

10MHz-70GHz Broadband Amplifier Gain=40dB, Pout=+15dBm, 1.85mm

2023-7-7



Product Overview

AT-BB-0070-4015C is broadband amplifier from 10MHz-70GHz, with Pout=+15dBm, NF=6dB. It can be used both as Power amplifier or low noise amplifier. The DC power requirement is +8V/400mA. The module is with 1.85mm Female

The broadband amplifier has high gain, high linearity, low input/output return loss and flat gain response. Bench-top test equipment type with 110-240V power supply is available according to request.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 10MHz-70GHz
- ✓ Psat:+15dBm
- ✓ Small signal gain: 40dB
- ✓ Single Power Supply

Application

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

Key Features

| Parameter | Min | Typical | Max |
|-------------------------------|------|--|------|
| Frequency | | 10MHz-70GHz | |
| Gain | 37dB | 40dB | |
| P1dB | | 10MHz-30GHz: +14dBm 30GHz-70GHz: +12dBm | |
| Psat | | 10MHz-30GHz: +15dBm 30GHz-70GHz: +13dBm | |
| Drain Supply | +6V | +8V | +12V |
| Current | | 400 mA | |
| NF(1-50GHz) | | 6dB | |
| Input Return Loss(0.1-50GHz) | | -5dB | |
| Output Return Loss(0.1-50GHz) | | -5dB | |
| Spec Temp | | 25C | |





AT-BB-0070-4015C

10MHz-70GHz Broadband Amplifier

Mechanical Information

| Item | Description |
|---------------------------|---------------|
| Input Port | 1.85mm Female |
| Output Port | 1.85mm Female |
| Case Material | Copper |
| Finish | Gold Plated |
| Package Sealing | Epoxy Sealed |
| Weight (Without Heatsink) | 180g |
| Size: | See outline |

Absolute Maximum Ratings Table

| Parameter | Value |
|-----------------------|--------------|
| Drain Supply | +13V |
| RF Input Power | +10 dBm |
| Operating Temperature | -40 to +85C |
| Storage Temperature | -55 to +125C |

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.

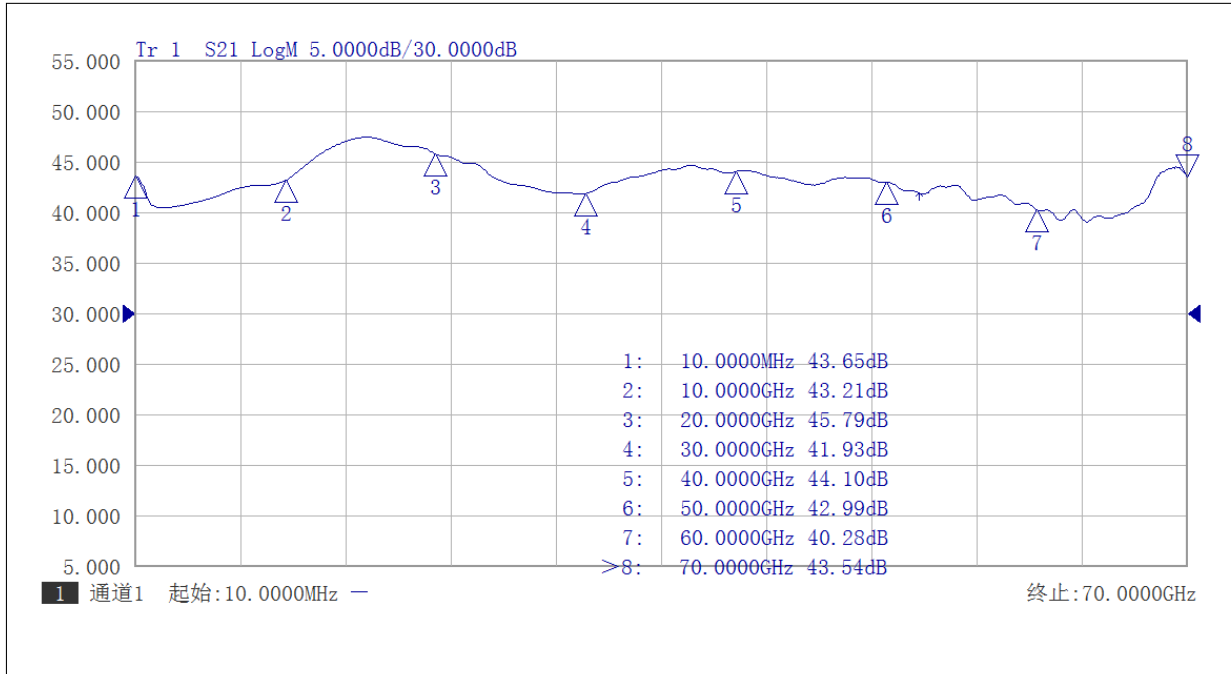
Part Number Selection Guide

| Item | Description |
|-------------------------------|---|
| AT-BB-0070-4015C | Stand Module with DC Power Supply |
| AT-BB-0070-4015C- LCBT | L ow Cost, C ompact B ench- T op, +220V Supply with AC/DC Adapter |

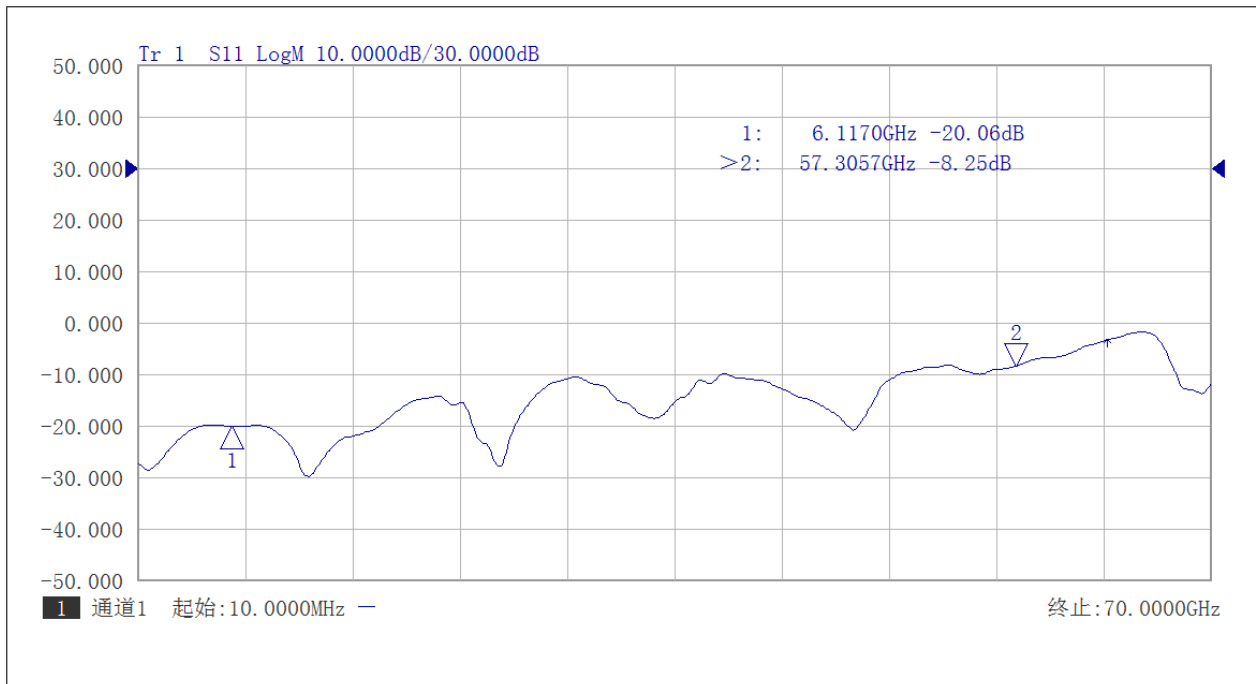


Test Data (25C)

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

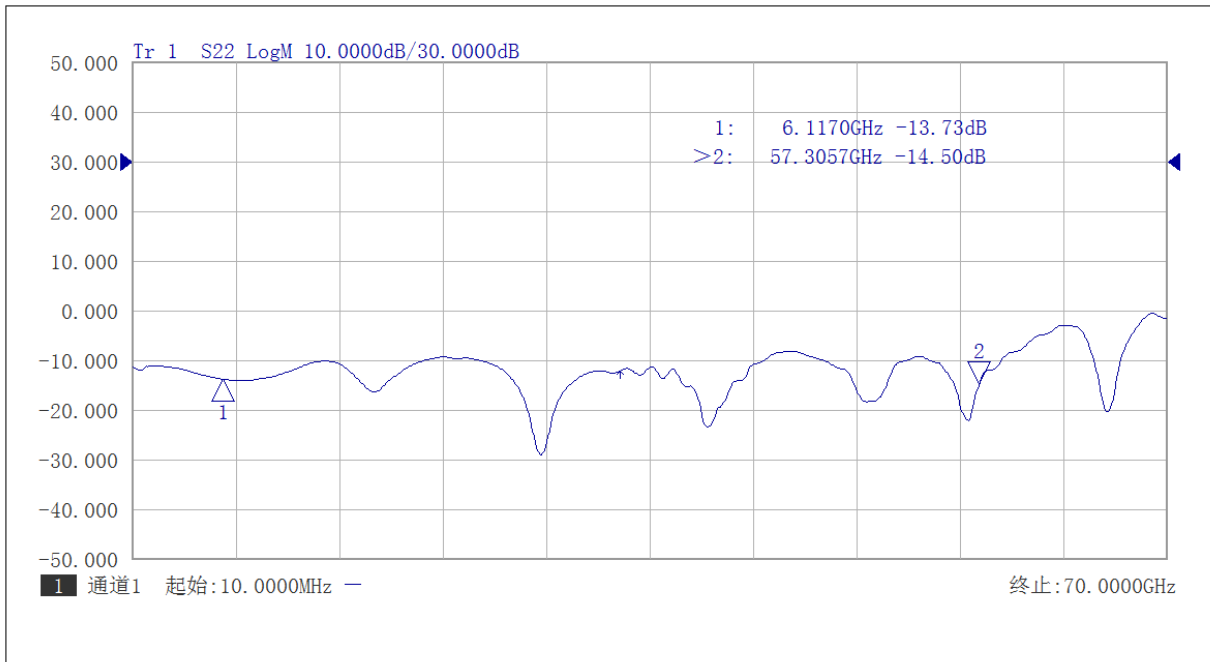


Gain vs Frequency

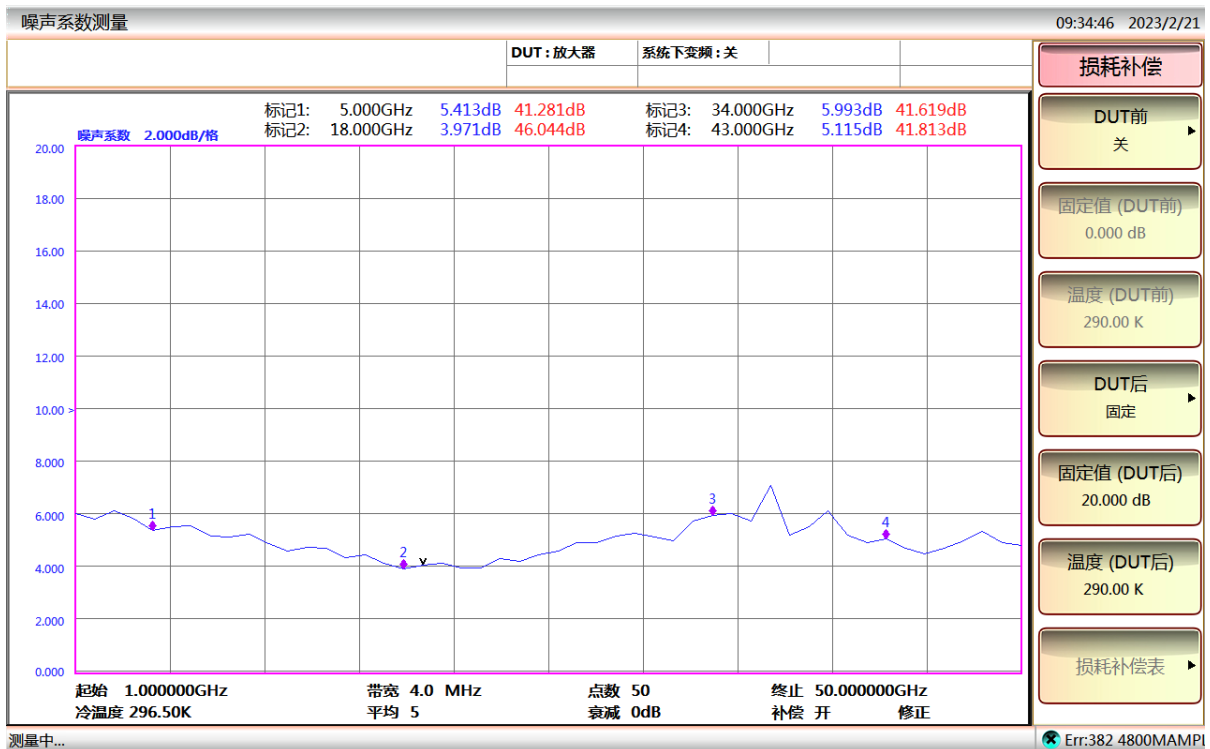


Input Return Loss vs Frequency



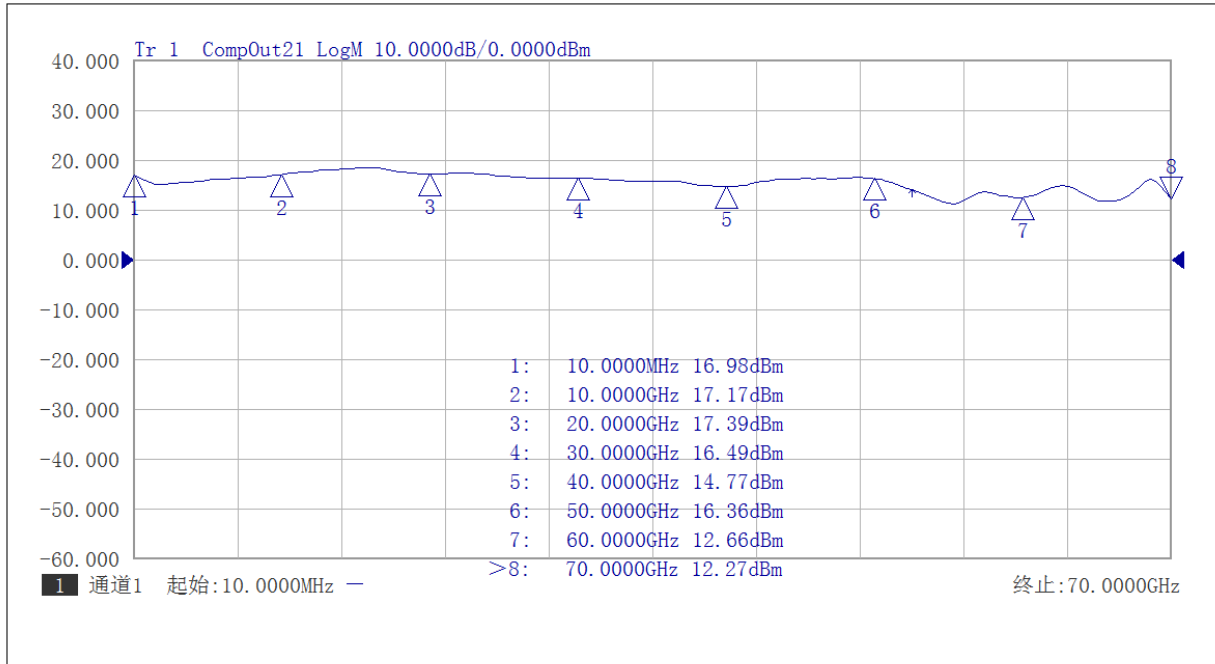


Output Return Loss vs Frequency

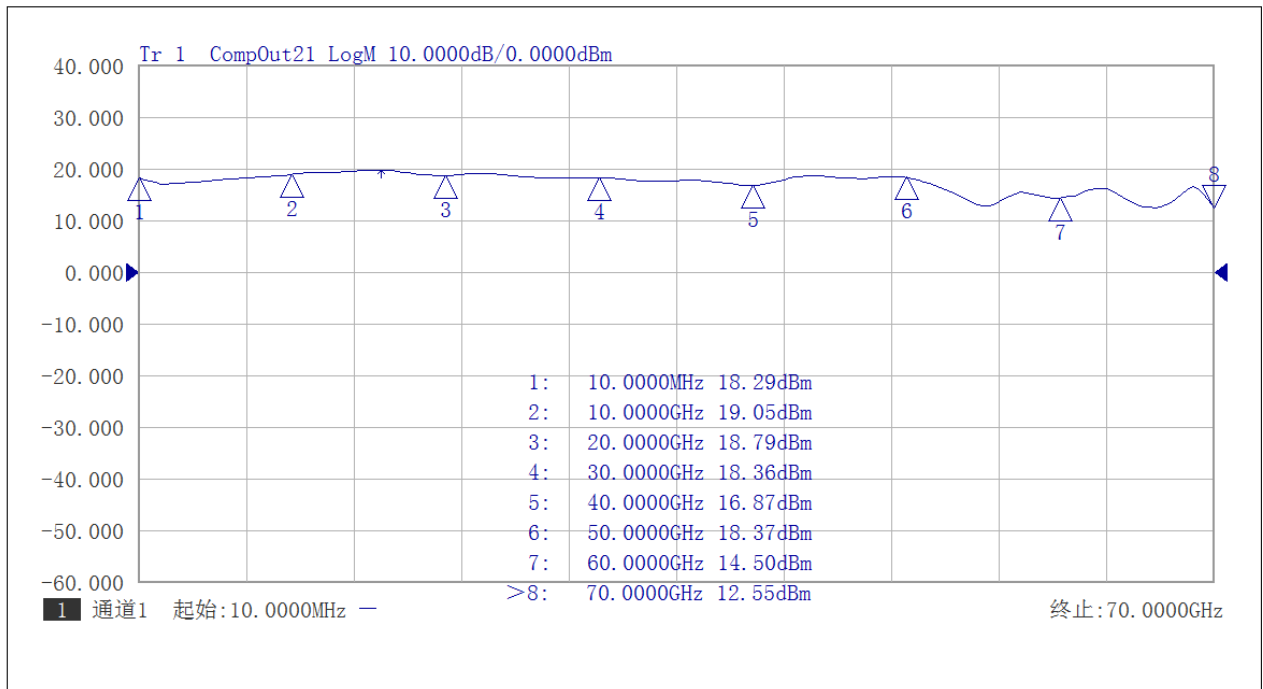


NF vs Frequency 1-50GHz





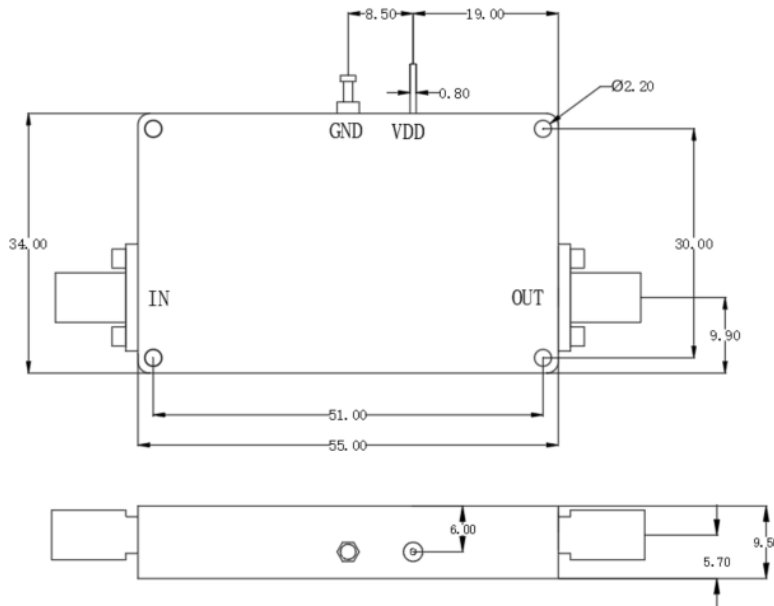
P1db vs Frequency



P3db vs Frequency



Dimension: (unit in mm)

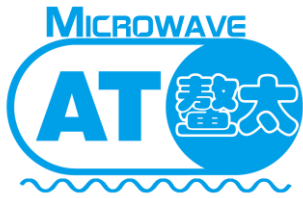


| | <26.5GHz | <40GHz | <50GHz | <67GHz |
|------------|----------|--------|--------|--------|
| Connector | SMA | 2.92mm | 2.4mm | 1.85mm |
| Lenth of a | 9.4mm | 9.5mm | 10.8mm | 11.3mm |

Note: Female Default. Contact with us for other types.

Heat Sink Required If Case Temp Higher than 50C





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-LCBT Option Dimension: (unit in mm)

