

# 1-18GHz Low Noise Amplifier



### Product Overview

AT-LNA-0118-1302X is high gain low noise amplifier with 13dB gain in the frequency of 1-18GHz. The DC power requirement is +5V/50mA. The module is with SMA connector.

AT Microwave can provide all kinds of coaxial low noise amplifiers, with frequency from DC-67GHz, gain from 10 to 60dB, Pout from +5 to +27dBm, 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: 1-18GHz
- ✓ Small signal gain: 13dB
- ✓ NF=1.8dB
- ✓ Single Power Supply

### Application

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

### Key Features

Parameter	Min	Typical	Max
Frequency		1-18GHz	
Gain	10	13 dB	
Gain Flatness		+/-0.7dB	+/-1.5dB
Input Power		-20dBm	0dBm
NF		2	2.5
P1dB		+15dBm	
Psat		+17dBm	
Drain Supply		+5V	+8V
Current		50 mA	
Input Return Loss		-8dB	
Output Return Loss		-10dB	
Spec Temp		25C	





# AT-LNA-0118-1302X

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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)	50g
Size:	See outline

## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+18 dBm
Operating Temperature(note)	-20 to + 70C
Storage Temperature	-65 to +150C

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

### Caution:

Please pay attention to the case temperature. If case temperature exceeds +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.

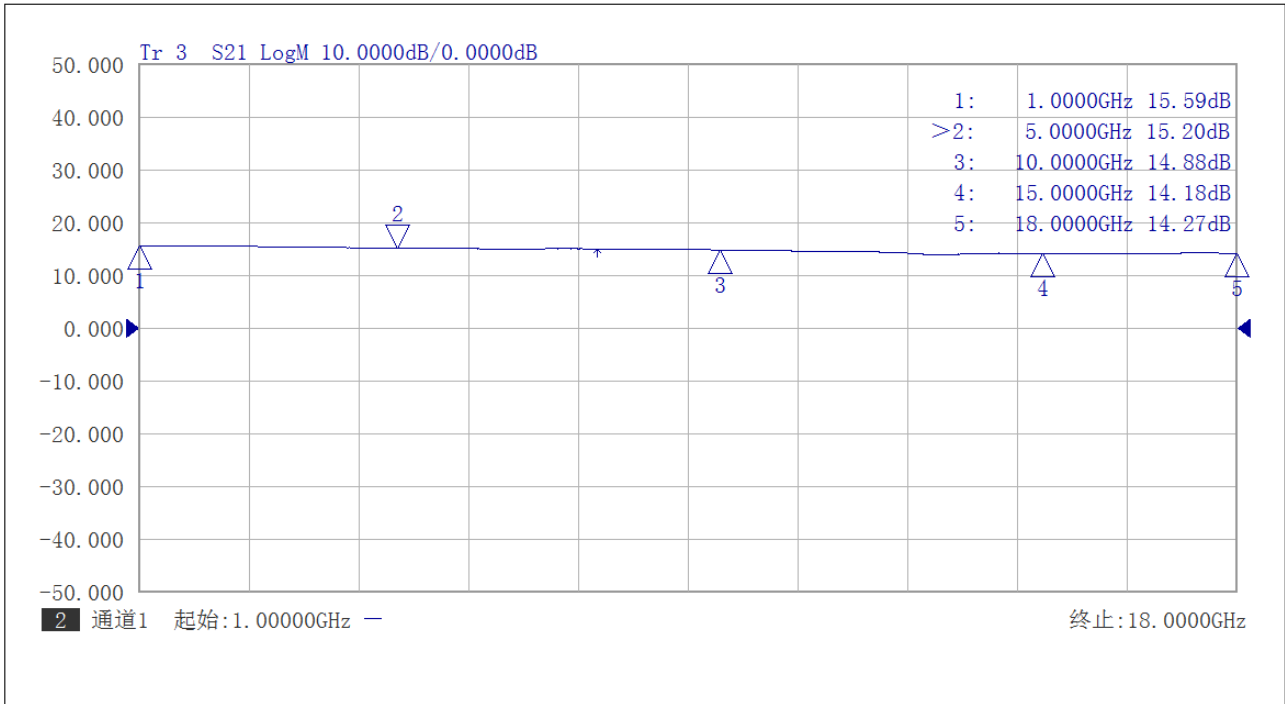
## Ordering Information

Part Number	Description
AT-LNA-0118-1302X	Defaulted, Input/Output Port SMA Female
AT-LNA-0118-1302X-IM	Input SMA Male

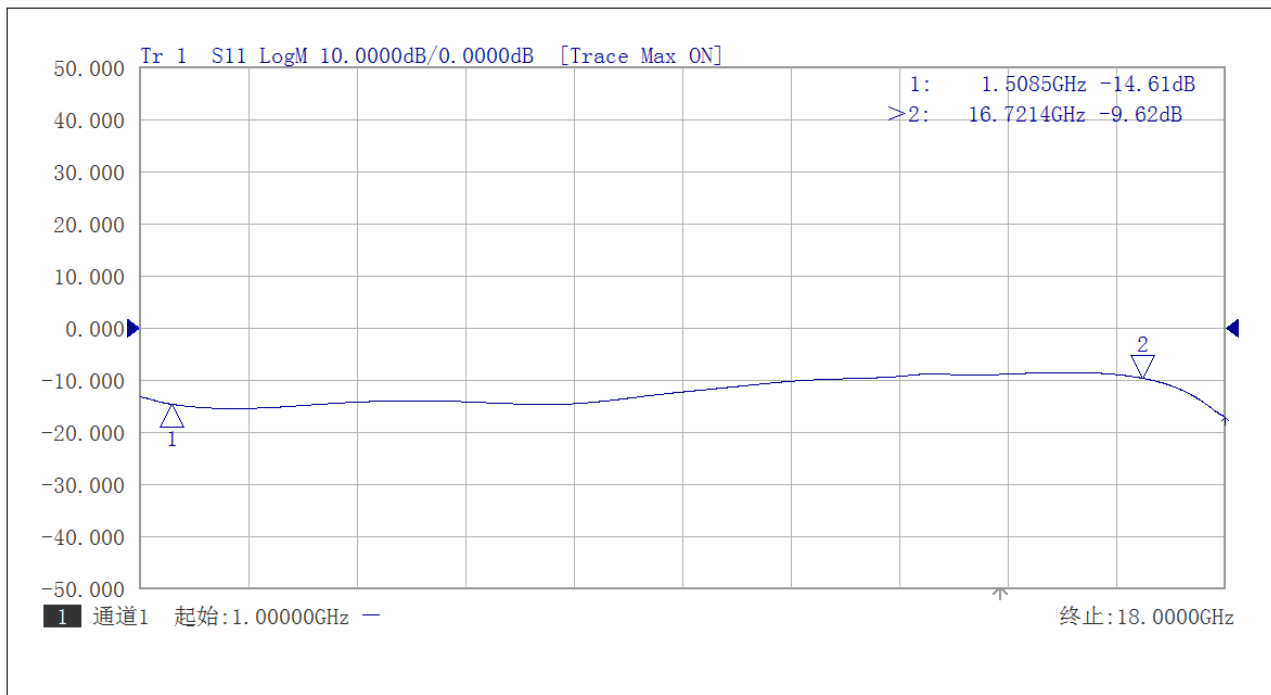


## Test Data (25C)

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

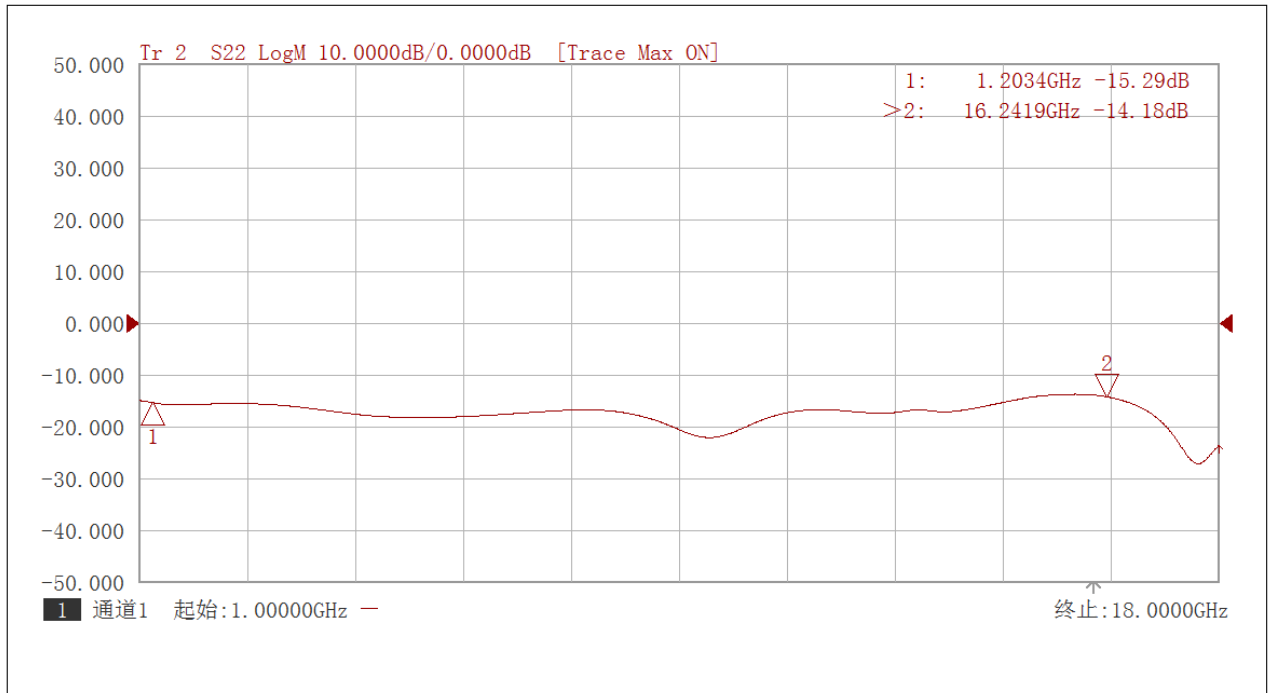


Gain vs Frequency

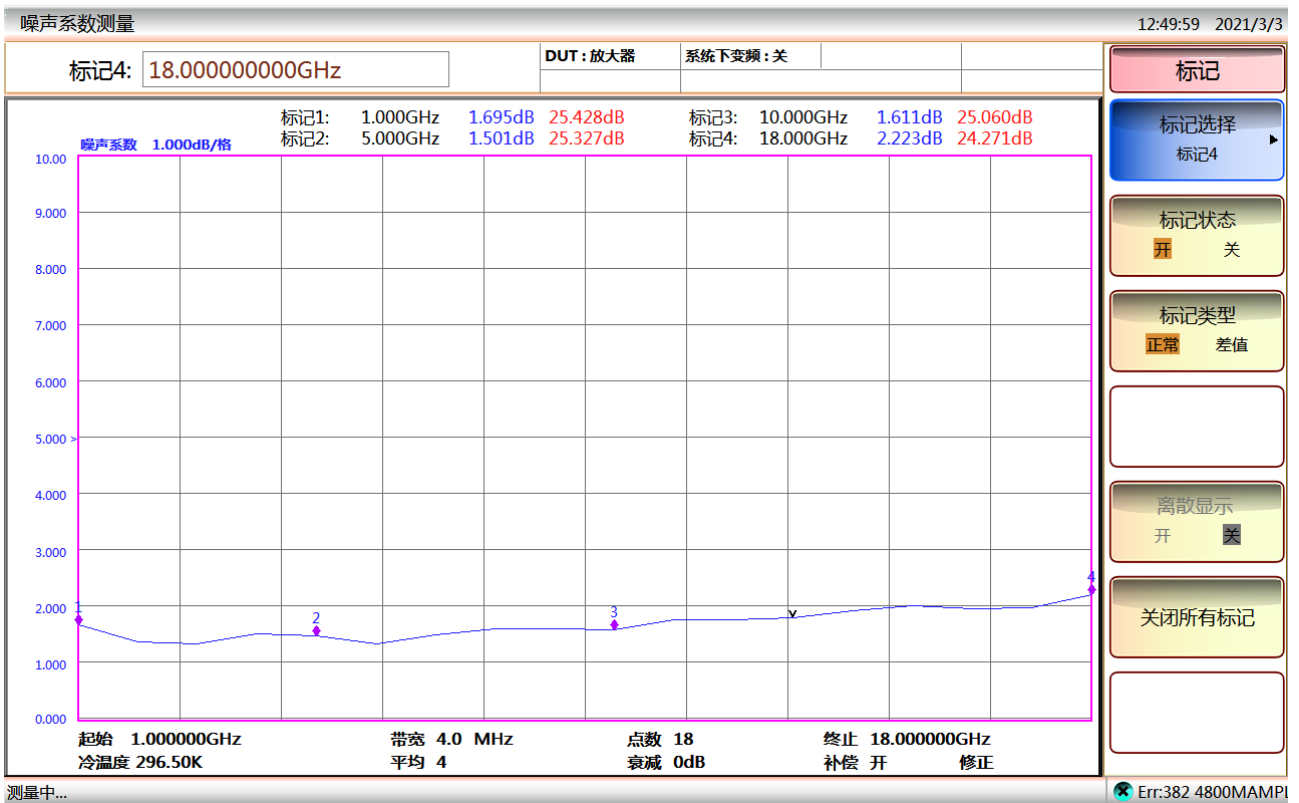


Input Return Loss vs Frequency





Output Return Loss vs Frequency



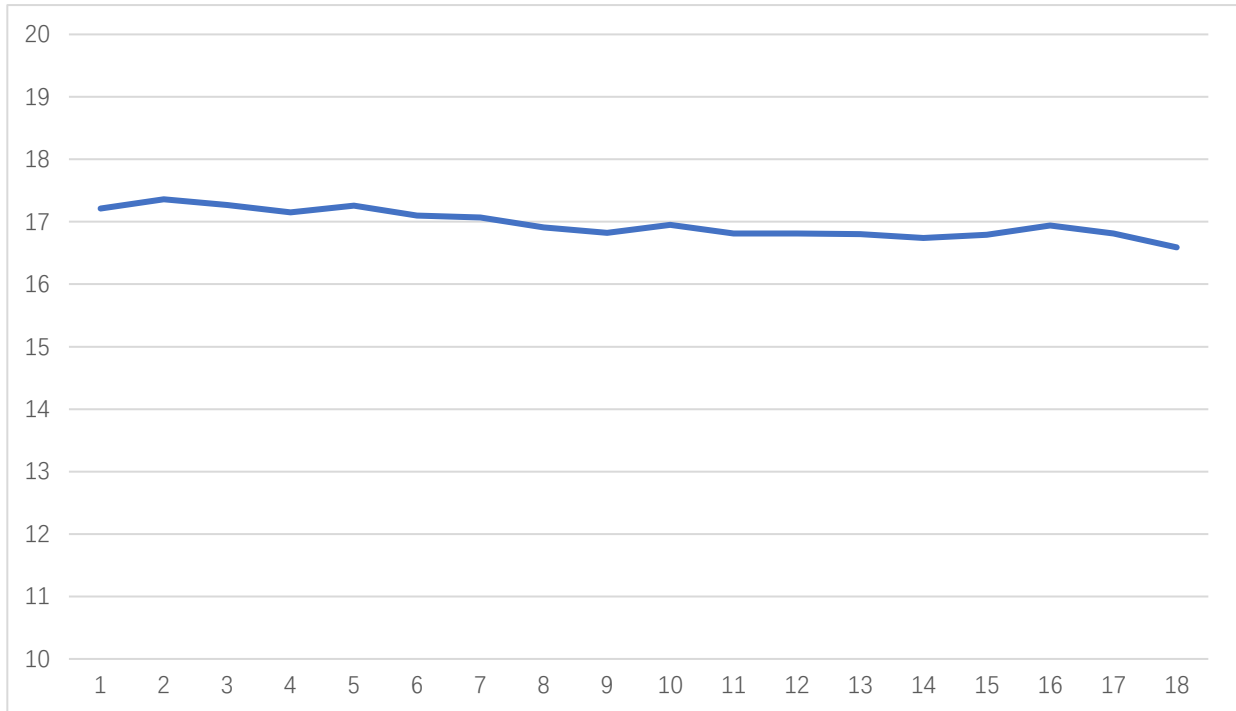
NF vs Frequency



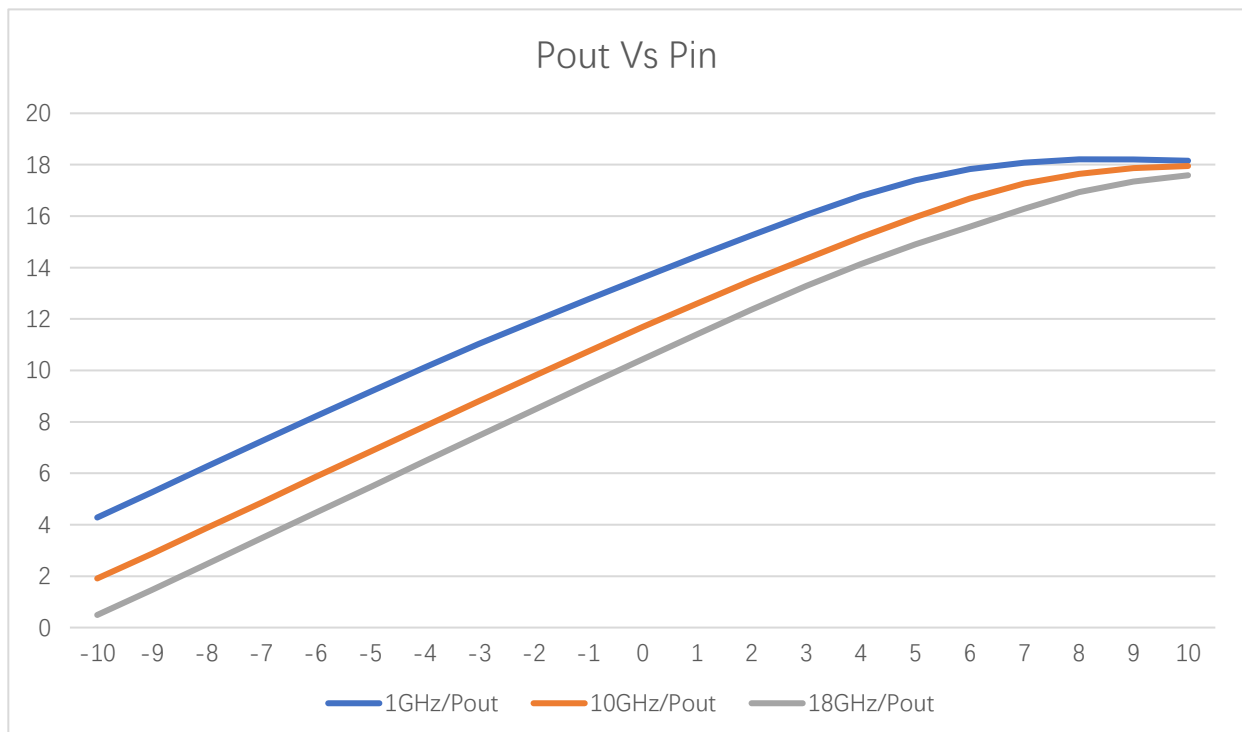


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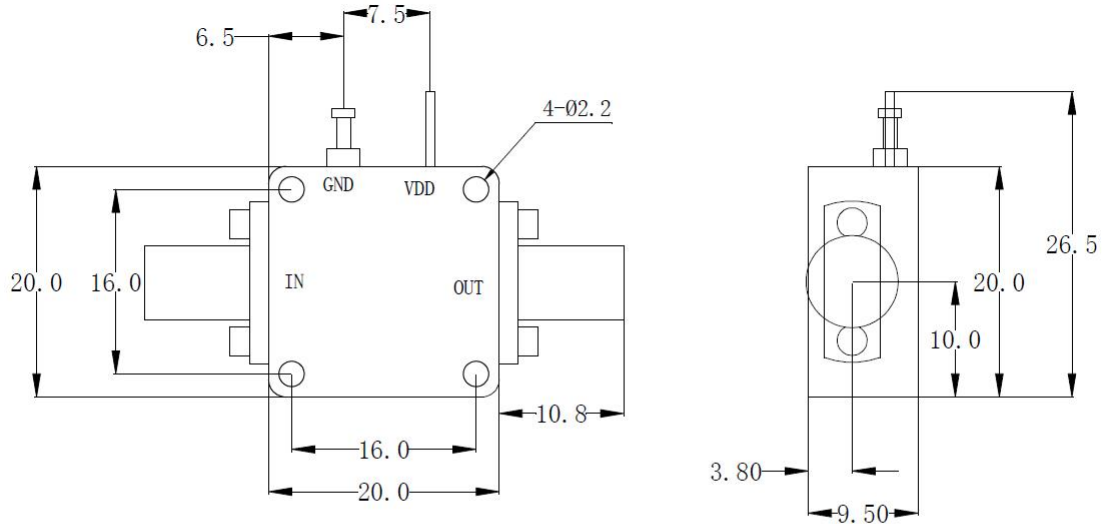
Psat vs Frequency Pin=+10dBm



Pout vs Pin at 1/10/18GHz



### 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.

