

18-40GHz Low Noise Amplifier

High Gain 60dB , High Power=+20dBm

2023-7-7



Product Overview

AT-LNA-1840-6004P20 is high gain, high power low noise amplifier with 60dB gain in the frequency of 18-40GHz. The DC power requirement is +8V/450mA. The module is with 2.92mm connector.

AT-LNA-1840-5304L is high gain LNA with $P_{out}=+13dBm$, AT-LNA-1840-6004P20 is same NF with high power +20dBm.

For more information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 18-40GHz
- ✓ Small signal gain: 60dB
- ✓ NF=4dB
- ✓ $P_{out}=+20dBm$
- ✓ Single Power Supply

Application

- ✓ 5G Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Key Features

Parameter	Min	Typical	Max
Frequency		18-40GHz	
Gain	57dB	60dB	
Gain Flatness		+/-3dB	
NF		4dB	5dB
P1dB		+18dBm	
Psat		+20dBm	
Drain Supply	+5V	+8V	+12V
I _{dd}		0.45A	0.6A
Input Return Loss		-10dB	
Output Return Loss		-10dB	
Spec Temp		25C	





AT-LNA-1840-6004P20

18-40GHz Super High Gain, LNA

Mechanical Information

Item	Description
Input Port	2.92mm Female
Output Port	2.92mm Female
Case Material	Copper
Finish	Gold Plated
Package Sealing	Epoxy Sealed
Weight (Without Heatsink)	150g
Size:	SEE OUTLINE

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+10 dBm
Operating Temperature	-20 to +70C
Storage Temperature	-45 to +85C

Notes:

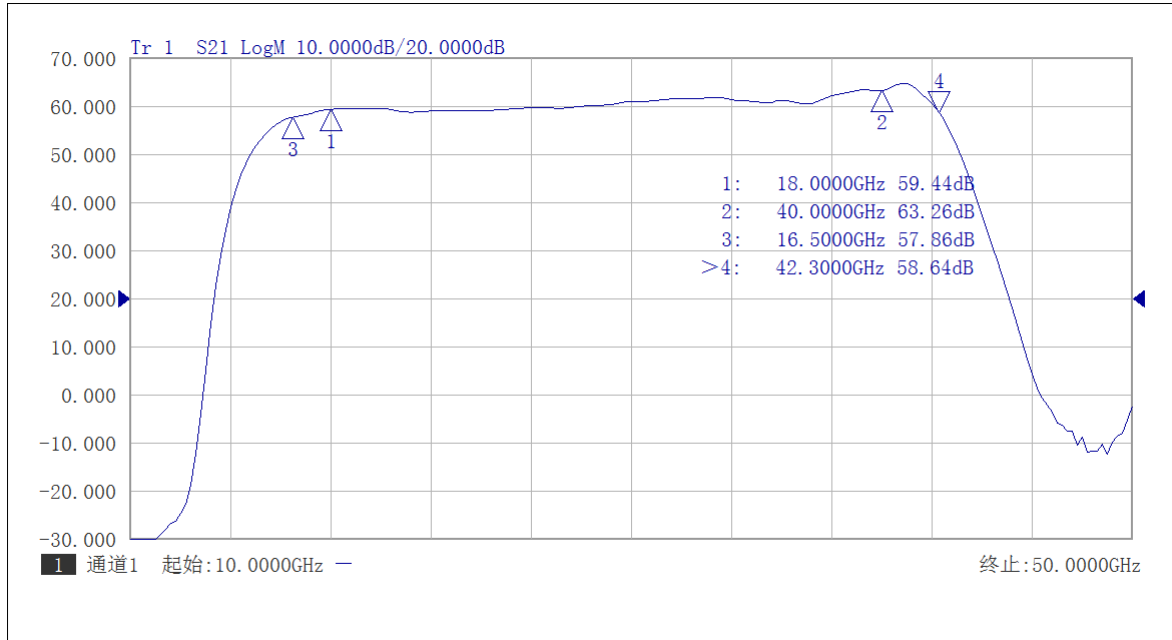
1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.

Part Number Selection Guide

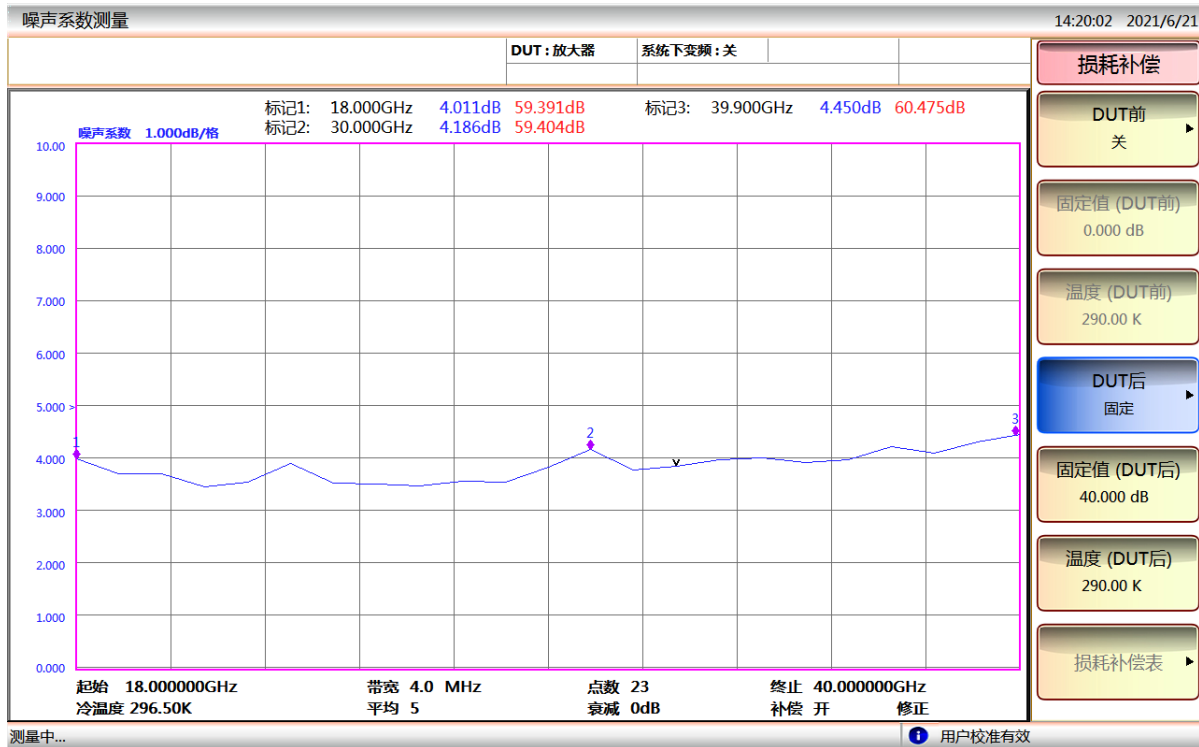
Item	Description
AT-LNA-1840-6004P20	Standard Module with DC Power Supply
AT-LNA-1840-6004P20- LCBT	L ow Cost, C ompact B ench- T op, +220V Supply with AC/DC Adapter



Test Data(25C)

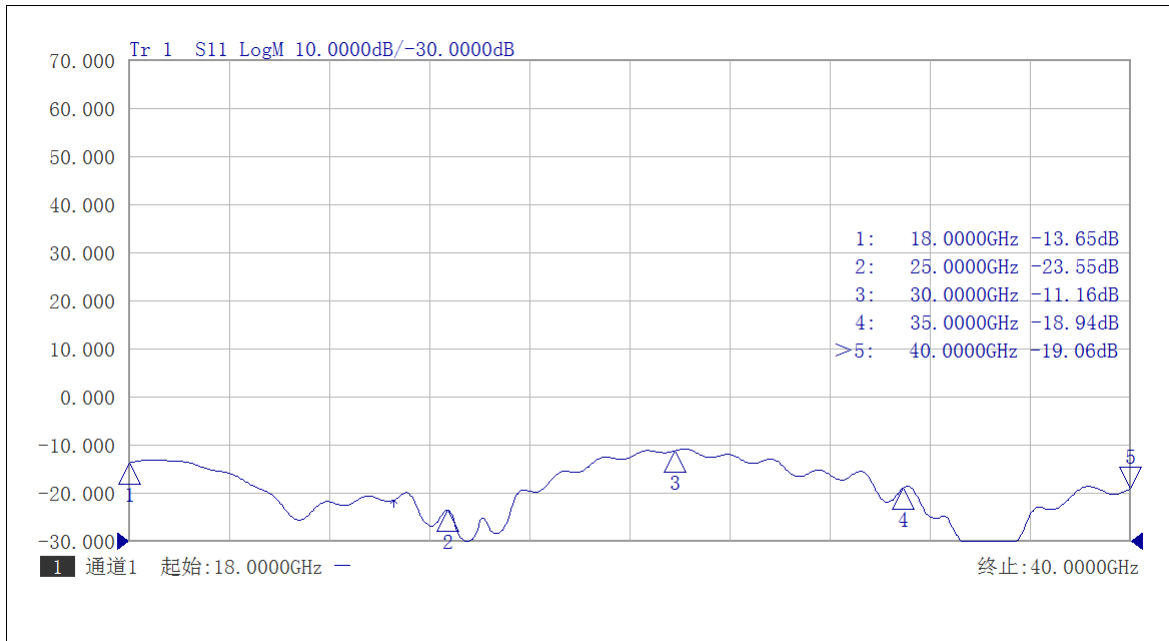


Gain vs Frequency

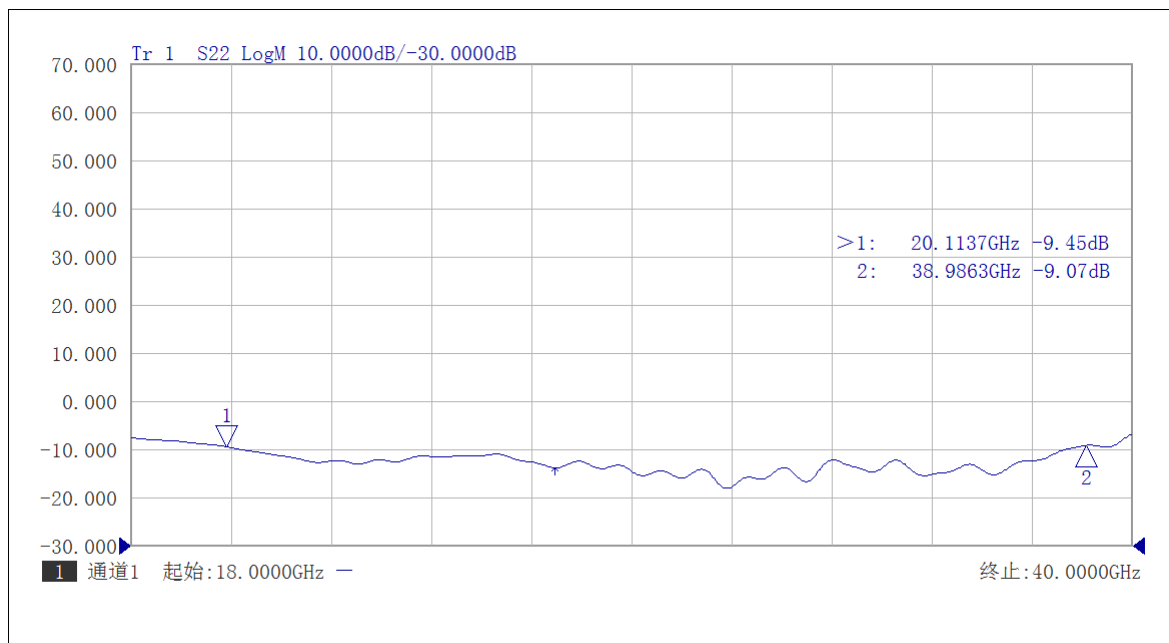


NF Test vs Frequency



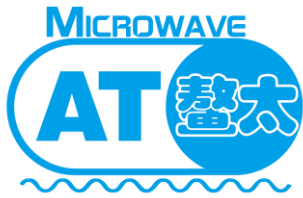


S11 Return Loss vs Frequency



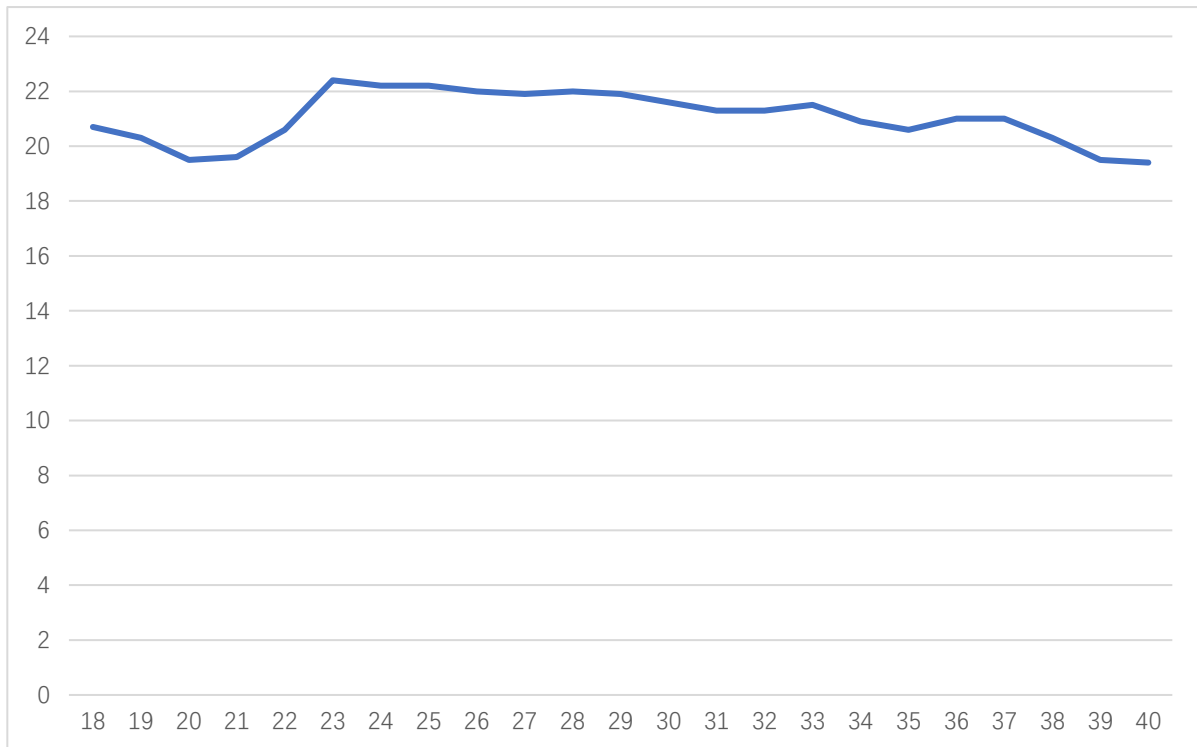
S22 Return Loss vs Frequency



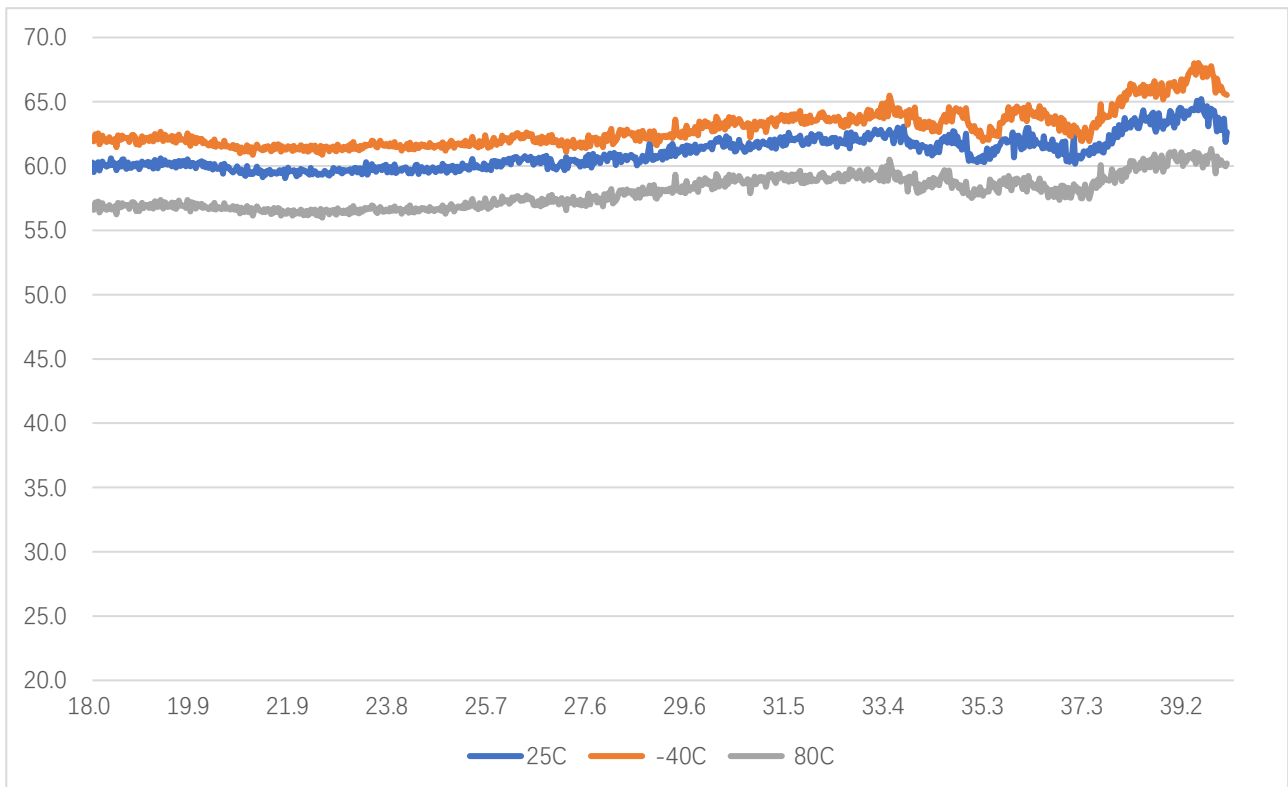


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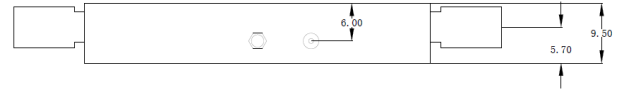
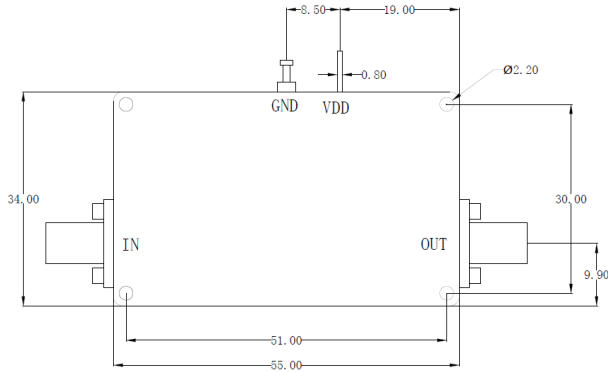
Pout vs Frequency



Gain vs Temp

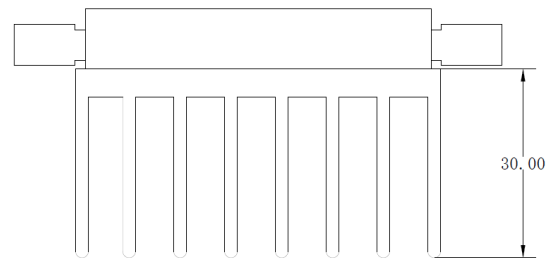
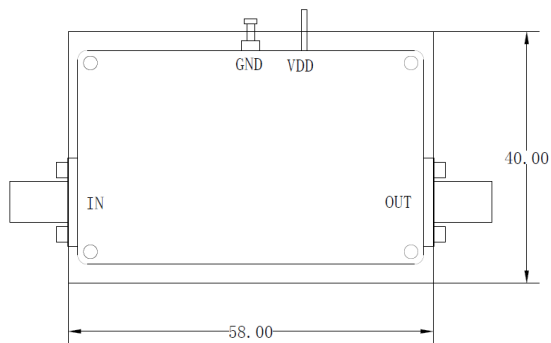


Dimension: (unit in mm)



	<26.5GHz	<40GHz	<50GHz	<67GHz
Connector	SMA	2.92mm	2.4mm	1.85mm
Length of a	9.4mm	9.5mm	10.8mm	11.3mm

Note: Female Default. Contact with us for other types.



Including a small heatsink without Fan if output Power higher than +20dBm.

Customers can remove it or use their own heatsink according to actual situation.

Heatsink required during operation

