

10MHz-50GHz Broadband Amplifier



Product Overview

AT-PA-0050-2520C is broadband amplifier from 10MHz-50GHz, with $P_{out}=+22dBm$, $NF=6dB$. It can be used both as Power amplifier or low noise amplifier. The DC power requirement is $+8V/330mA$. The module is with 2.4mm Female. 1.85mm is available according to request.

+5V Single power supply (With 3dB lower output power) is also available according to request. Bench-top test equipment type with 110-240V power supply is available according to request.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 10MHz-50GHz
- ✓ $P_{sat}:+22dBm$
- ✓ Small signal gain: 25dB
- ✓ Single Power Supply

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		10MHz-50GHz	
Gain	25	25dB	
P1dB		10MHz-40GHz: +20dBm 40GHz-50GHz: +16dBm	
Psat		10MHz-40GHz: +22dBm 40GHz-50GHz: +18dBm	
Drain Supply	+8V	+12V	+13V
Current		330 mA	
NF(1-43GHz)		6dB	
Input Return Loss		-10dB	
Output Return Loss		-10dB	
Spec Temp		25C	





AT-BB-0050-2520C

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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)	80g
Size:	30x30x14 mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+15V
RF Input Power	+15 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.

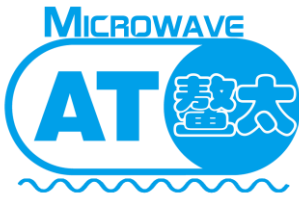
Ordering

PN	Description
AT-BB-0050-2520C	10MHz-50GHz, Gain=25dB, +8V Supply
AT-BB-0050-3820C	10MHz-50GHz, Gain=38dB, +8V Supply
AT-BTBB-0050-2520C	Bench-Top +220V Supply, Gain=25dB
AT-BTBB-0050-3820C	Bench-Top +220V Supply, Gain=38dB

Notes:

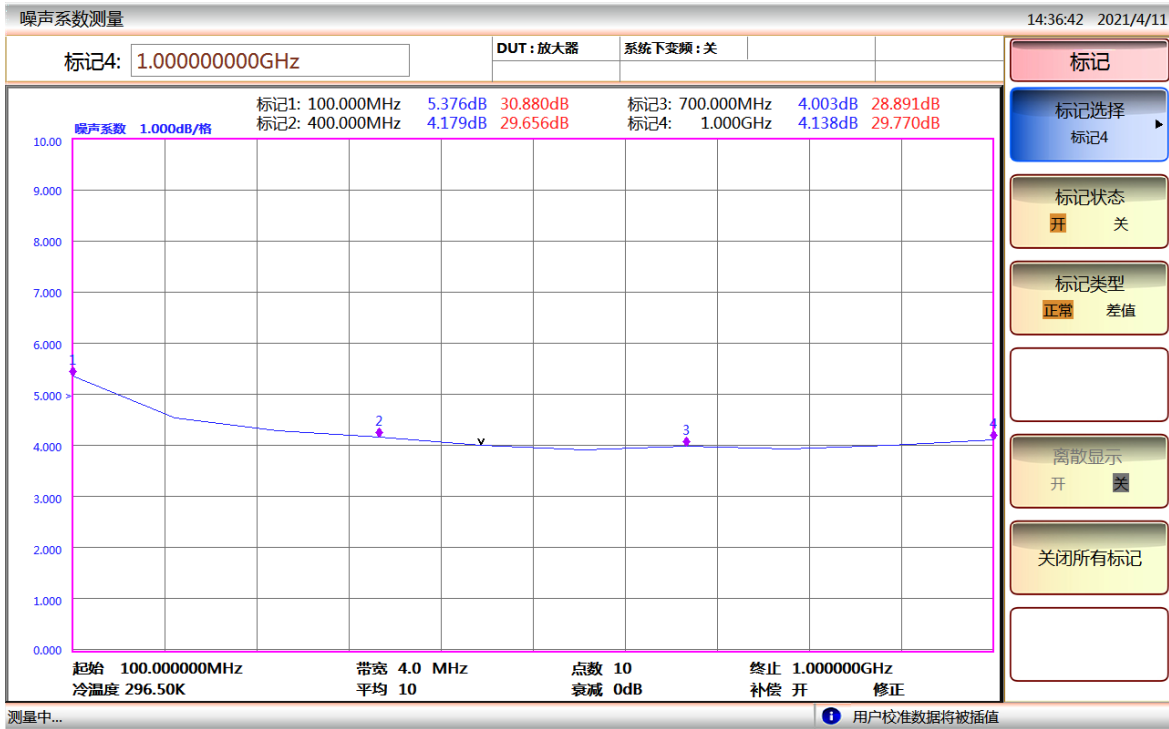
1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.



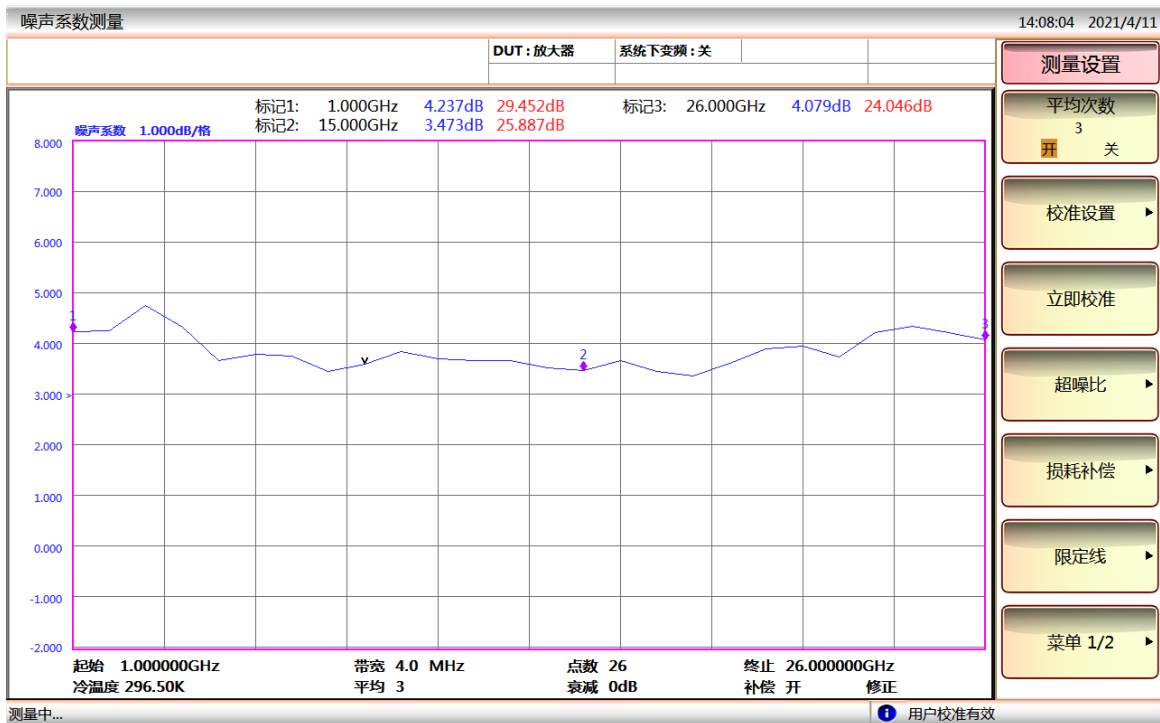


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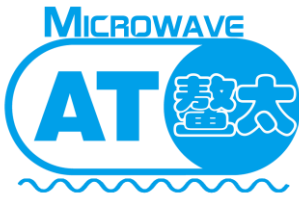


NF test 100MHz to 1GHz



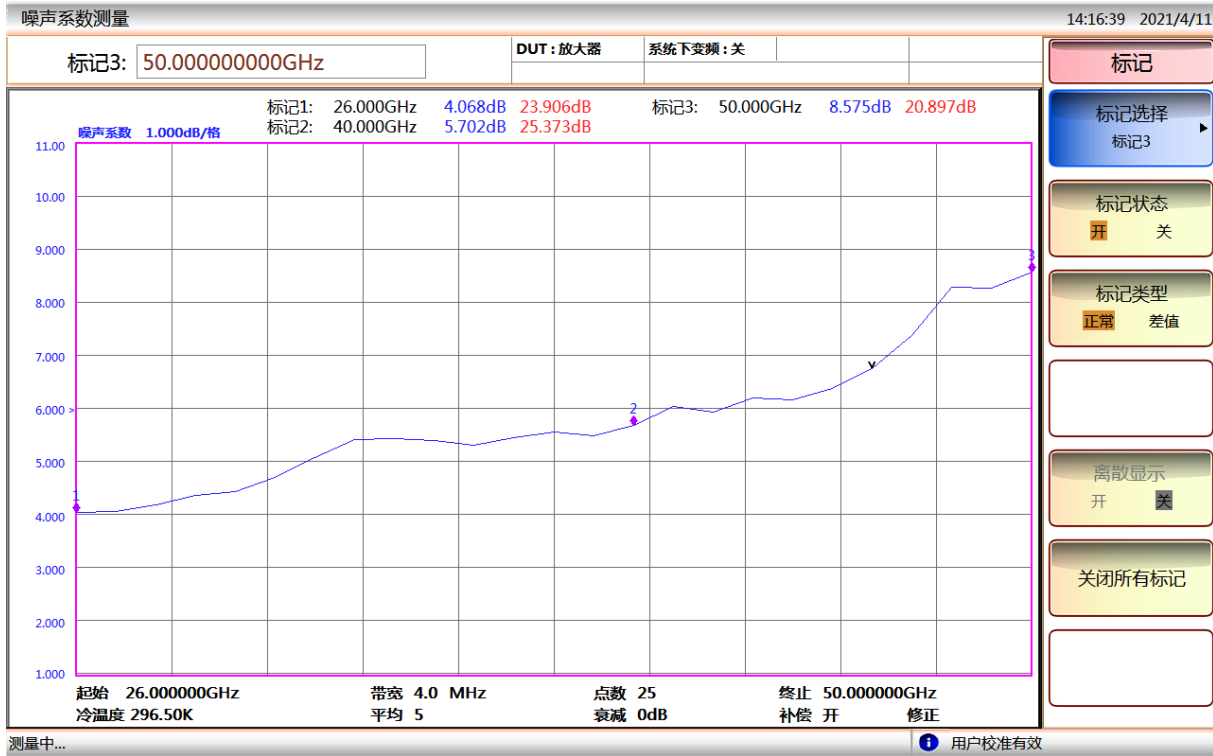
NF Test from 1GHz to 26GHz





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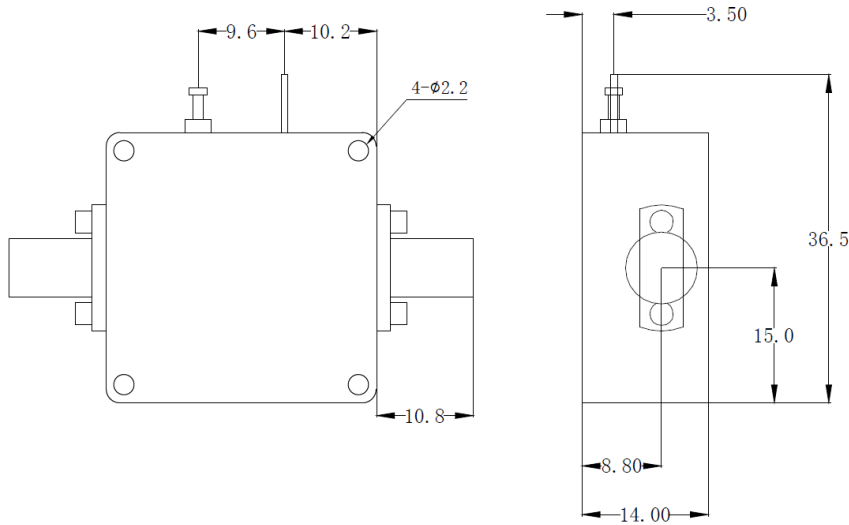
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26-50GHz NF TEST

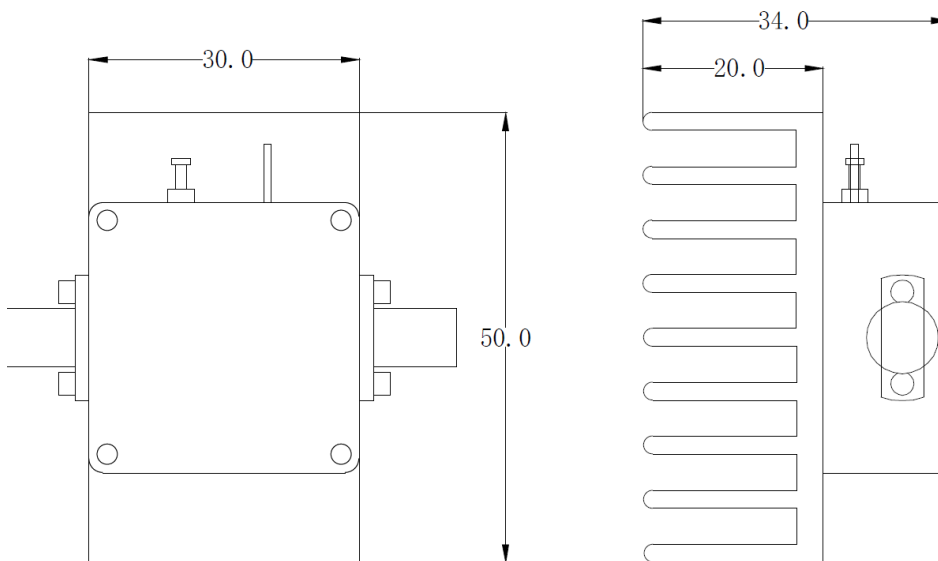
Dimension: (unit in mm)





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

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

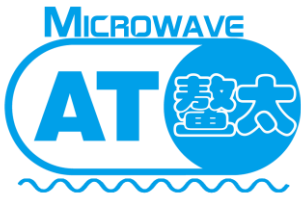


Including a small heatsink without Fan if output Power higher than +20dBm.
Customers can removed it or use their own heatsink according to actual situation.

Heat Sink Required During Operation

Bench-Top Dimension(unit in mm)





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