

AT-BB-0050-3820C

10MHz-50GHz Broadband Amplifier

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Gain=38dB, Pout=+20dBm, 2.4mm Female



Product Overview

AT-BB-0050-3820C is broadband amplifier from 10MHz-50GHz, with Pout=+22dBm, NF=4.5dB. It can be used both as Power amplifier or low noise amplifier. The DC power requirement is +8V/380mA. The module is with 2.4mm Female

AT Microwave can provide all kinds of coaxial low noise amplifiers, with frequency from 0.01-67GHz, gain from 20 to 60dB, Pout from +5 to +27dBm, and connectors from SMA to 1.85mm.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 10MHz-50GHz
- ✓ Gain: 38dB
- ✓ Psat:+22dBm
- ✓ Single Power Supply

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		10MHz-50GHz	
Gain	35dB 30dB	10-45GHz: 38dB 45-50GHz: 32dB	
Gain Flatness (100MHz-45GHz)		+/-3dB	
P1dB (10MHz-40GHz)		+20dBm	
Psat (10MHz-40GHz)		+22dBm	
NF (1-40GHz)		4.5dB	6.5dB
Drain Supply	Note1	+8 to +12V	+13V
Current		380 mA	450mA
Input Return Loss		-10dB	
Output Return Loss		-10dB	
Spec Temp		25C	

Note1: Lower Vdd is preferred due to lower power consumption. Same RF Performance with +8V to +13V.

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www.atmicrowave.com





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Mechanical Information

Item	Description
Input Port	2.4mm Female
Output Port	2.4mm Female
Case Material	Copper
Finish	Gold Plated
Package Sealing	Epoxy Sealed
Weight (Without Heatsink)	80g
Size:	See outline

Absolute Maximum Ratings Table

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

Note: -40 to +85C is available according to request.

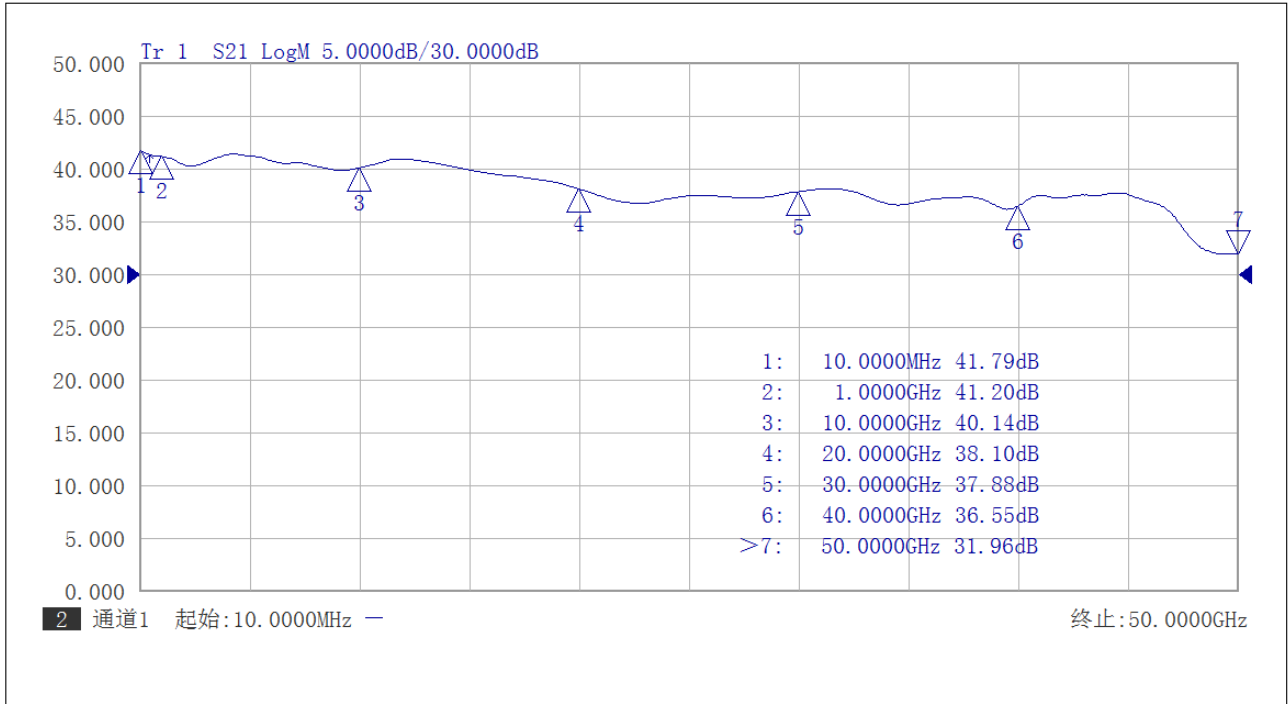
Part Number Selection Guide

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

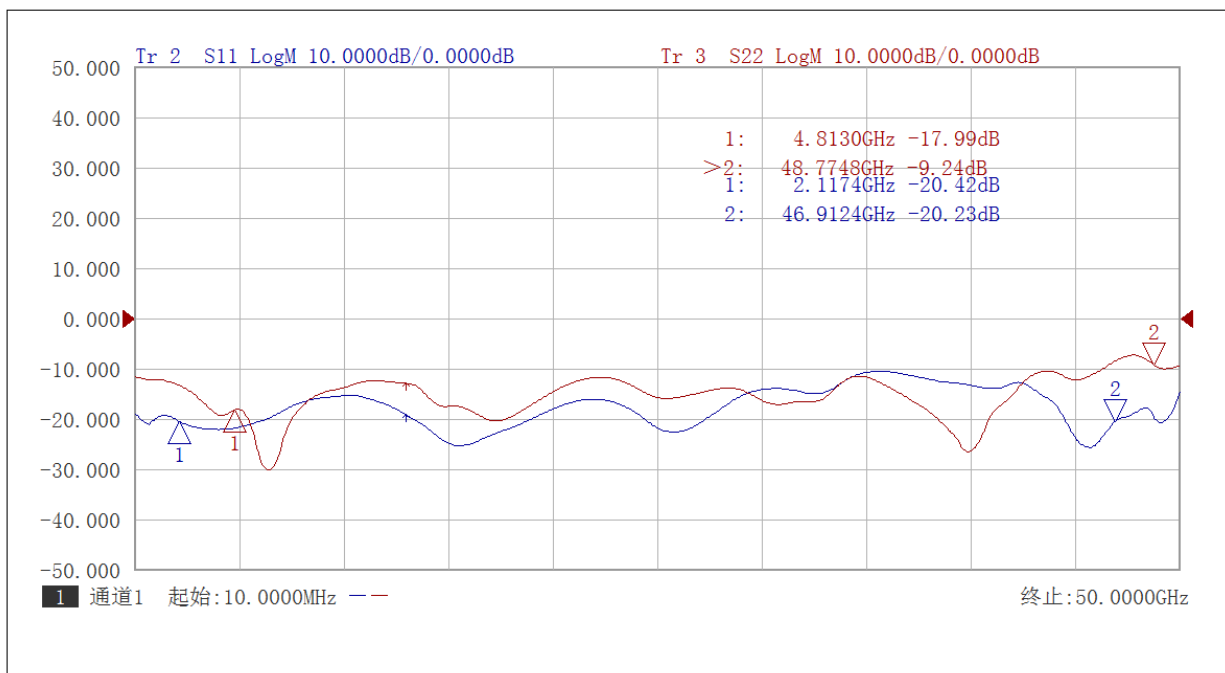


Test Data (25C)

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

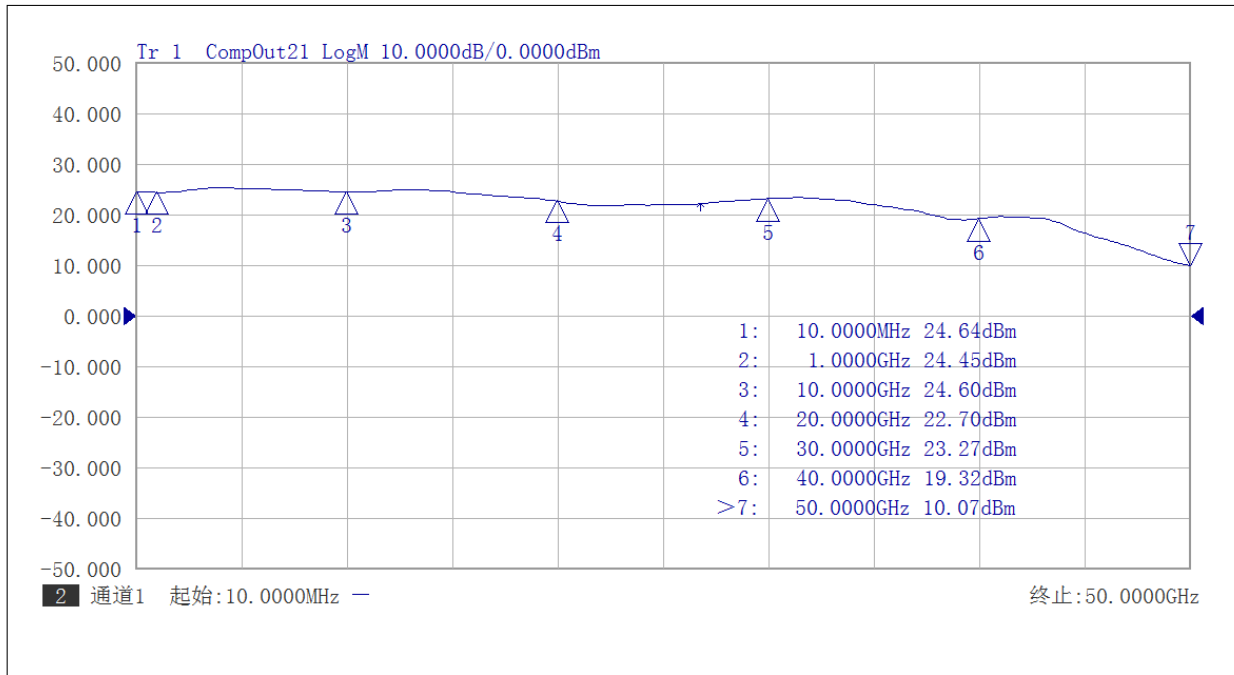


Gain vs Frequency

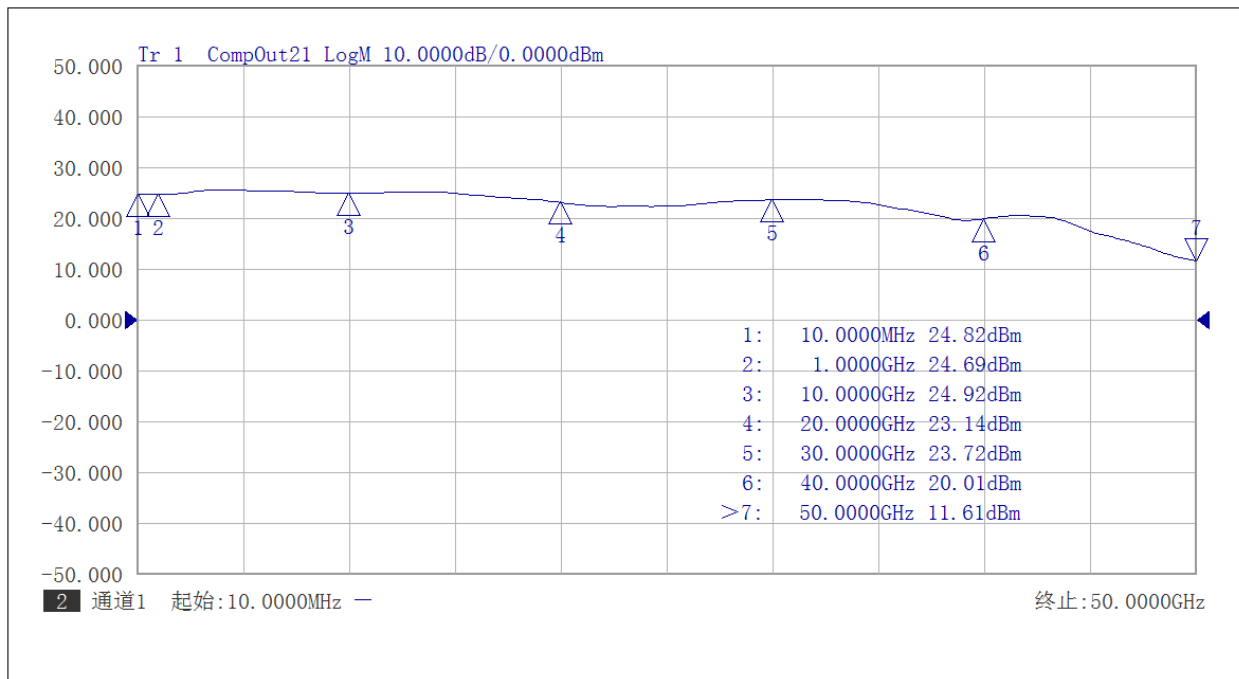


Return Loss vs Frequency





P1db vs Frequency



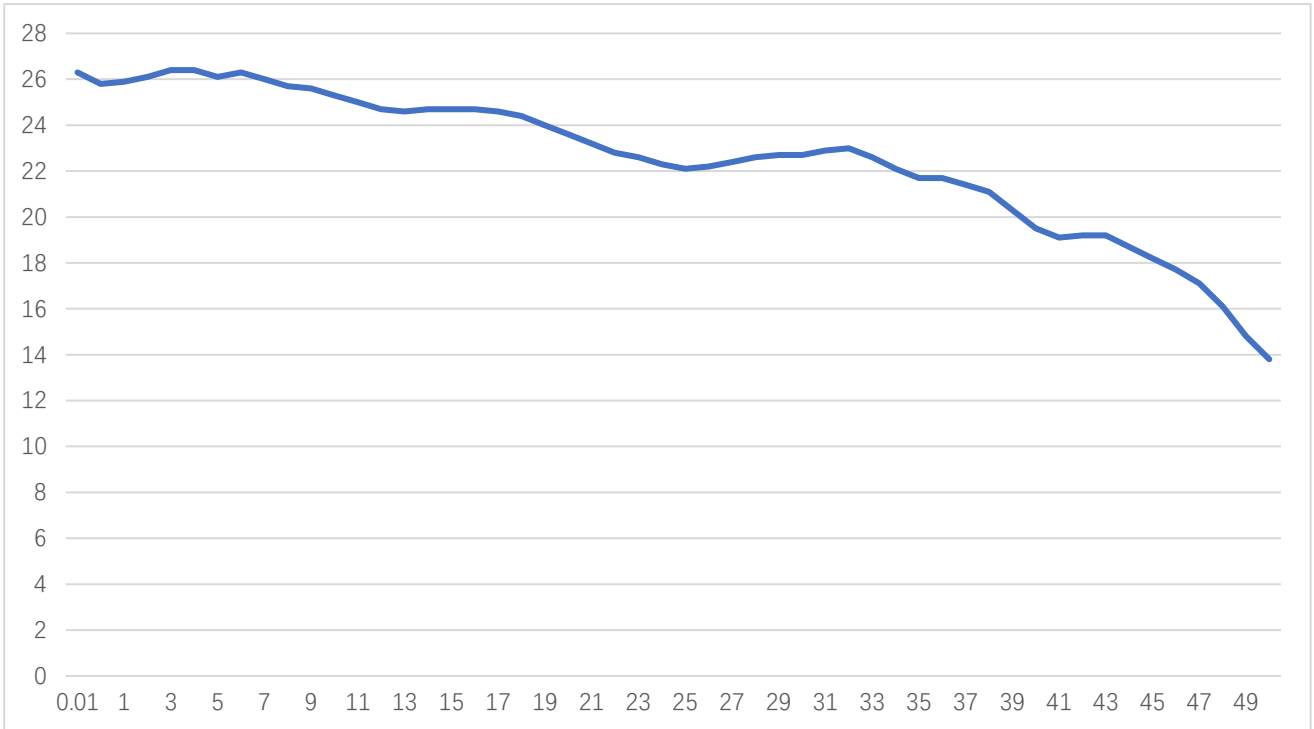
P3db vs Frequency



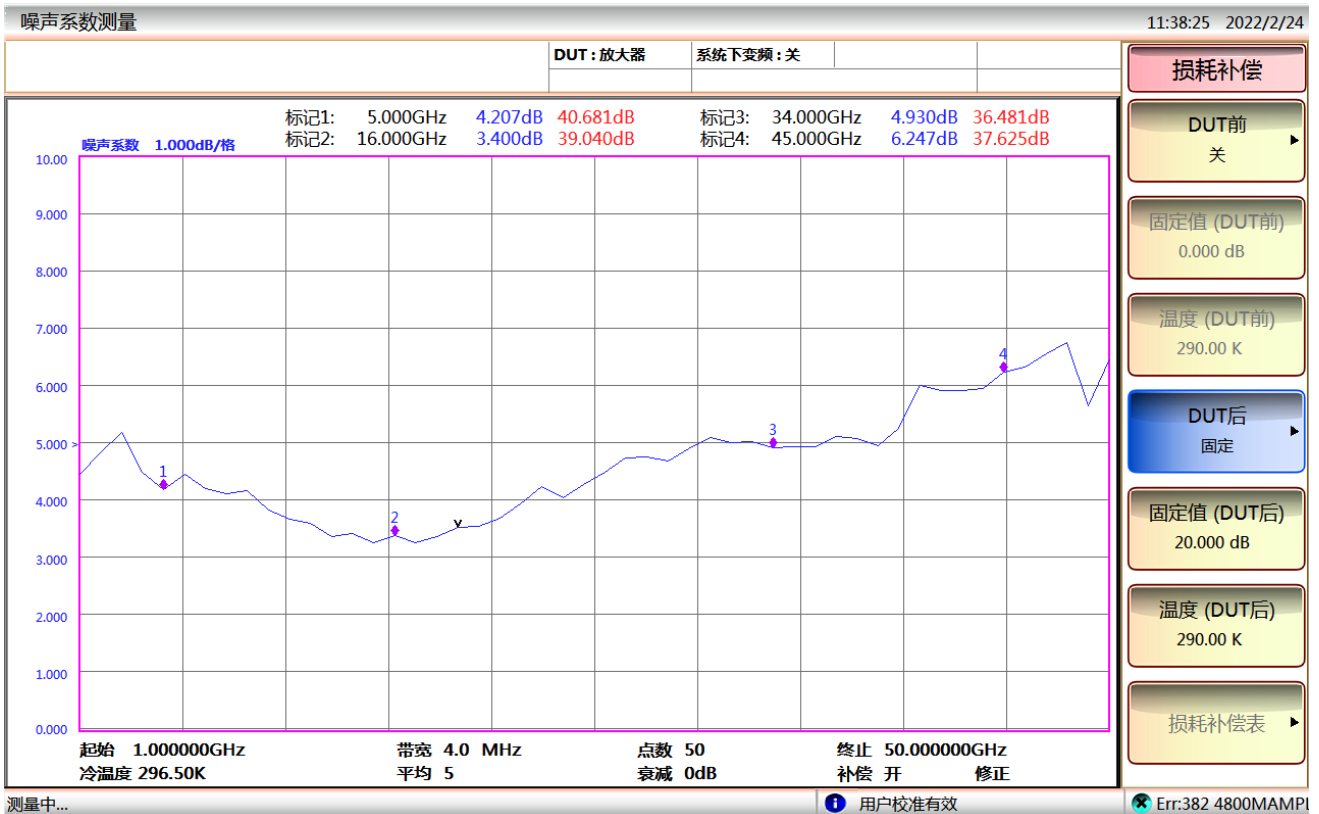


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Psat vs Frequency



NF vs Frequency

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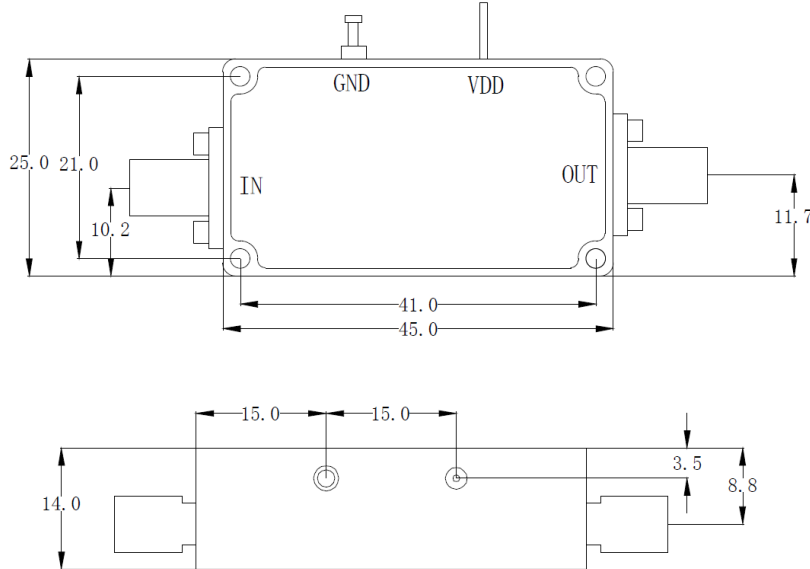
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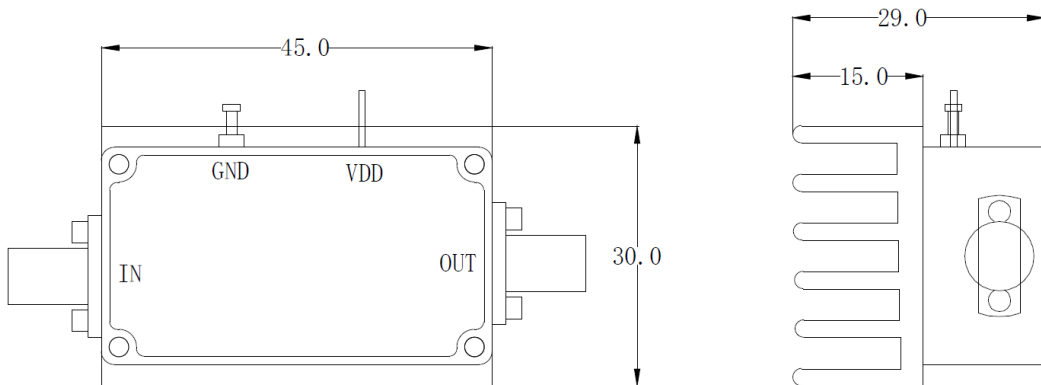


Dimension: (unit in mm)



	<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

