

10MHz-47GHz Broadband Amplifier



Product Overview

AT-BB-0047-4320C is broadband amplifier from 10MHz-47GHz, with $P_{out}=+22\text{dBm}$, $NF=6\text{dB}$. It can be used both as Power amplifier or low noise amplifier.

The DC power requirement is $+220\text{V}/0.5\text{A}$. The module is with 2.4mm Female

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 10MHz-47GHz
- ✓ P_{sat} : +22dBm
- ✓ Small signal gain: 43dB
- ✓ Bench-Top Test

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		10MHz-47GHz	
Gain	38dB	43dB	
Gain Flatness		+/-3dB	+/-5dB
P1dB		10MHz-40GHz: +20dBm 40GHz-47GHz: +16dBm	
P_{sat}		10MHz-40GHz: +22dBm 40GHz-47GHz: +18dBm	
Drain Supply	+90v	+220V	240V
Current		0.5A	
NF (1-43GHz)		6dB	
Input Return Loss		-10dB	
Output Return Loss		-10dB	
Spec Temp		25C	





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Mechanical Information

Item	Description
Input Port	2.4mm Female
Output Port	2.4mm Female
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	380g
Size:	206.7x167x82.9mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+15V
RF Input Power	+10 dBm
Operating Temperature	-20 to +70C
Storage Temperature	-65 to +150C

Caution:

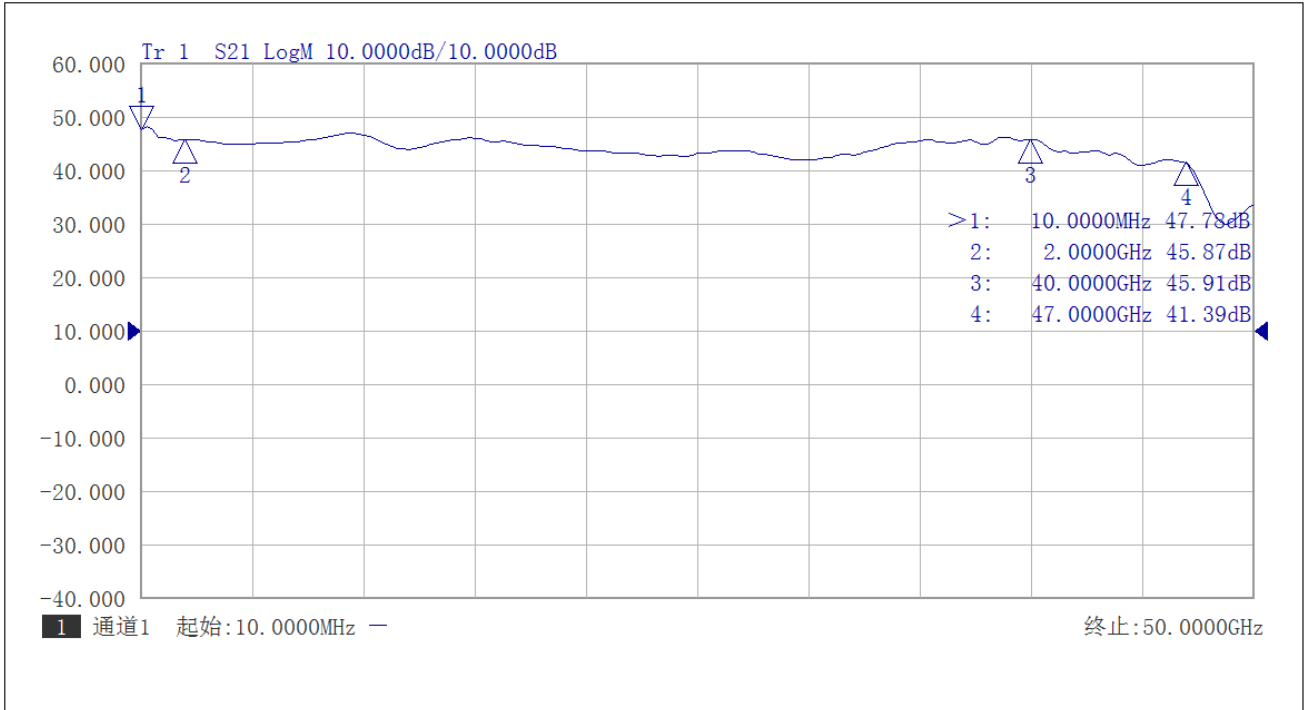
Please pay attention to the case temperature. If case temperature exceed higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

Notes:

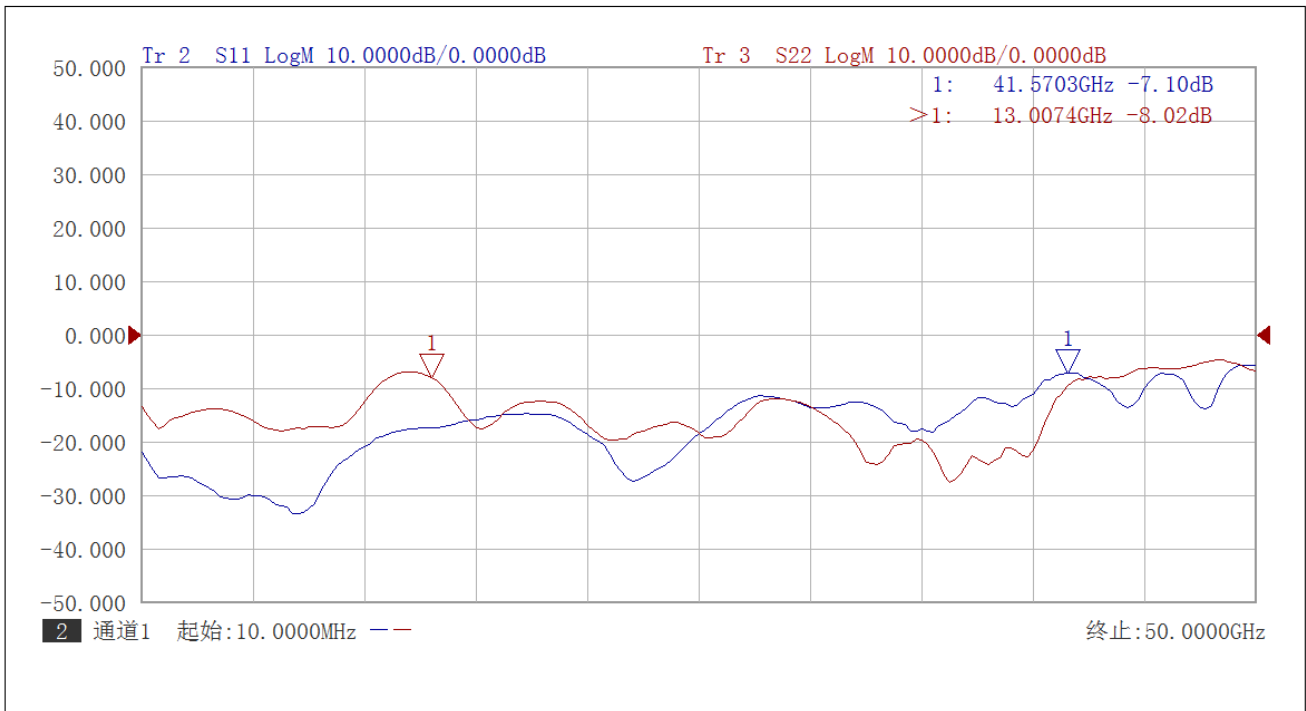
1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.



Test Data:



Gain vs Frequency



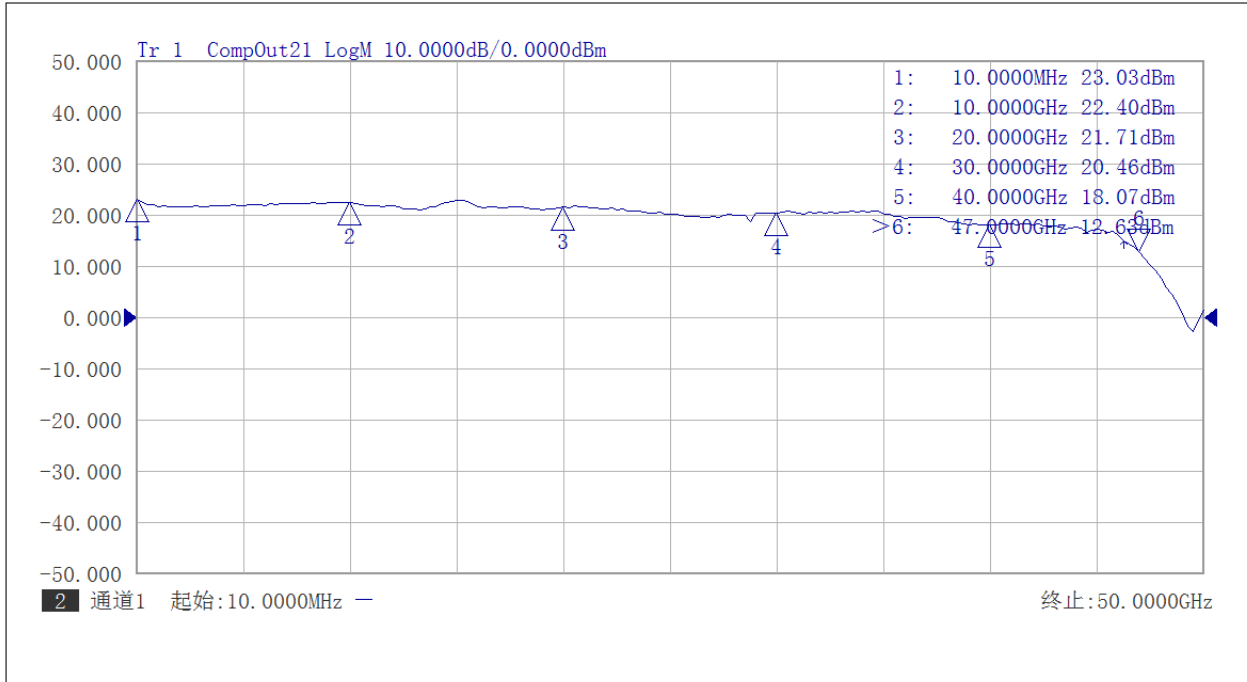
Input and Output Return Loss vs Frequency



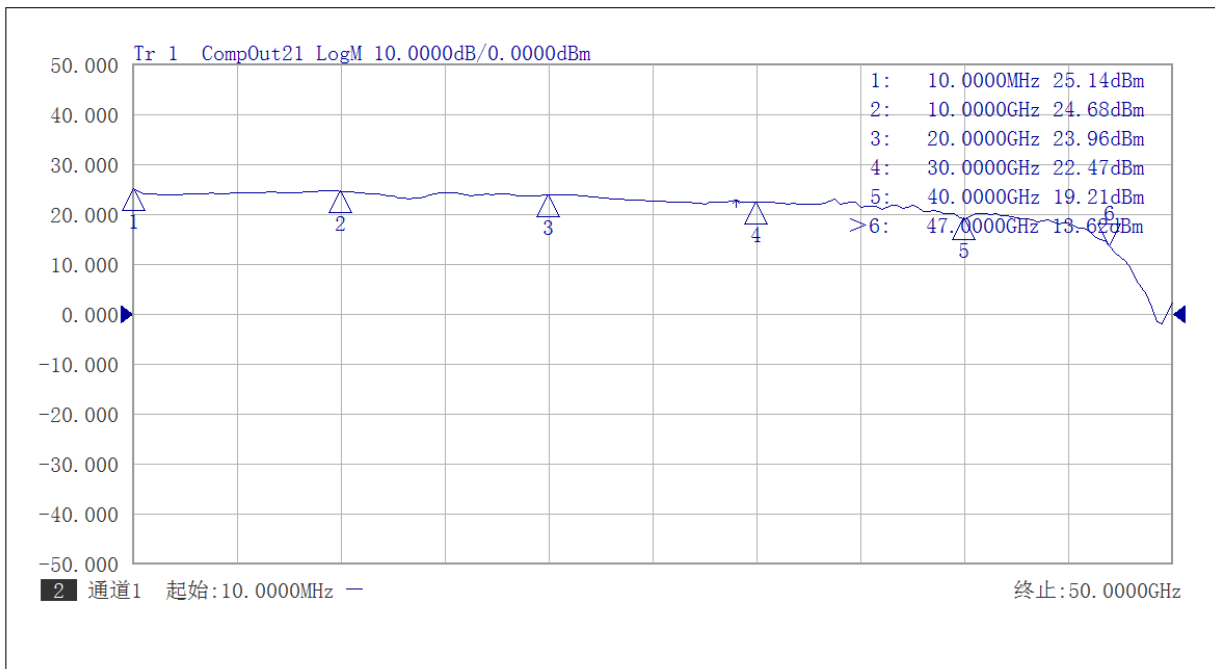


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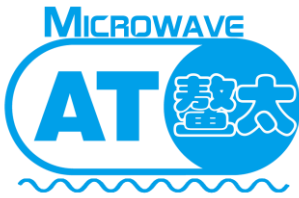


P1 vs Frequency 10MHz-47GHz



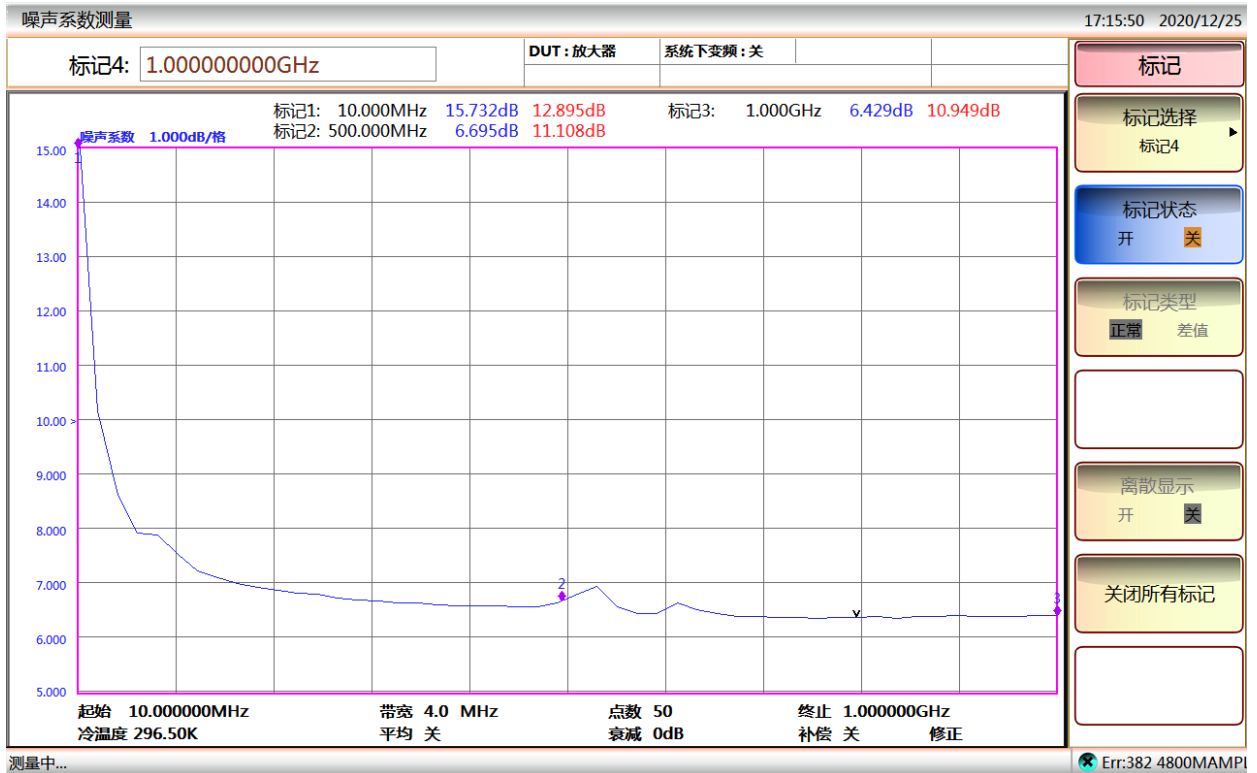
P3 vs Frequency 10MHz-47GHz





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10MHz-1GHz NF



1-47GHz NF

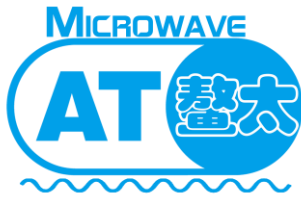
Shanghai AT Microwave Limited

Tel:021-6229 1233

Email:sales@atmicrowave.com

www.atmicrowave.com





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Dimension: (unit in mm)

