

100MHz-8GHz Low Noise Amplifier



Product Overview

AT-LNA-0008-1702A is high gain low noise amplifier with 17dB gain in the frequency of 100MHz-8GHz. The DC power requirement is +5/80mA. 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

Advantages

- ✓ Frequency: 200MHz-8GHz
- ✓ Small signal gain: 17dB
- ✓ NF=2dB
- ✓ Single Power Supply

Application

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

Key Features

| Parameter | Min | Typical | Max |
|--------------------|------|-------------|-------|
| Frequency | | 100MHz-8GHz | |
| Gain (0.1-6GHz) | 15dB | 17 dB | |
| NF (0.1-6GHz) | | 2 | 4 |
| P1dB | | +17dBm | |
| Psat | | +19dBm | |
| Drain Supply | | +5V | +8V |
| Current | | 80 mA | 100mA |
| Input Return Loss | | -10dB | |
| Output Return Loss | | -10dB | |
| Spec Temp | | 25C | |





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Mechanical Information

| Item | Description |
|---------------|-------------|
| Input Port | SMA Female |
| Output Port | SMA Female |
| Case Material | Copper |
| Finish | Gold Plated |
| Weight | 55g |
| Size: | See outline |

Absolute Maximum Ratings Table

| Parameter | Value |
|-----------------------------|--------------|
| Drain Supply | +13V |
| RF Input Power | +10 dBm |
| Operating Temperature(note) | -20 to + 70C |
| Storage Temperature | -65 to +150C |

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

Caution:

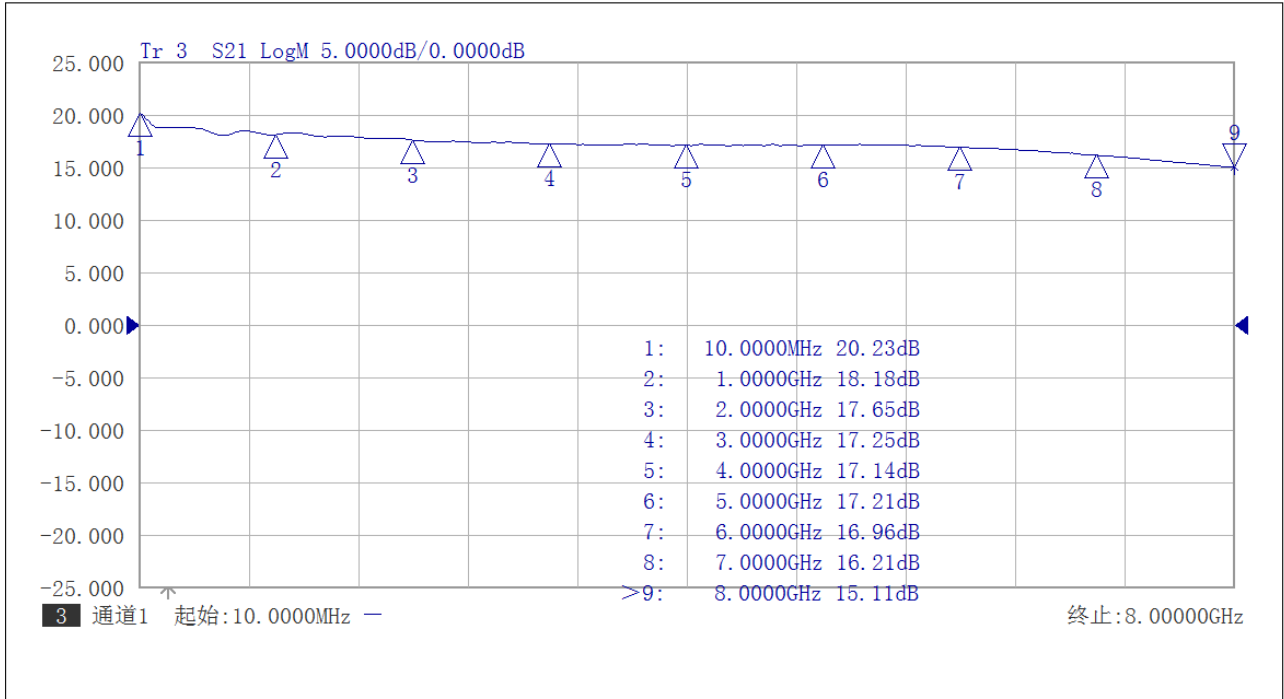
Please pay attention to the case temperature. If case temperature exceed higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

Notes:

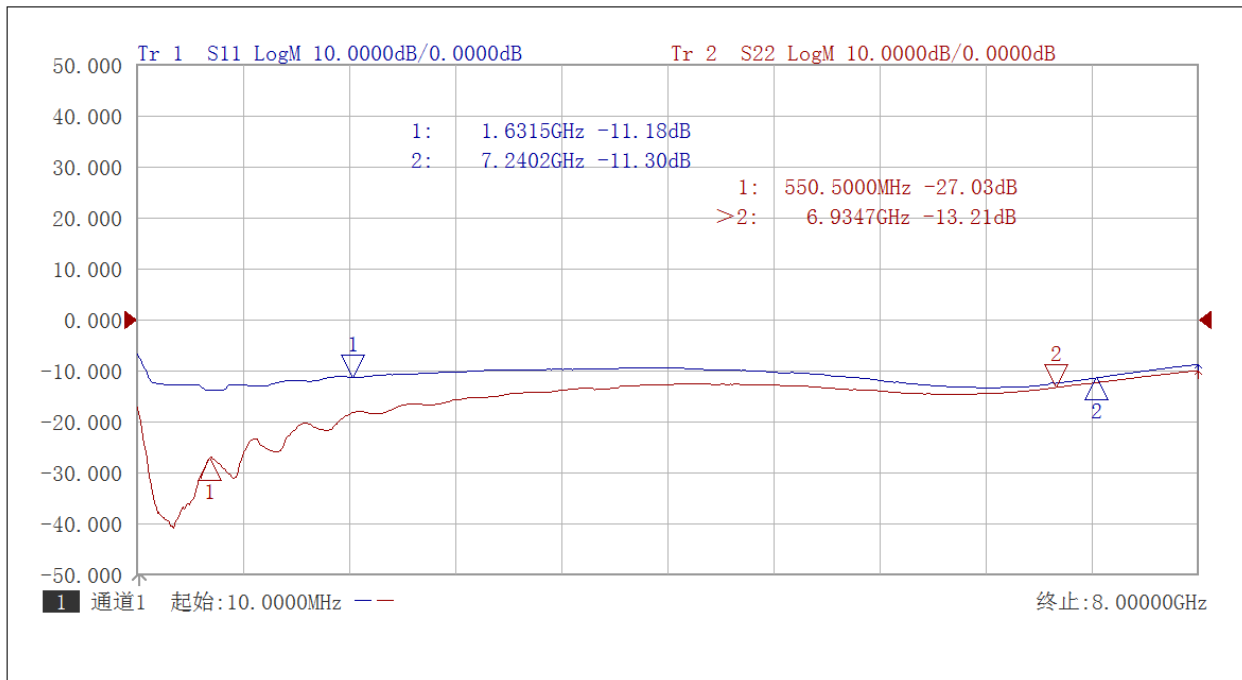
1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.



Test Data:

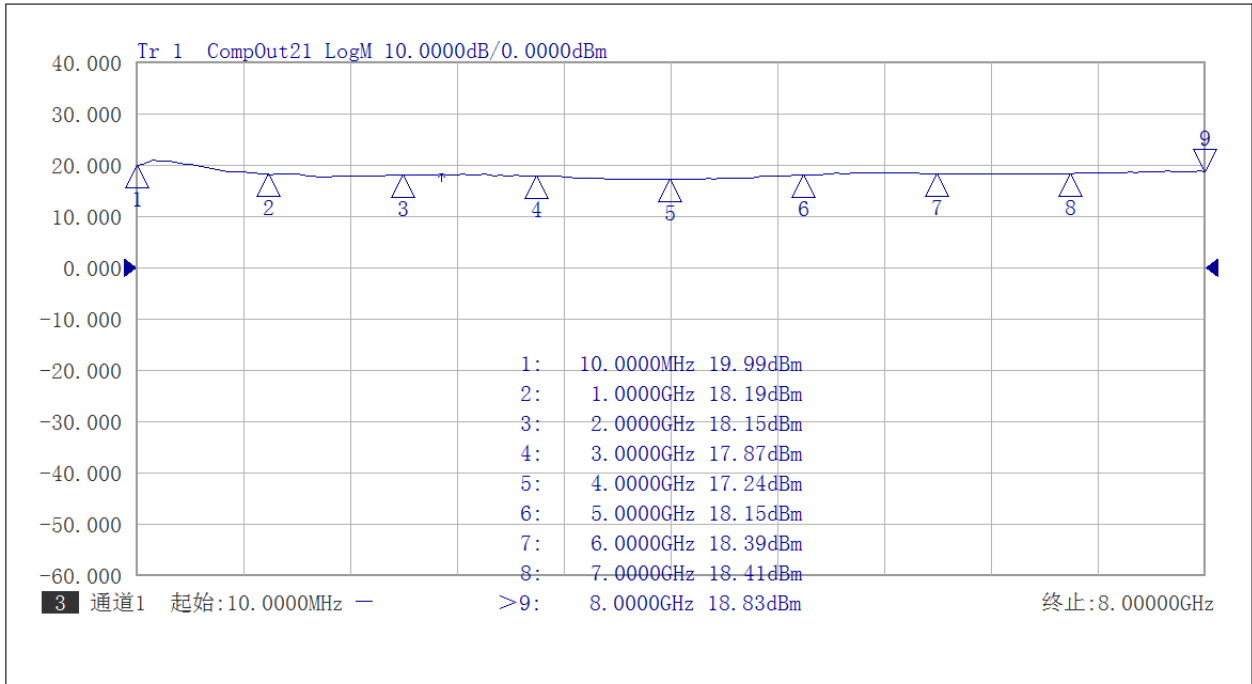


Gain vs Frequency

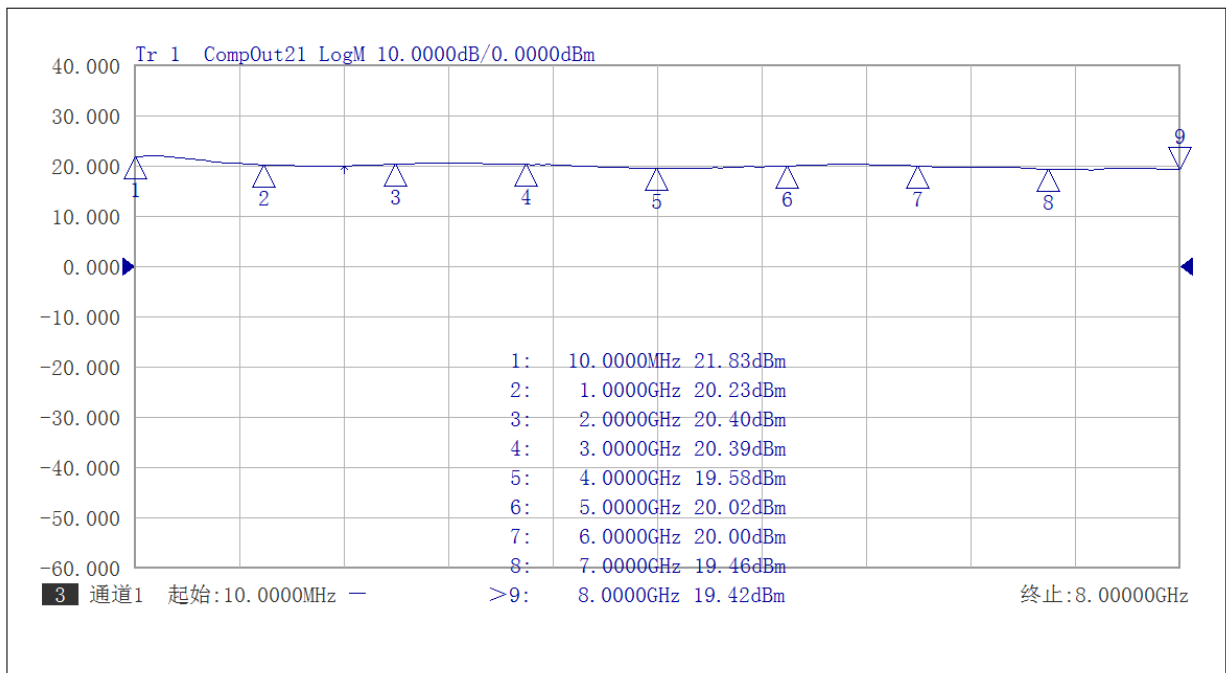


Return Loss vs Frequency



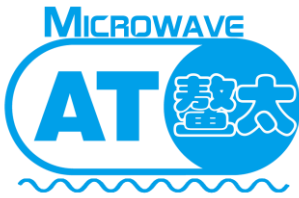


P1db vs Frequency



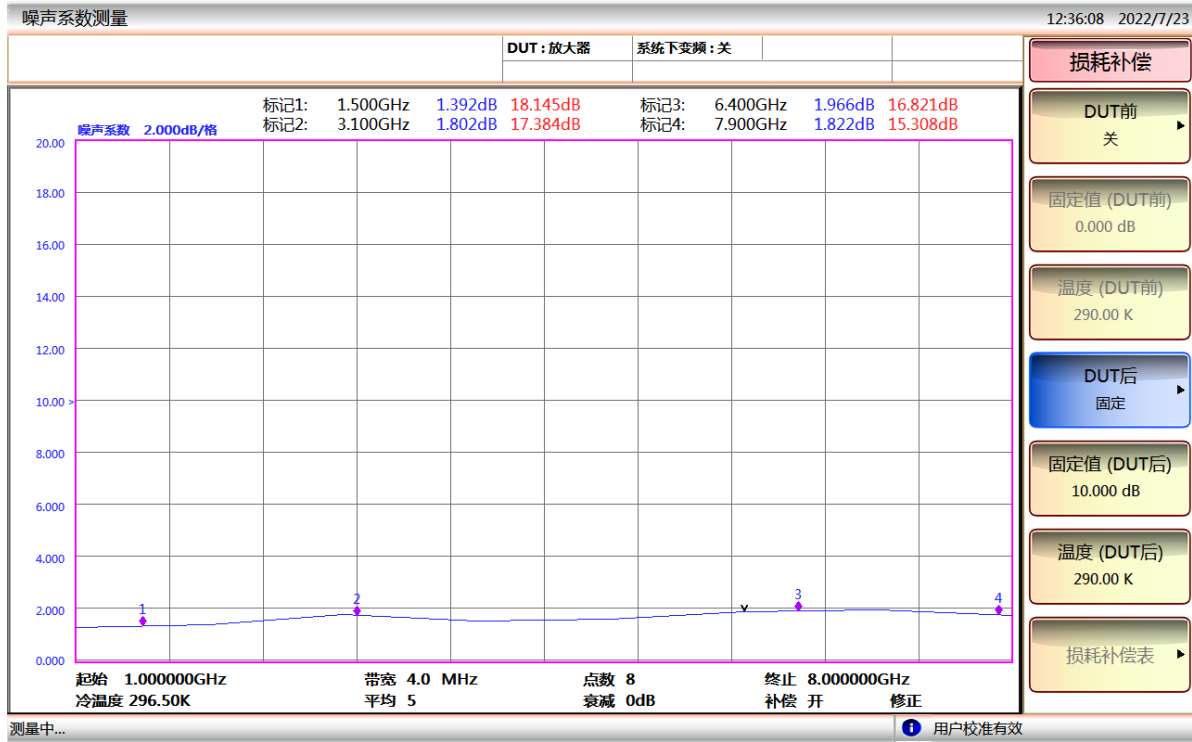
P3db vs Frequency



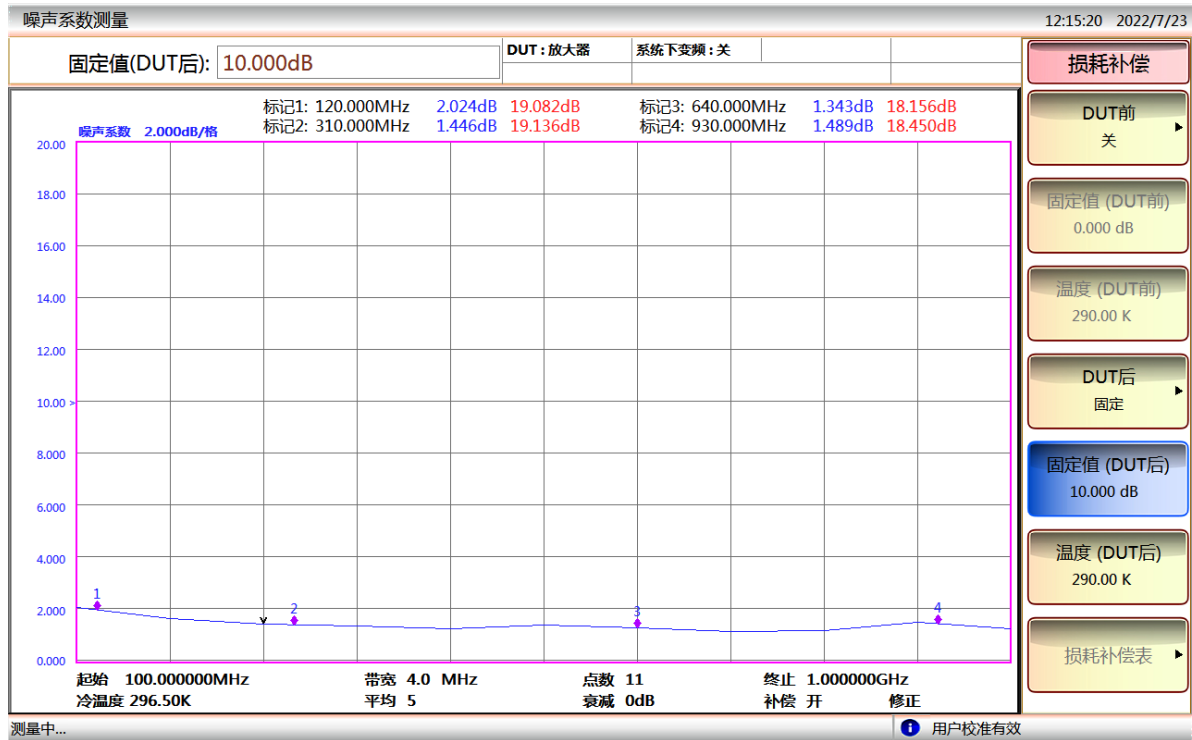


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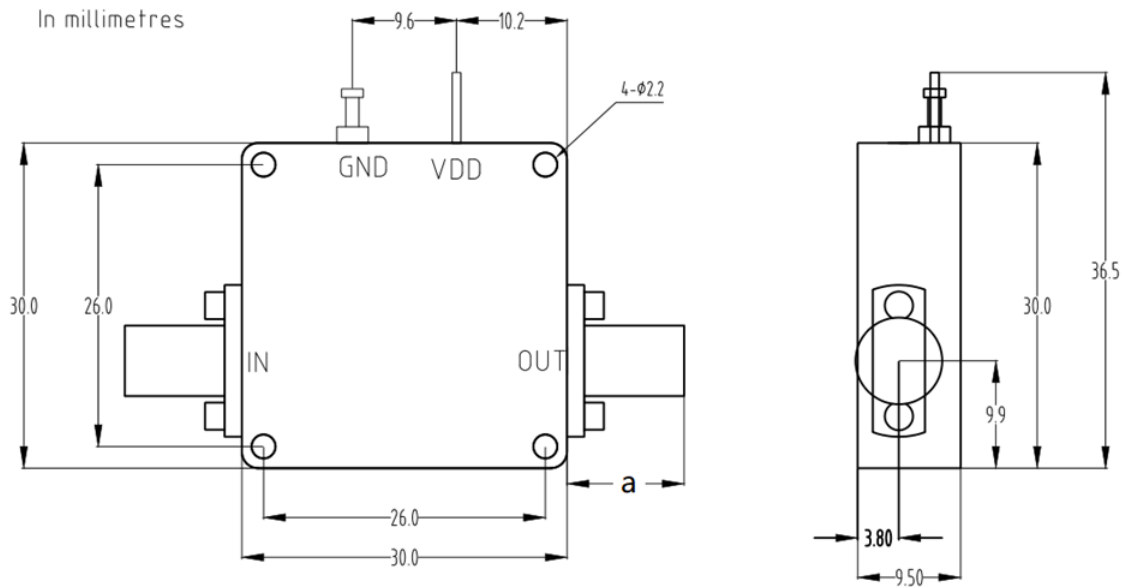
NF Test 1-8GHz



NF TEST 0.1-1GHz



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.

