

10MHz-50GHz Broadband Low Noise Amplifier

2022-3-22



Product Overview

AT-LNA-0050-2304C broadband low noise amplifier from 10MHz to 50GHz. The NF is 4.5dB from 100MHz-40GHz. The DC power requirement is +5V/170mA. The module is with 2.4mm Female. Other connector is available according to request.

The LNA can also work from 10MHz to 100MHz with good gain but no guarantee for NF. 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
- ✓ Small signal gain: 23dB
- ✓ Noise Figure: 5dB
- ✓ Single Power Supply

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		10MHz-50GHz	
Gain	20dB	23dB	
P1dB		10MHz-40GHz: +12dBm	
Psat		10MHz-40GHz: +15dBm	
NF(1-40GHz)		4.5dB	6.5dB
Input Return Loss	-5	-10 dB	
Output Return Loss	-5	-10 dB	
Drain Supply		+5V	+8V
Current		170 mA	200mA
Spec Temp		25C	





AT-LNA-0050-2305C

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Mechanical Information

Item	Description
Input Port	2.4mm Female
Output Port	2.4mm Female
Case Material	Copper
Package Sealing	Epoxy Sealed
Finish	Gold Plated
Weight (Without Heatsink)	50g
Size:	See outline

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+10dBm
Operating Temperature(note)	-20 to +70C
Storage Temperature	-65 to +150C

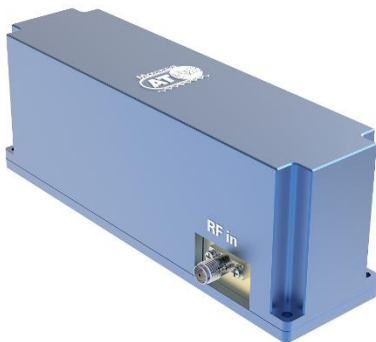
Note: -40 to +85C is available according to request.

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.

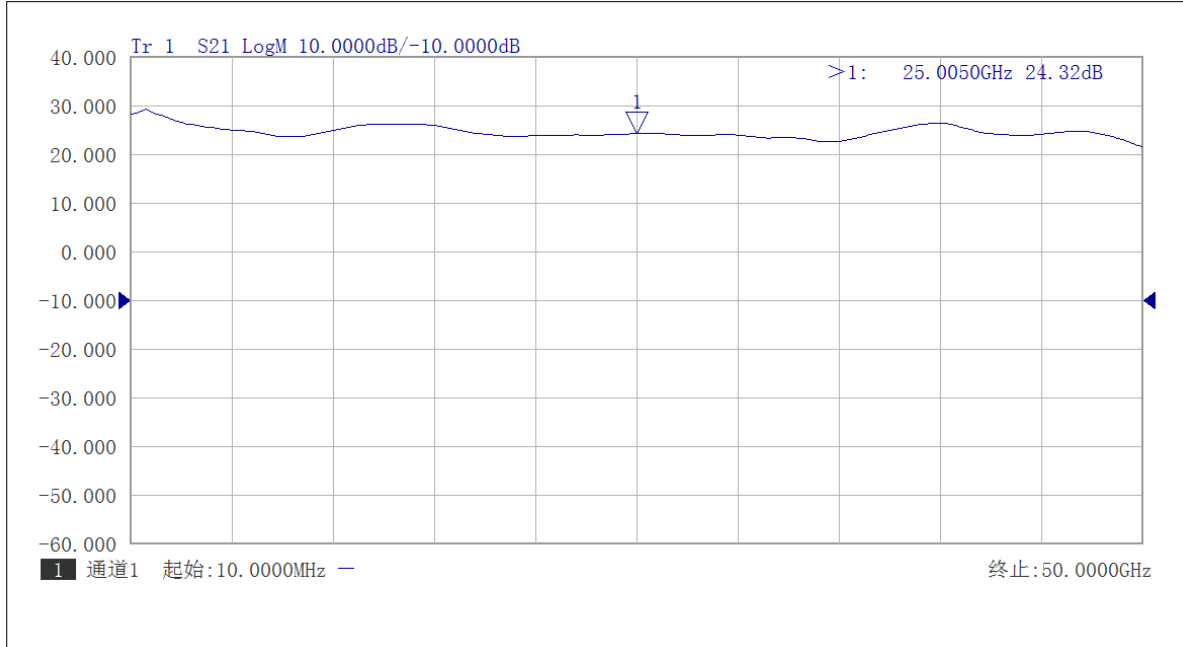
Part Number Selection Guide

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

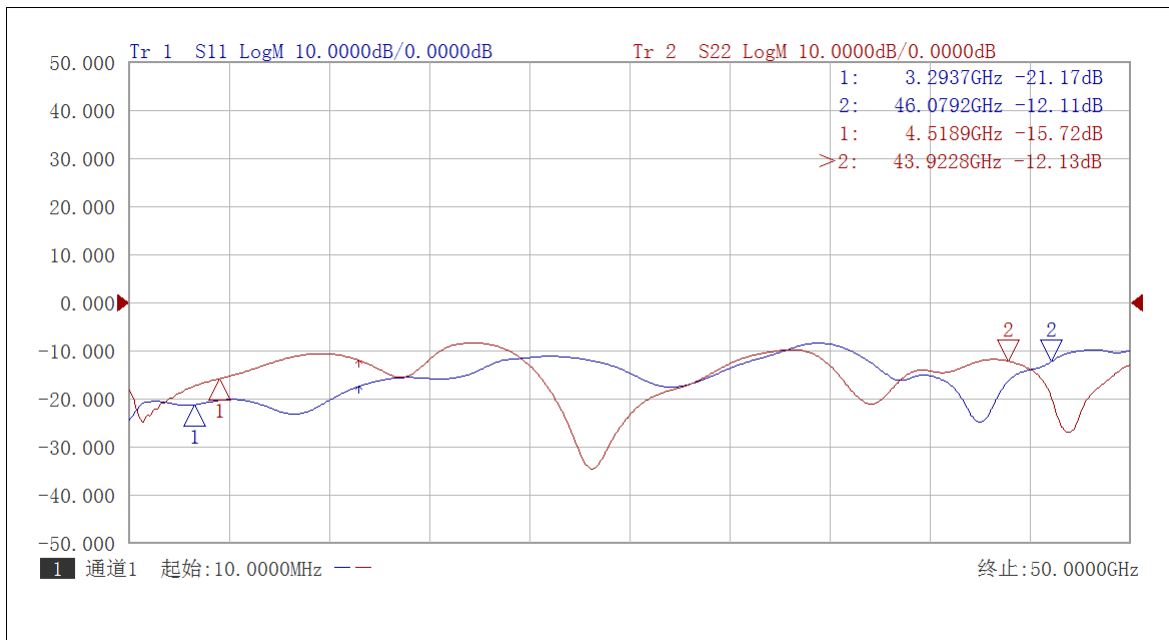


Test Data (25C)

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

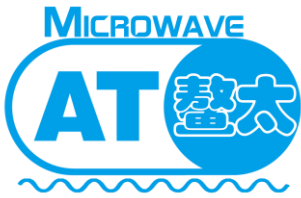


Gain vs Frequency from 10MHz-50GHz



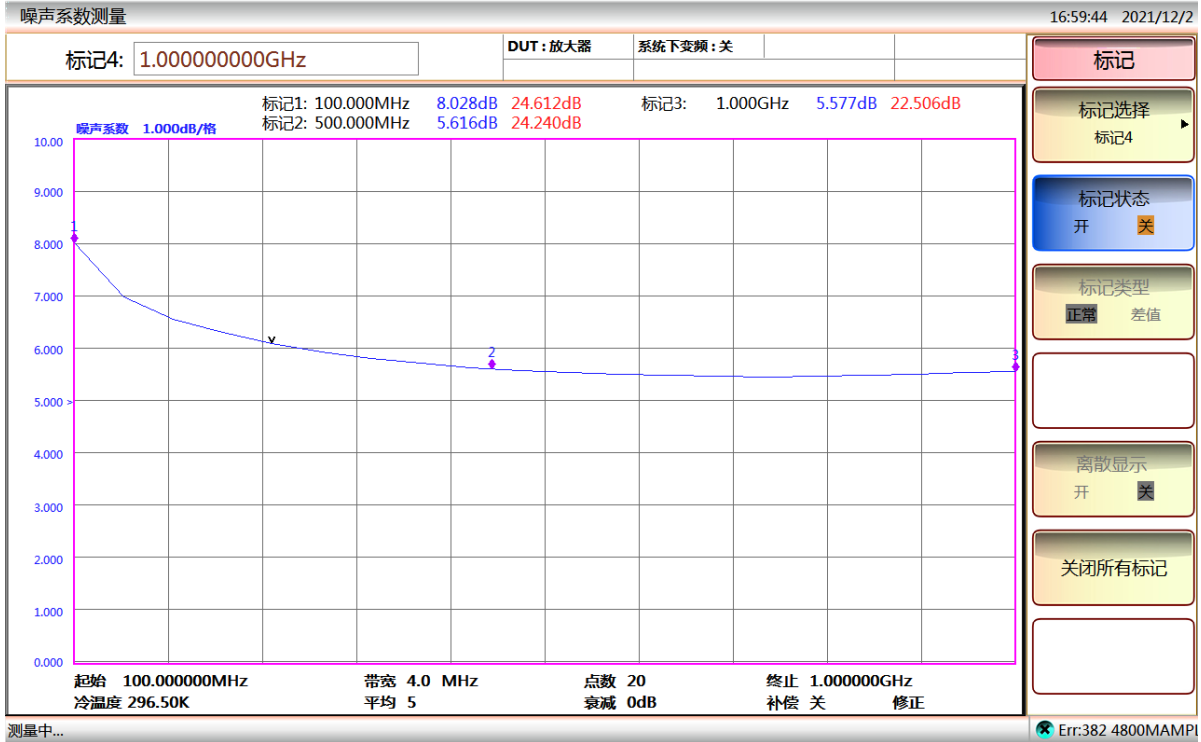
Return Loss vs Frequency



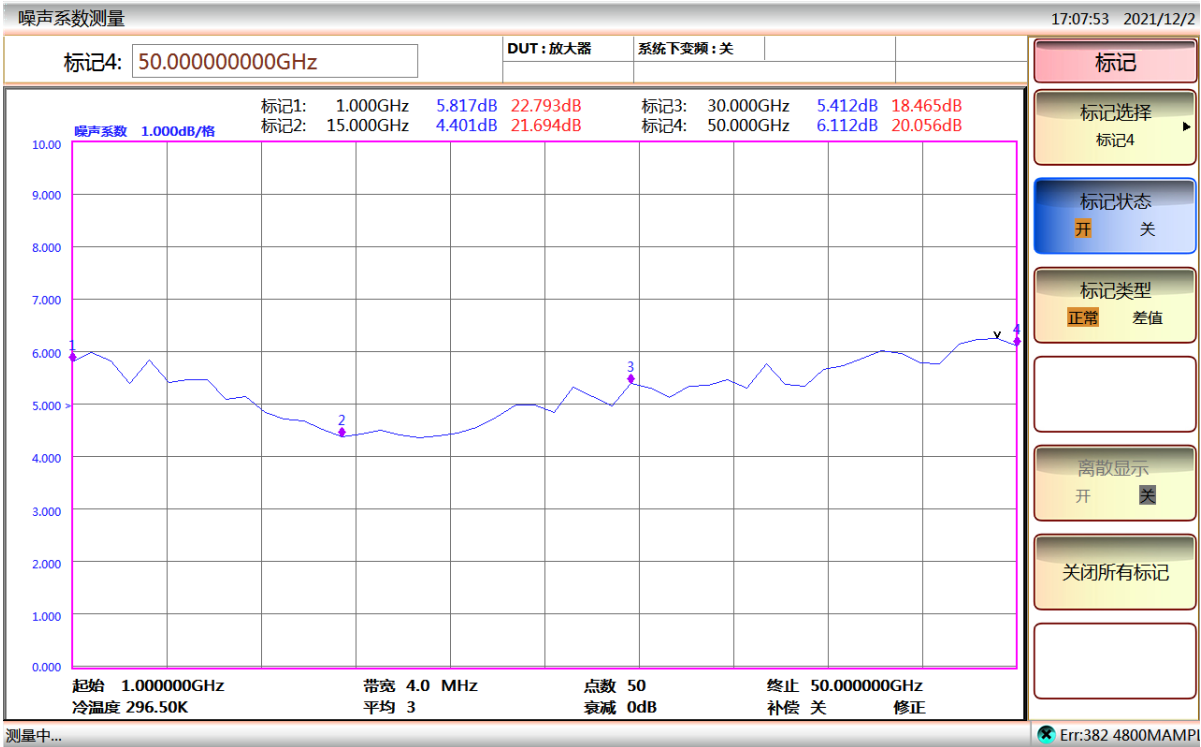


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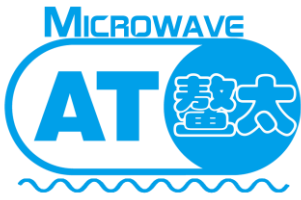


NF test 100MHz to 1GHz



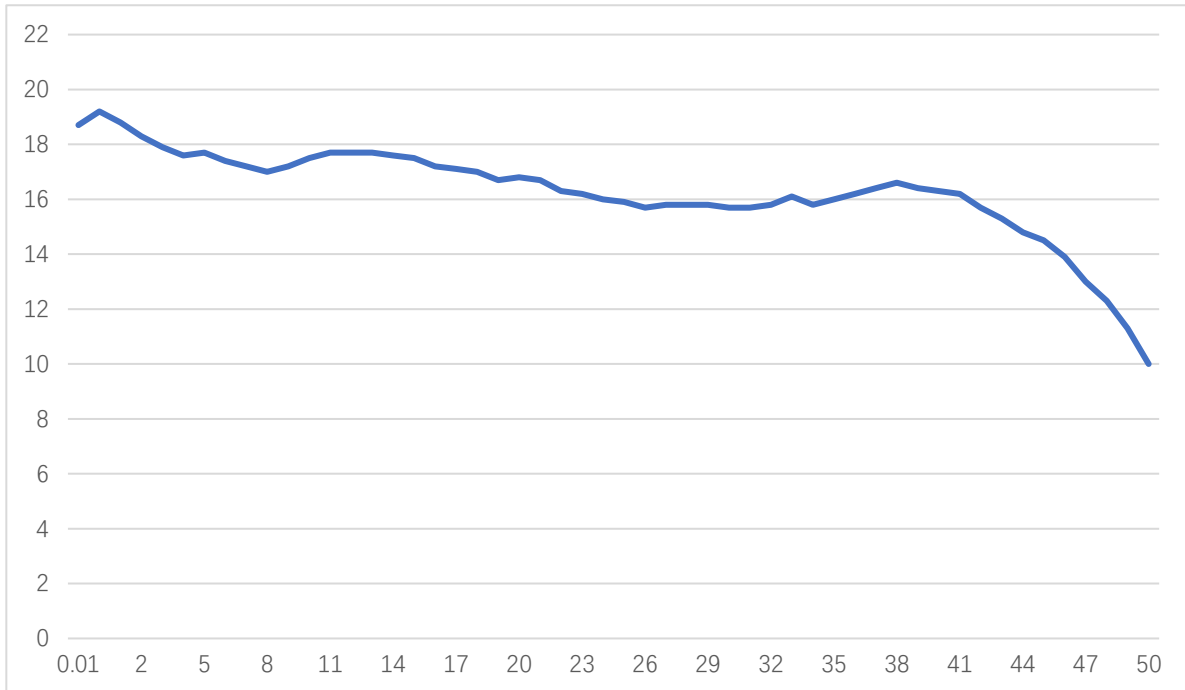
NF Test from 1GHz to 50GHz



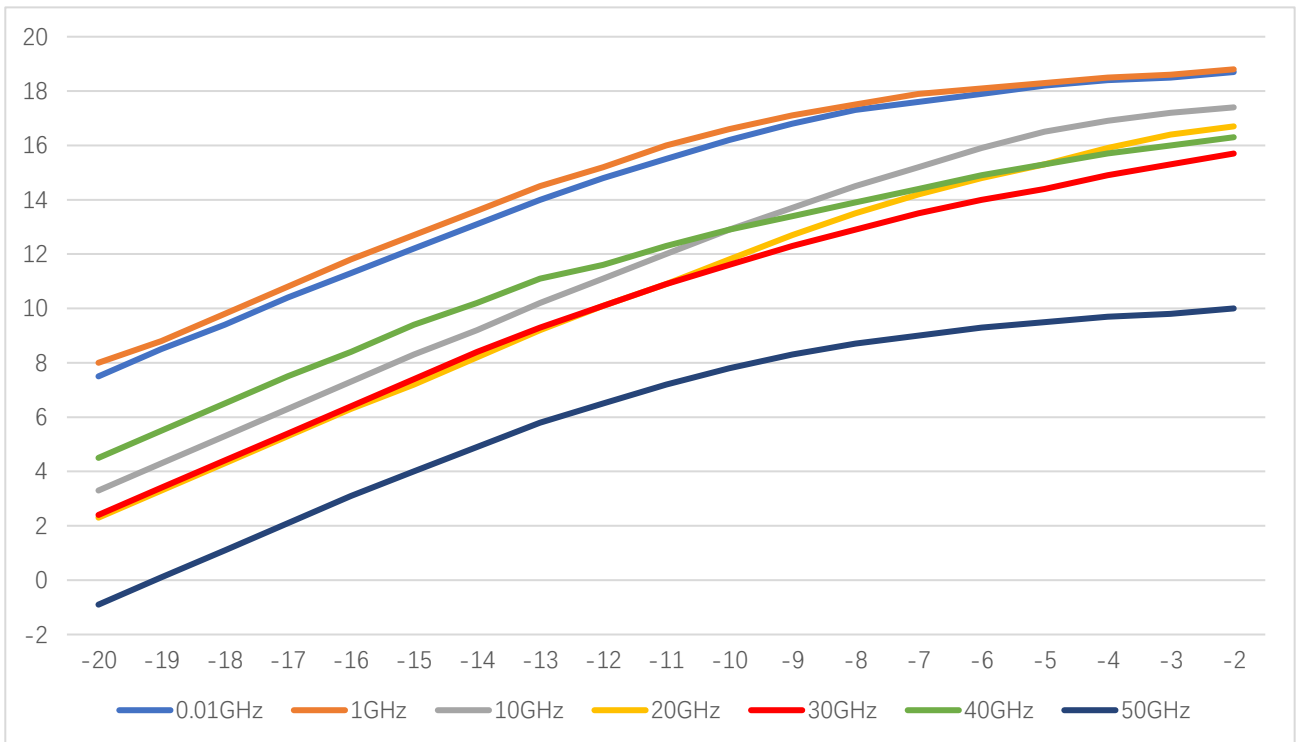


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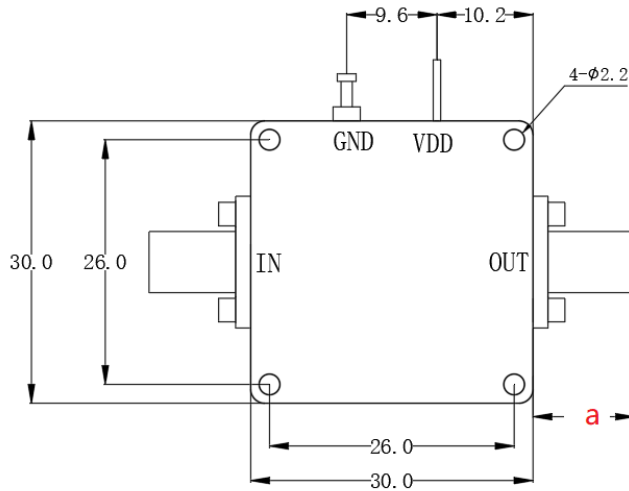
Psat vs Frequency



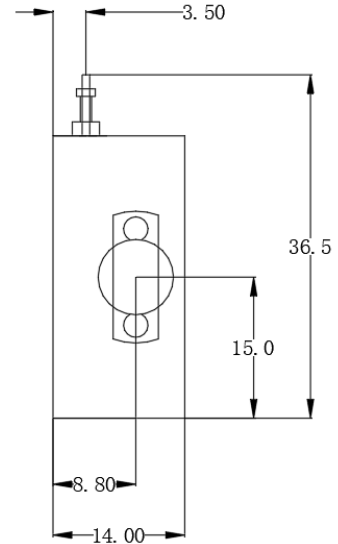
Pout vs Pin



Dimension: (unit in mm)



In millimetres



	<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.

