



# AT-PA-5075-3820T

50-75GHz Medium Power Amplifier

## Full V Band High Power Amplifier Super Low NF=4dB

2021-5-30



### Product Overview

AT-PA-5075-3820T is high power amplifier with +20dBm output power in the frequency of 50-75GHz. The DC power requirement is +5V/600mA. The module is with a standard WR-15 waveguide.

The power amplifier has high gain, high linearity, low input/output return loss and flat gain response.

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

### Advantages

- ✓ Frequency: 50-70GHz
- ✓ P1dB:+20dBm
- ✓ 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	35	38 dB	
P1Db		+18dBm	
Psat		+20dBm	
NF		5dB	
Drain Supply		+5V	+8V
Current		600 mA	
Input Return Loss		-7dB	
Output Return Loss		-7dB	
Spec Temp		25C	

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## Mechanical Information

Item	Description
Input Port	WR-15
Output Port	WR-15
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	100g
Size:	50x30x30 mm

## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+9V
RF Input Power	+10dBm
Operating Temperature	0 to +50C
Storage Temperature	-65 to +150C

### 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.

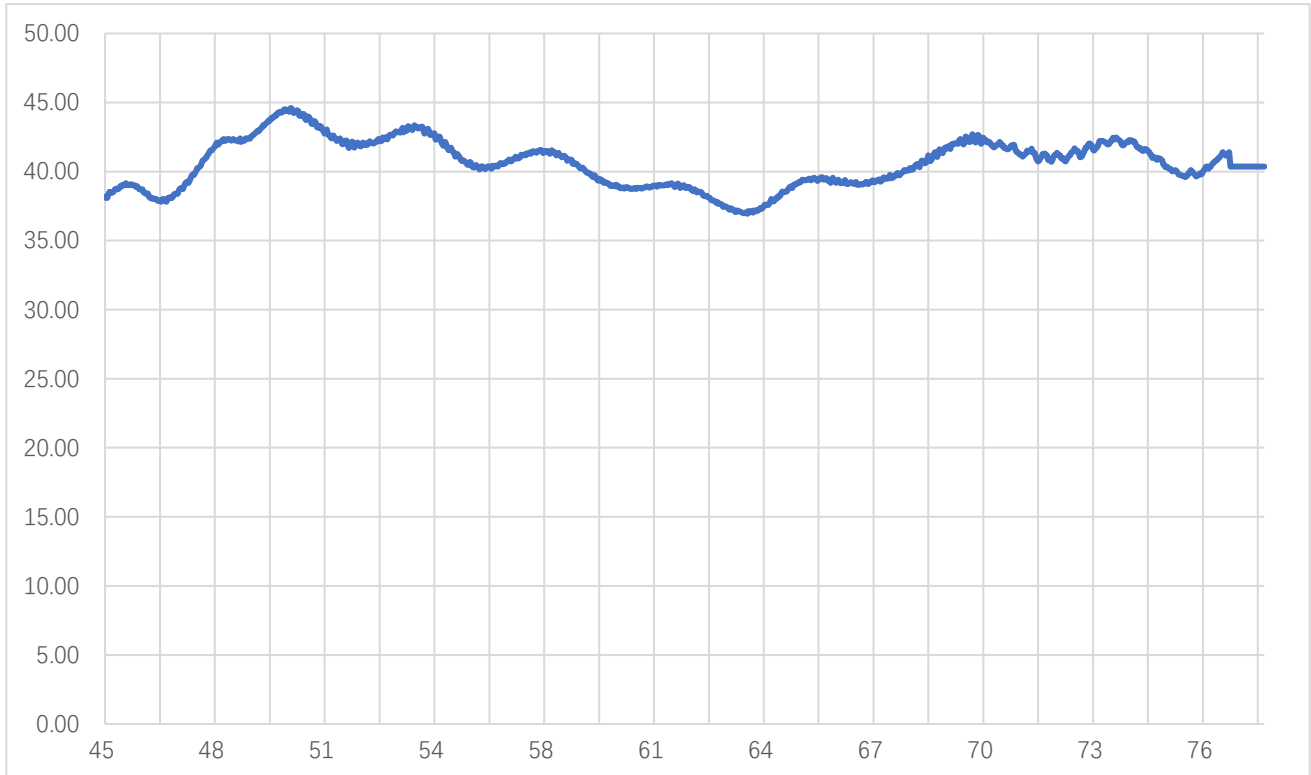




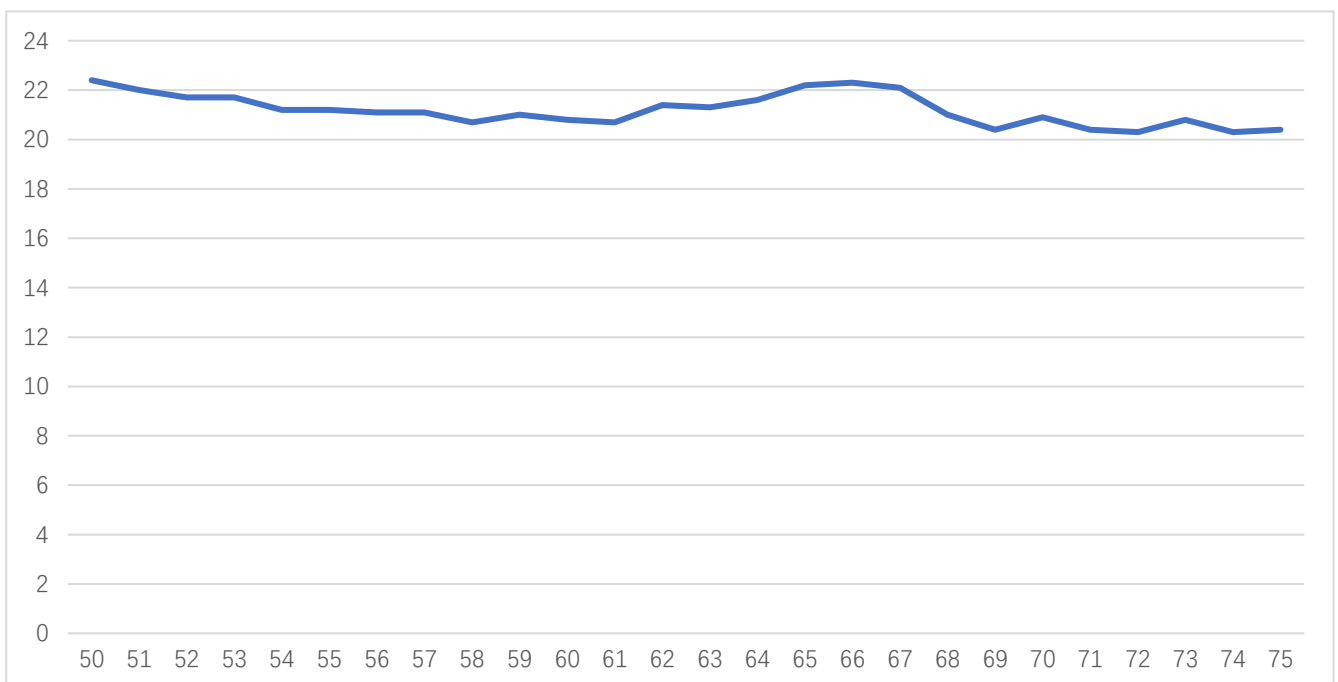
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## Test Data:

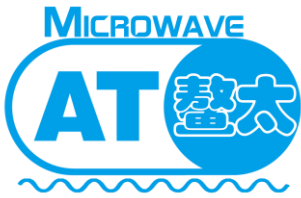


Gain vs Frequency



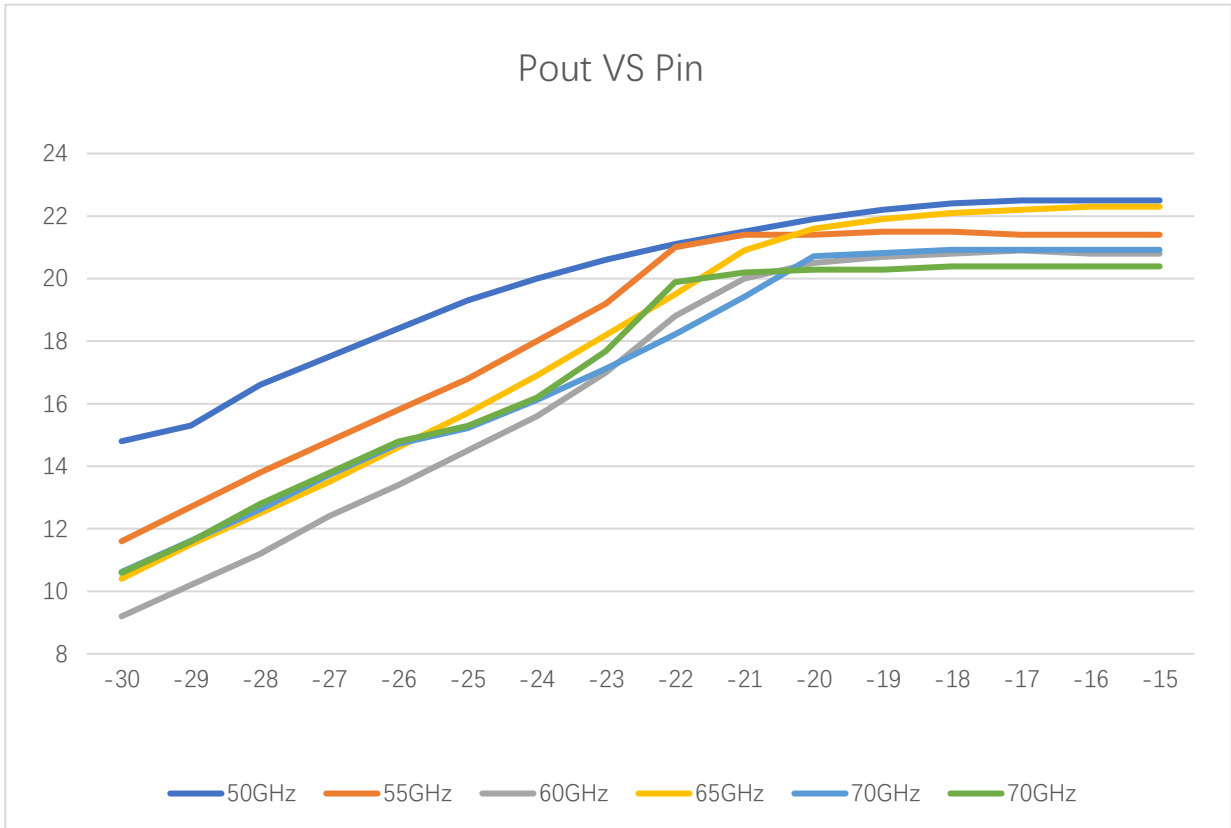
Psat vs Frequency



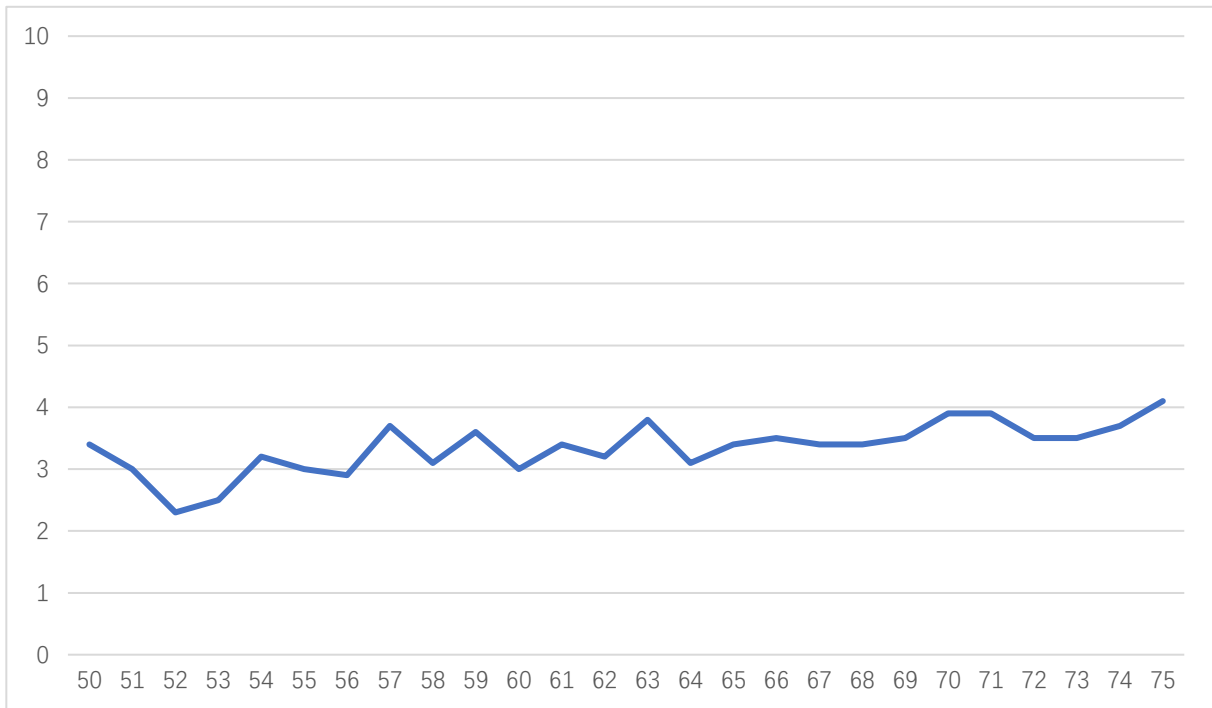


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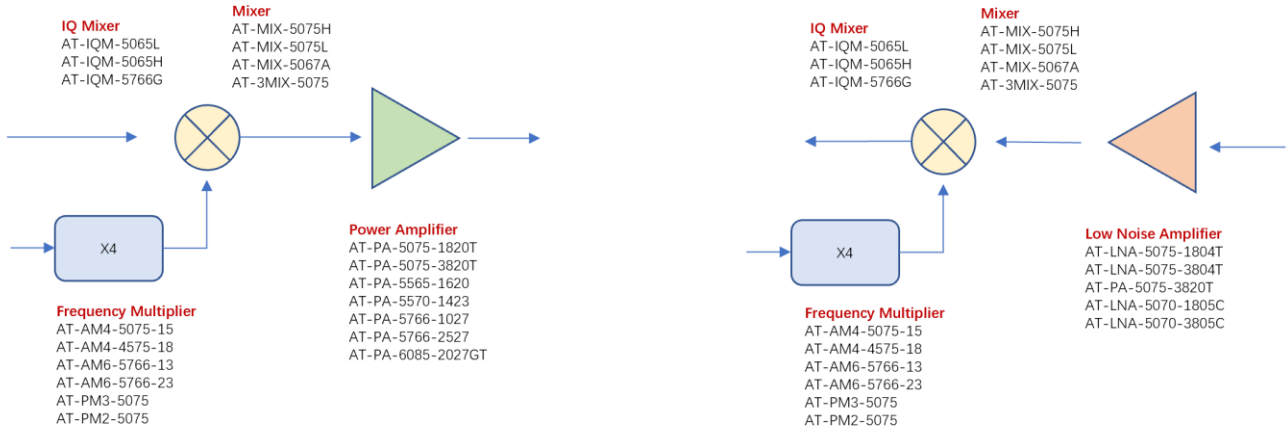
Pout vs Pin



NF vs Frequency



### V Band 50-75GHz



### Dimension: (unit in mm)

