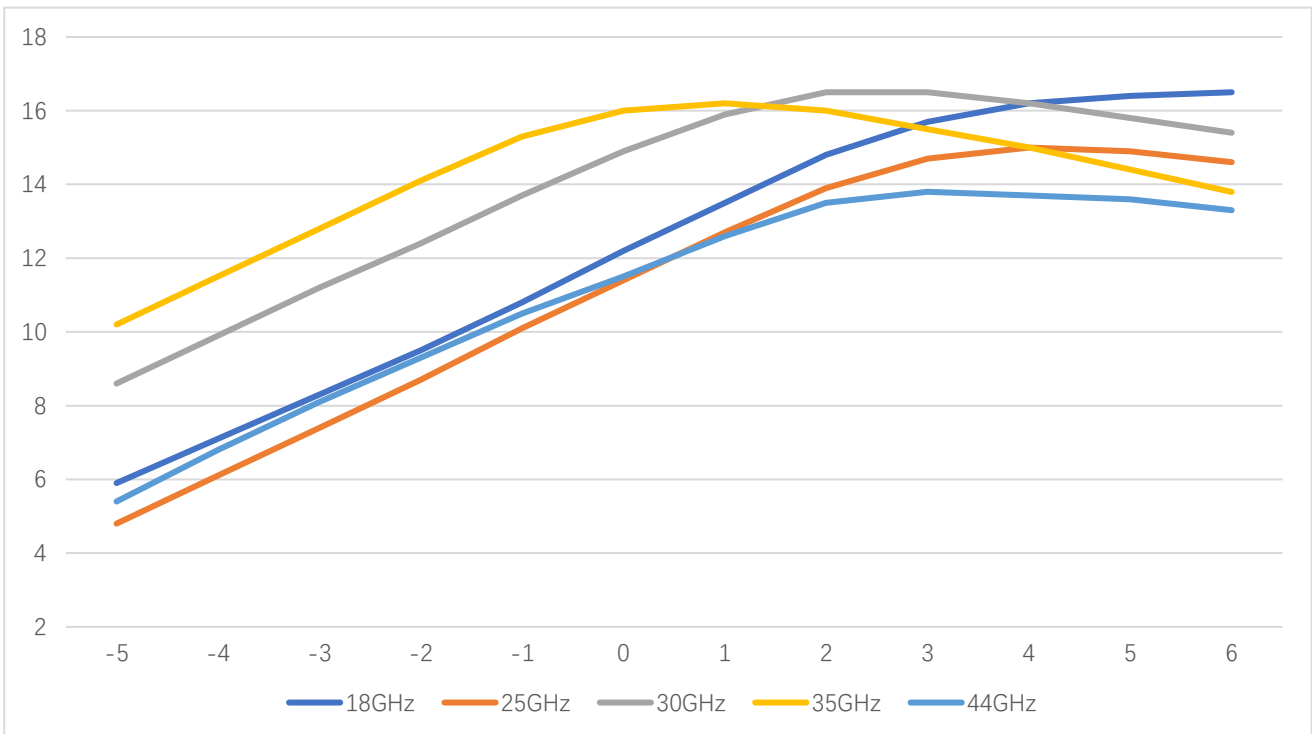
AT-AM2-1844-13C

Active Multiplier x2, 18-44Hz Pout=+13dBm

Test Data:



Pout vs Frequency, Pin=+3dBm



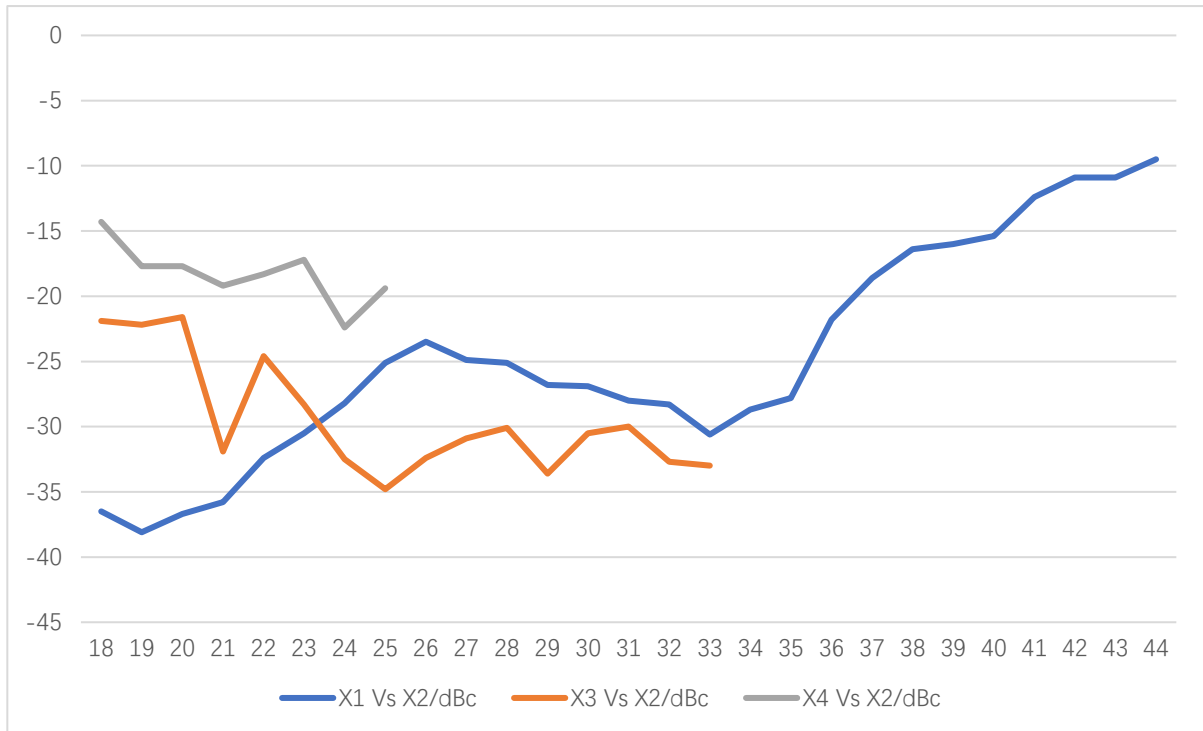
Pout vs Pin at 18/25/35/44GHz





AT-AM2-1844-13C

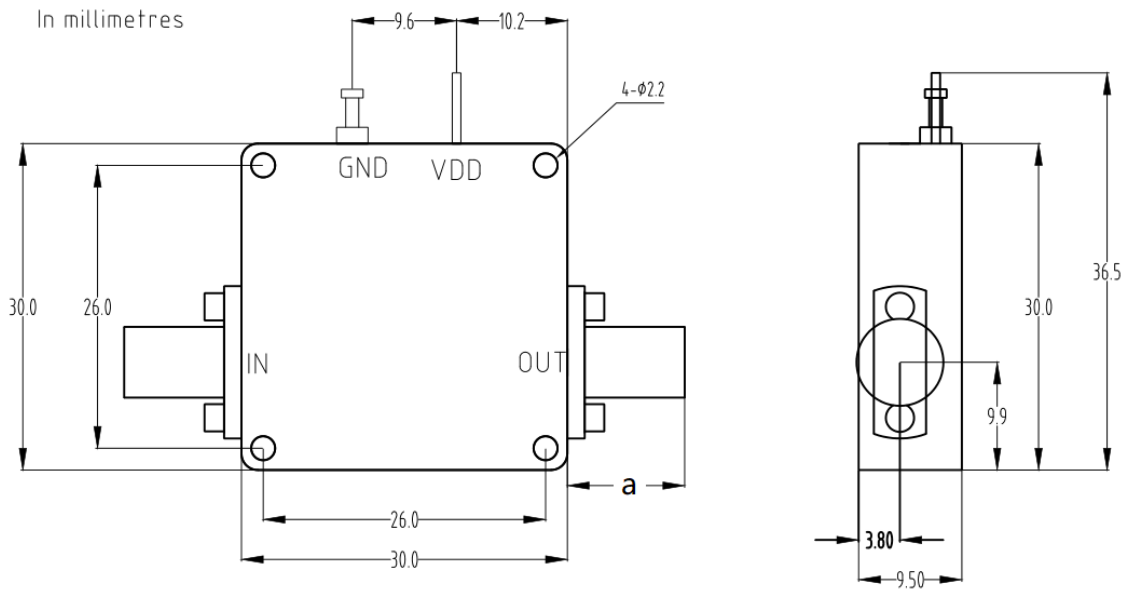
Active Multiplier x2, 18-44Hz Pout=+13dBm



Harmonics suppression 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

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

Heat Sink Required If Case Temp Higher Than 50C

