

### 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](http://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:

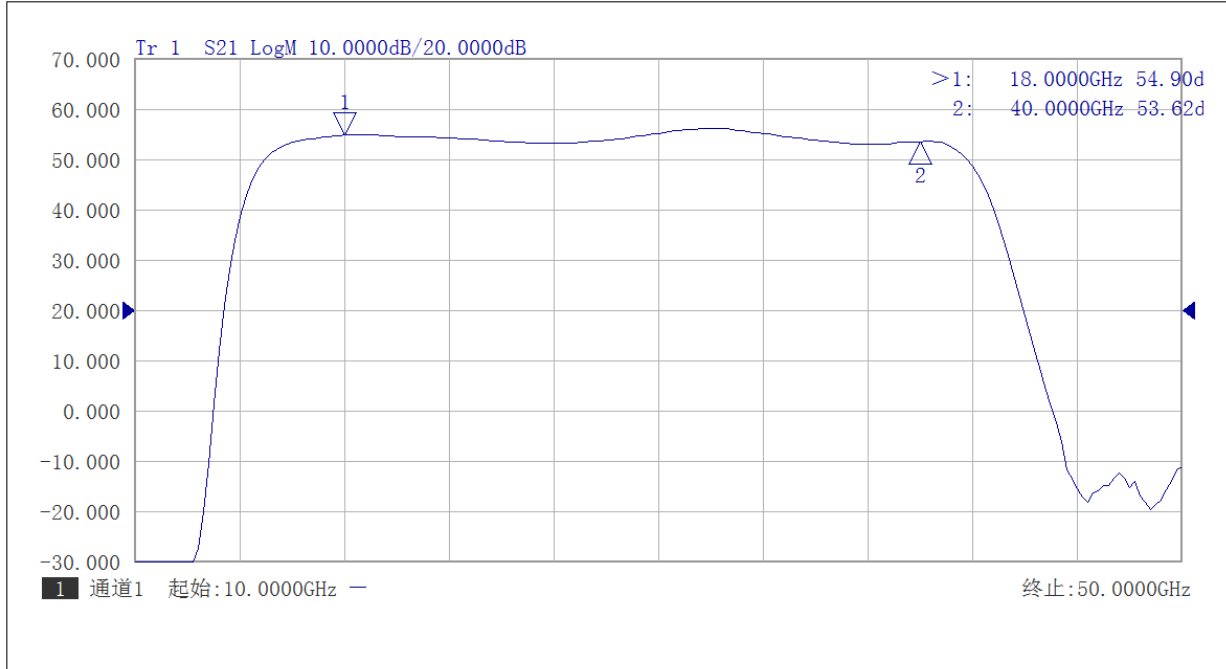
Please pay attention to the case temperature. If case temperature exceed higher than +53C, heat sink and fan are required, or the amplifier may be damaged.

#### 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:

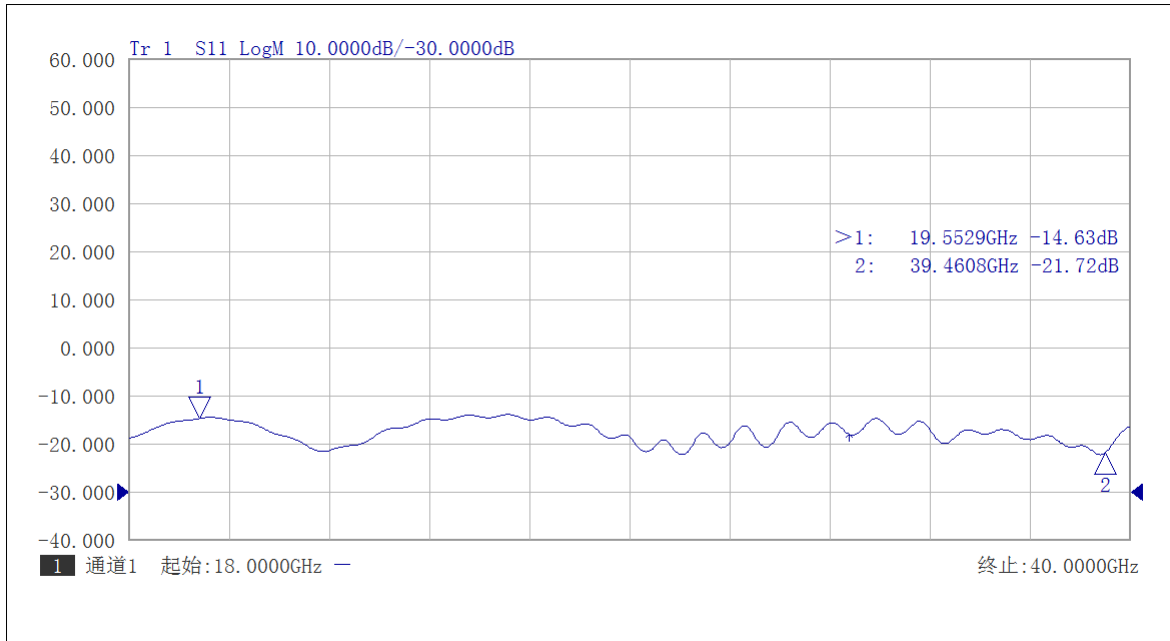


Gain vs Frequency

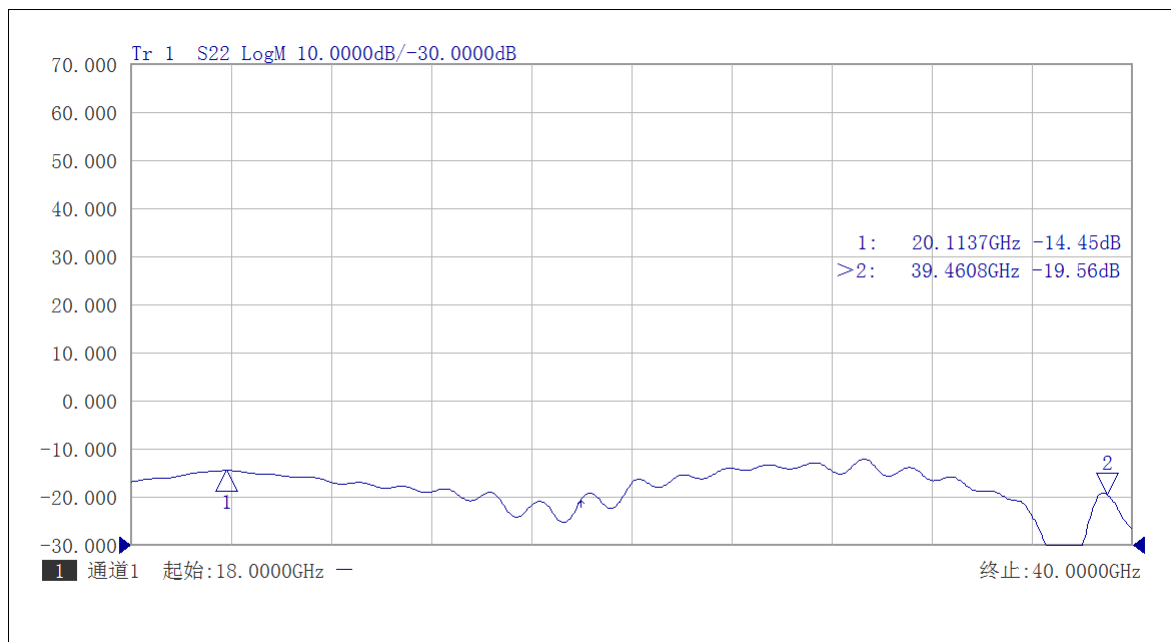


NF vs Frequency





S11 vs Frequency



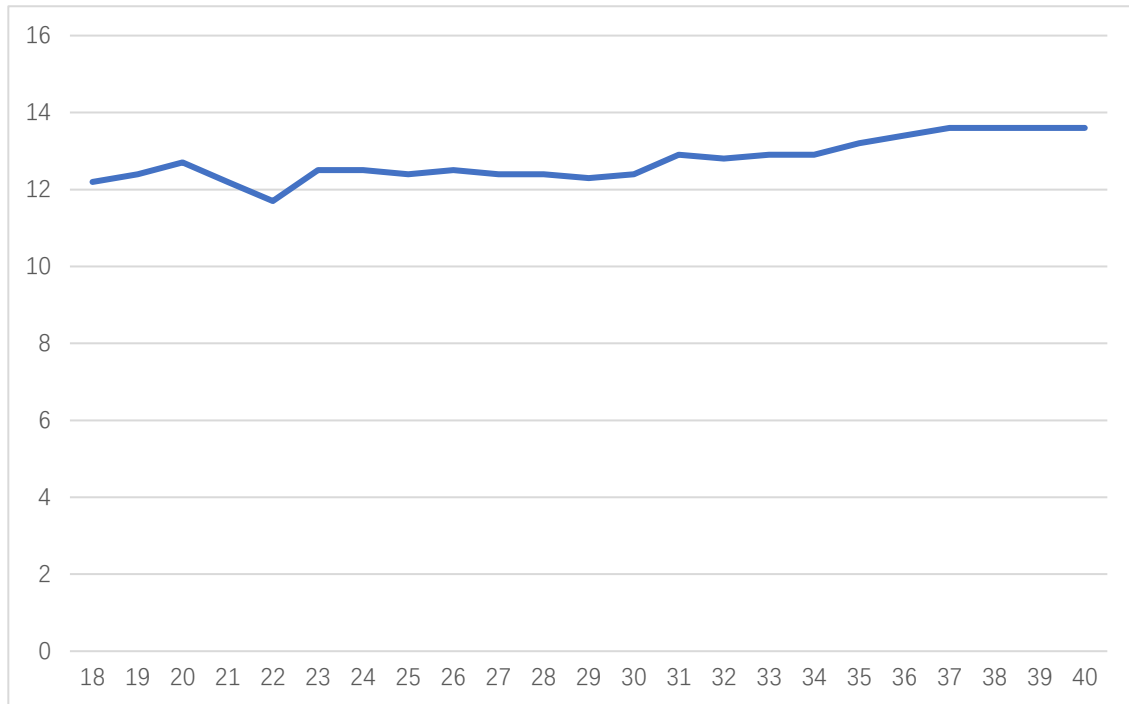
S22 vs Frequency



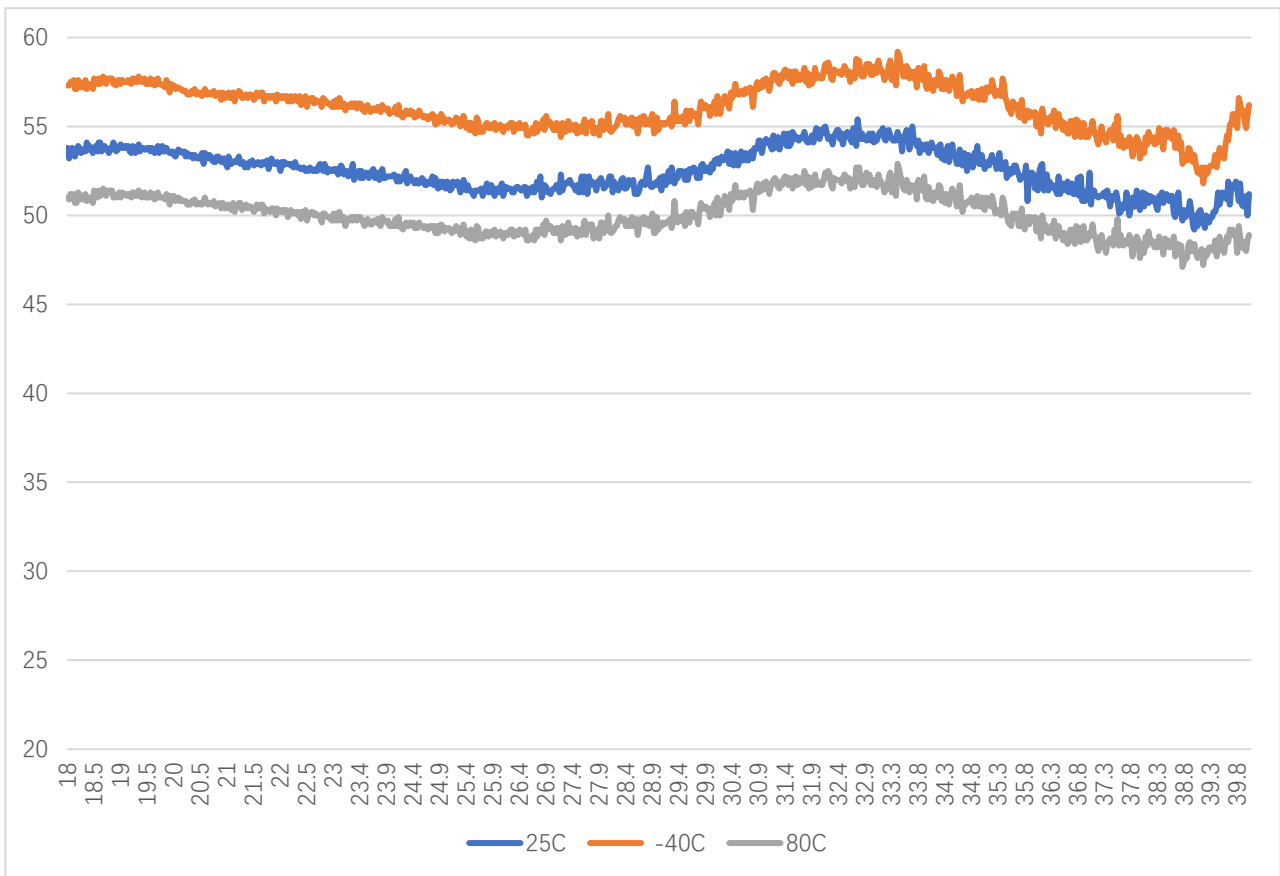


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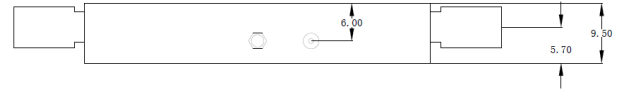
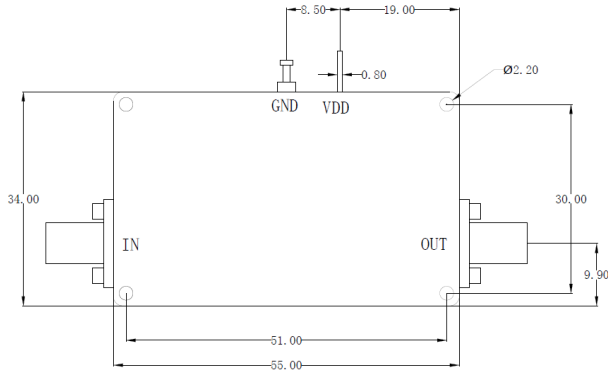
Psat vs Frequency



Gain vs Temp

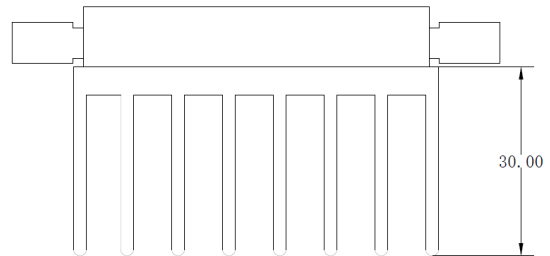
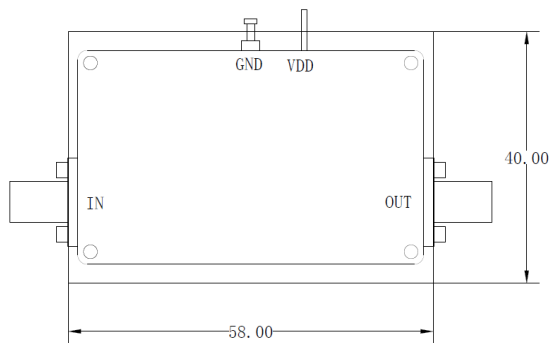


## Dimension: (unit in mm)



	<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

