

30-50GHz Low Noise Amplifier

Gain=23dB, Super Low NF=2.8dB, 2.4mm Female



Product Overview

AT-LNA-3050-2328T is high gain low noise amplifier with 23dB gain in the frequency of 30-50GHz. The DC power requirement is +5V/50mA. The module is with connector 2.4mm Female.

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

Advantages

- ✓ Frequency: 30-50GHz
- ✓ Small signal gain: 23dB
- ✓ NF=2.8dB
- ✓ Single Power Supply

Application

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

Key Features

| Parameter | Min | Typical | Max |
|--------------------|-----|----------|--------|
| Frequency | | 30-50GHz | |
| Gain | 22 | 23 dB | |
| Input Power | | -30dBm | -20dBm |
| NF | | 2.8dB | 3.8dB |
| P1dB | | +5dBm | |
| Psat | | +6dBm | |
| Drain Supply | | +5V | +8V |
| Current | | 50 mA | |
| Input Return Loss | | -10dB | |
| Output Return Loss | | -10dB | |
| Spec Temp | | 25C | |





AT-LNA-3050-2328T

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Mechanical Information

| Item | Description |
|---------------|--------------|
| Input Port | 2.4mm Female |
| Output Port | 2.4mm Female |
| Case Material | Copper |
| Finish | Gold Plated |
| Weight | 50g |
| 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.

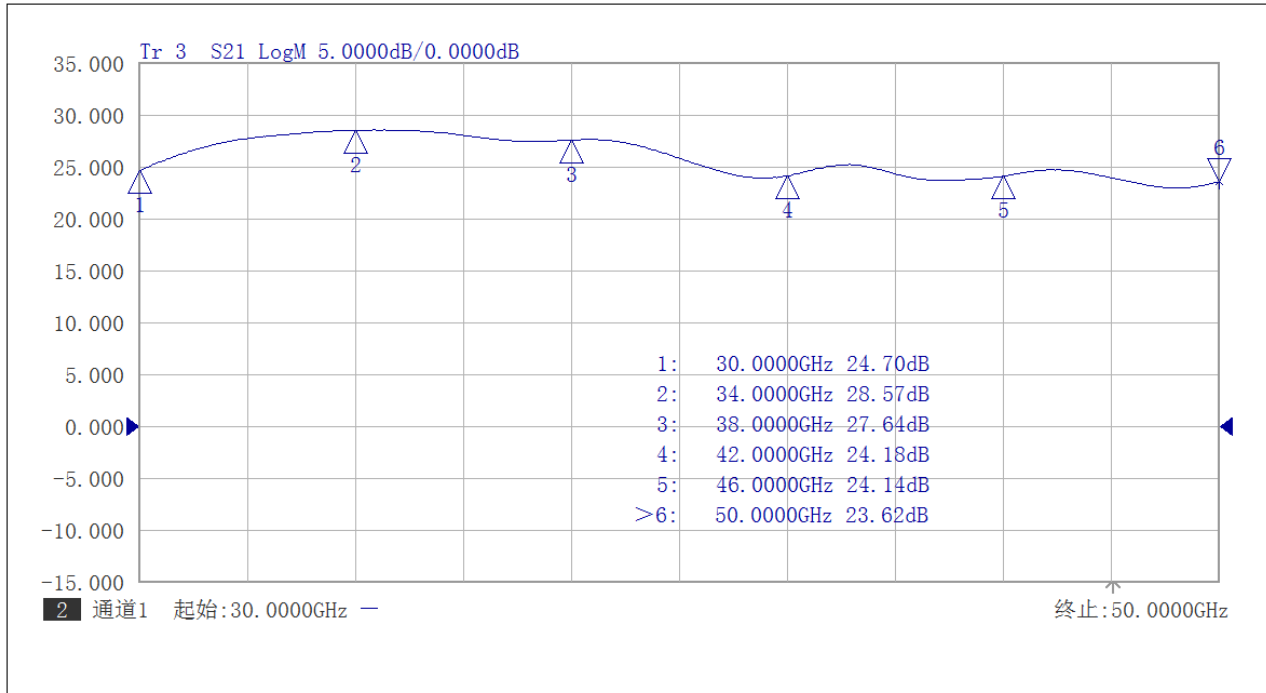
Notes:

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.

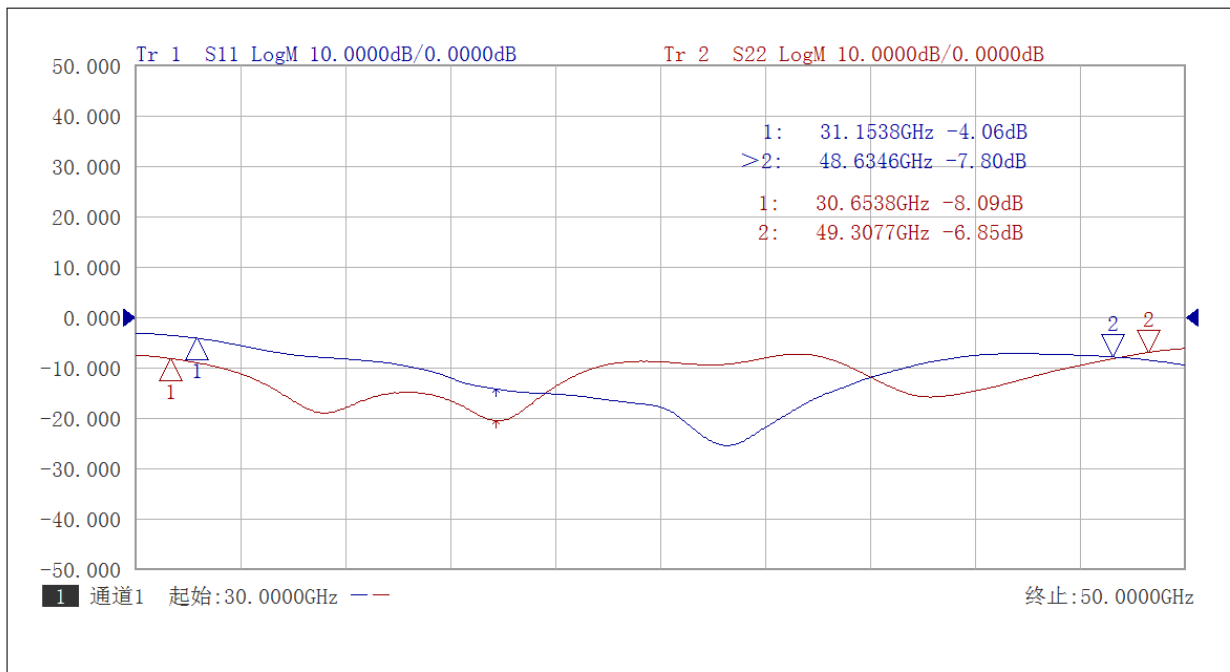


Test Data (25C)

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

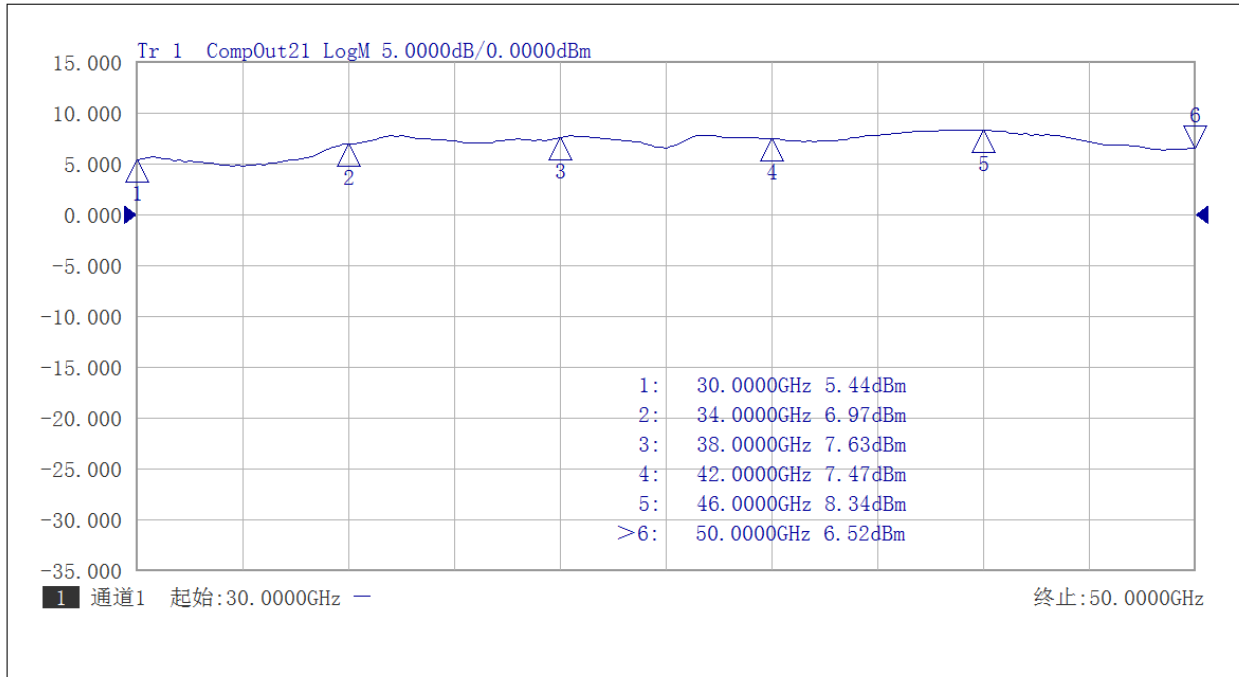


Gain vs Frequency

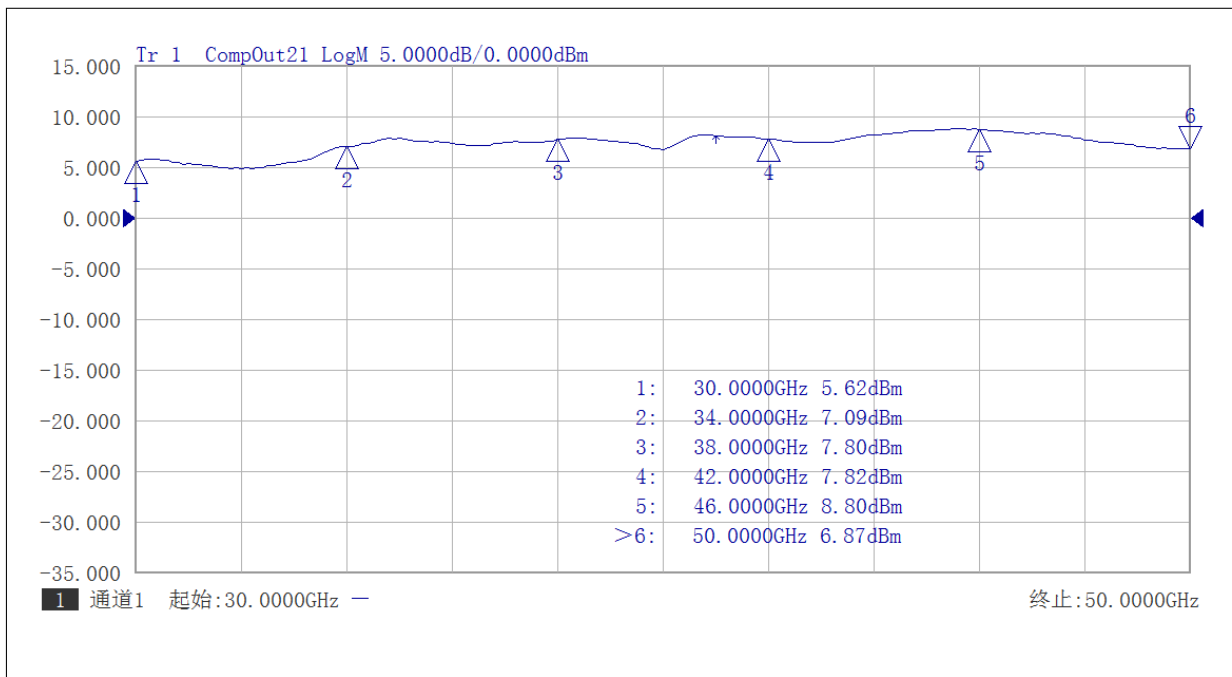


Return Loss vs Frequency





P1db vs Frequency



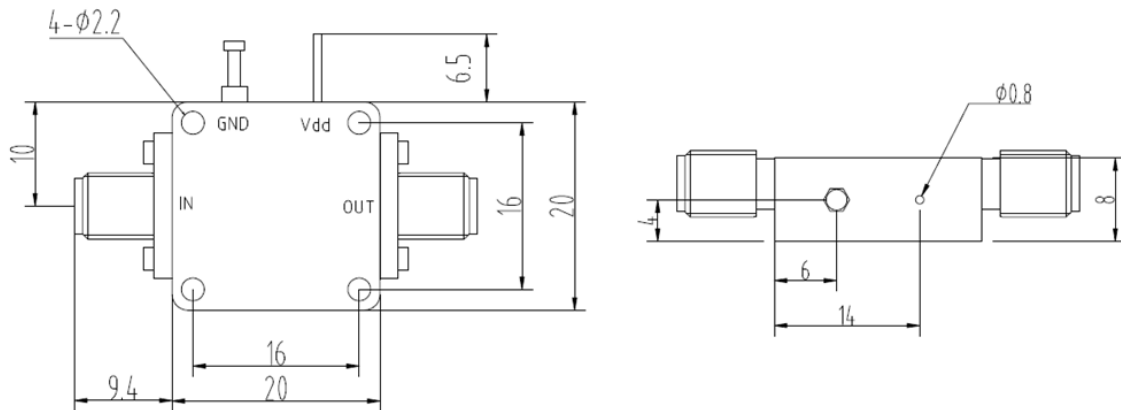
P3db vs Frequency





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.

