

50-70GHz Broadband Low Noise Amplifier



Product Overview

AT-LNA-5070-3805C is low noise amplifier with 38dB gain in the frequency of 50-70GHz. The DC power requirement is +5V/250mA. The module is with a standard WR-15 waveguide.

This module can be used from 50-75GHz with some performance degradation. Lower gain modules with 18d gain modules is available by AT-LNA-5070-1805C.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 50-70GHz
- ✓ NF: 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		50-70GHz	
Gain	33	38dB	
Drain Supply		+5V	+8V
NF		5 dB	8
Input power		-20dBm	+0dBm
P1Db		+14dBm	
Psat		+16dBm	
Current		250 mA	300
Input Return Loss		-8dB	
Output Return Loss		-8dB	
Spec Temp		25C	





AT-LNA-5070-3805C

V Band Low Noise Amplifier

Mechanical Information

Item	Description
Input Port	WR-15
Output Port	WR-15
Case Material	Copper
Finish	Gold Plated
Weight	135g
Size:	50X25X20 mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+9V
RF Input Power	+10 dBm
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.

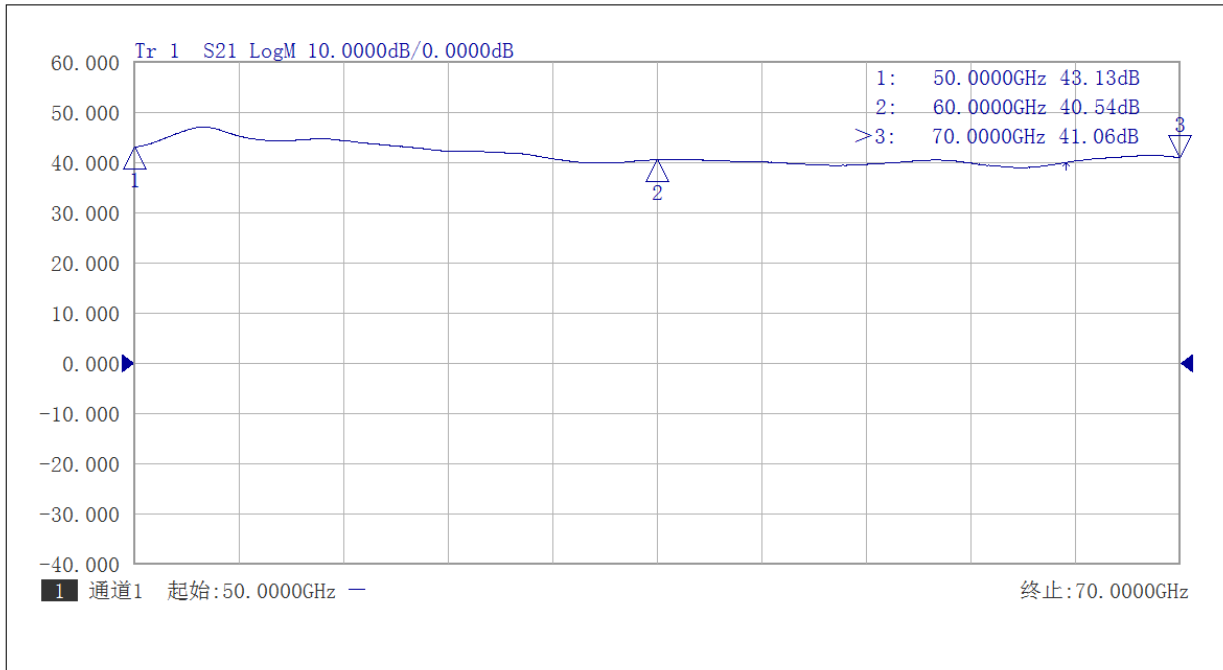
Part Number Selection Guide

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

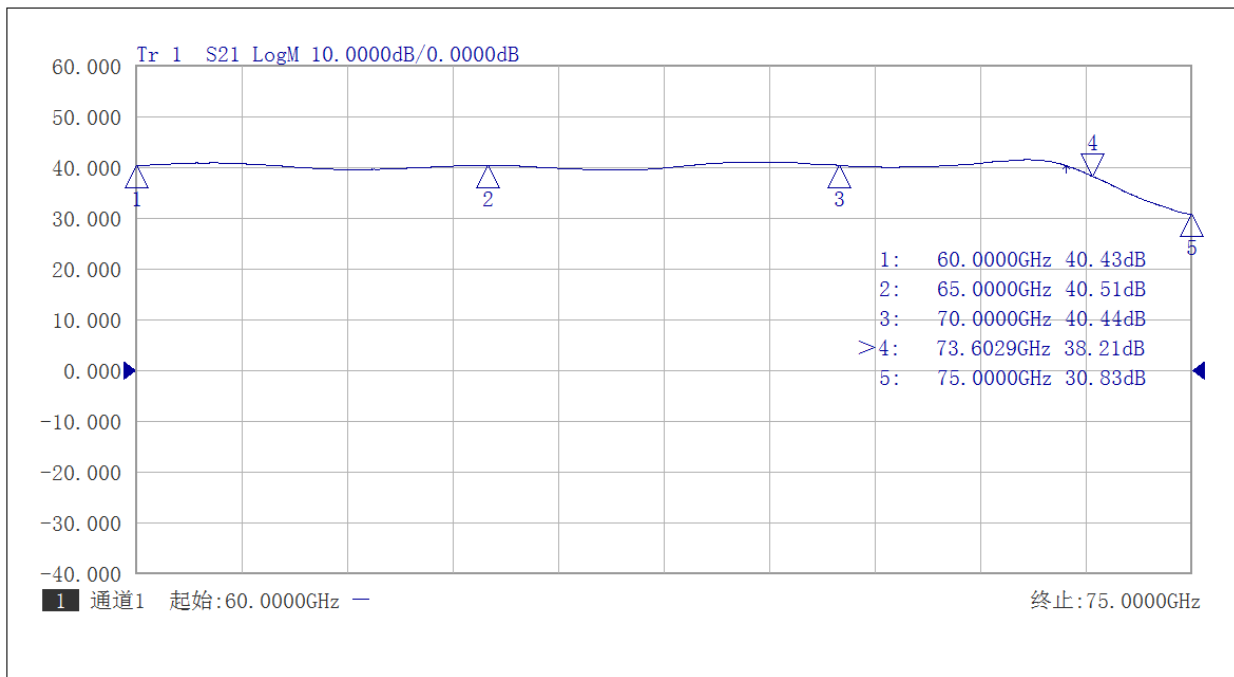


Test Data (25C)

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

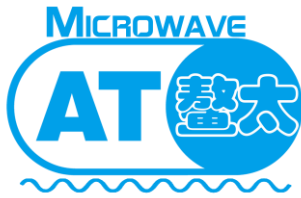


Gain vs Frequency 50-70GHz



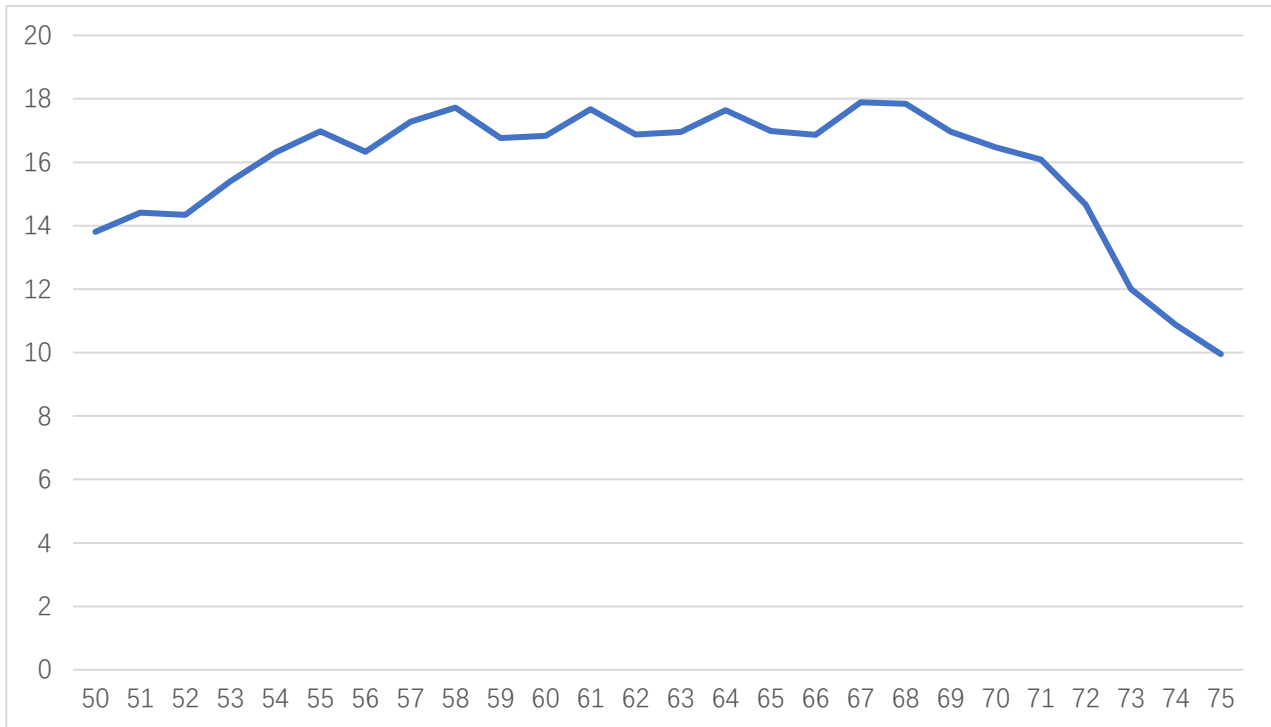
Gain vs Frequency 60-75GHz



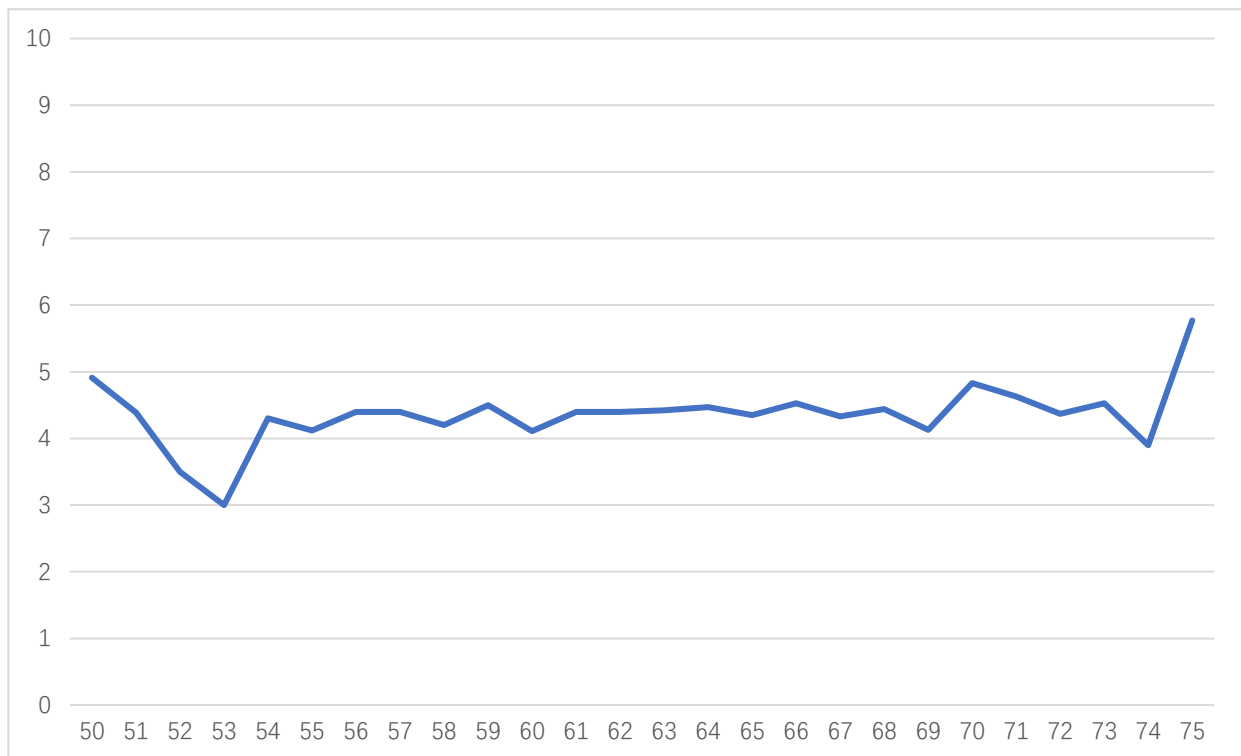


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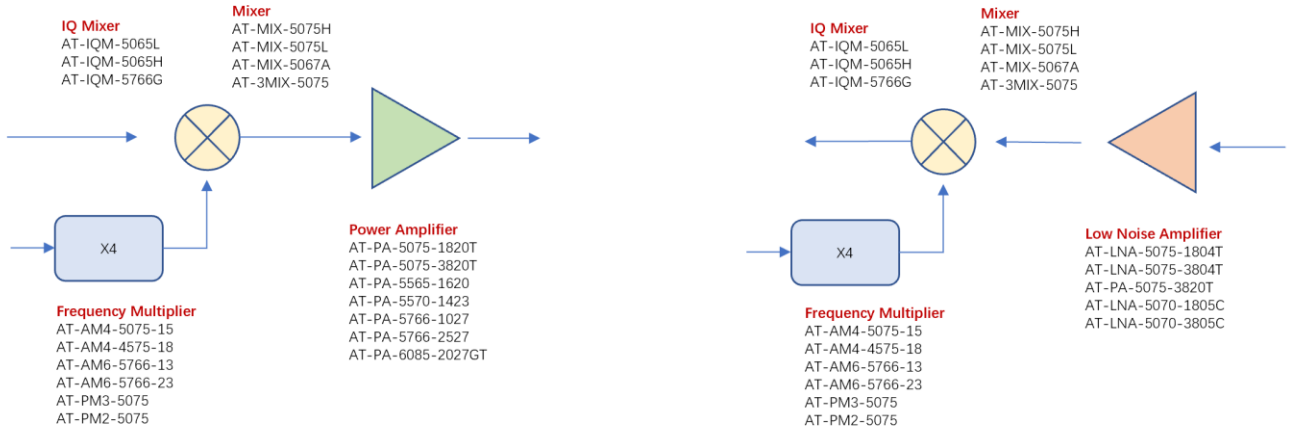
Pout vs Frequency



NF vs Frequency



V Band 50-75GHz



Dimension: (unit in mm)

