# AT-LNA-5070-1805C

V Band Low Noise Amplifier

## 50-70GHz Low Noise Amplifier


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## Product Overview

AT-PA-5070-1805C is low noise amplifier with 18dB gain in the frequency of 50-70GHz. The DC power requirement is +5V/120mA. The module is with a standard WR-15 waveguide.

High gain modules with 35dB gain modules is available, AT-LNA-5070-3805C.

More information, please visit www.atmicrowave.com

## Advantages

- ✓ Frequency: 50-70GHz
- ✓ NF: 5dB
- ✓ Small signal gain: 18dB
- ✓ Single Power Supply

## Application

- ✓ V Band Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

## Key Features

| Parameter | Min | Typical | Max |
|---|---|---|---|
| Frequency | | 50-70GHz | |
| Gain | 15 | 18dB | |
| Drain Supply | | +5V | +8V |
| NF | | 5 dB | 6 |
| Input power | | -20dBm | -10dBm |
| P1Db | | +8dBm | |
| Psat | | +10dBm | |
| Current | | 110 mA | 120 |
| Input Return Loss | | -7dB | |
| Output Return Loss | | -7dB | |
| Spec Temp | | 25C | |

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Tel:021-6229 1233 Email:sales@atmicrowave.com www.atmicrowave.com

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## Mechanical Information

| Item | Description |
|---|---|
| Input Port | WR-15 |
| Output Port | WR-15 |
| Case Material | Copper |
| Finish | Gold Plated |
| Weight | 100g |
| Size: | 40x25x20 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.

## Part Number Selection Guide

| Item | Description |
|---|---|
| PN | Stand Module with DC Power Supply |
| PN-LCBT | Low Cost, Compact Bench-Top, +220V Supply with AC/DC Adapter |




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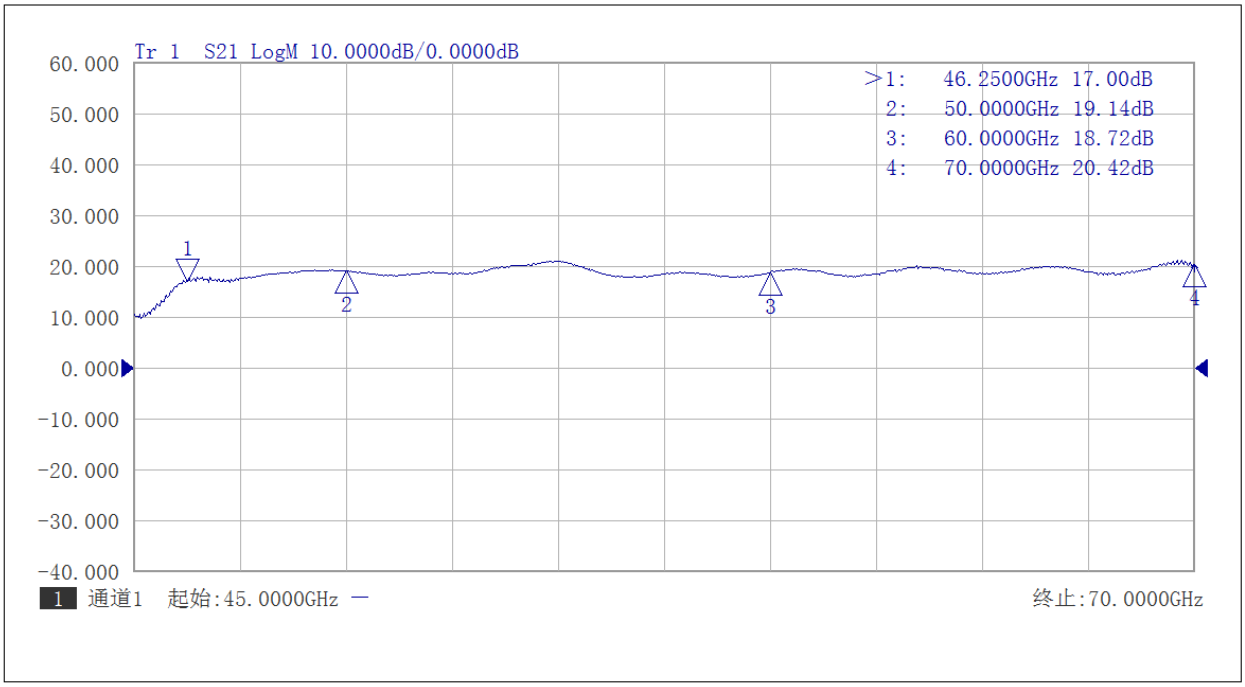
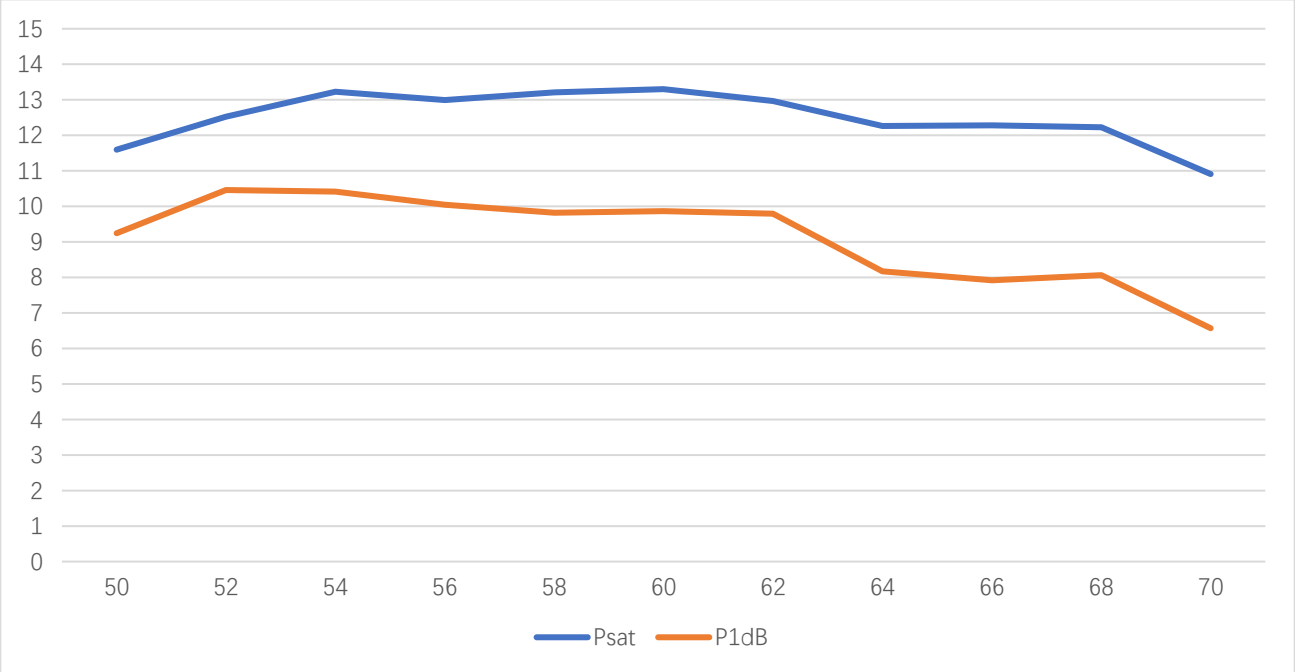
## Test Data (25C)

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

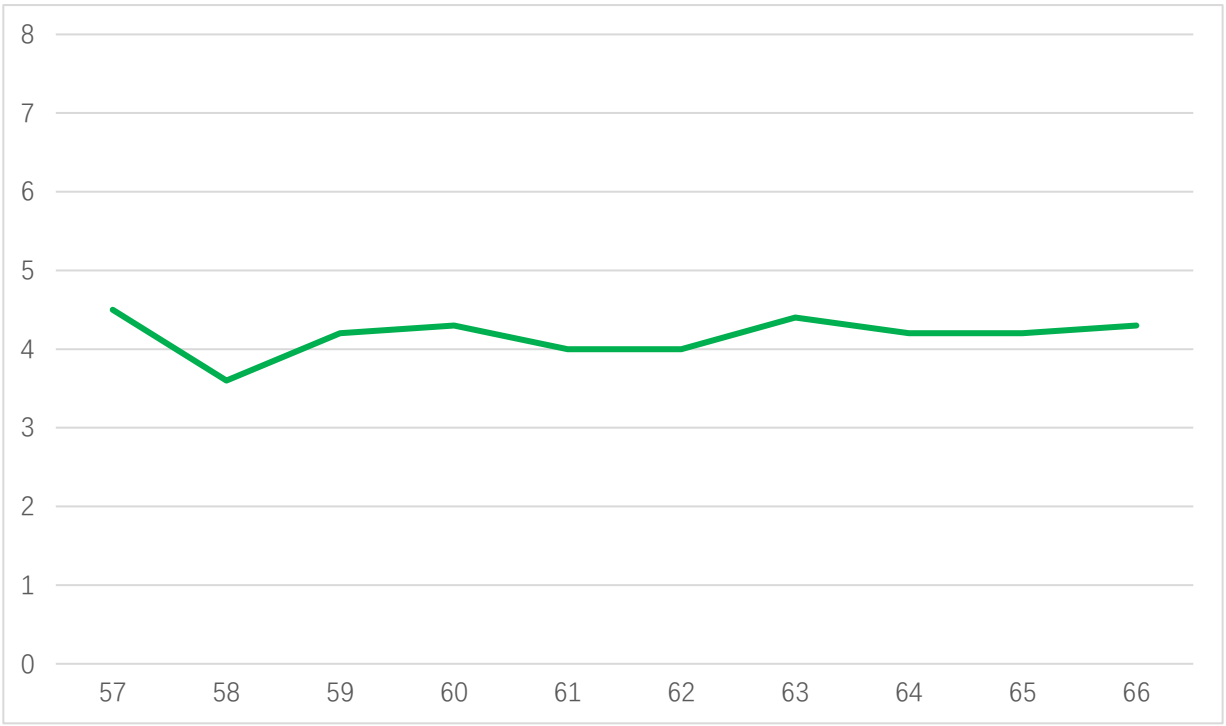
Vd=+5V, Id=110mA




Gain vs Frequency

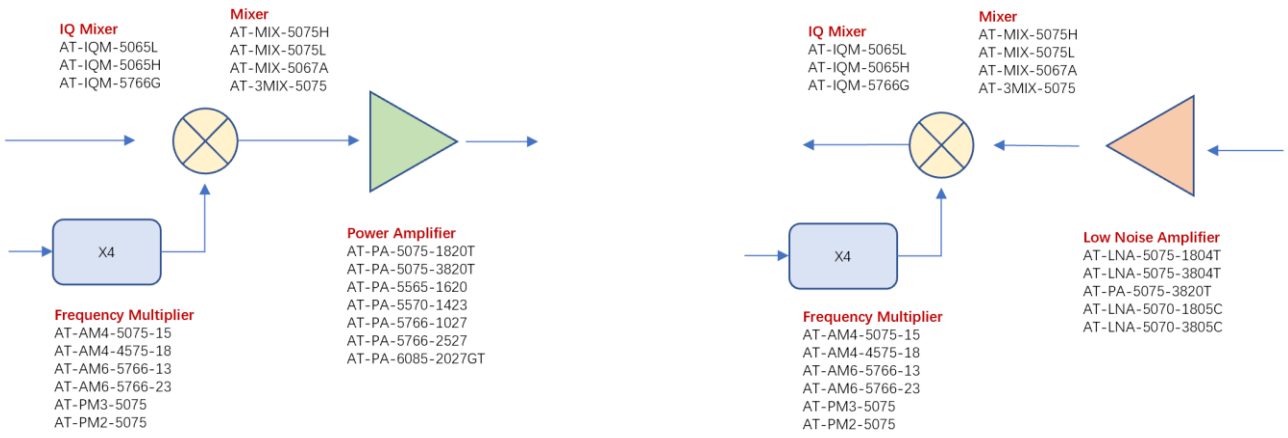



Psat and P1dB Vs Frequency




NF vs Frequency

## V Band 50-75GHz



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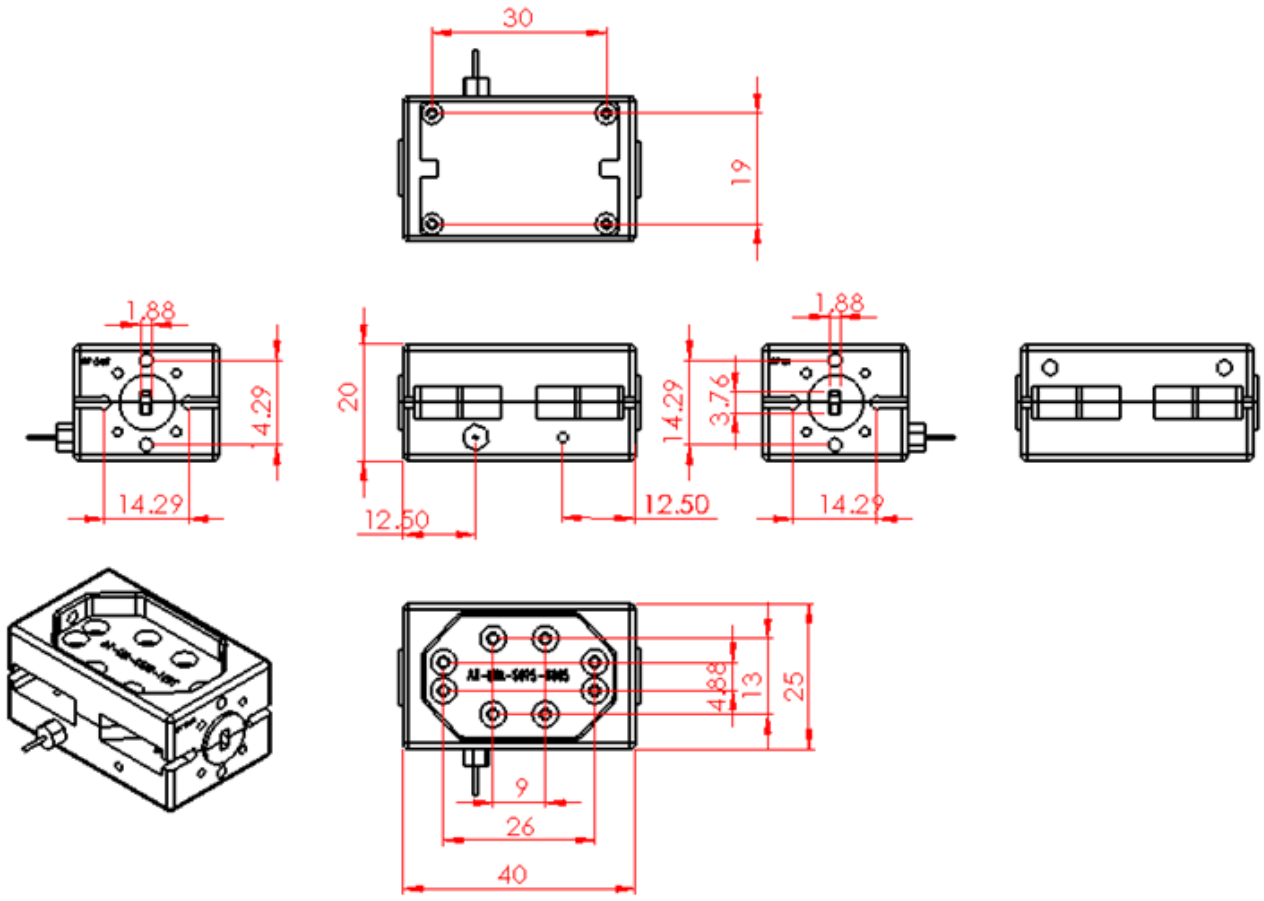
## Dimension: (unit in mm)

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