

E Band LNA, 20dB Gain, NF=4dB



Product Overview

AT-LNA-7186-2004 is a low noise amplifier operating in the 71-86 GHz frequency range. The LNA is packaged in a waveguide module using industry standard WR-12.

MMIC technology LNA Chip is used, which ensures reliable and repeatable unit-to-unit result. Higher gain amplifier can be achieved.

More information, please visit www.atmicrowave.com.

Advantages

- ✓ Frequency: 71-86GHz
- ✓ High Gain: 20dB
- ✓ NF: 4dB
- ✓ Single Supply

Application

- ✓ E Band Communication
- ✓ FOD (Foreigner Objects Debris)
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Key Features

| Parameter | Min | Typical | Max |
|--------------------|-----|----------|-----|
| Frequency | | 71-86GHz | |
| Gain | 17 | 20dB | |
| Gain Flatness | | +/- 3dB | |
| Noise Figure | | 4dB | 6dB |
| Output P1dB | | 0 dBm | |
| Psat | | +3dBm | |
| Drain Supply | | +5V/80mA | +8V |
| Input Return Loss | | -5dB | |
| Output Return Loss | | -5dB | |
| Spec Temp | | 25C | |





AT-LNA-7186-2004N

71-86GHz 20dB Gain, NF 4dB Low Noise Amplifier

Mechanical Information

| Item | Description |
|---------------------------|----------------|
| Input Port | WR-12 |
| Output Port | WR-12 |
| Case Material | Copper |
| Finish | Gold Plated |
| Weight (Without Heatsink) | 189g |
| Size: | 57.5x33x22.4mm |

Absolute Maximum Ratings Table

| Parameter | Value |
|-----------------------|--------------|
| Drain Supply | +8V |
| RF Input Power | -5dBm |
| 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.

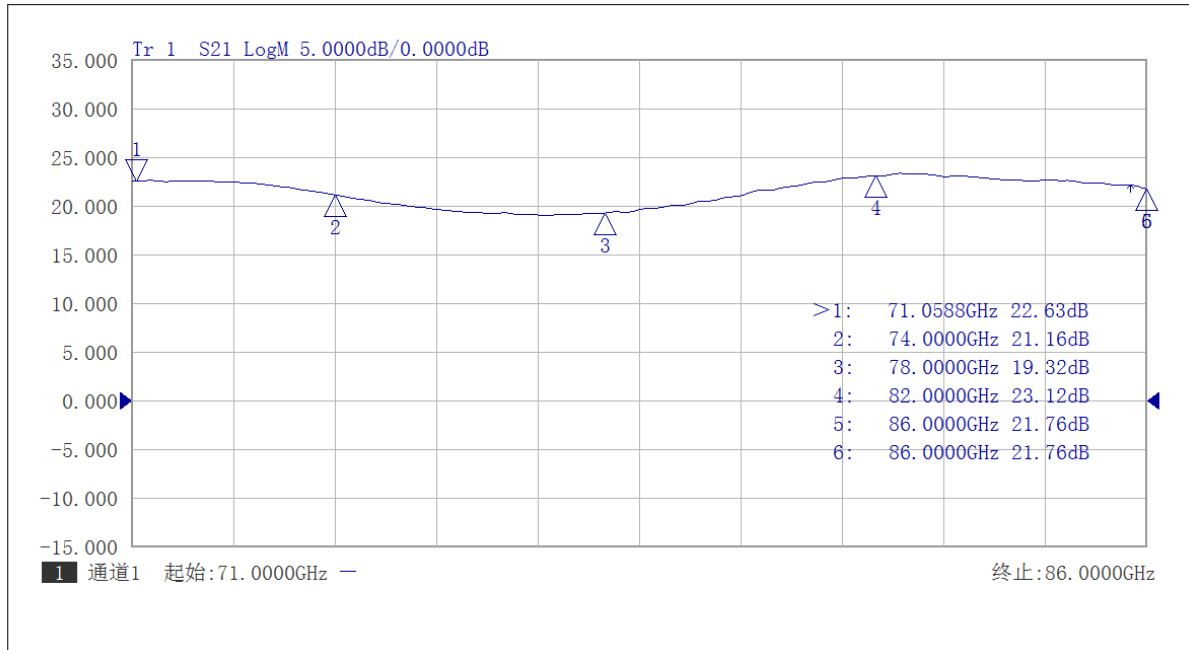
Part Number Selection Guide

| Item | Description |
|----------------|---|
| PN | Stand Module with DC Power Supply |
| PN-LCBT | L ow Cost, C ompact B ench- T op, +220V Supply with AC/DC Adapter |

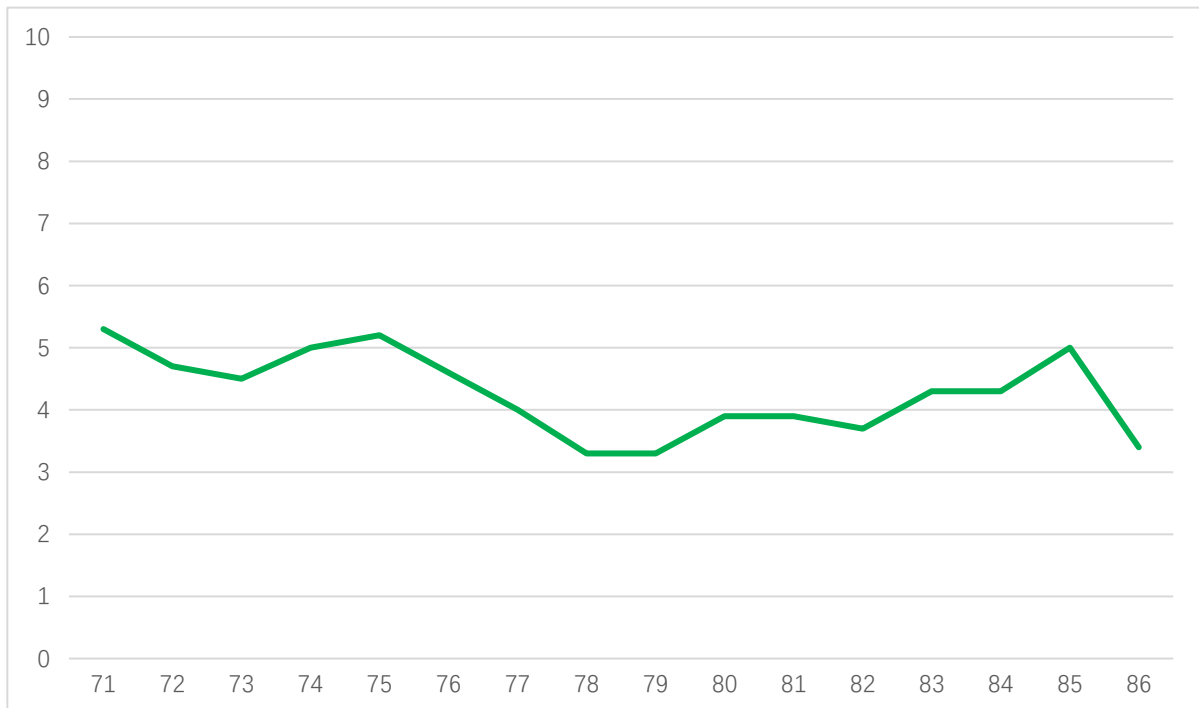


Test Data (25C)

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

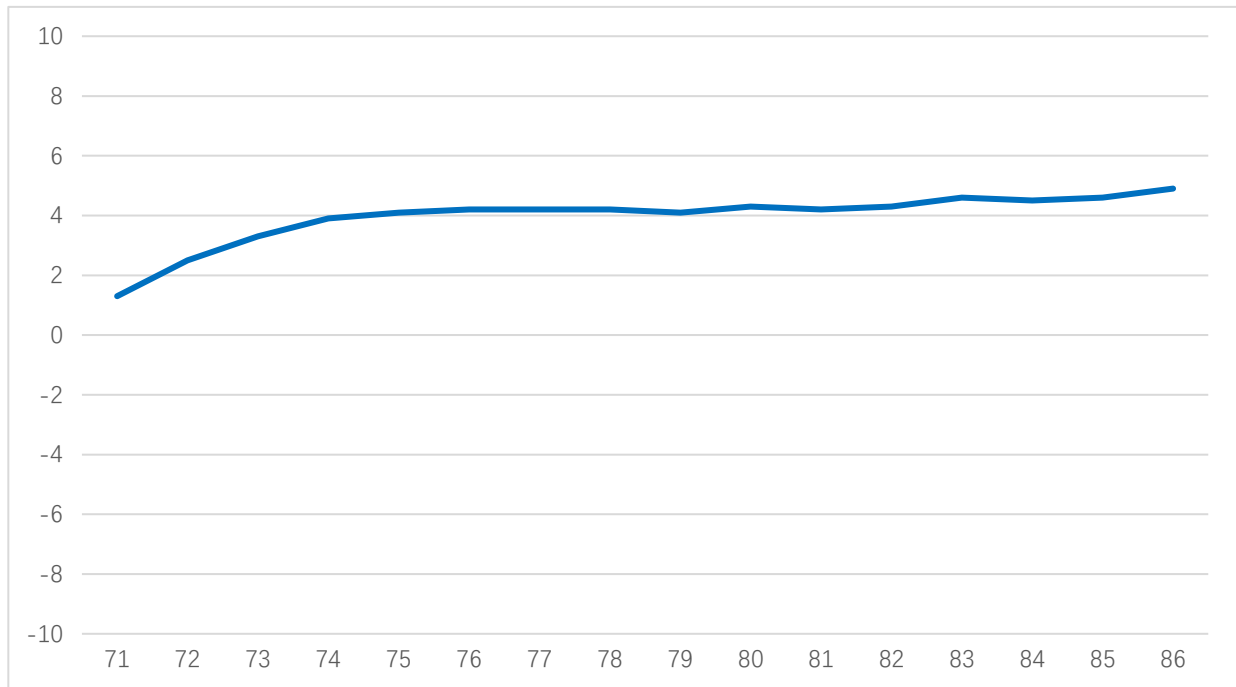


Gain vs Frequency



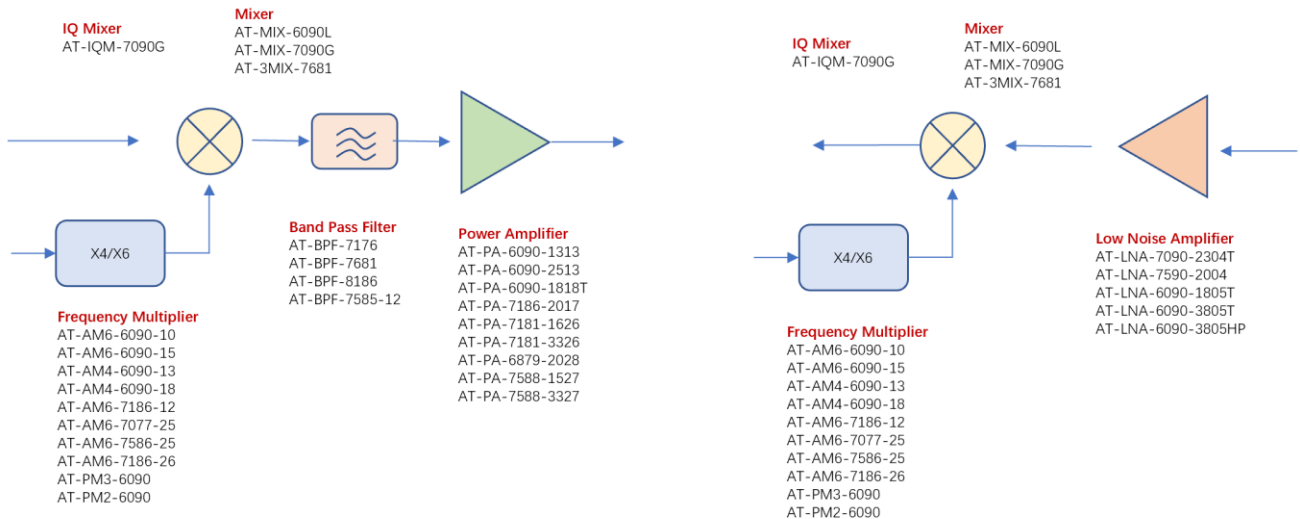
NF vs Frequency





Psat vs Frequency

E Band 60-90GHz



Dimension: (mm)

