

18-40GHz 53dB High Gain Low Noise Amplifier



Product Overview

AT-LNA-1840-5304L is 53dB high gain low noise amplifier with 53dB gain in the frequency of 18-40GHz. The DC power requirement is +5V/280mA. The module is with 2.92mm connector.

AT-LNA-1840-5304L is high gain LNA with Pout=+13dBm, AT-LNA-1840-6004HP is same NF with high power +20dBm.

For more information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 18-40GHz
- ✓ Small signal gain: 53dB
- ✓ NF=4dB
- ✓ Single Power Supply

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		18-40GHz	
Gain	50dB	53dB	
Gain Flatness		+/-1.5dB	
NF		4dB	5dB
P1dB		+10dBm	
Psat		+13dBm	
Drain Supply		+5V	+8V
Idd		0.28A	
Input Return Loss		-10dB	
Output Return Loss		-10dB	
Spec Temp		25C	





AT-LNA-1840-5304L

18-40GHz Low Noise Amplifier

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)	80g
Size:	55x34x9.5 mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+15 dBm
Operating Temperature(note)	-20 to + 70C
Storage Temperature	-65 to +153C

Note: -40 to +85C is available according to request.

Caution:

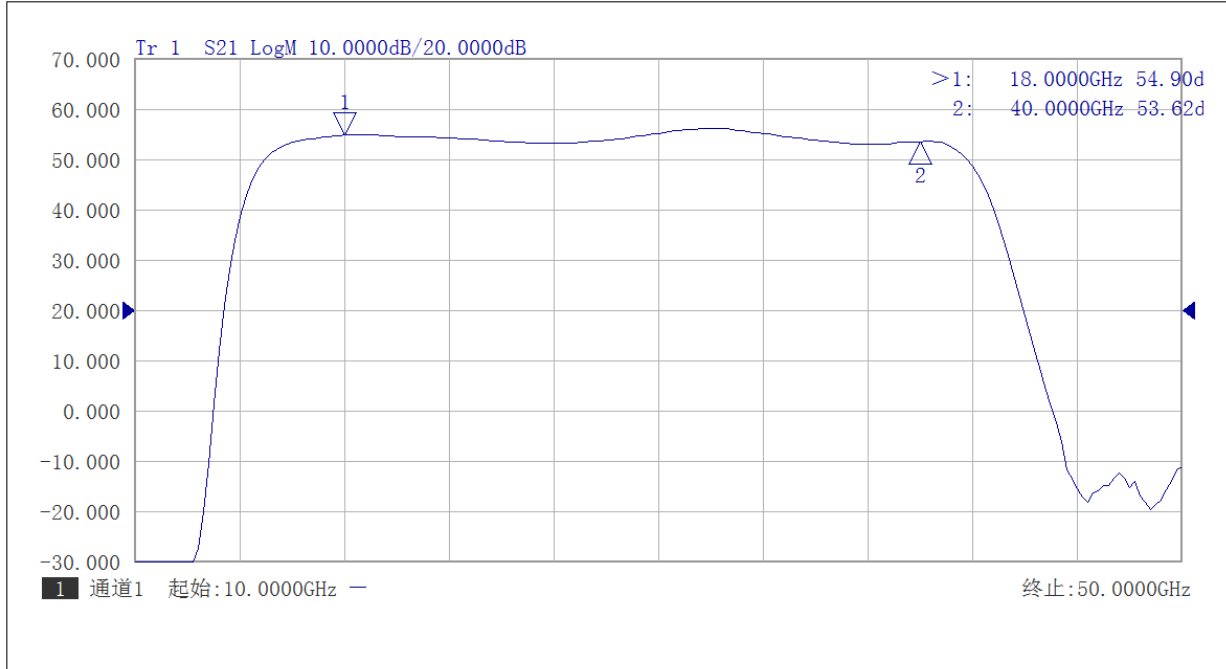
Please pay attention to the case temperature. If case temperature exceed higher than +53C, heat sink and fan are required, or the amplifier may be damaged.

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:

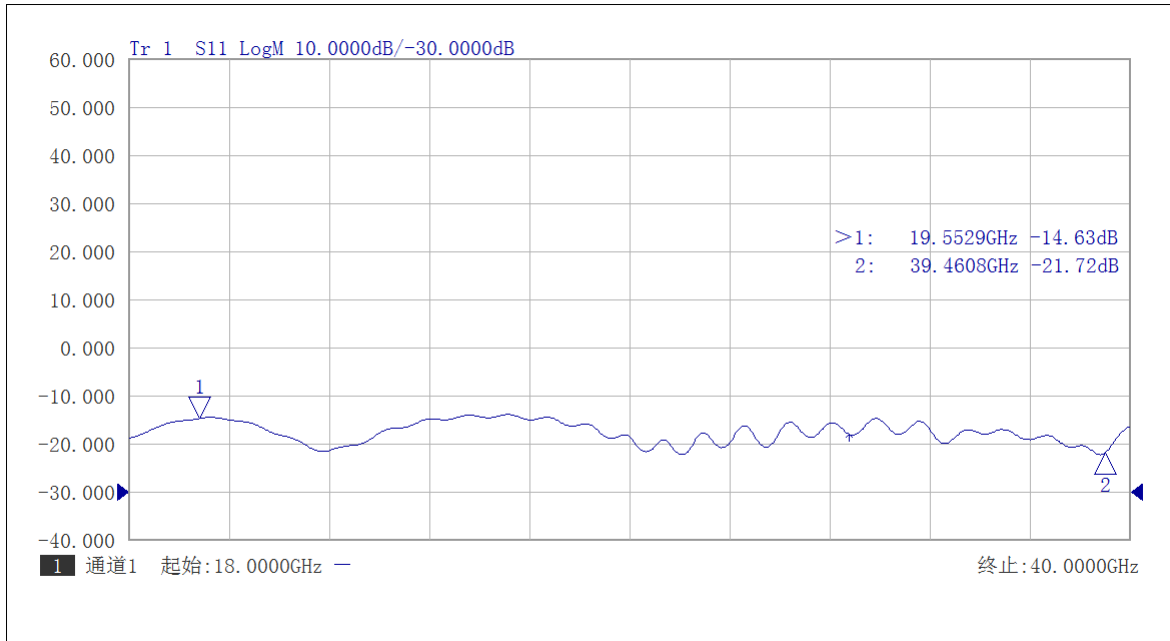


Gain vs Frequency

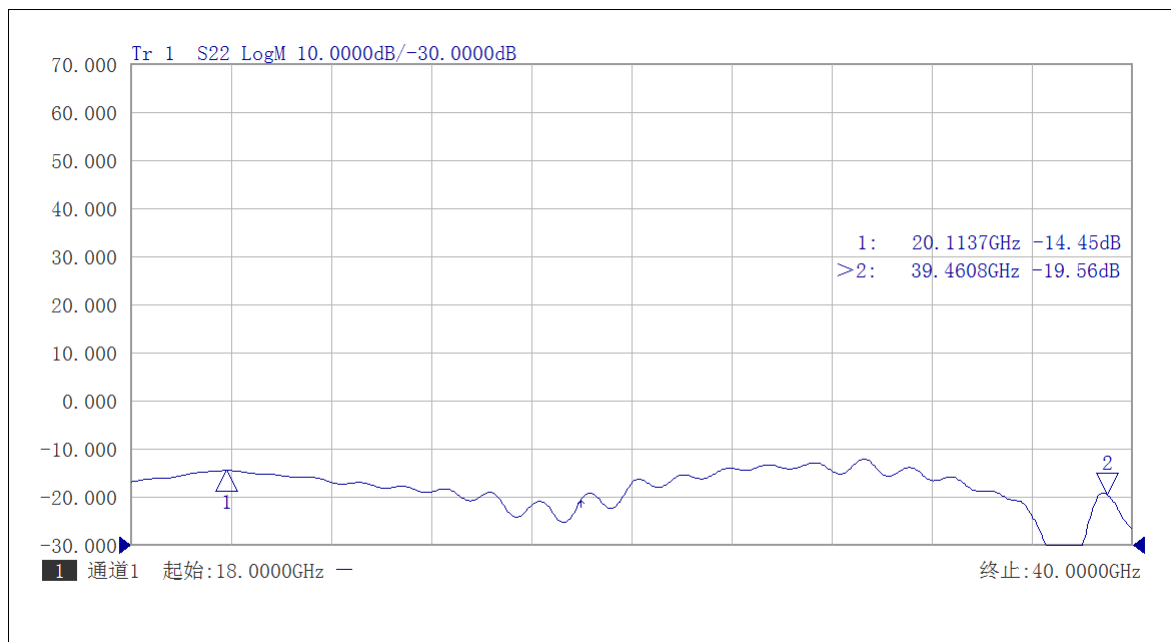


NF vs Frequency





S11 vs Frequency



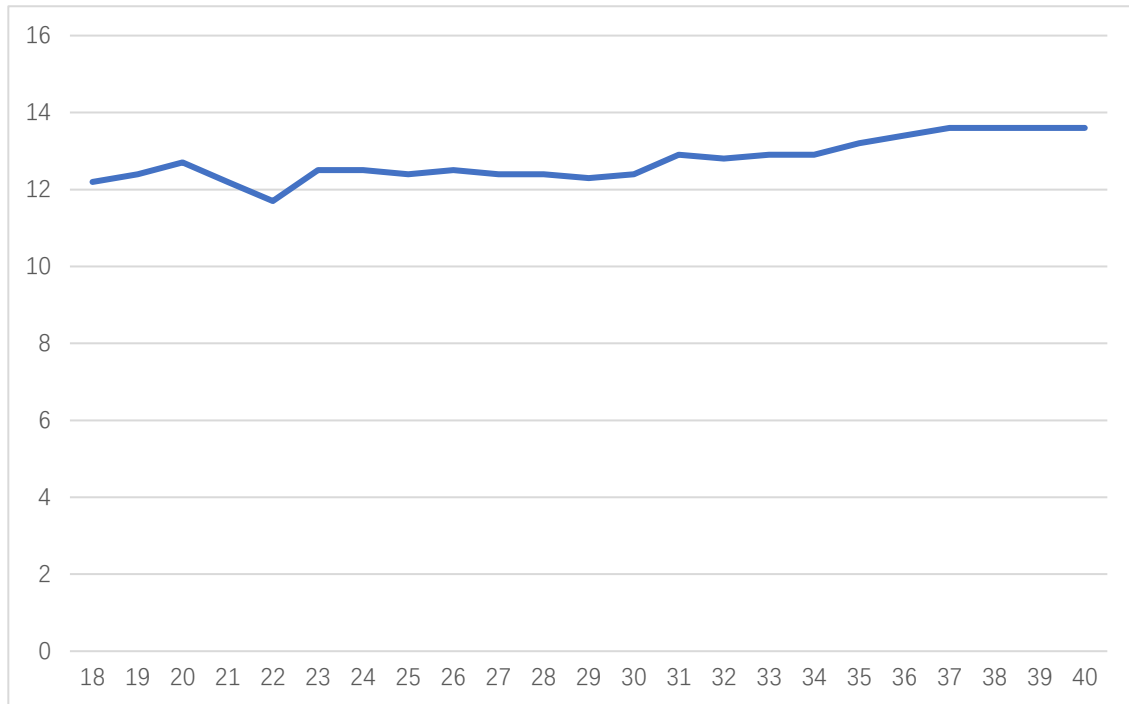
S22 vs Frequency



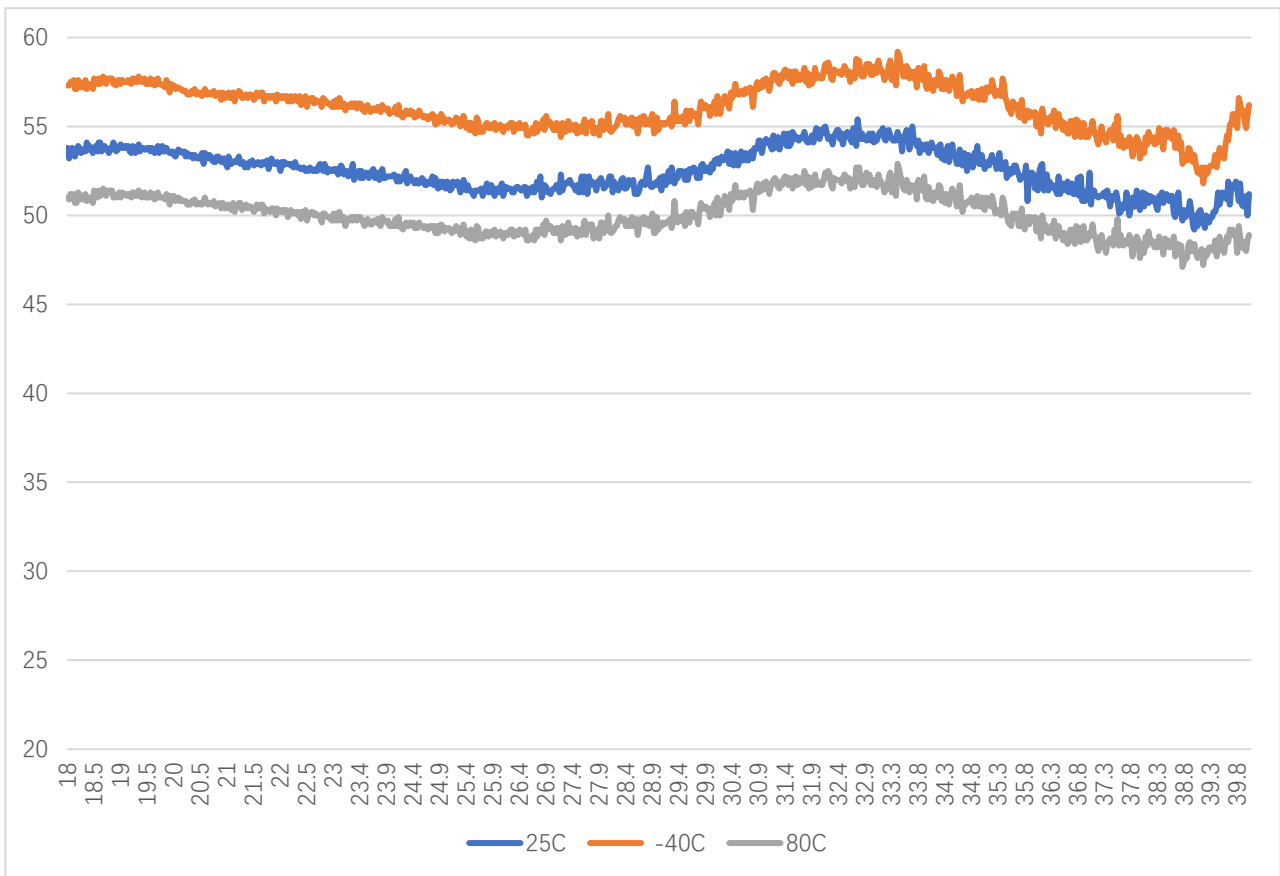


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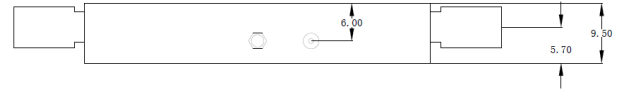
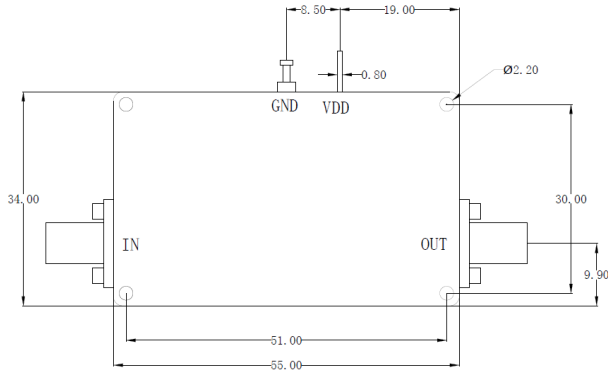
Psat vs Frequency



Gain vs Temp

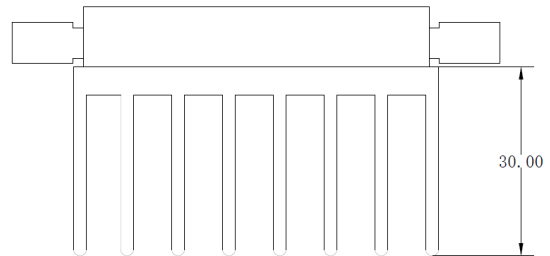
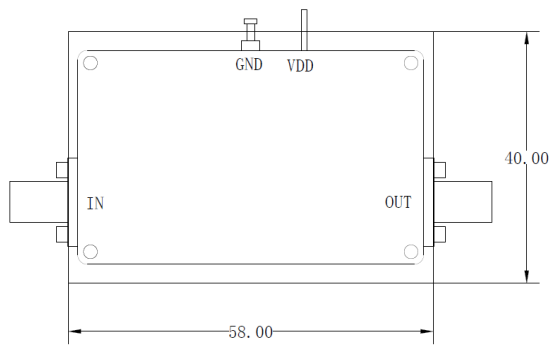


Dimension: (unit in mm)



	<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

