

# 100MHz-18GHz Low Noise Amplifier



### Product Overview

AT-LNA-0018-2025X is high gain low noise amplifier with 20dB gain in the frequency of 100MHz-18GHz. The DC power requirement is +5V/80mA. The module is with SMA connector.

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 +25dBm, and connectors from SMA to 1.85mm. If you don't find what you need, just send us email [sales@atmicrowave.com](mailto:sales@atmicrowave.com)

### Advantages

- ✓ Frequency: 100MHz-18GHz
- ✓ Small signal gain: 20dB
- ✓ NF=2.5dB
- ✓ Single Power Supply

### Application

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

### Key Features

Parameter	Min	Typical	Max
Frequency		100MHz-18GHz	
Gain	18dB	20 dB	
NF		2.5dB	3dB
P1dB		+10dBm	
Psat		+12dBm	
Drain Supply		+5V	+8V
Current		80 mA	
Input Return Loss		-10dB	
Output Return Loss		-8dB	
Spec Temp		25C	





# AT-LNA-0018-2025H

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## Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	SMA Female
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	55g
Size:	20X20X8 mm

## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+15V
RF Input Power (note1)	+10 dBm
Operating Temperature (note2)	-20 to + 70C
Storage Temperature	-65 to +150C

Note1: High Power Handling up to +36dBm is available according to request.

Note2: -40 to +85C is available according to request.

### 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.

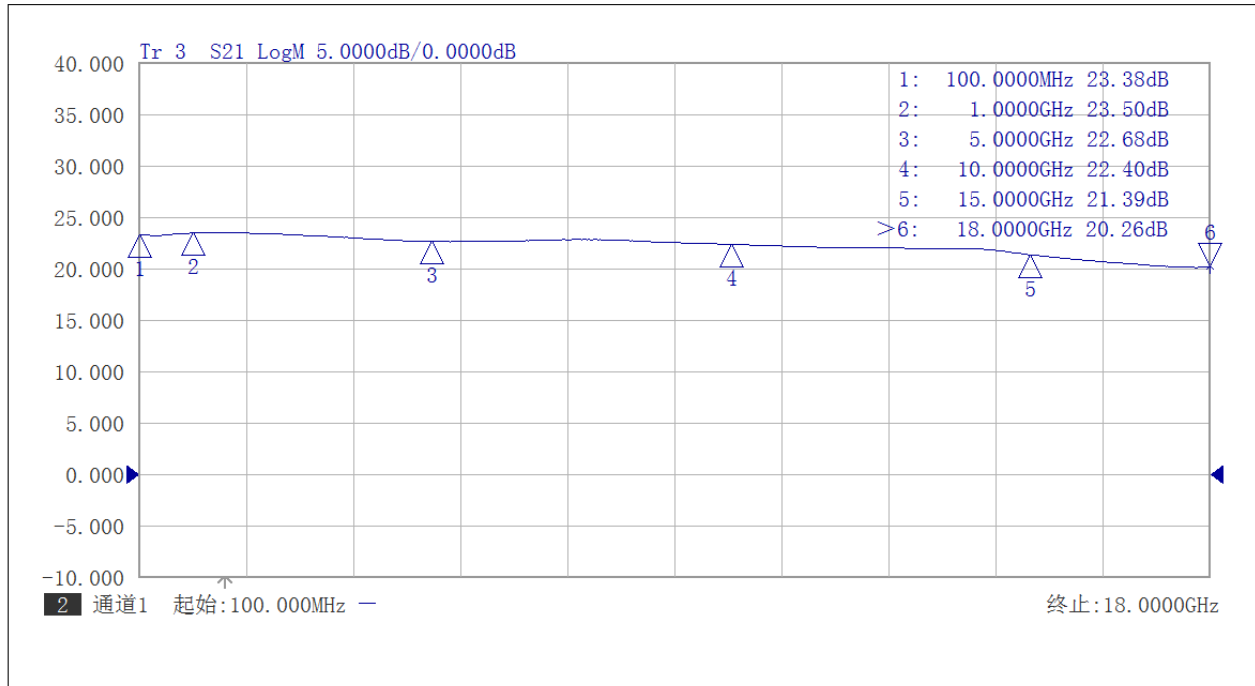
## Notes:

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.

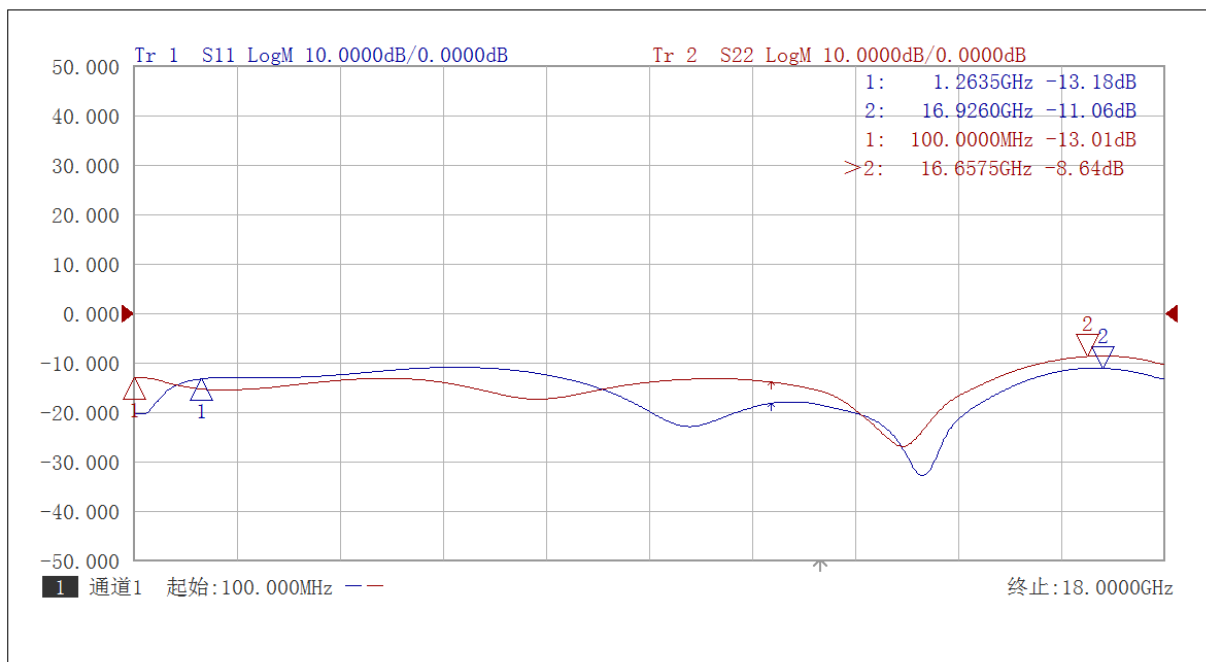


### Test Data (25C)

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

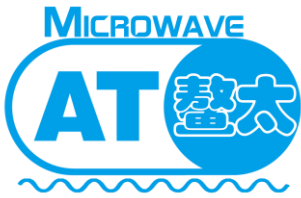


Gain vs Frequency



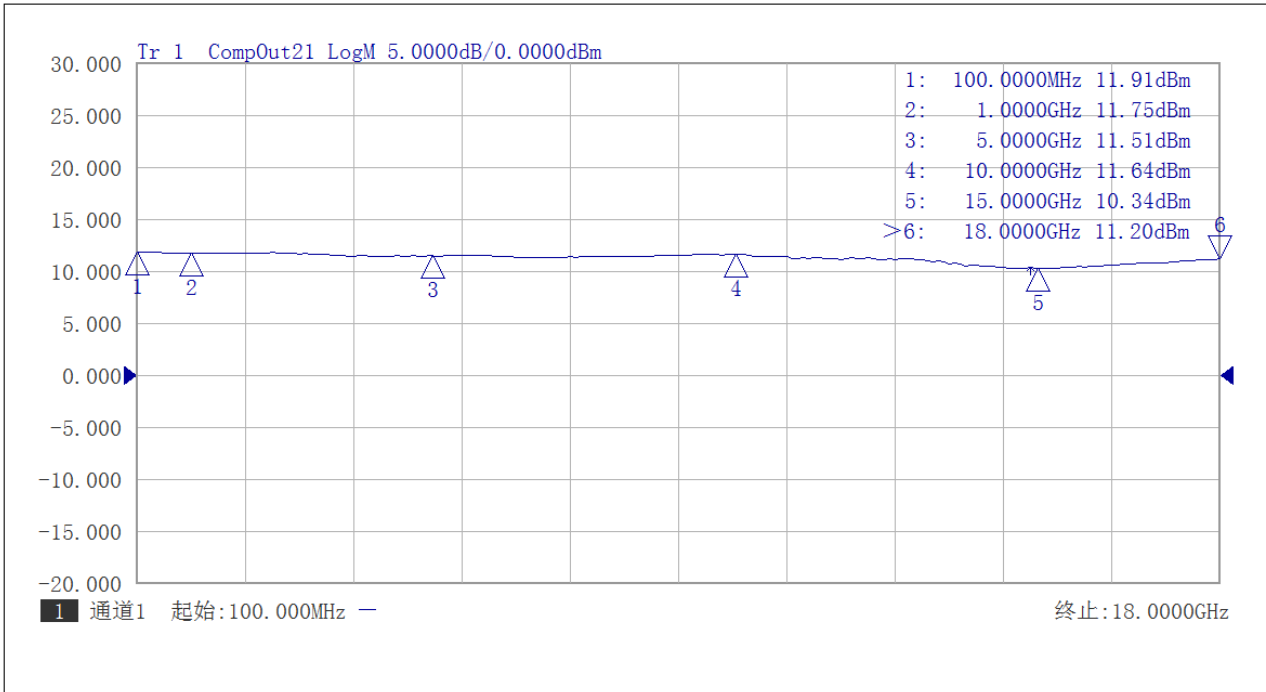
Return Loss vs Frequency



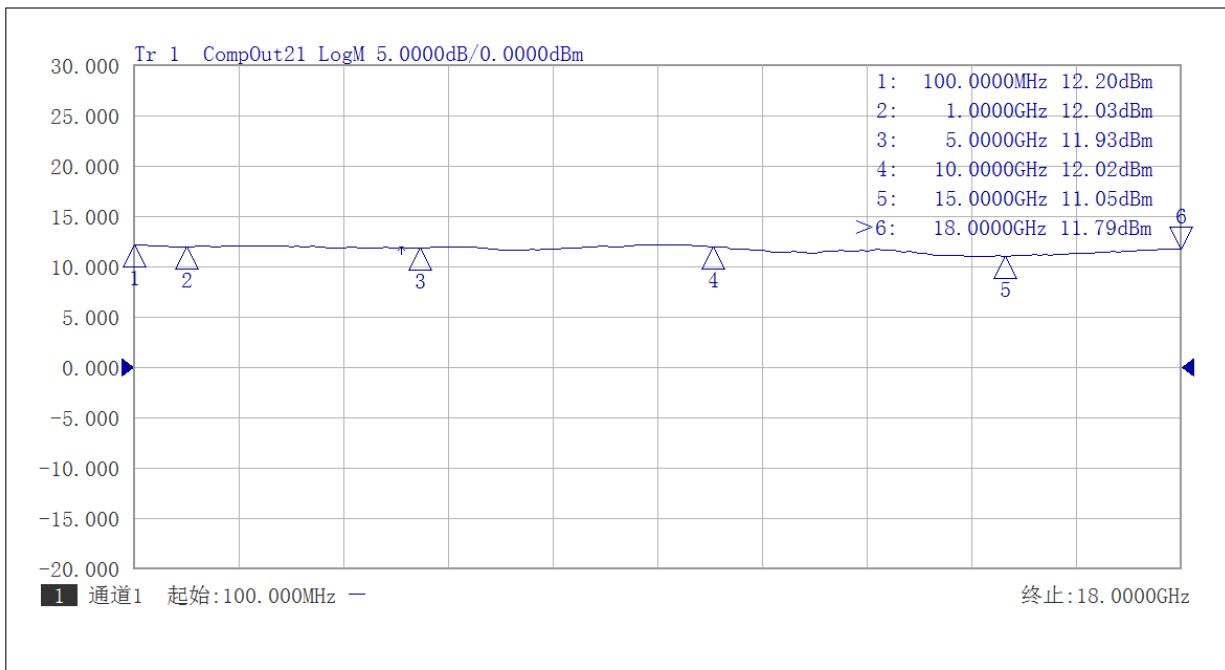


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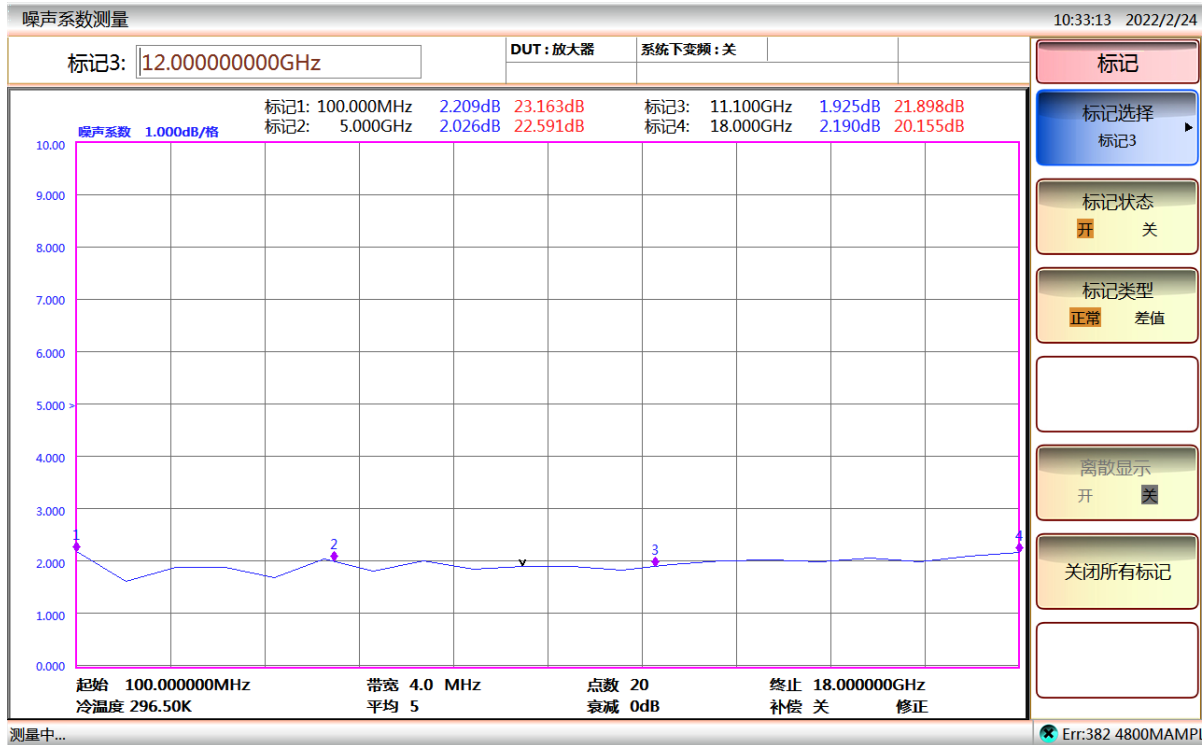


P1db vs Frequency



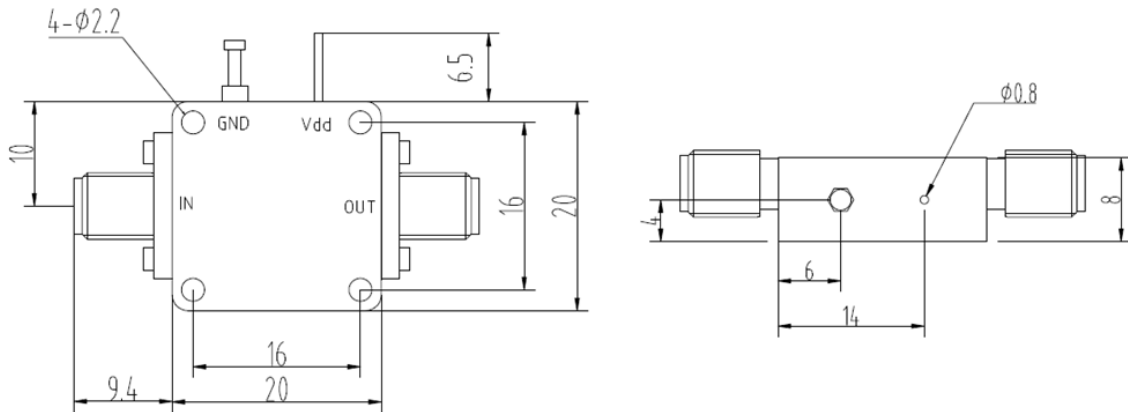
P3db vs Frequency





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 If Case Temp Higher Than 50C

