

W Band Low Noise Amplifier, 90-98GHz High Gain=45dB, Low NF=4dB

2022-3-15



Product Overview

AT-LNA-9098-4504Y is a low noise amplifier operating in the 90-98 GHz frequency range. The LNA is packaged in a waveguide module using industry standard WR-10.

This LNA can also be used from 75-110GHz with some reduce performance. No guarantee for performance out of 90-98GHz.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 90-98GHz
- ✓ Gain: 45dB
- ✓ NF: 4dB
- ✓ Single Supply

Application

- ✓ W band Imaging
- ✓ FOD (Foreigner Objects Debris)
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Key Features

Parameter	Min	Typical	Max
Frequency		90-98GHz	
Gain	43dB	45dB	
Gain Flatness		+/-2dB	
Input Power		-45dBm	-10dBm
Noise Figure		4dB	5.5dB
P1dB		+1dBm	
Psat		+3dBm	
Drain Supply		+5V	+8V
Current		70mA	
Input Return Loss		-7dB	
Output Return Loss		-7dB	
Spec Temp		25C	





AT-LNA-9098-4504Y

90-98GHz 45dB Gain Low Noise Amplifier

Mechanical Information

Item	Description
Input Port	WR-10
Output Port	WR-10
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	130g
Size:	See outline

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+9V
RF Input Power	+0dBm
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	L ow Cost, C ompact B ench- T op, +220V Supply with AC/DC Adapter



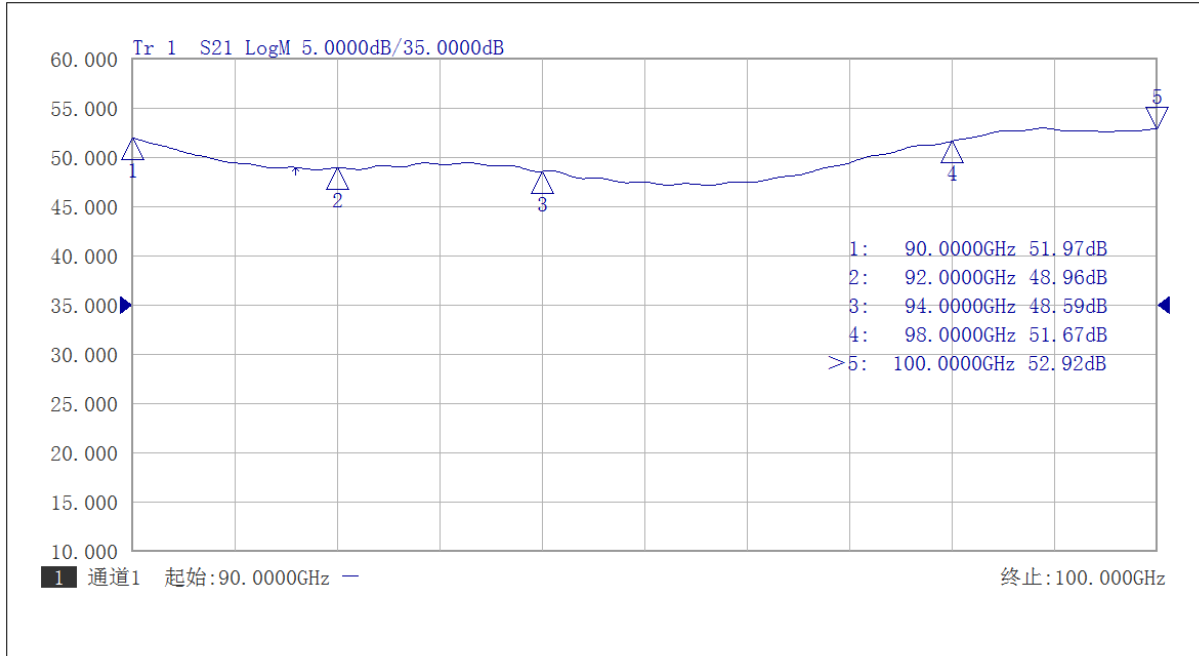


AT-LNA-9098-4504Y

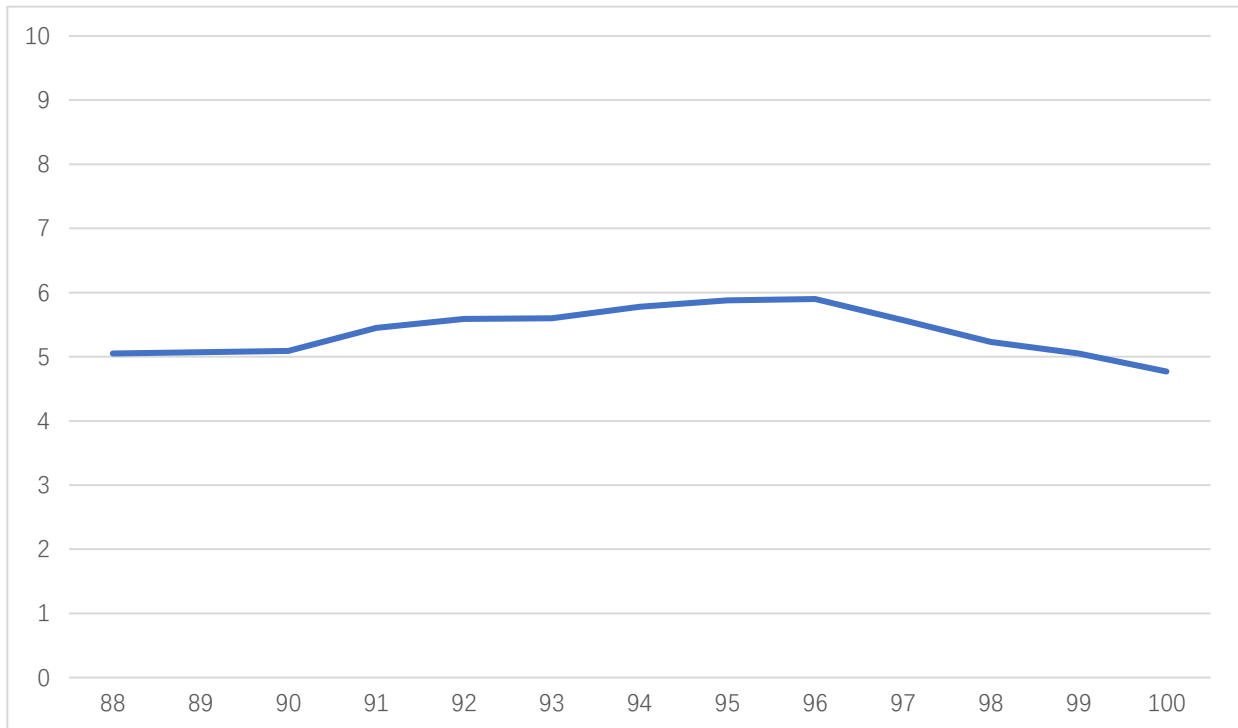
90-98GHz 45dB Gain Low Noise Amplifier

Test Data (25C)

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



Gain vs Frequency 90-98GHz



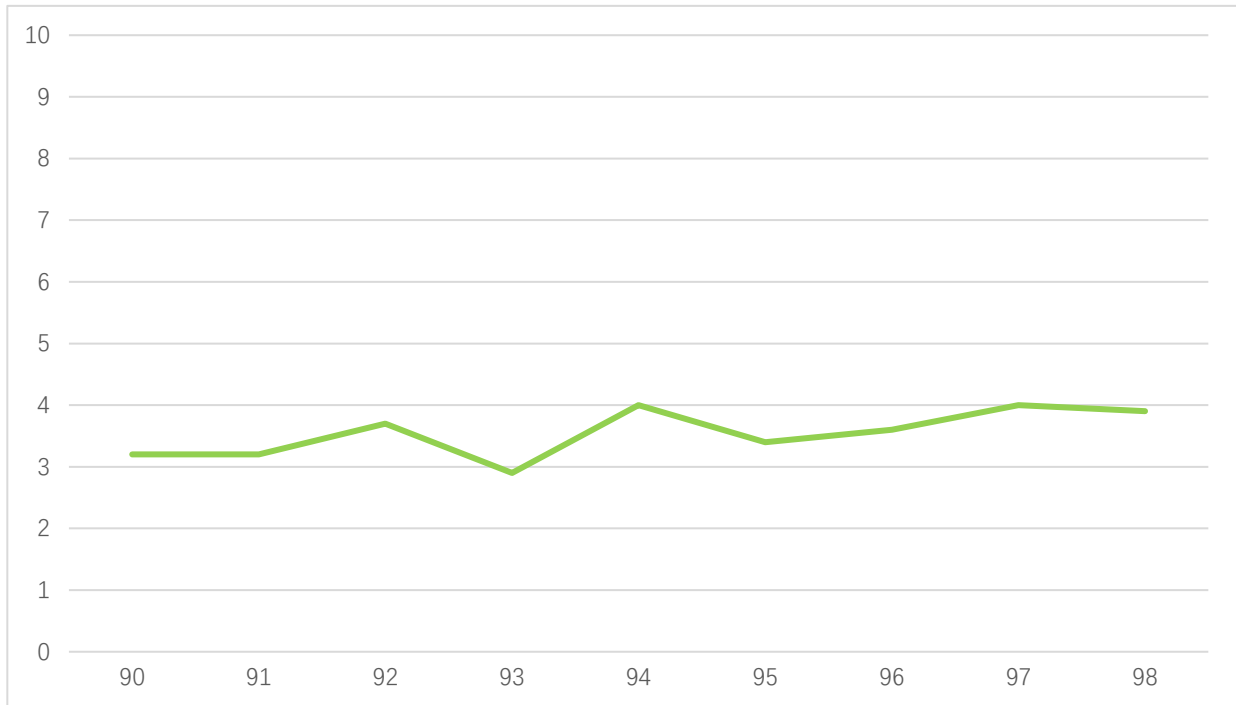
Psat vs Frequency





AT-LNA-9098-4504Y

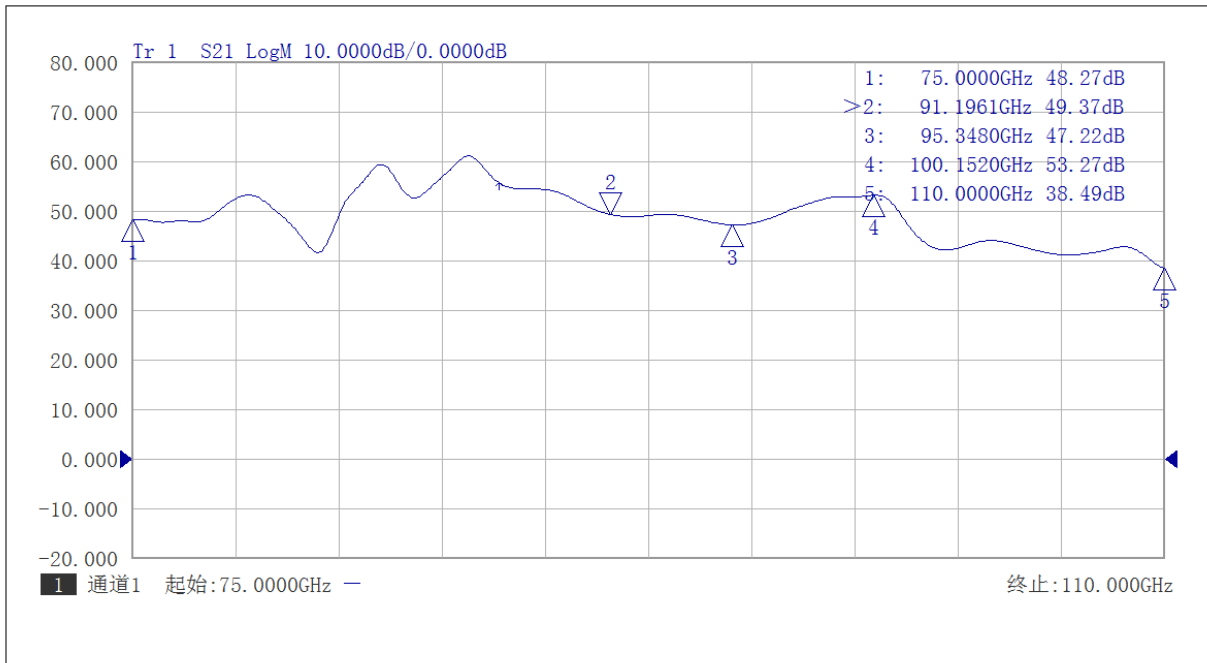
90-98GHz 45dB Gain Low Noise Amplifier



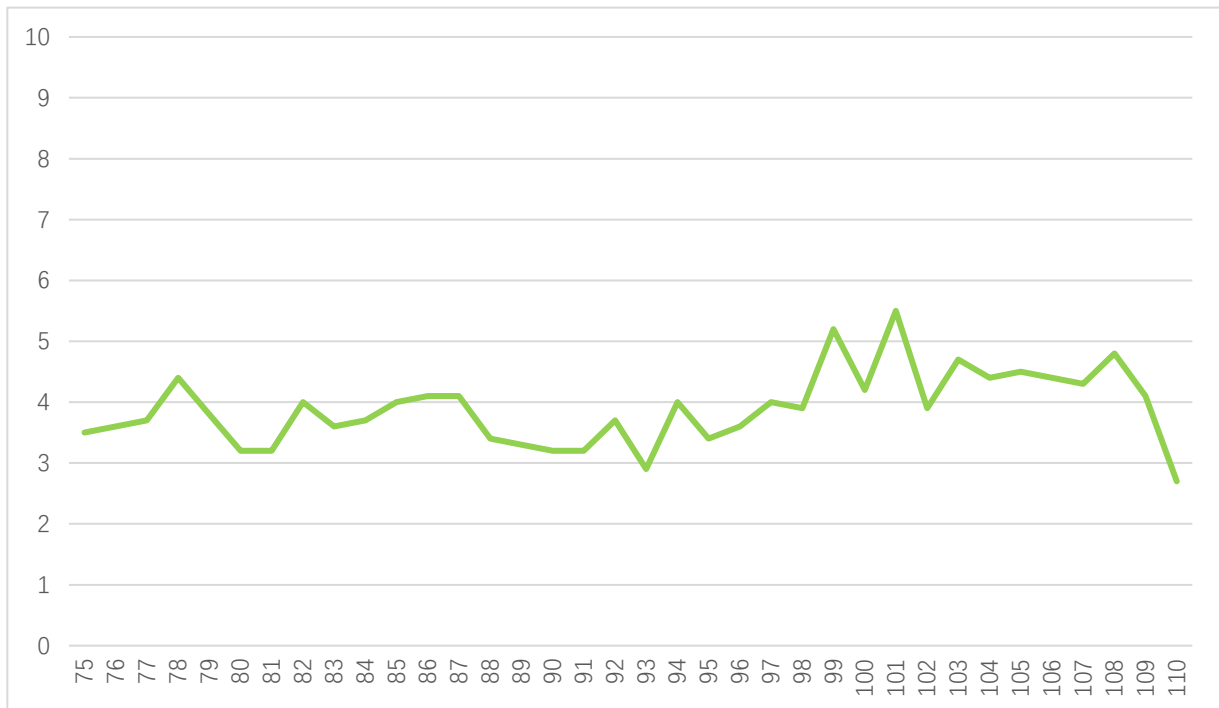
NF vs Frequency



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No guarantee for performance out of 90-98GHz.



Gain vs Frequency 75-110GHz



NF test vs 75-110GHz



Dimension: (mm)

