

10MHz-50GHz Broadband Amplifier

2023-5-5

Gain=50dB, Pout=+20dBm, 2.4mm Female



Product Overview

AT-BB-0050-5020C is broadband amplifier from 10MHz-50GHz, with Pout=+20dBm, NF=5dB. It can be used both as Power amplifier or low noise amplifier. The DC power requirement is +9V/500mA. 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: 50dB
- ✓ 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 (10MHz-47GHz)	47dB	50dB	
Gain Flatness (10MHz-47GHz)		+/-3dB	
P1dB (10MHz-40GHz)		+20dBm	
Psat (10MHz-40GHz)		+22dBm	
NF (1-40GHz)		4.5dB	6.5dB
Drain Supply	+8V	+9V	+12V
Current		500 mA	
Input Return Loss		-10dB	
Output Return Loss		-10dB	
Spec Temp		25C	





AT-BB-0050-5020C

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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

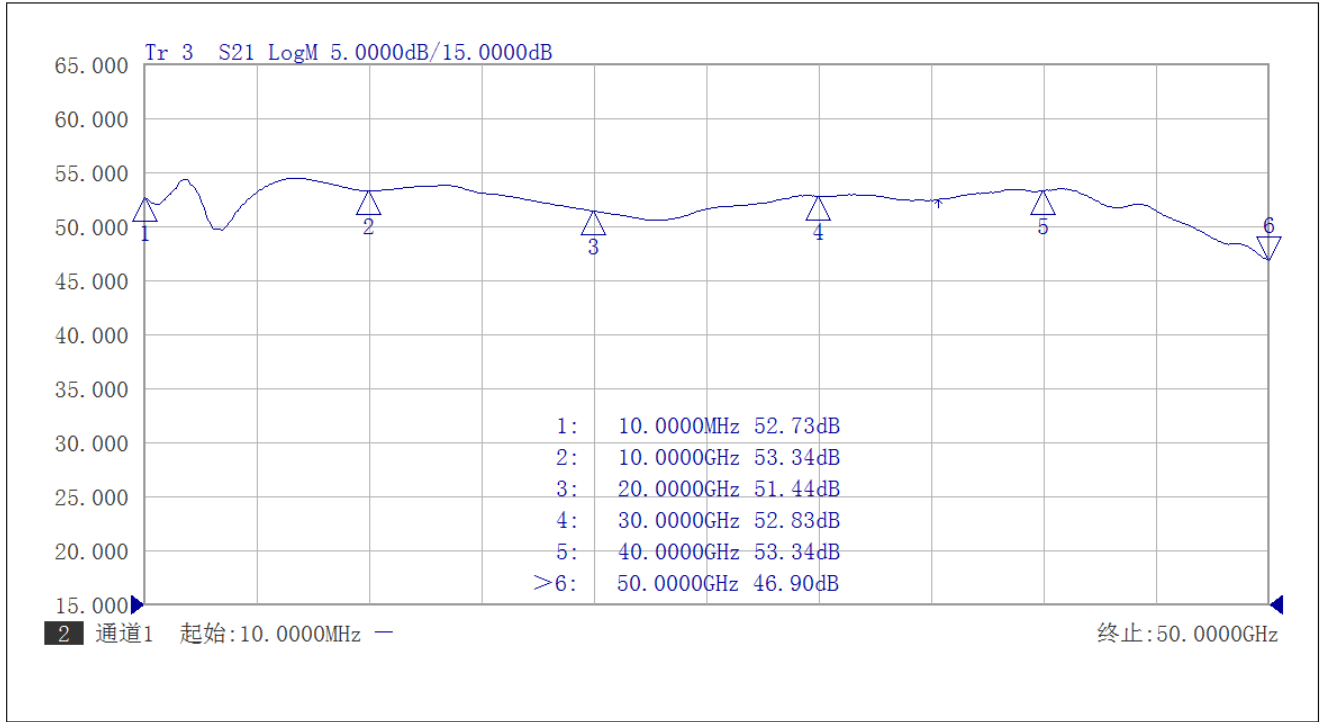
Parameter	Value
Drain Supply	+13V
RF Input Power	+10 dBm
Operating Temperature(note)	-40 to +85C
Storage Temperature	-55 to +125C

Part Number Selection Guide

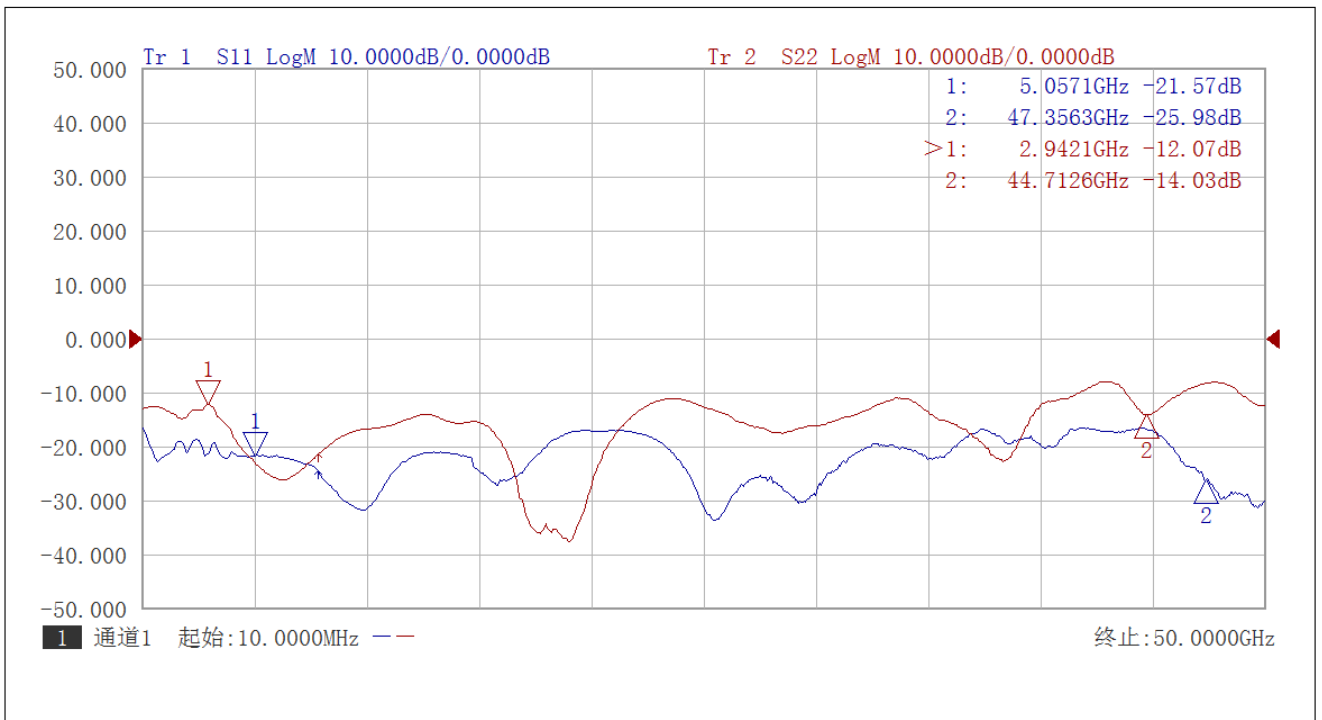
Item	Description
AT-BB-0050-5020C	Stand Module with DC Power Supply
AT-BB-0050-5020C-LCBT	Low Cost, Compact Bench-Top, +220V Supply with AC/DC Adapter



Test Data (25C)

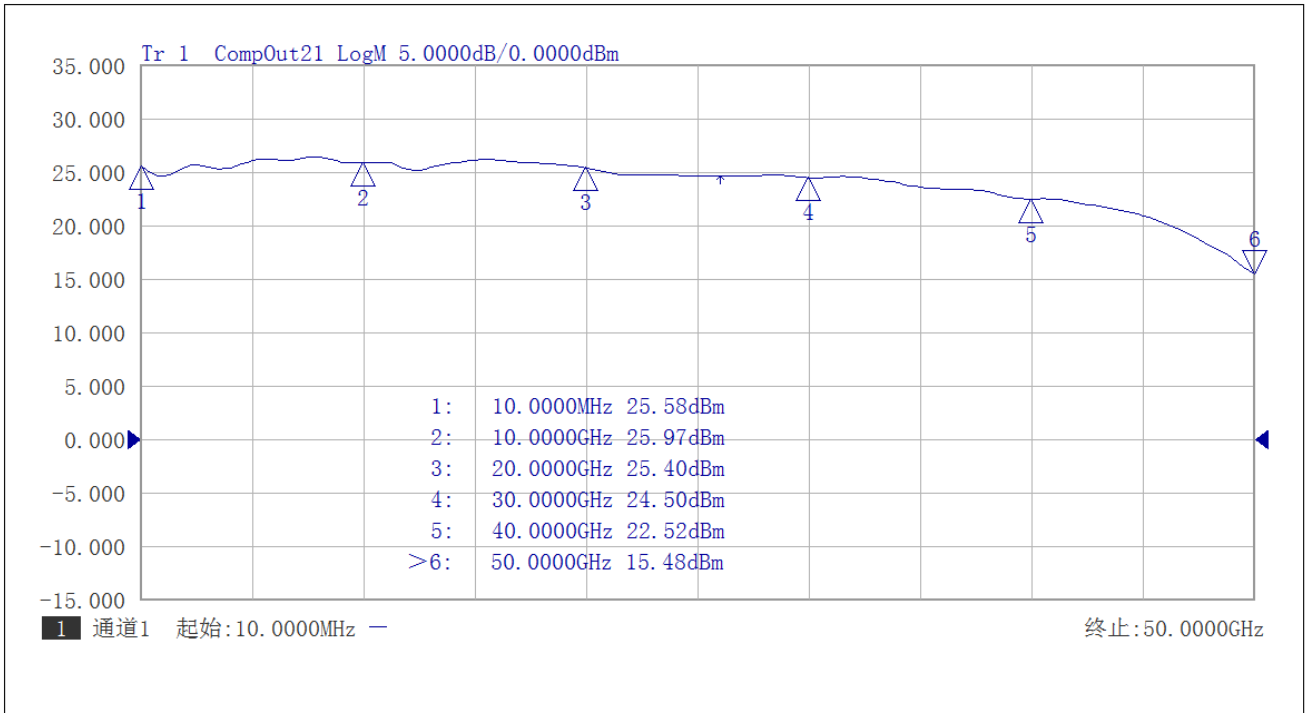


Gain vs Frequency

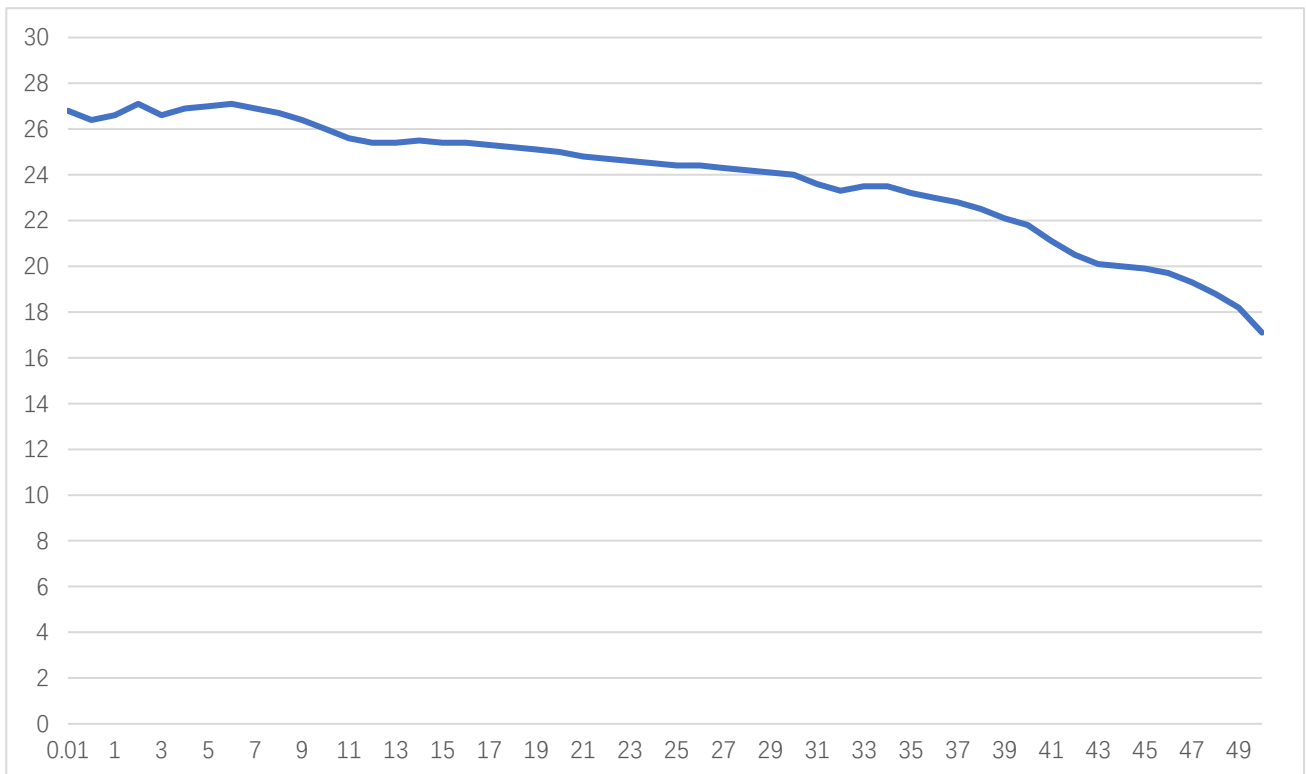


Return Loss vs Frequency



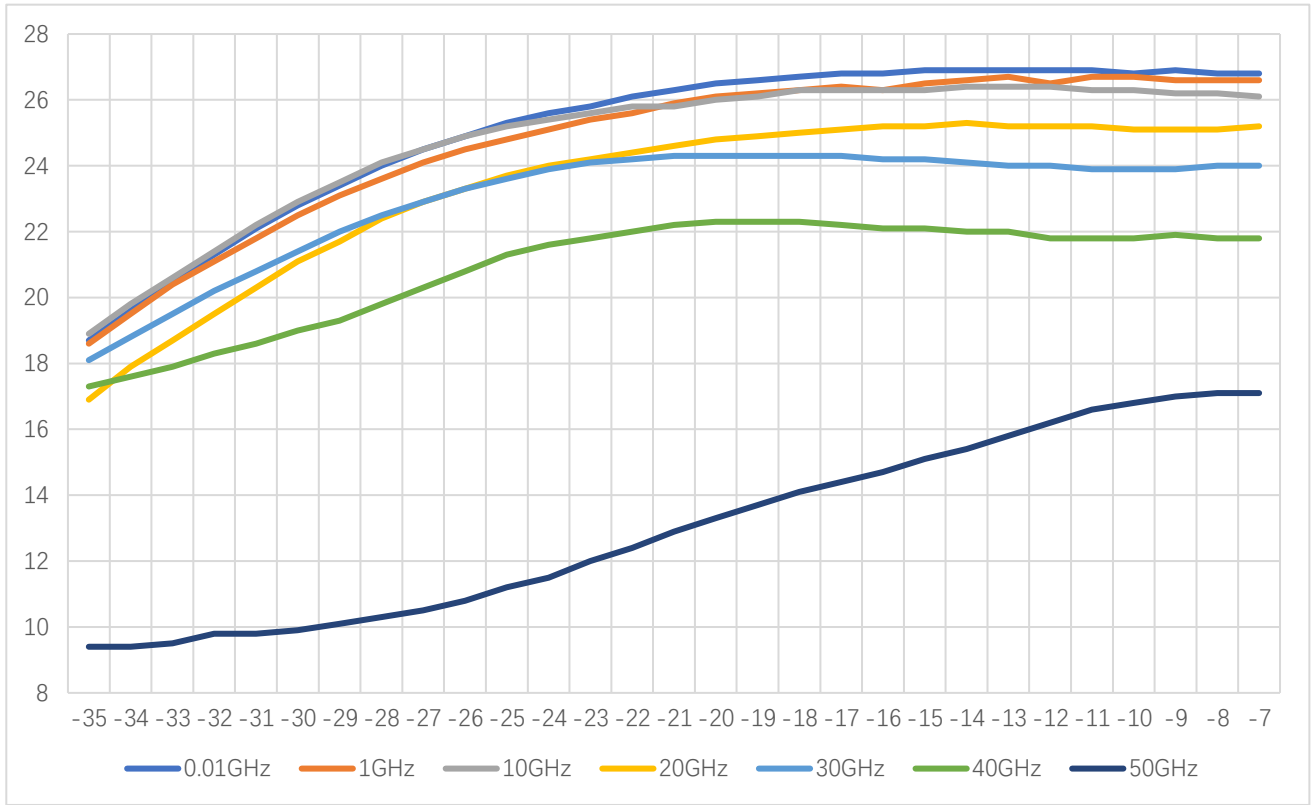


P1db vs Frequency

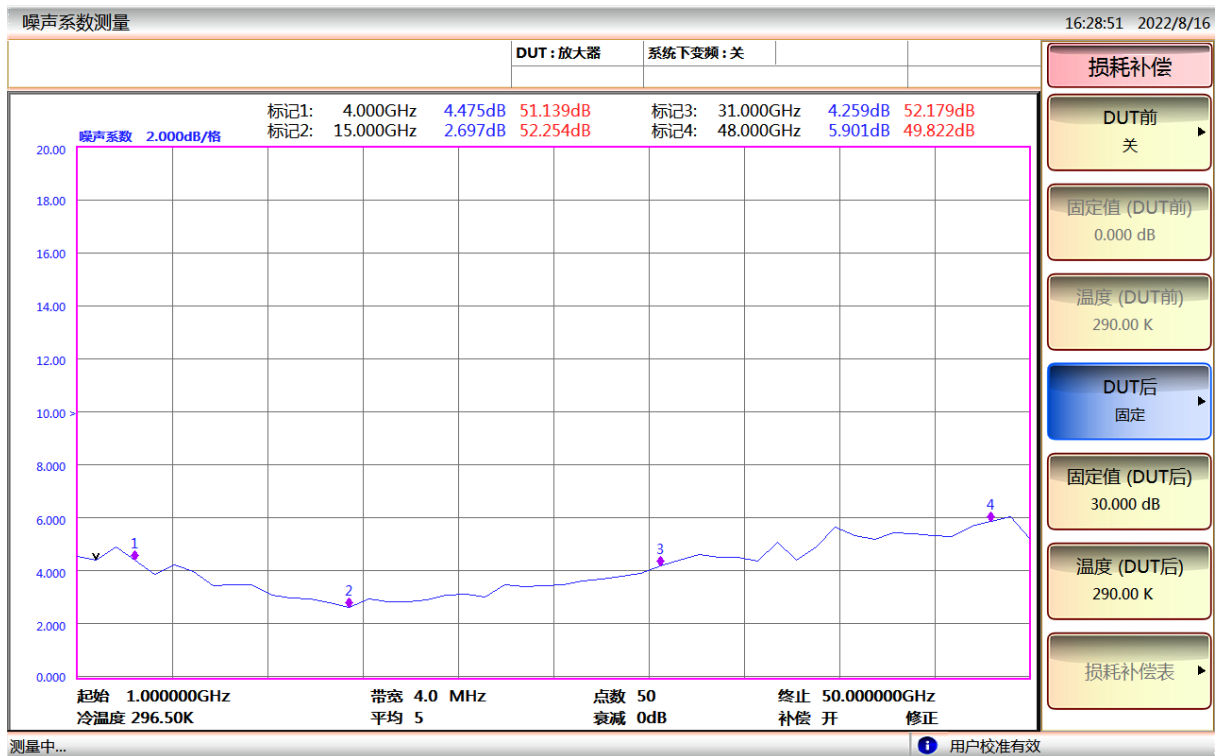


Psat vs Frequency





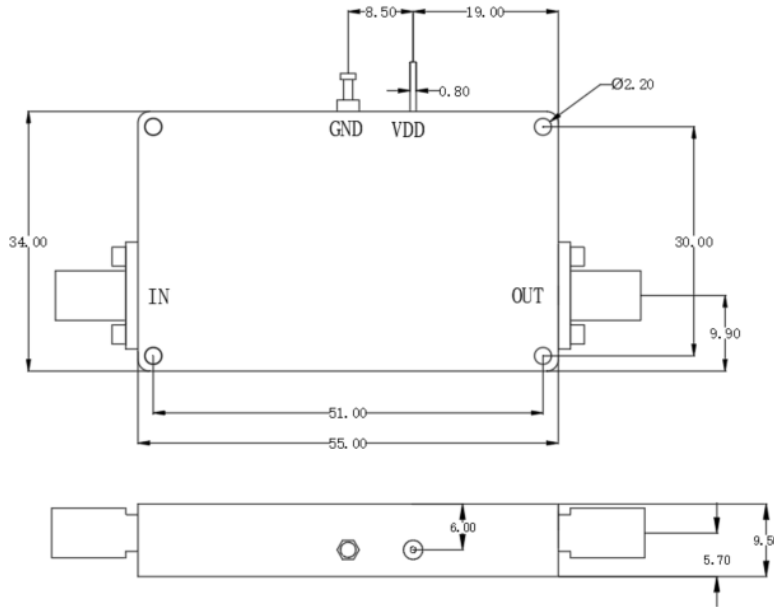
Pout vs Pin



NF vs Frequency



Dimension: (unit in mm)

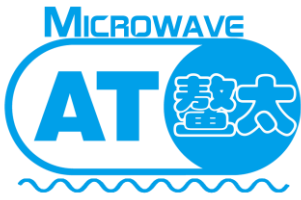


	<26.5GHz	<40GHz	<50GHz	<67GHz
Connector	SMA	2.92mm	2.4mm	1.85mm
Lenth of a	9.4mm	9.5mm	10.8mm	11.3mm

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

Heat Sink Required During Operation





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-LCBT Option Dimension: (unit in mm)

