

## 50-75GHz Low Noise Amplifier

### Super Low NF=2.5dB, High Gain=38dB

2023-1-1



#### Product Overview

AT-PA-5075-3825T is low noise amplifier with 38dB gain in the frequency of 50-75GHz. The DC power requirement is +5V/100mA. The module is with a standard WR-15 waveguide.

Lower gain modules with 18dB gain modules is available.

More information, please visit [www.atmicrowave.com](http://www.atmicrowave.com)

#### Advantages

- ✓ Frequency: 50-75GHz
- ✓ NF: 2.5dB
- ✓ Small signal gain: 38dB
- ✓ Single Power Supply

#### Application

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

#### Key Features

Parameter	Min	Typical	Max
Frequency		50-75GHz	
Gain	34	38dB	
Gain Flatness		+/-3dB	
Drain Supply		+5V	+8V
NF		2.5 dB	3.5 dB
P1Db		+5dBm	
Psat		+8dBm	
Current		100mA	
Input Return Loss		-8dB	
Output Return Loss		-8dB	
Spec Temp		25C	





# AT-LNA-5075-3825T

## Full V Band Low Noise Amplifier

### Mechanical Information

Item	Description
Input Port	WR-15 UG-385/U Flange with anti-cocking Flange
Output Port	WR-15 UG-385/U Flange with anti-cocking Flange
Case Material	Copper
Finish	Gold Plated
Weight	100g
Size:	See outline

### Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+9V
RF Input Power	+10dBm
Operating Temperature	0 to +50C
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
PN	Stand Module with DC Power Supply
<b>PN-LCBT</b>	<b>L</b> ow Cost, <b>C</b> ompact <b>B</b> ench- <b>T</b> op, +220V Supply with AC/DC Adapter



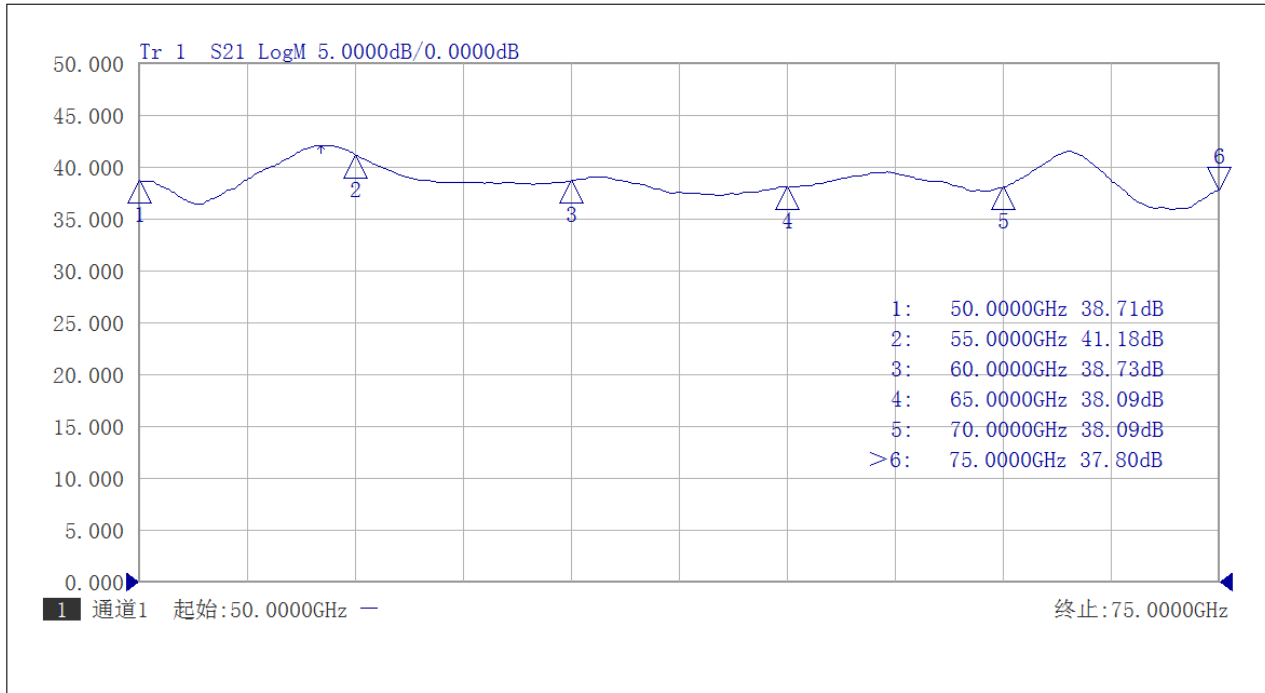


# AT-LNA-5075-3825T

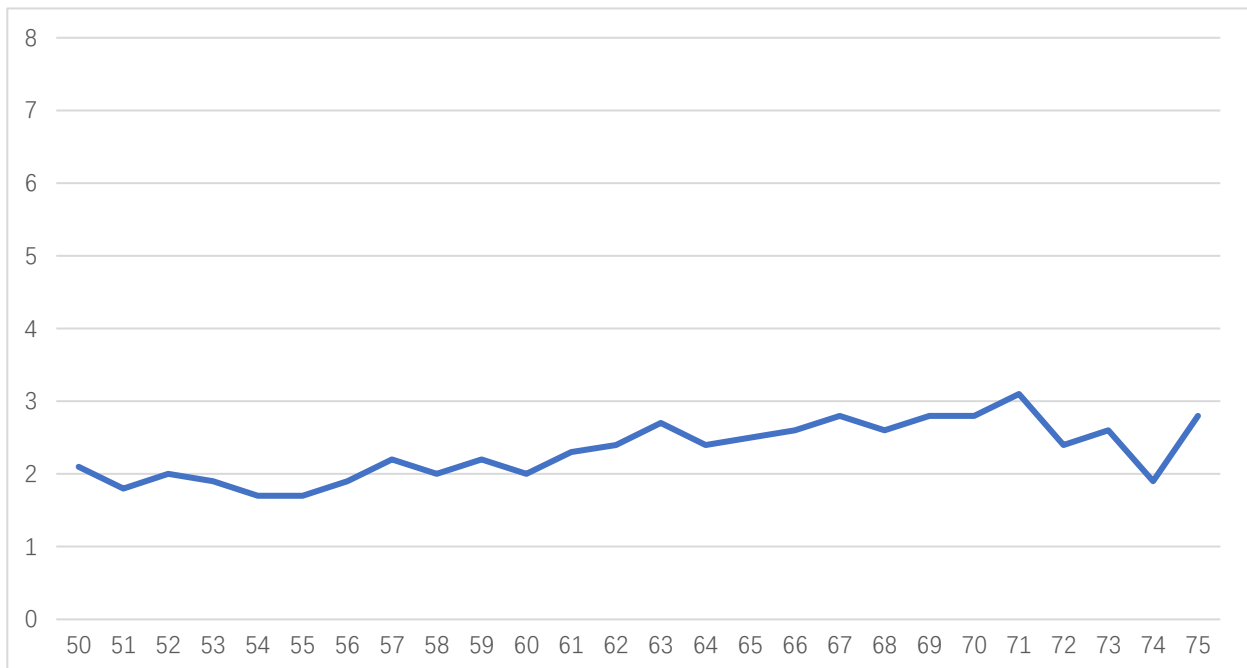
Full V Band Low Noise Amplifier

## Test Data (25C)

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

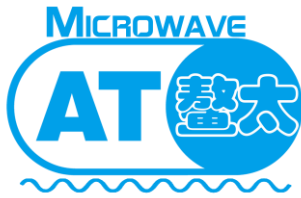


Gain vs Frequency



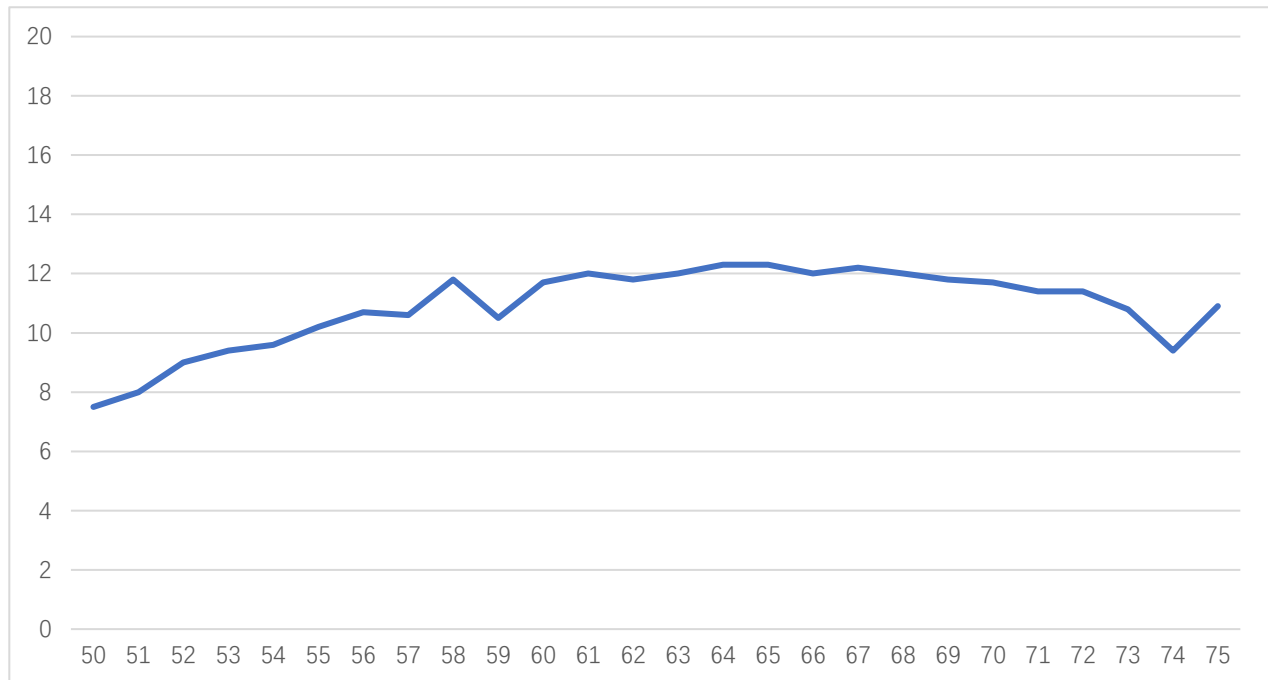
NF vs Frequency





# AT-LNA-5075-3825T

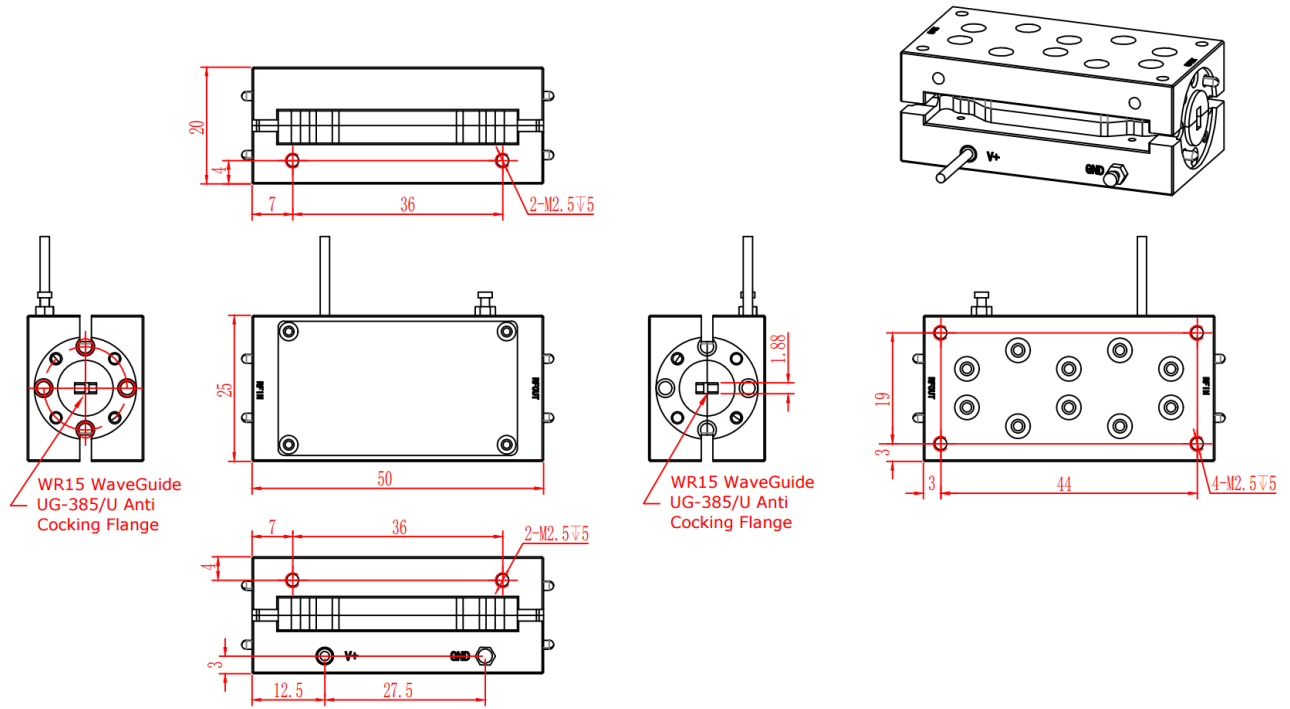
Full V Band Low Noise Amplifier



Psat vs Frequency



## Dimension: (unit in mm)



## PCN

Date	Description
2022-12-1	Outline updated with anti-cocking flange. All RF Performance un-changed.

