

### Full E Band Low Noise Amplifier



#### Product Overview

AT-LNA-6090-1805T is an full E Band low noise amplifier operating in the 60-90GHz frequency range with super low NF=5dB. The LNA is packaged in a waveguide module using industry standard WR-12.

GaAs pHEMT MMIC technology LNA Chip is used, which ensures reliable and repeatable unit-to-unit result.

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

#### Advantages

- ✓ Frequency: 60-90GHz
- ✓ Gain: 18dB
- ✓ NF: 5dB
- ✓ Single Power Supply

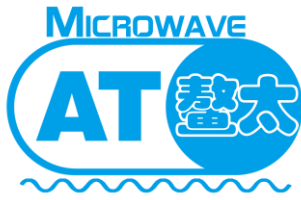
#### Application

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

#### Key Features

| Parameter          | Min | Typical  | Max |
|--------------------|-----|----------|-----|
| Frequency          |     | 60-90GHz |     |
| Gain               | 16  | 18dB     |     |
| Noise Figure       |     | 5dB      | 7dB |
| Drain Supply       |     | +5V/80mA | +8V |
| P1dB               |     | +8dBm    |     |
| Psat               |     | +10dBm   |     |
| Input Return Loss  | -5  | -10dB    |     |
| Output Return Loss | -5  | -10dB    |     |
| Spec Temp          |     | 25C      |     |





# AT-LNA-6090-1805T

60-90GHz 18dB Gain Low Noise Amplifier

## Mechanical Information

| Item                      | Description |
|---------------------------|-------------|
| Input Port                | WR-12       |
| Output Port               | WR-12       |
| Case Material             | Copper      |
| Finish                    | Gold Plated |
| Weight (Without Heatsink) | 100g        |
| Size:                     | 45X25X20 mm |

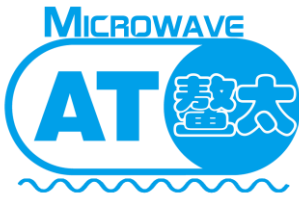
## Absolute Maximum Ratings Table

| Parameter             | Value        |
|-----------------------|--------------|
| Drain Supply          | +9V          |
| RF Input Power        | +10dBm       |
| Operating Temperature | 0 to +50C    |
| Storage Temperature   | -65 to +150C |

## 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.

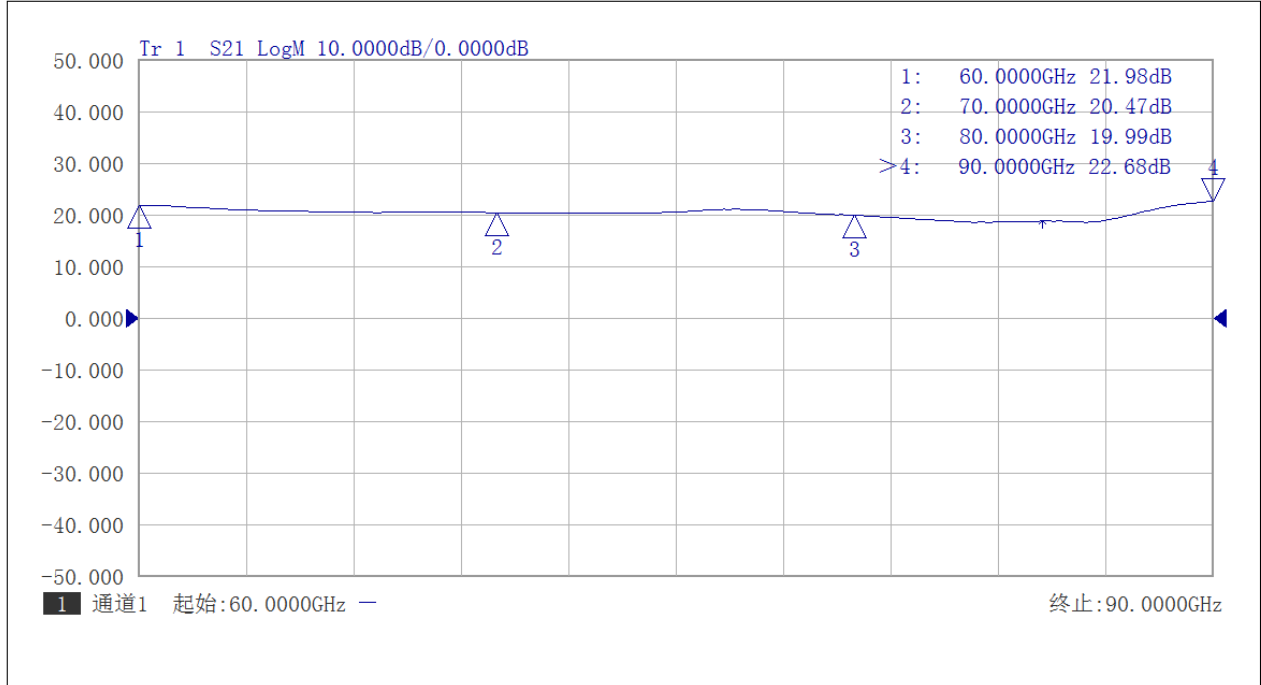




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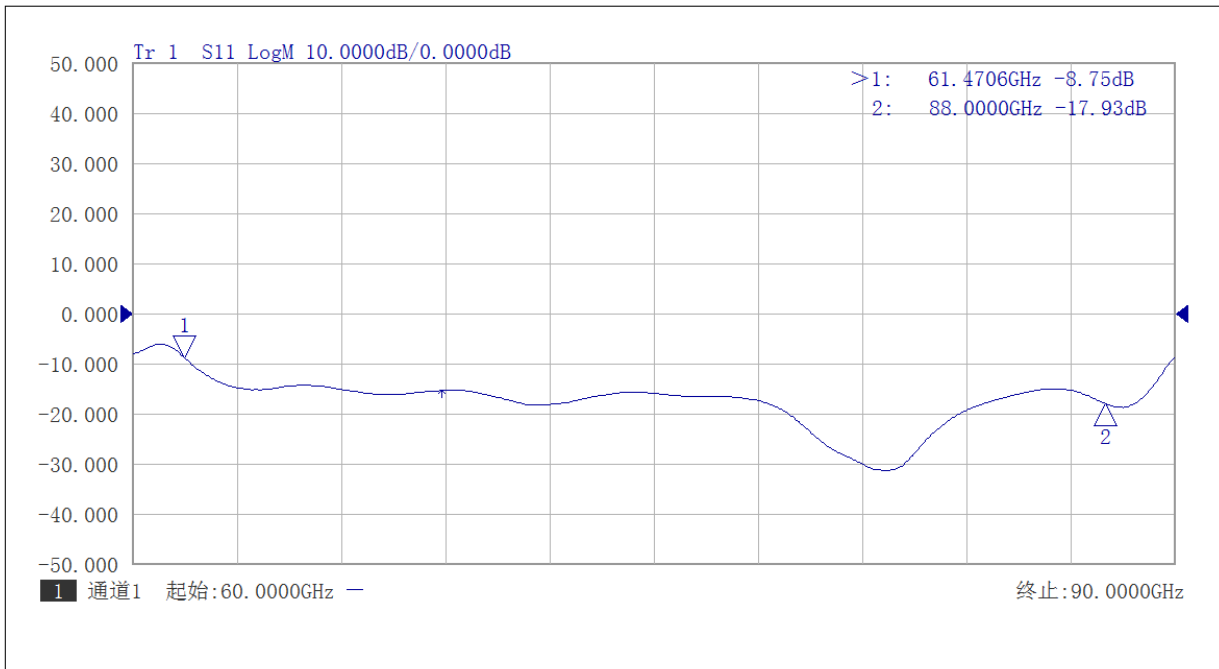
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## Test Data:

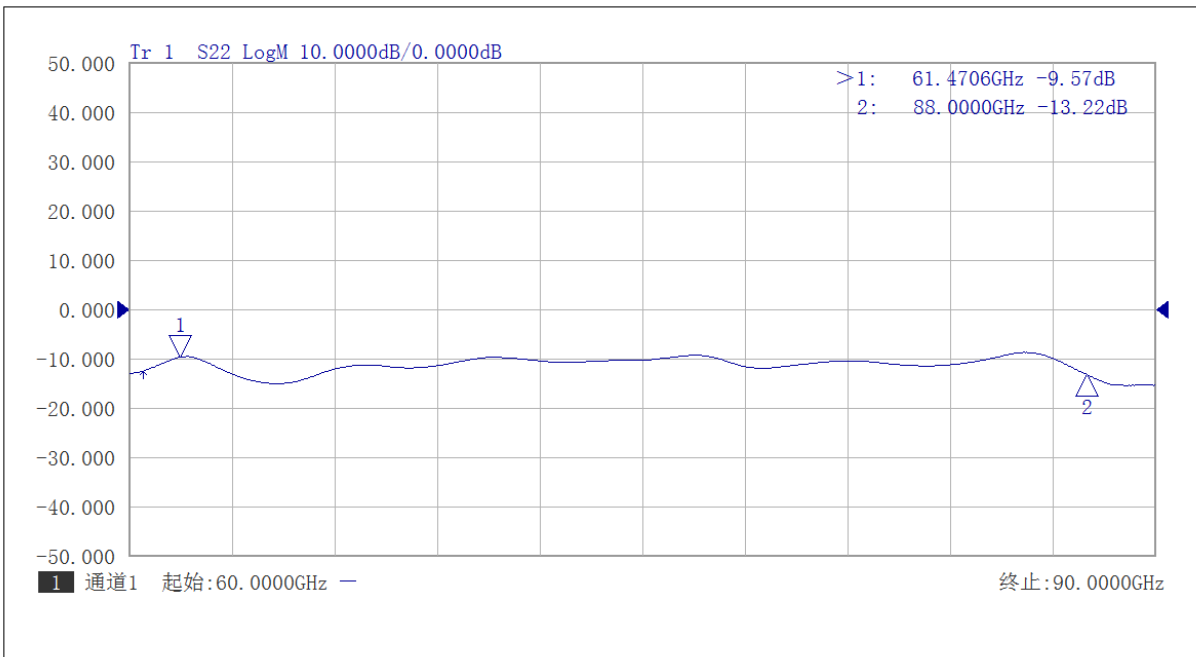


Gain vs Frequency



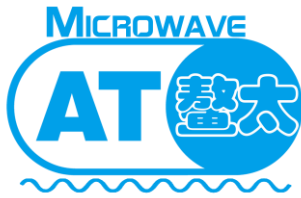


Input Return Loss vs Frequency



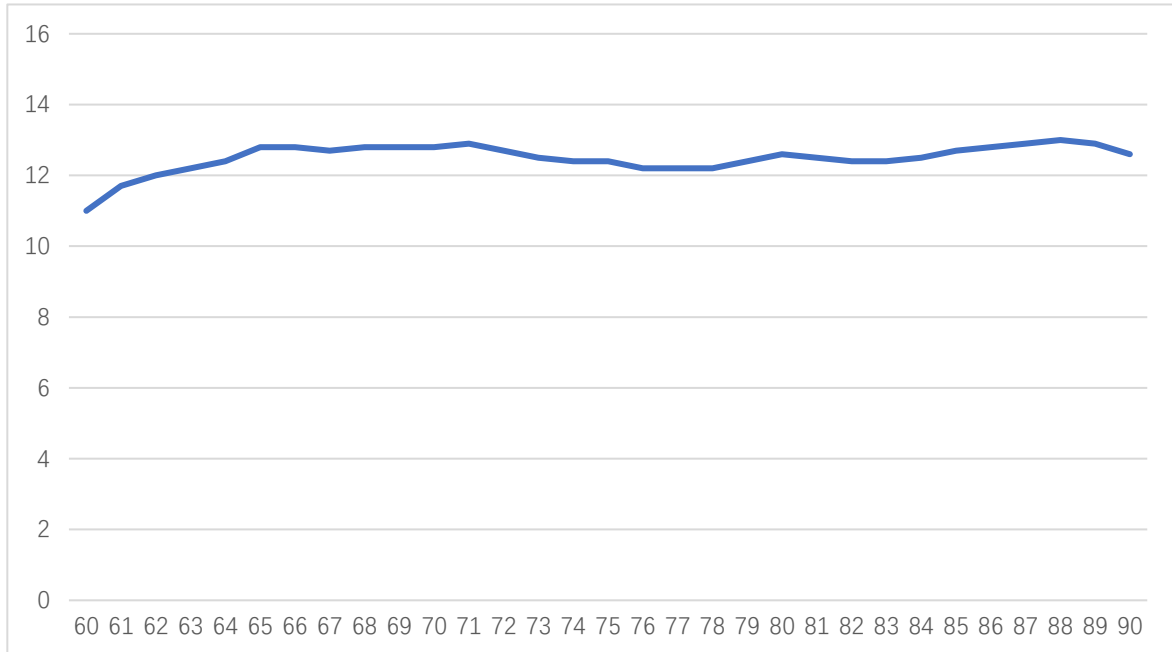
Output Return Loss vs Frequency



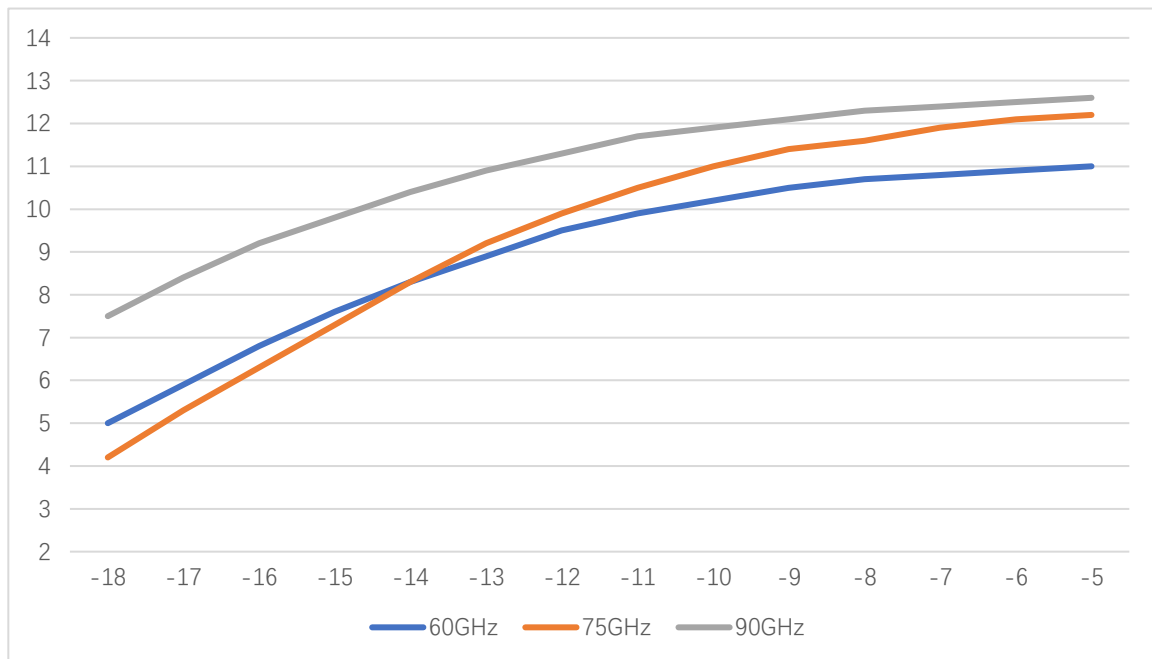


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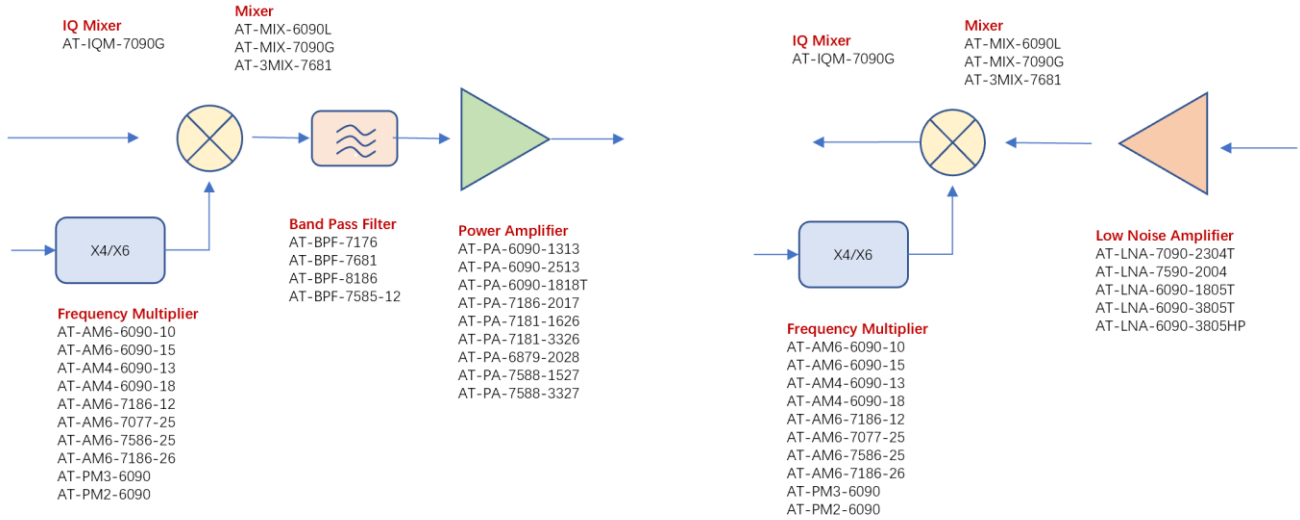
Psat vs Frequency



Pout vs Pin at 50/75/90GHz



### E Band 60-90GHz



### Dimension:

