

## 500MHz-8GHz Low Noise Amplifier



### Product Overview

AT-LNA-00508-2002S is high gain low noise amplifier with 20dB gain in the frequency of 500MHz-8GHz. 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 +27dBm, and connectors from SMA to 1.85mm.

More information, please visit [www.atmicrowave.com](http://www.atmicrowave.com)

### Advantages

- ✓ Frequency: 500MHz-8GHz
- ✓ Small signal gain: 20dB
- ✓ NF=1.8dB
- ✓ Single Power Supply

### Application

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

### Key Features

Parameter	Min	Typical	Max
Frequency		500MHz-8GHz	
Gain	16	20 dB	
Input Power		-10dBm	0dBm
NF		1.8	2.5
P1dB		+16dBm	
Psat		+18dBm	
Drain Supply		+5V	+8V
Current		100 mA	
Input Return Loss		-8dB	
Output Return Loss		-10dB	
Spec Temp		25C	





# AT-LNA-00508-2002S

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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:	20x20x9.5 mm

## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+15 dBm
Operating Temperature (note)	-20 to + 70C
Storage Temperature	-65 to +150C

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

### Caution:

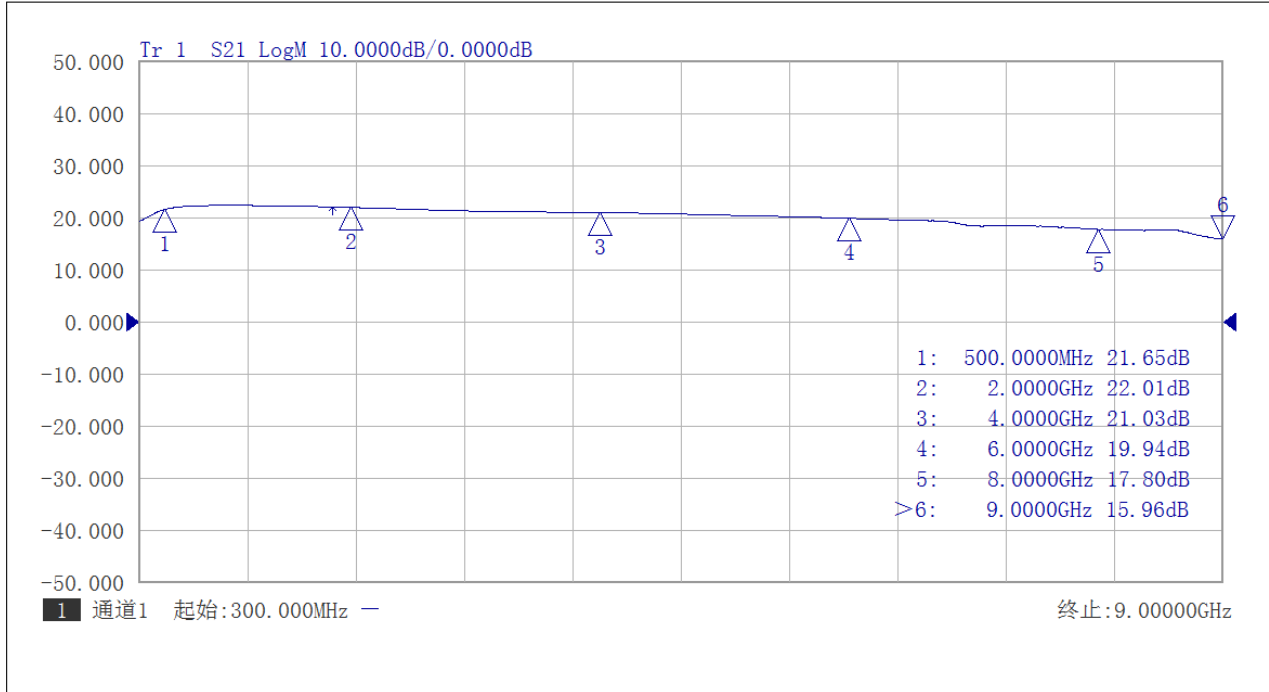
Please pay attention to the case temperature. If case temperature exceed higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

## Notes:

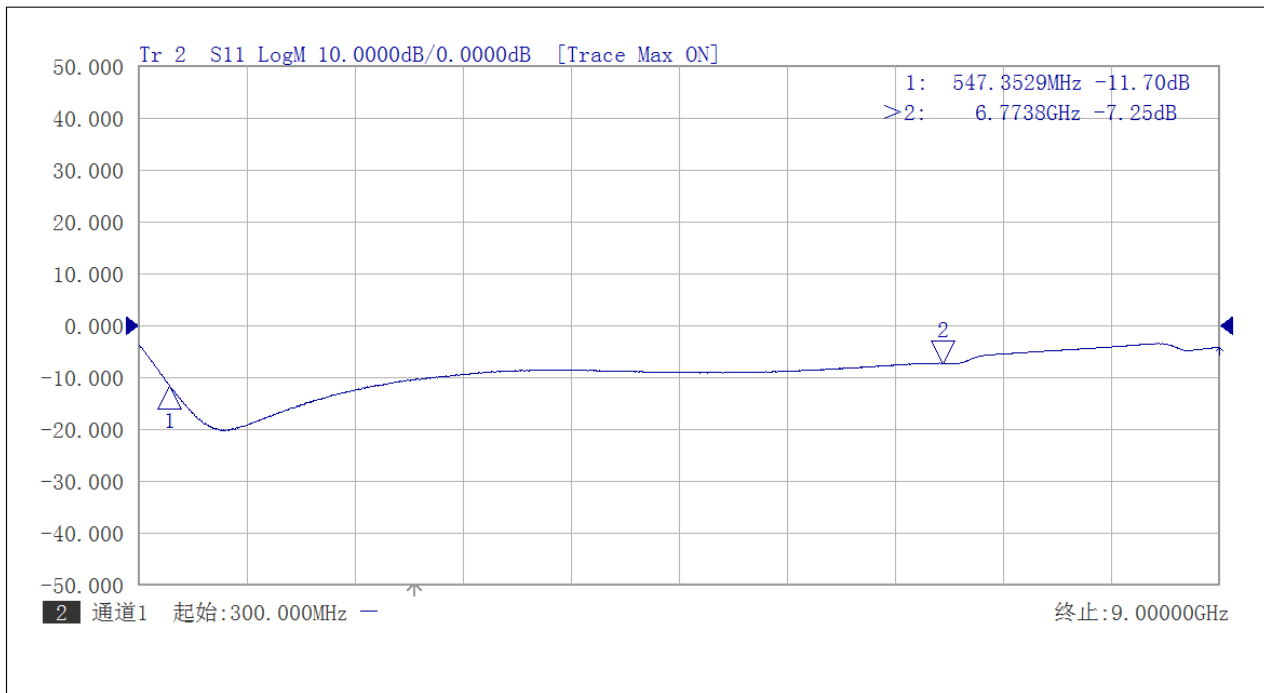
1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.



## Test Data:

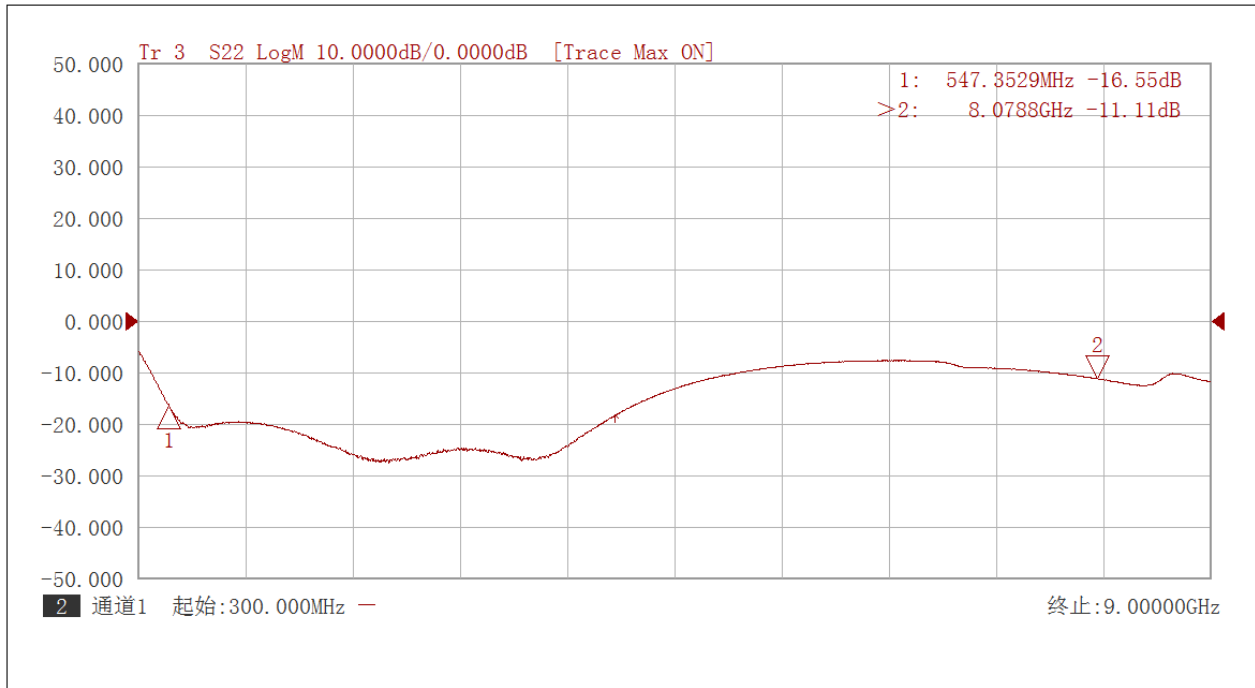


Gain vs Frequency

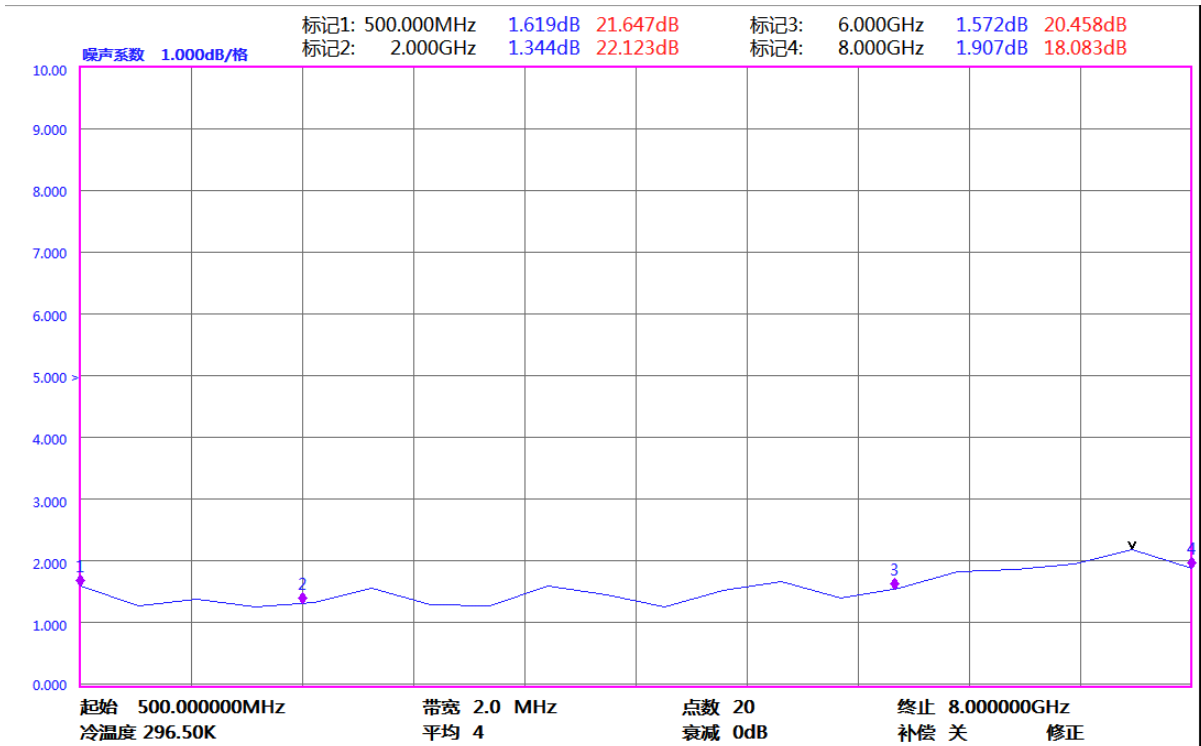


Input Return Loss vs Frequency





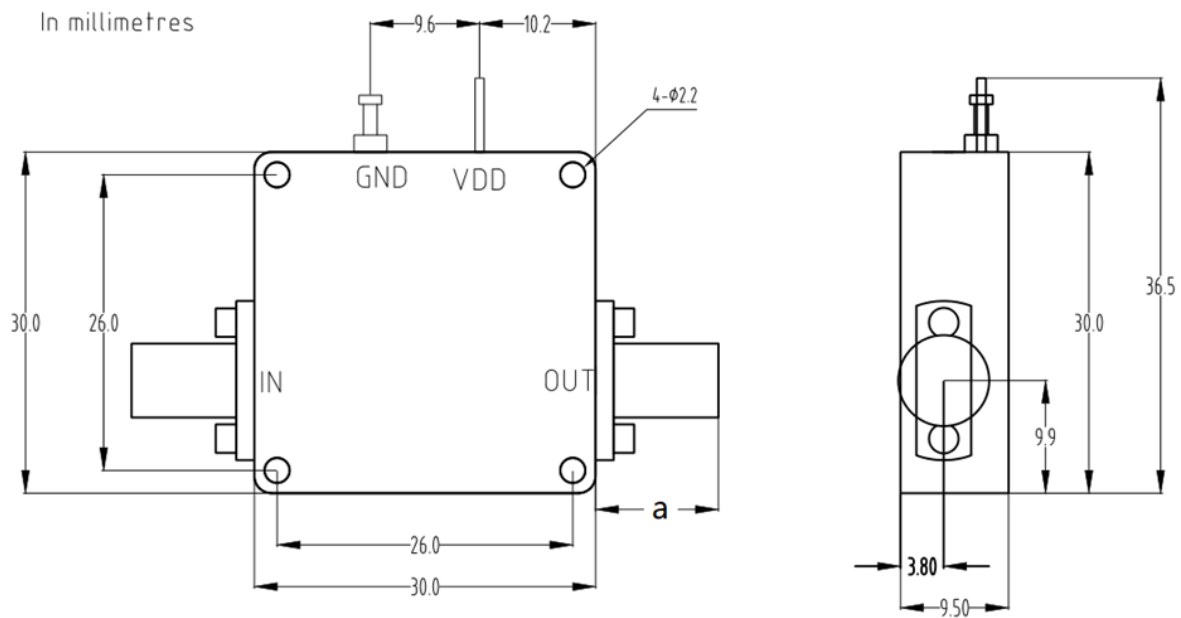
Output Return Loss vs Frequency



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.

