

120-200GHz LNA, 15dB Gain, NF=6dB 2022-9-1



Product Overview

AT-LNA-120200-1506E is a low noise amplifier operating in the 120-200 GHz frequency range. The LNA is packaged in a waveguide module using industry standard WR-05.

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: 120-200GHz
- ✓ High Gain: 15dB
- ✓ NF: 6dB
- ✓ Single Supply

Application

- ✓ G/J Band Communication
- ✓ FOD (Foreigner Objects Debris)
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Key Features

Parameter	Min	Typical	Max
Frequency		120-200GHz	
Gain	13dB	15dB	
Gain Flatness		+/-3dB	
Noise Figure (Note)		120-150GHz: 6dB 150-170GHz: 8dB	
Pin		-20dBm	-10dBm
Output P1dB		-3dBm	
Psat		+0dBm	
Drain Supply		+5V	+8V
Current		39mA	
Input/Output VSWR		2.5	
Spec Temp		25C	

Note: NF only test to 170GHz due to the test limit.





AT-LNA-120200-1506E

120-200GHz Low Noise Amplifier

Mechanical Information

Item	Description
Input Port	WR-05 UG-387/U-M Flange with anti-cocking Flange
Output Port	WR-05 UG-387/U-M Flange with anti-cocking Flange
Case Material	Copper
Finish	Gold Plated
Weight	165g
Size:	See outline

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+8V
RF Input Power	+8dBm
Operating Temperature	0 to +50C
Storage Temperature	-20 to +70C

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.

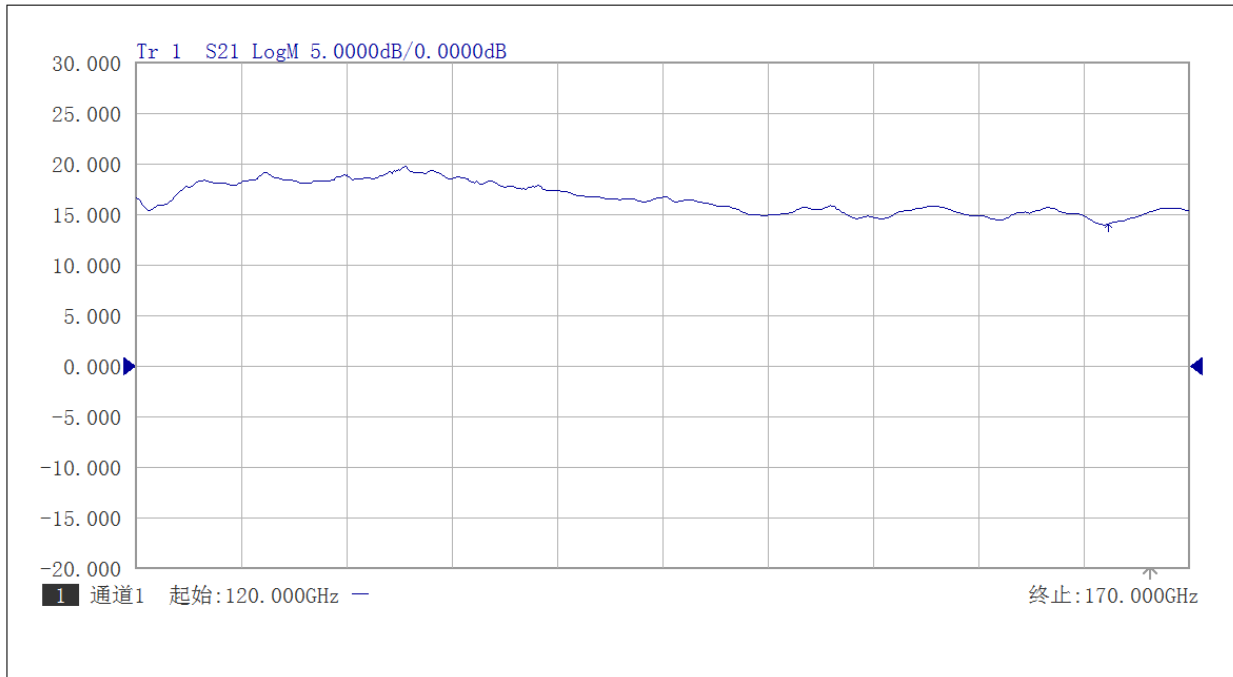
Part Number Selection Guide

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

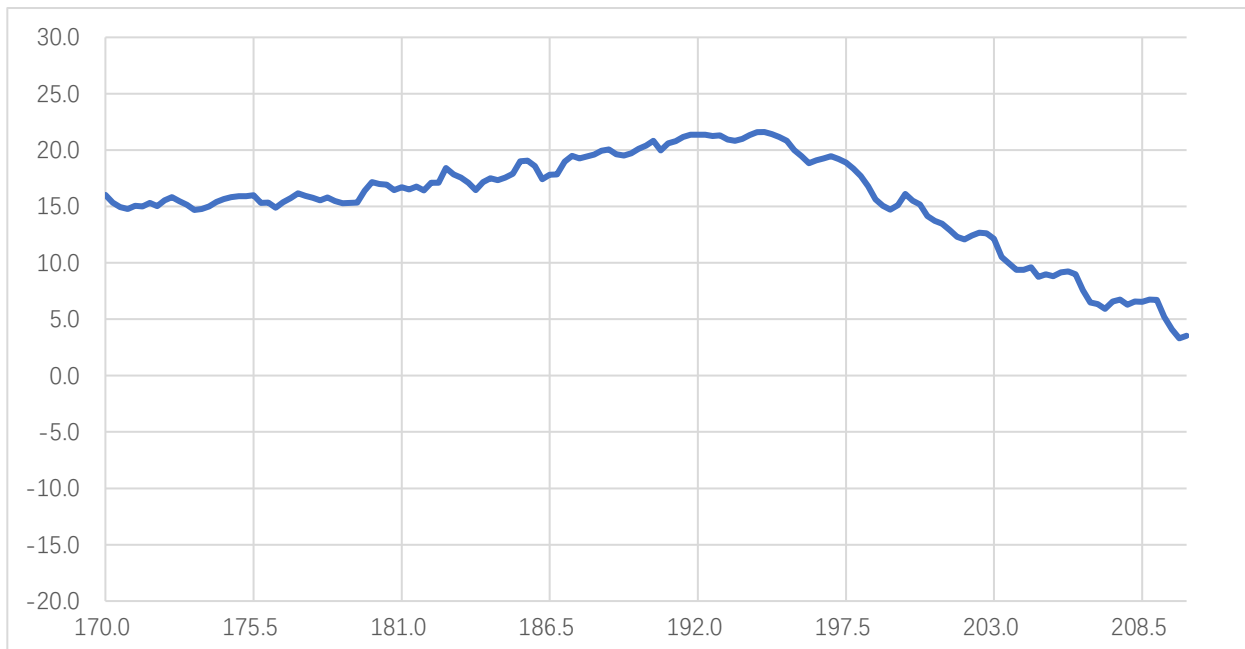


Test Data (25C)

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



Gain vs Frequency 120-170GHz



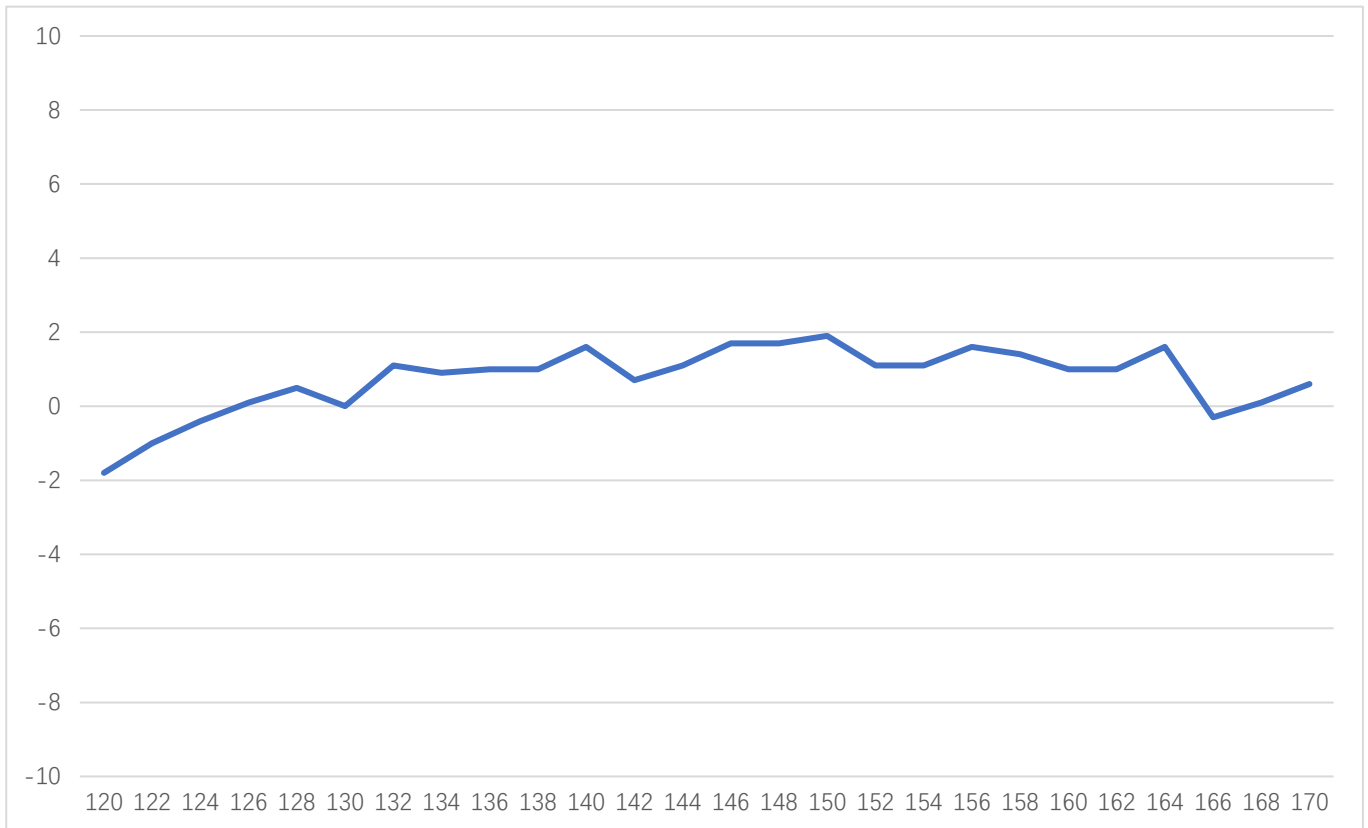
Gain vs Frequency 170-200GHz



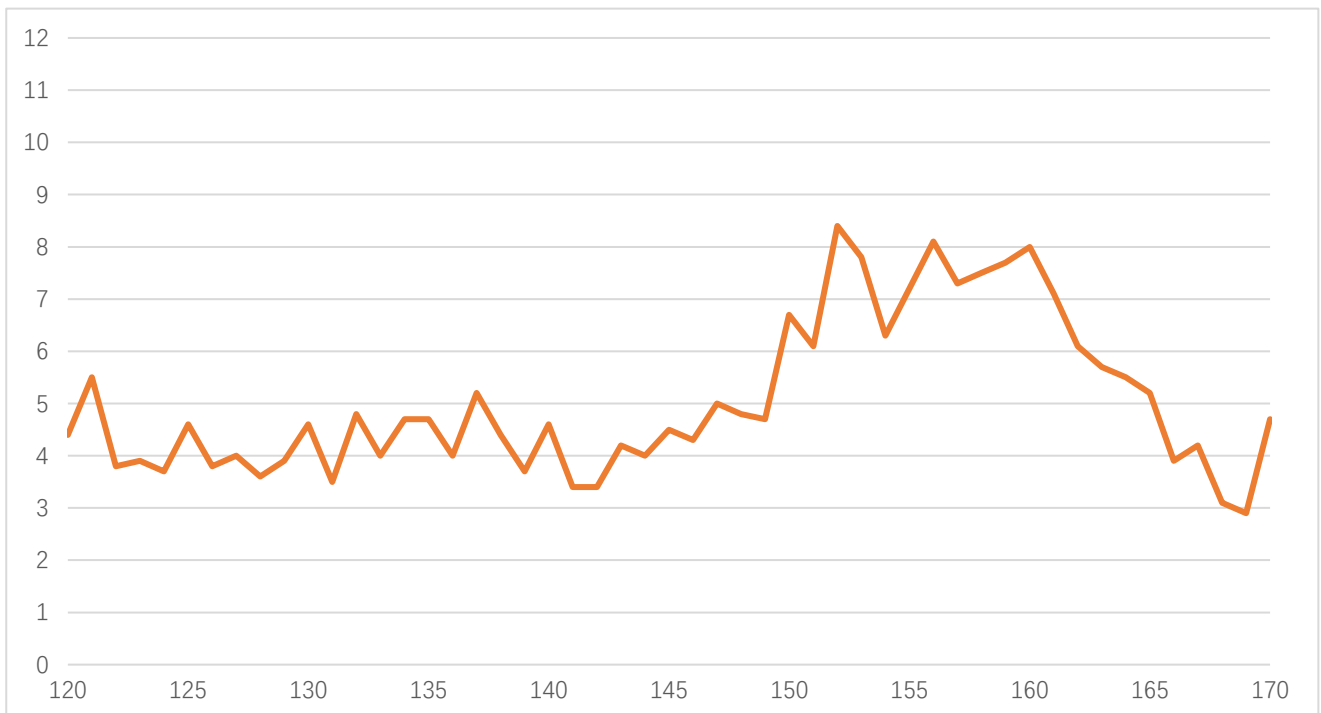


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Psat vs Frequency 120-170GHz



NF vs Frequency 120-170GHz



Dimension: (mm)

