

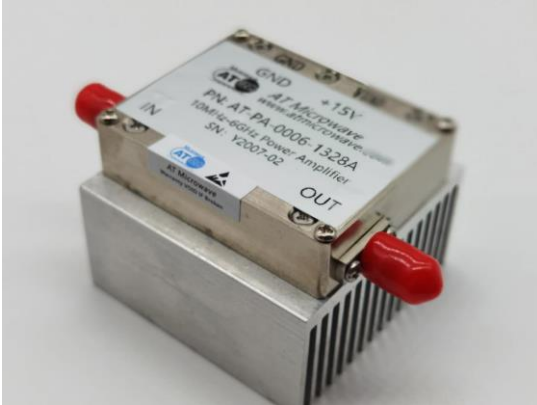
# 6-18GHz Low Noise Amplifier, High Power

### Product Overview

AT-LNA-0618-5025P29 is high gain low noise amplifier with 50dB gain in the frequency of 6-18GHz. The DC power requirement is +12V/680mA. 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. If you don't find what you need, just send us

email [sales@atmicrowave.com](mailto:sales@atmicrowave.com)



### Advantages

- ✓ Frequency: 6-18GHz
- ✓ Small signal gain: 50dB
- ✓ NF=2.5dB
- ✓ Single Power Supply

### Application

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

### Key Features

Parameter	Min	Typical	Max
Frequency		6-18GHz	
Gain	45	50 dB	
NF		2.5	5
Input Power		-25dBm	-15dBm
P1dB		+27dBm	
Psat	+28dBm	+29dBm	
Harmonics		-15dBc	
Drain Supply	+11V	+12V	+13V
Current		680 mA	750mA
Input Return Loss		-10 dB	
Output Return Loss		-10 dB	
Spec Temp		25C	





# AT-LNA-0618-5025P29

6-18GHz High Gain Low Noise Amplifier

## Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	SMA Female
Case Material	Copper
Finish	Nickel Plated
Weight (Without Heatsink)	80g
Size:	45x34x8.5 mm

## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+20 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.



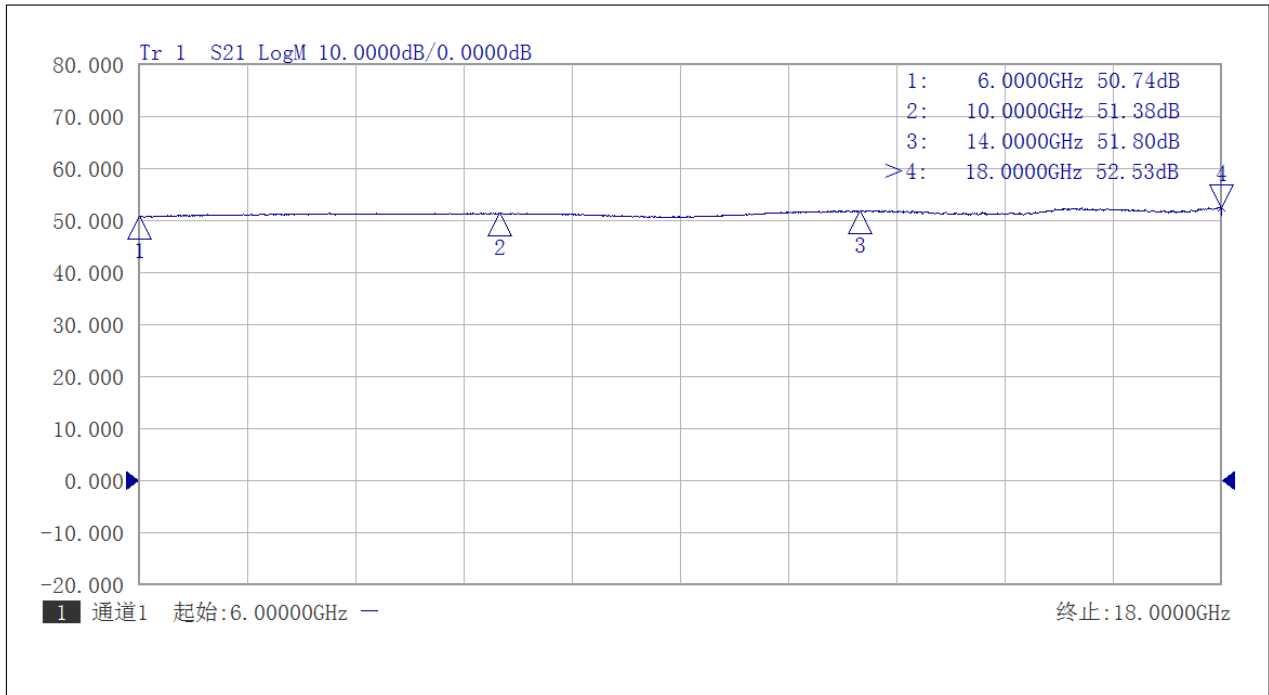


# AT-LNA-0618-5025P29

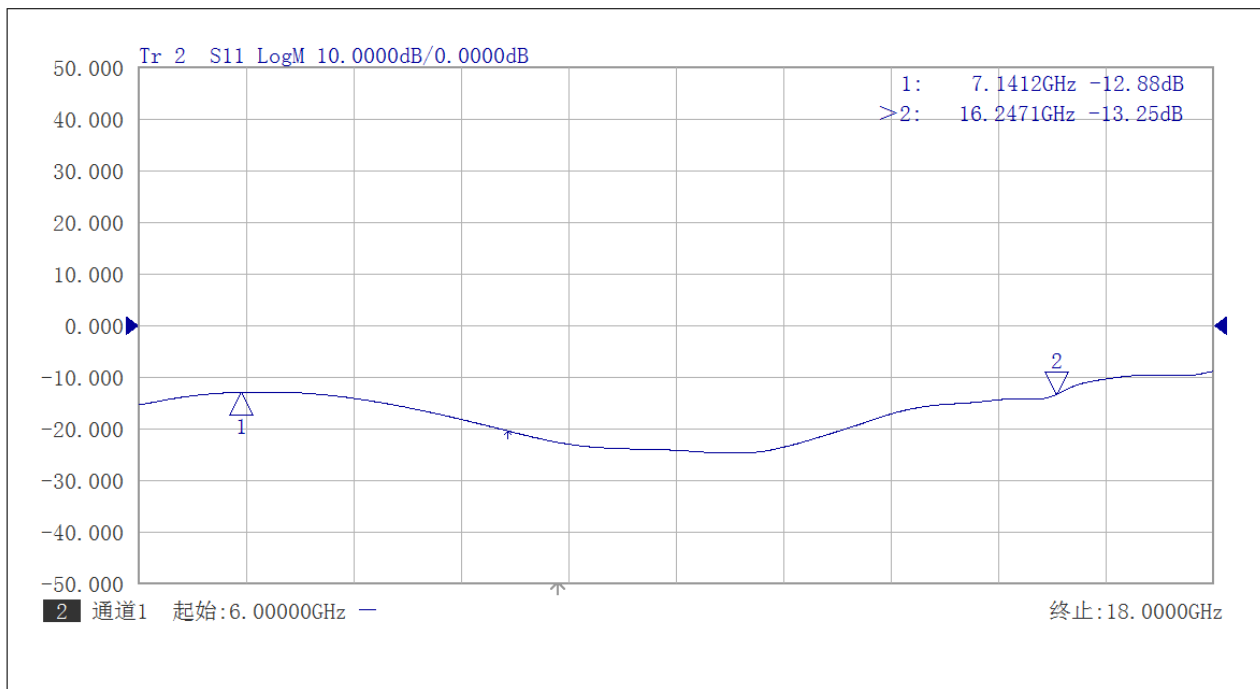
6-18GHz High Gain Low Noise Amplifier

## Test Data

Vdd=+12V, Idd=0.7A, 25C



Gain vs Frequency



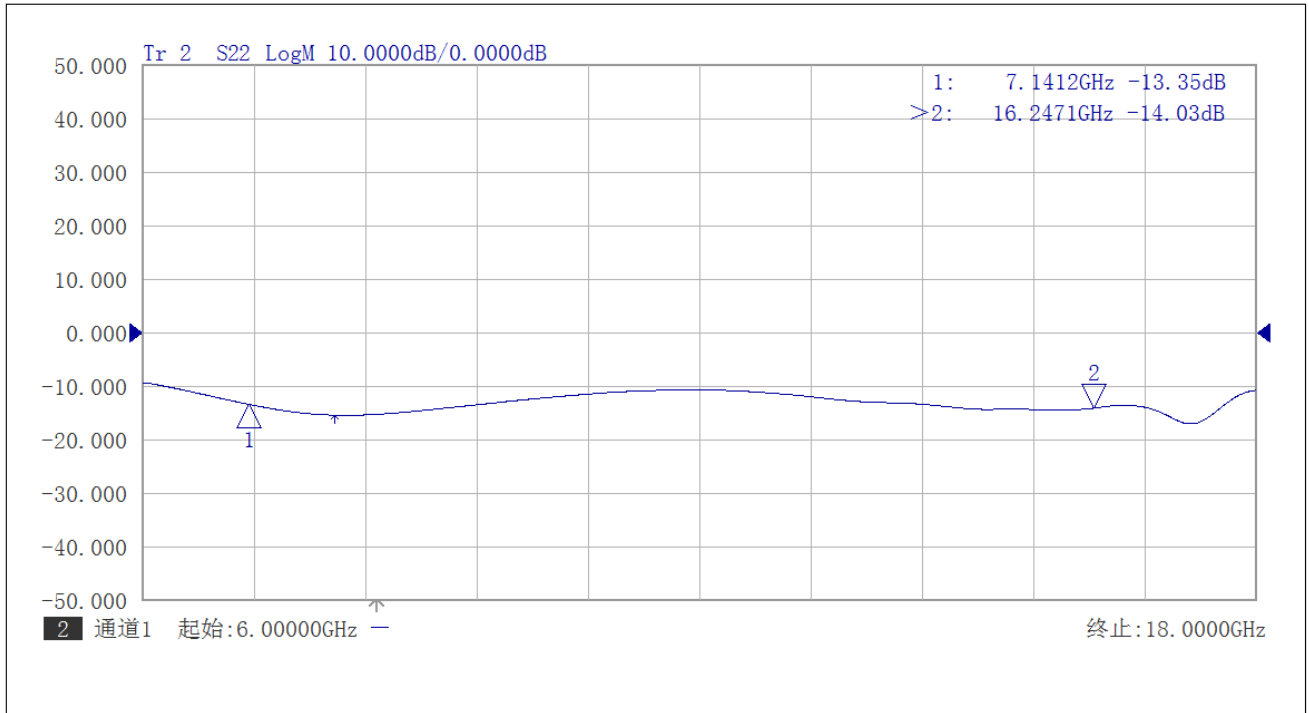
Input Return Loss vs Frequency



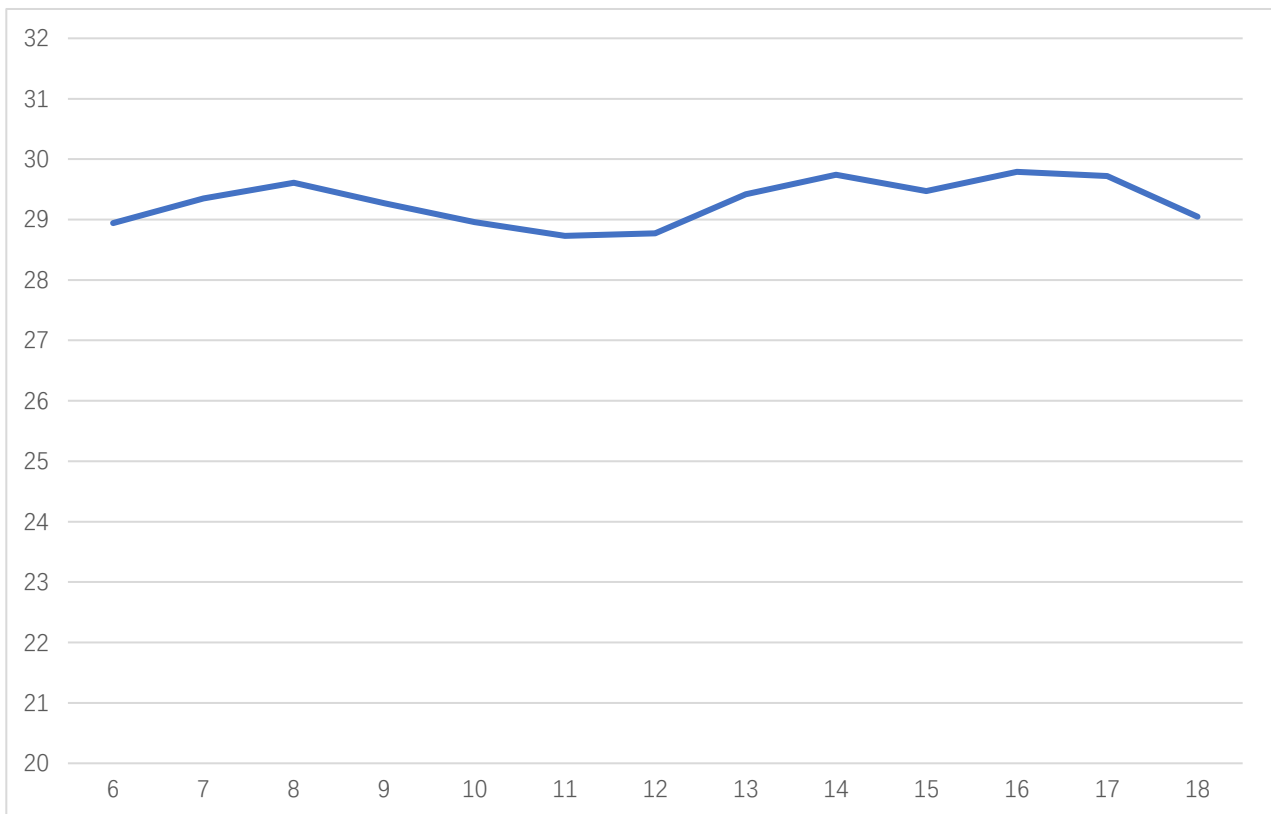


# AT-LNA-0618-5025P29

6-18GHz High Gain Low Noise Amplifier



Output Return Loss vs Frequency



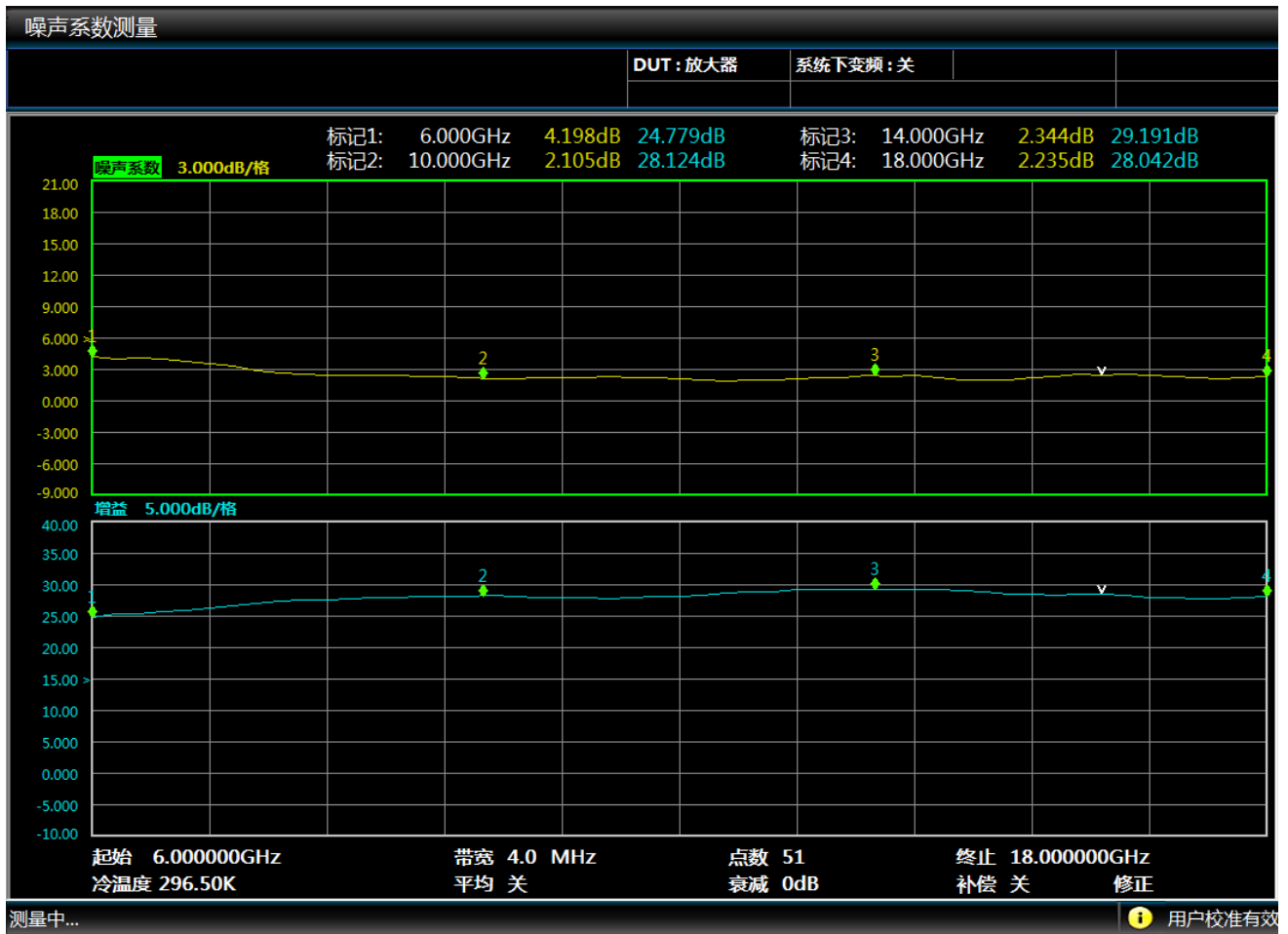
Pout vs Frequency





# AT-LNA-0618-5025P29

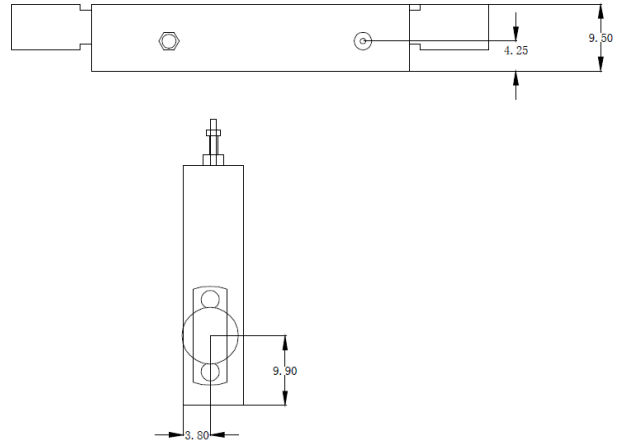
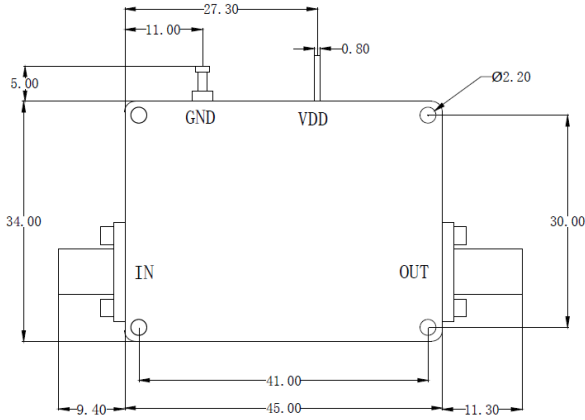
6-18GHz High Gain Low Noise Amplifier



NF vs Frequency with 20dB ATT at Output Port

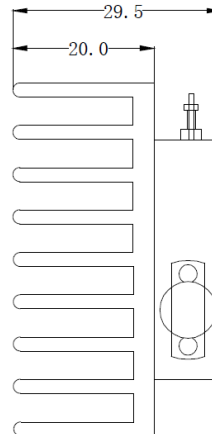
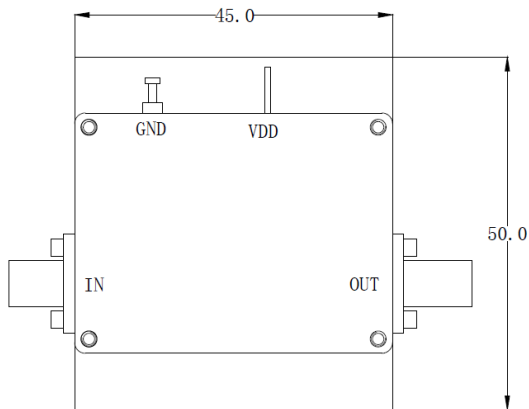


### Dimension: (unit in mm)



	<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.



Including a small heatsink without Fan if output Power higher than +20dBm.  
Customers can removed it or use their own heatsink according to actual situation.

Heat Sink Required During Operation

