

W Band LNA, 20dB Gain, NF=4dB



Product Overview

AT-LNA-75105-2004 is a low noise amplifier operating in the 75-105 GHz frequency range. The LNA is packaged in a waveguide module using industry standard WR10.

MMIC technology LNA Chip is used, which ensures reliable and repeatable unit-to-unit result. Higher gain amplifier can be achieved.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 75-105GHz
- ✓ High Gain: 20dB
- ✓ 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		75-105GHz	
Gain (75-105GHz)	17	20dB	
Noise Figure		4dB	6
Pin		-30dBm	-10dBm
Output P1dB		+1dBm	
Psat		+3dBm	
Drain Supply		+5V	+8V
Current		70mA	
Input Return Loss		-8dB	
Output Return Loss		-8dB	
Spec Temp		25C	





AT-LNA-75105-2004

75-105GHz 20dB Gain, NF 4dB Low Noise Amplifier

Mechanical Information

Item	Description
Input Port	WR-10
Output Port	WR-10
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	189g
Size:	57.5x33x22.4mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+8V
RF Input Power	+8dBm
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



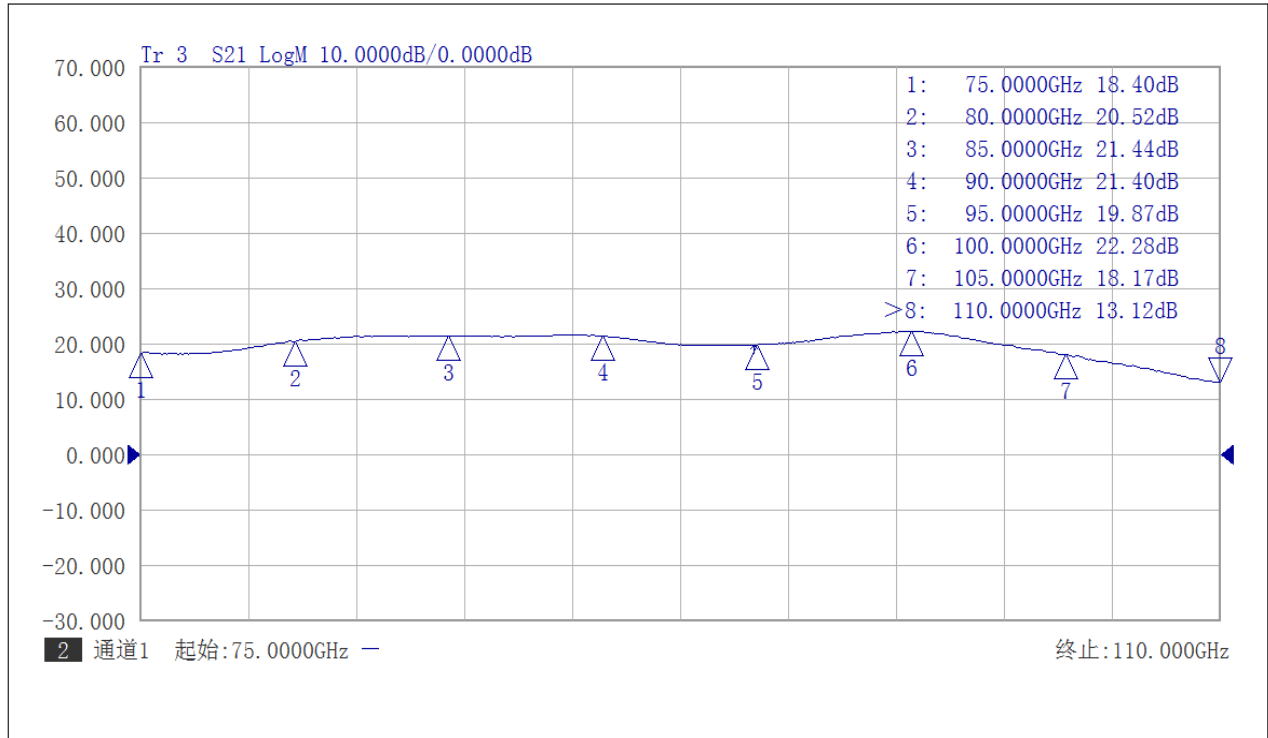


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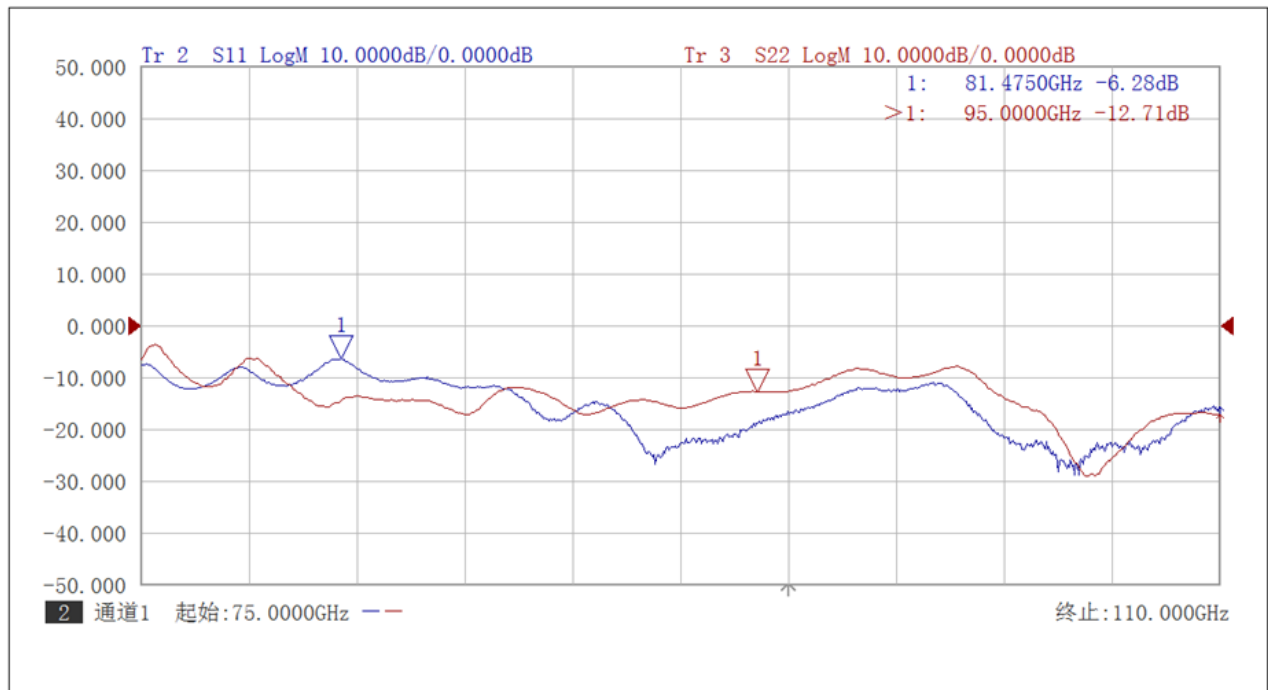
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Test Data (25C)

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



Gain vs Frequency



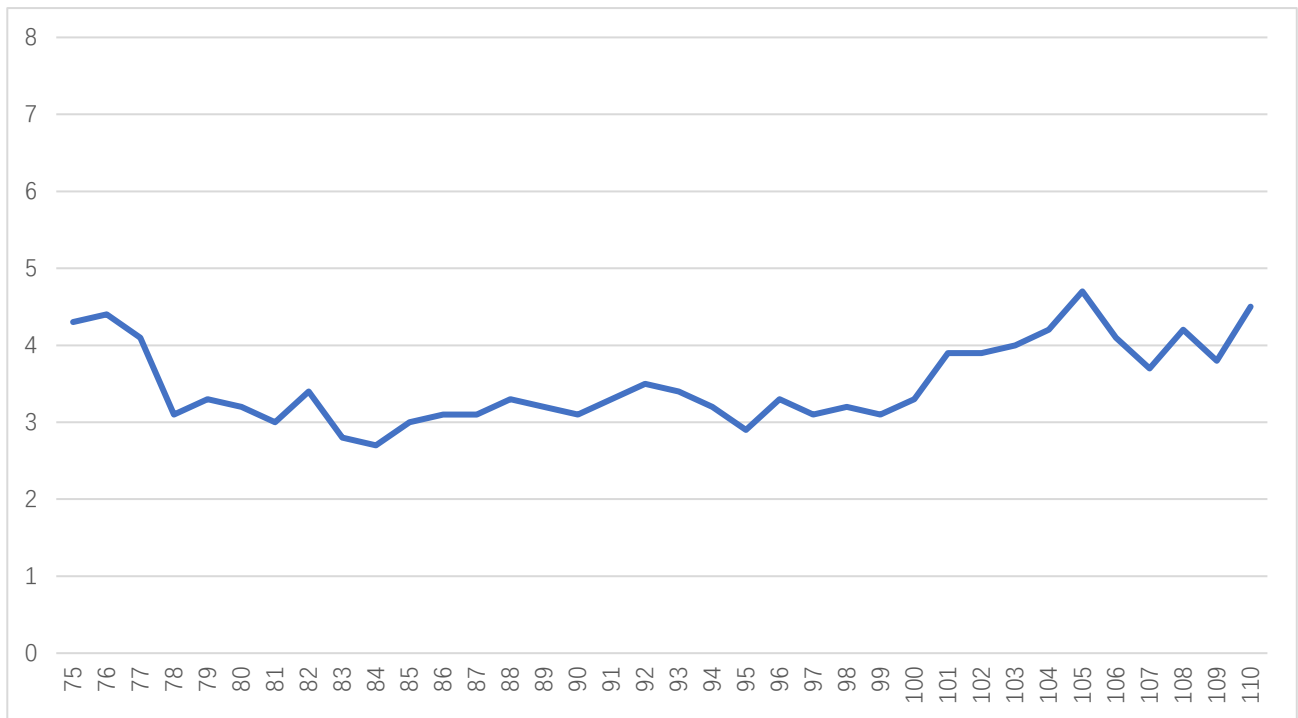
Return Loss VS FREQUENCY



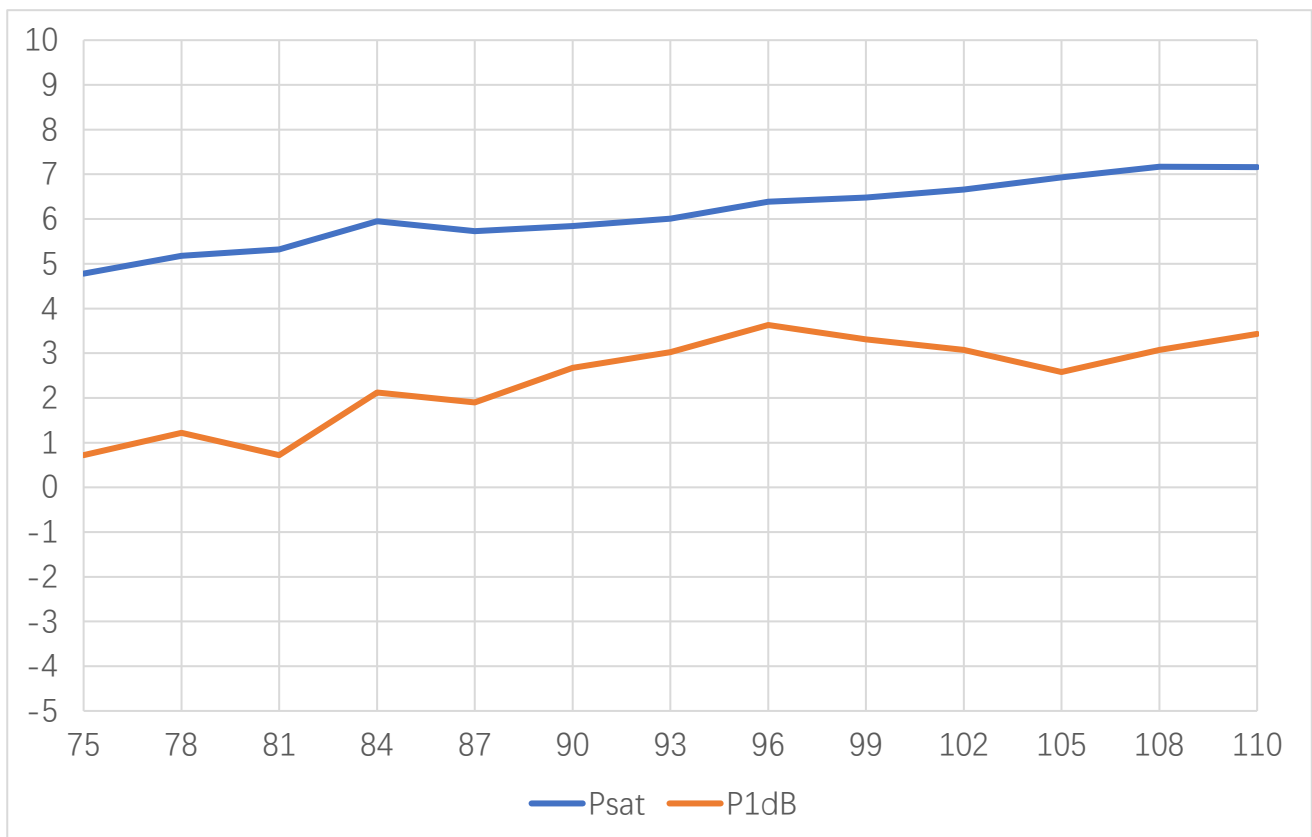


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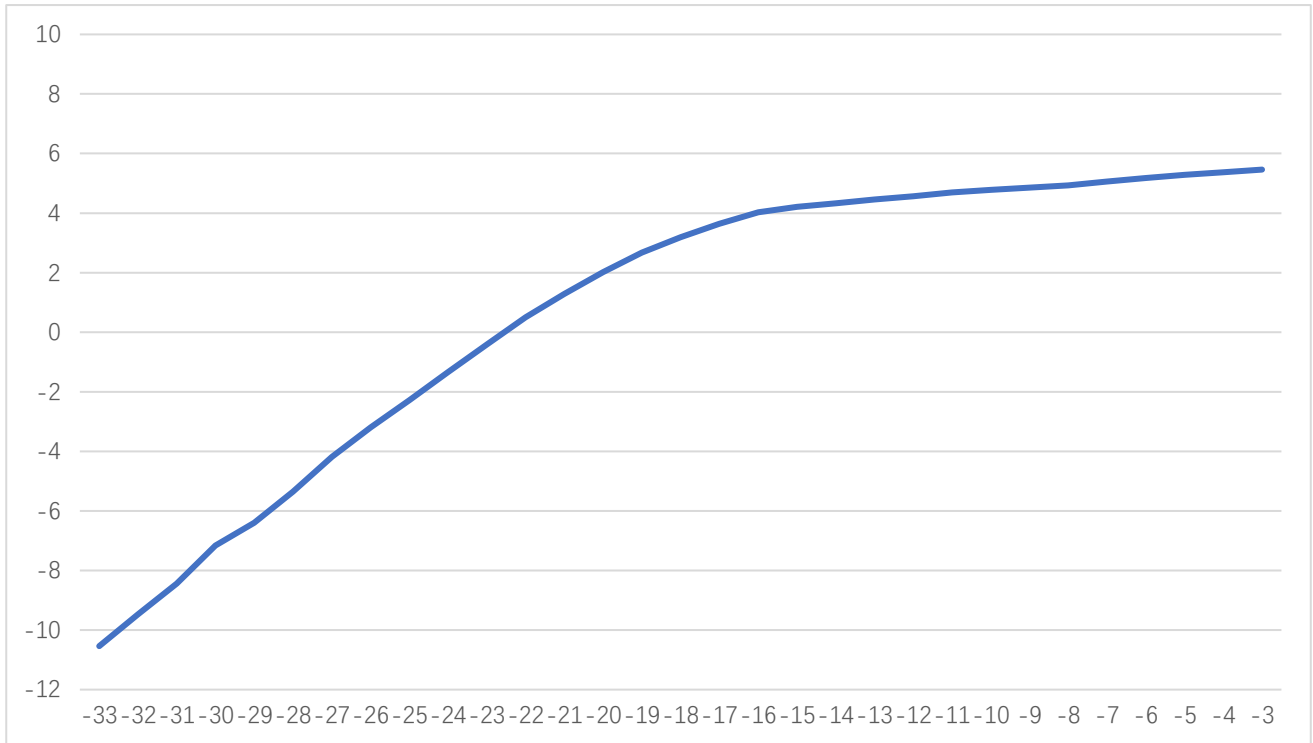


NF VS Frequency



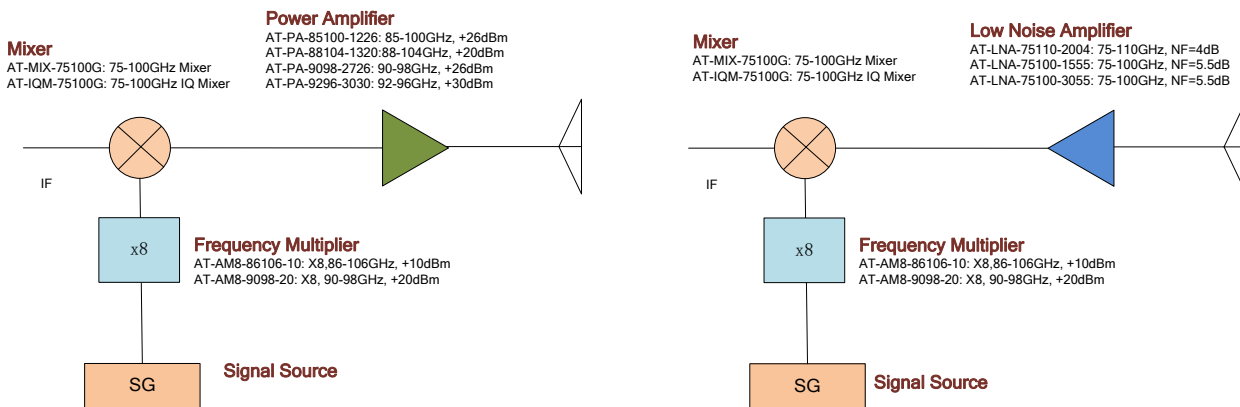
Psat/P1db vs Frequency





Pout vs Pin at 90GHz

W Band Solution:



Dimension: (mm)

