

AT-LNA-75110-3055

75-110GHz 30dB Gain Low Noise Amplifier

W Band Low Noise Amplifier, 30dB Gain

2020-11-10



Product Overview

AT-LNA-75110-3055 is a low noise amplifier operating in the 75-110 GHz frequency range. The LNA is packaged in a waveguide module using industry standard WR-10.

GaAs pHEMT MMIC technology LNA Chip is used, which ensures reliable and repeatable unit-to-unit result.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 75-110GHz
- ✓ Gain: 30dB
- ✓ NF: 5.5dB
- ✓ Single Supply

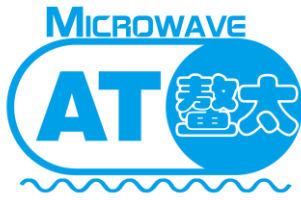
Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		75-110GHz	
Gain (80-105GHz)	20	30dB	
Gain Flatness(80-105GHz)		+/- 5dB	
Noise Figure		5.5dB	7
Psat		+9dBm	
Drain Supply		+5V	+8V
Current		270mA	
Input Return Loss (80-105GHz)		-8dB	
Output Return Loss(80-105GHz)		-8dB	
Spec Temp		25C	





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Mechanical Information

Item	Description
Input Port	WR-10
Output Port	WR-10
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	130g
Size:	50x30x30 mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+8V
RF Input Power	-5dBm
Operating Temperature	0 to +50C
Storage Temperature	-65 to +150C

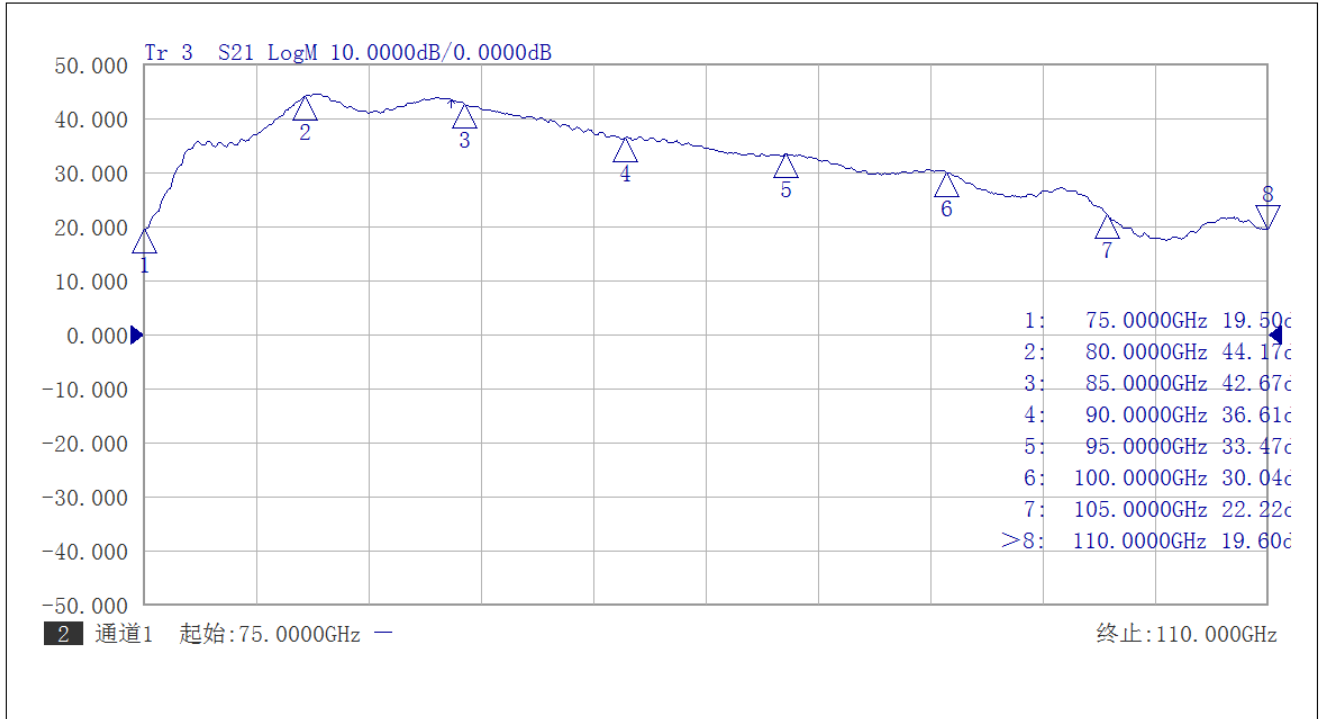
Notes:

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.

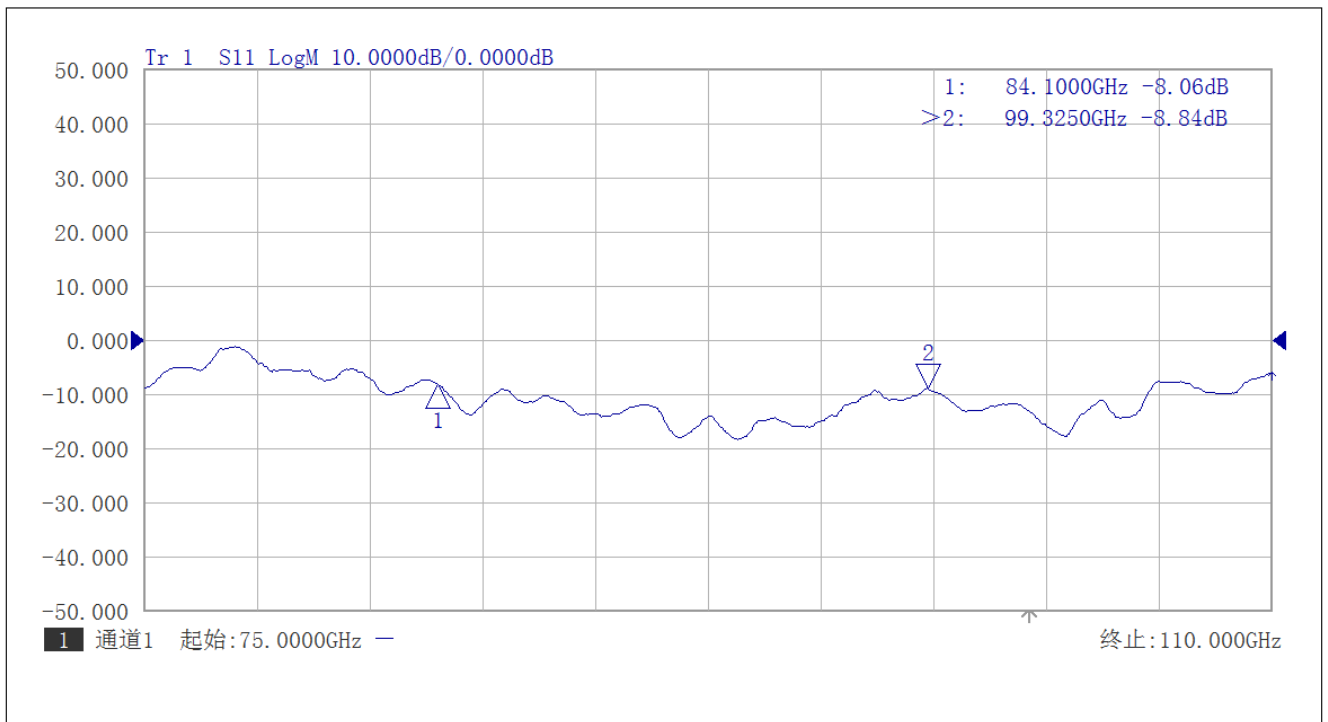


Test Data

25C Room Temperature, Vd=+5V

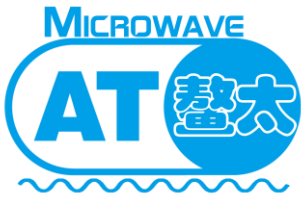


Gain vs Frequency



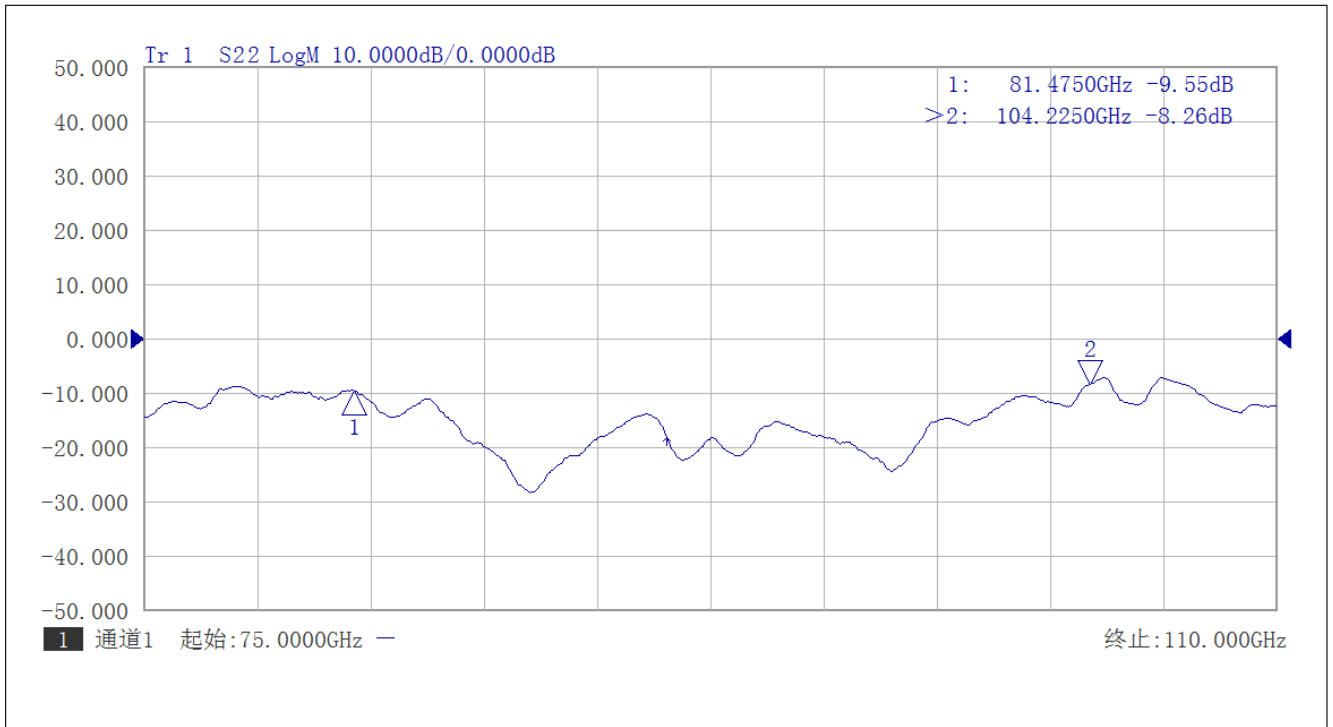
S11 Vs Frequency



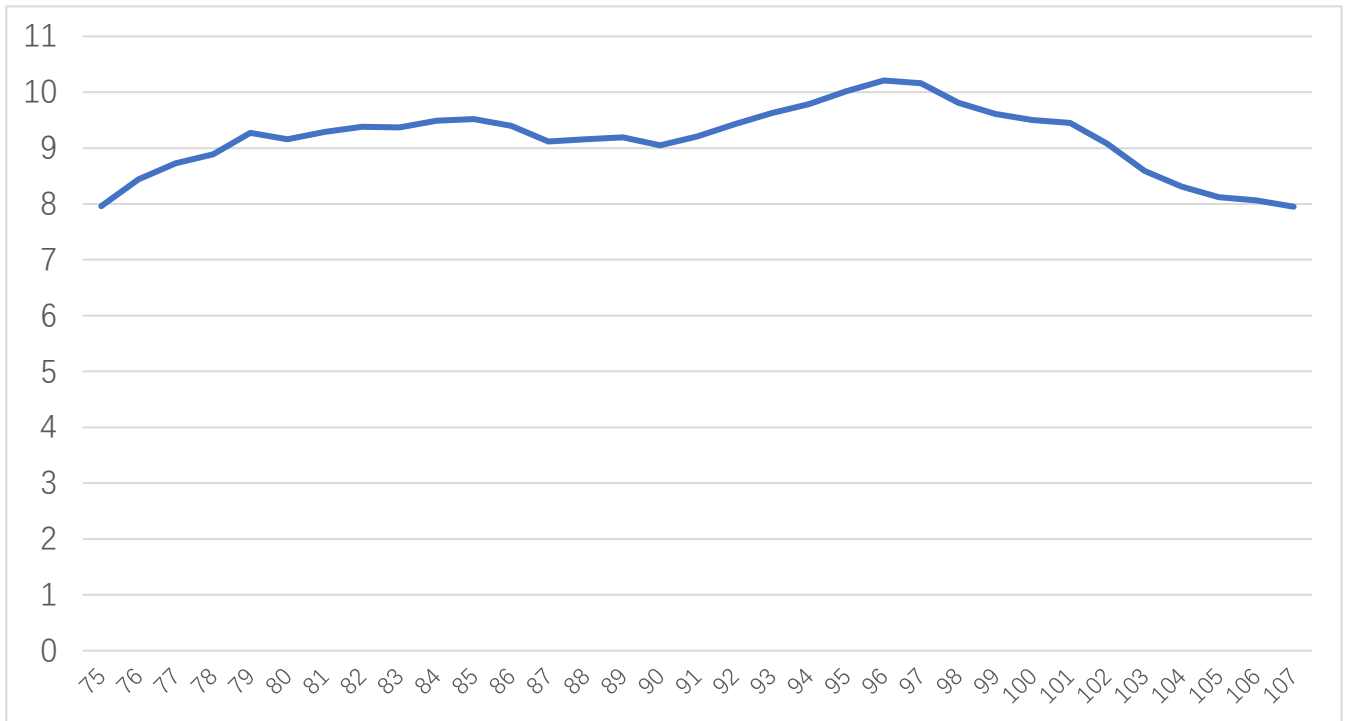


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S22 vs Frequency



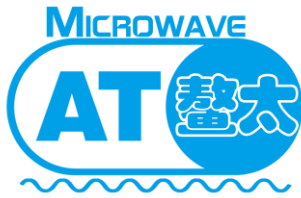
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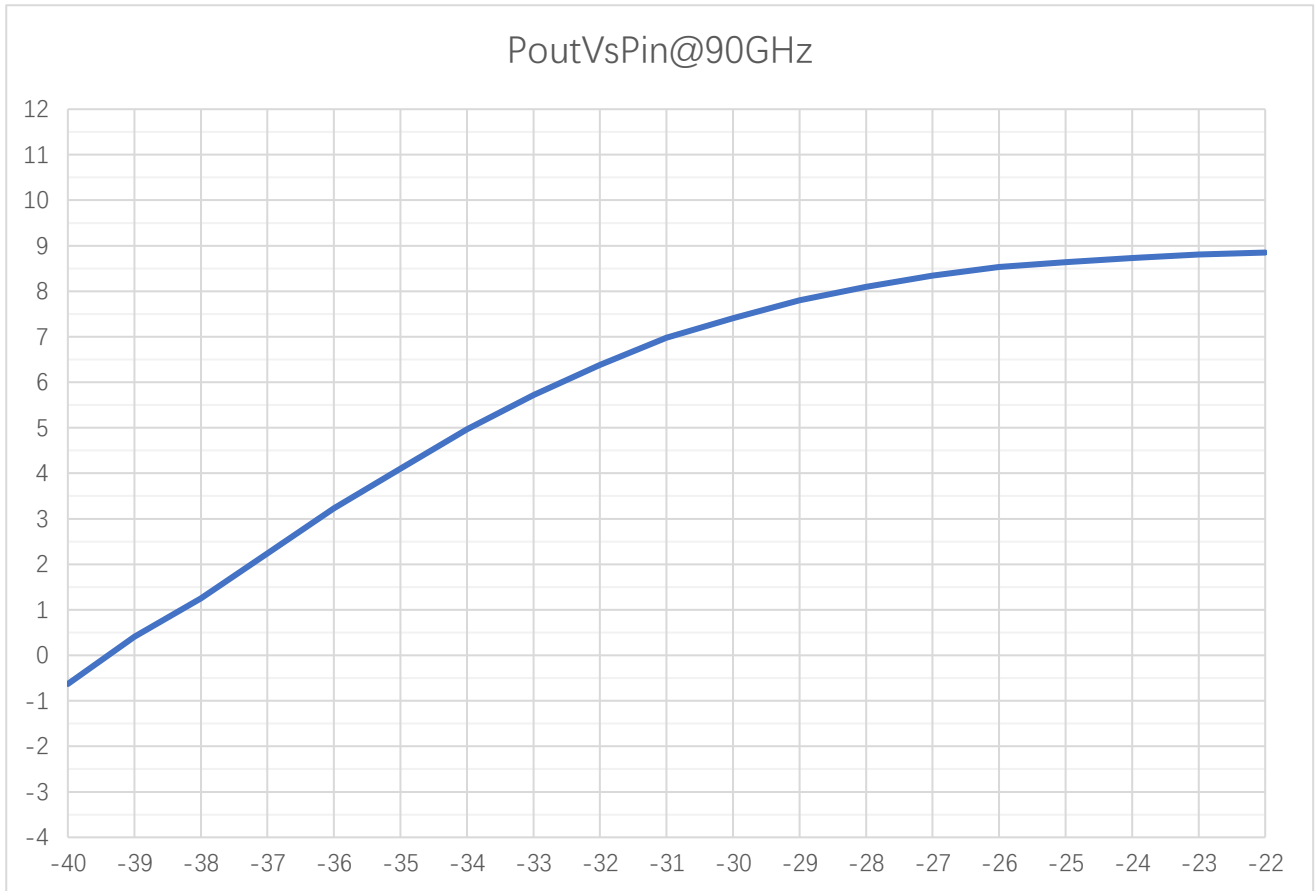
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Pout vs Pin at 90GHz



Dimension: (mm)

