



AT-LNA-0040-3804HP

10MHz-40GHz Low Noise Amplifier

10MHz-40GHz Broadband LNA, High Power

Product Overview

2021-9-15



AT-LNA-0040-3804HP is broadband LNA from 10MHz-40GHz, with $P_{out}=+22dBm$, $NF=4dB$. It can be used both as Power amplifier or low noise amplifier. The DC power requirement is +8V/350mA. The module is with 2.92mm Female

AT Microwave can provide all kinds of coaxial low noise amplifiers, with frequency from 0.01-67GHz, gain from 20 to 60dB, P_{out} from +5 to +27dBm, and connectors from SMA to 1.85mm.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 10MHz-40GHz
- ✓ $NF=4dB$
- ✓ $P_{sat}:+22dBm$
- ✓ Single Power Supply

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		10MHz-40GHz	
Gain	35dB	38dB	
Gain Flatness		+/-3dB	
$NF(0.1-40GHz)$		4dB	6dB
P_{1dB}		+20dBm	
P_{sat}		+22dBm	
Drain Supply		+8V	+12V
Current		350 mA	
Input Return Loss		-10dB	
Output Return Loss		-10dB	
Spec Temp		25C	





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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:	45x25x14 mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+15V
RF Input Power	+15 dBm
Operating Temperature(note)	-20 to +70C
Storage Temperature	-65 to +150C

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

Caution:

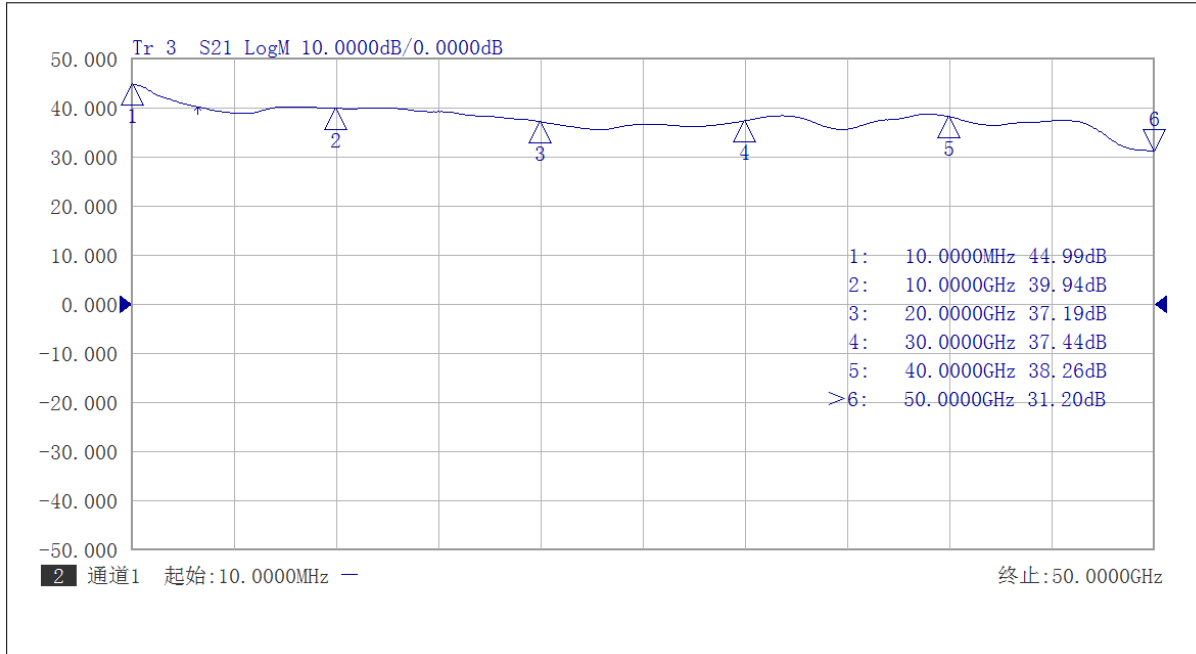
Please pay attention to the case temperature. If case temperature exceed higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

Notes:

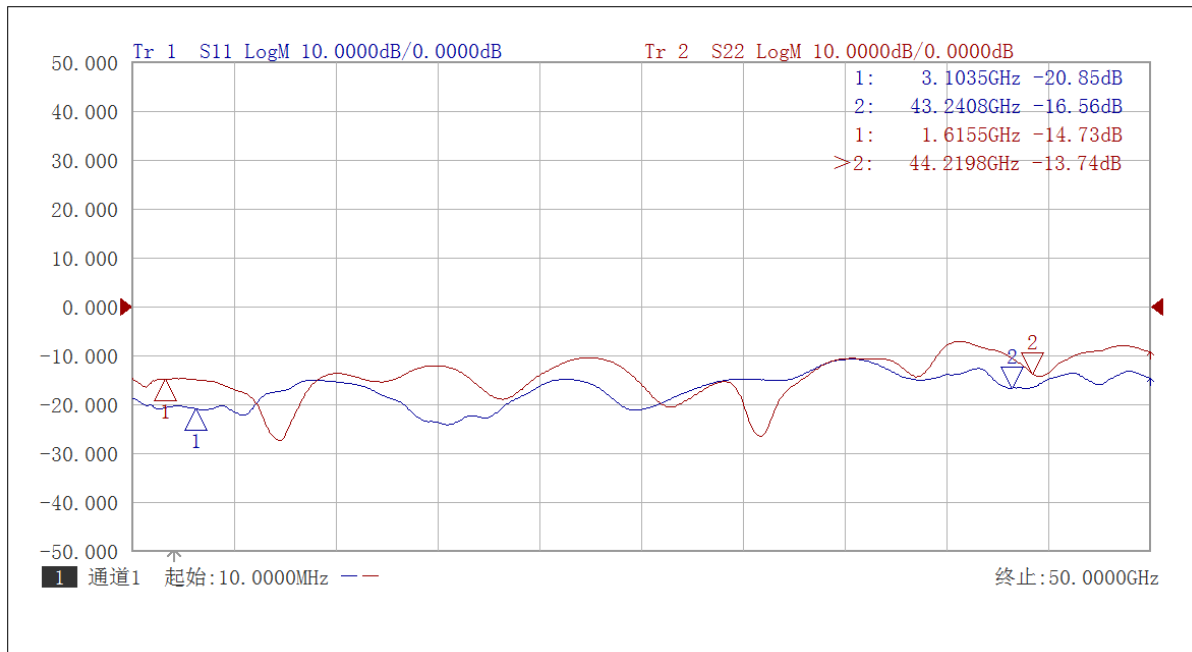
1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.



Test Data



Gain vs Frequency



Return Loss vs Frequency



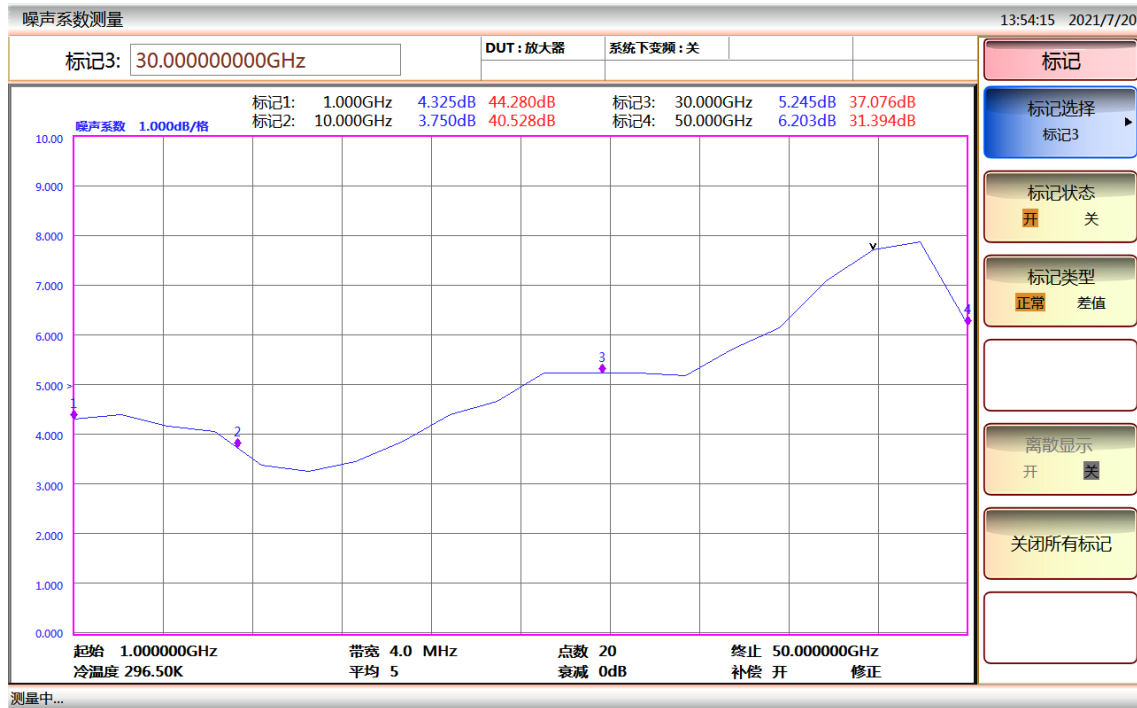


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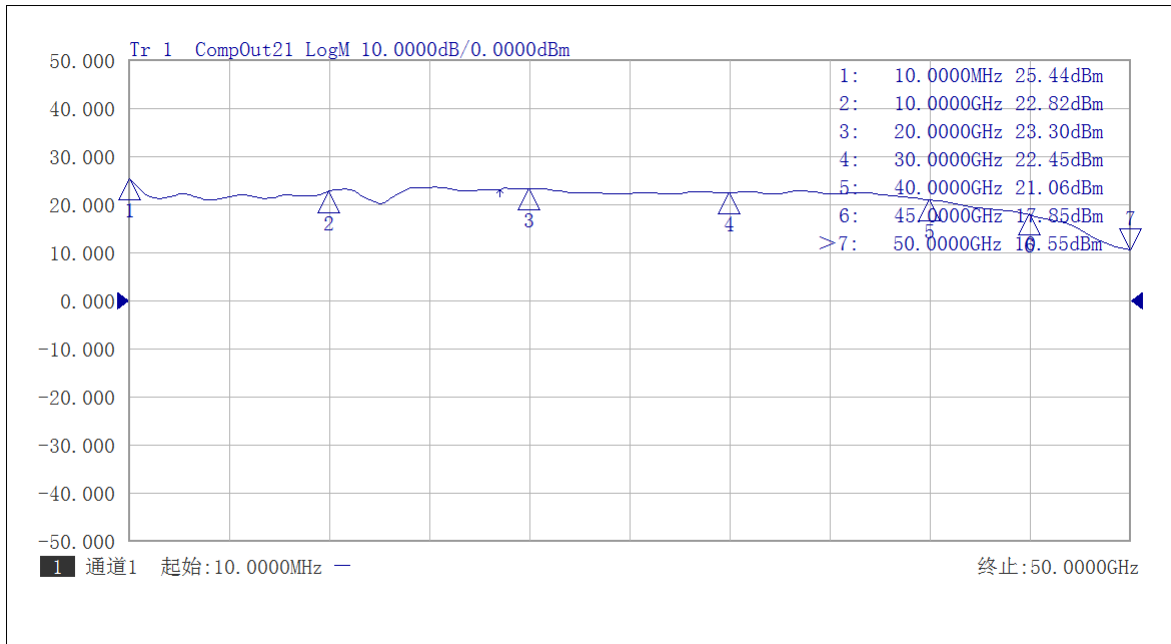


NF test 100MHz to 1GHz

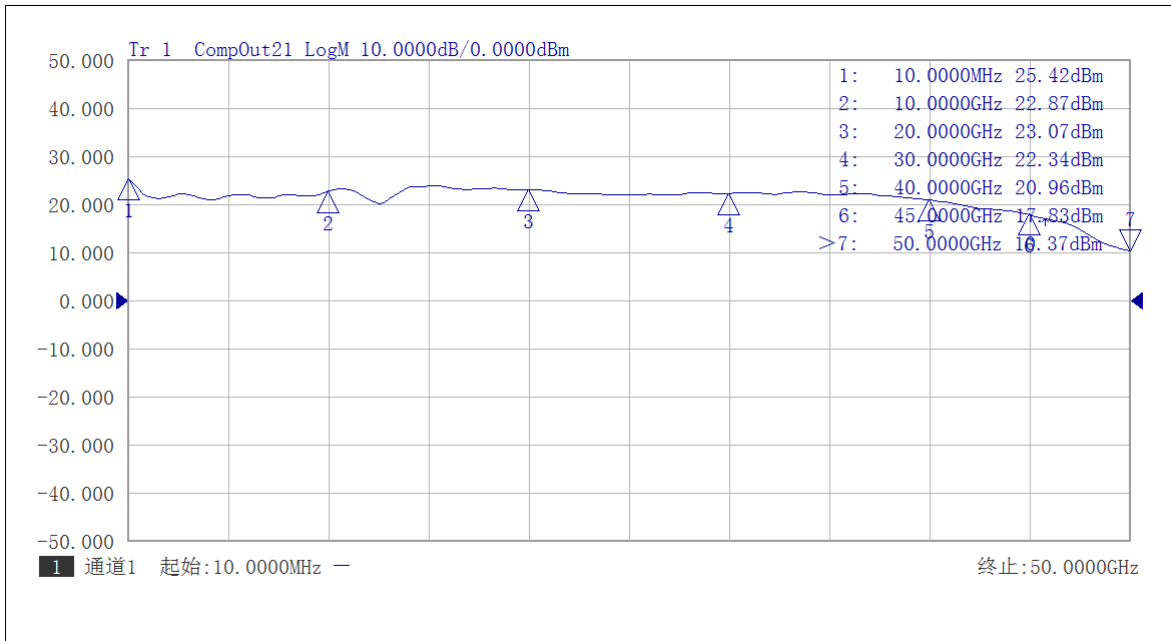


NF Test from 1GHz to 40GHz





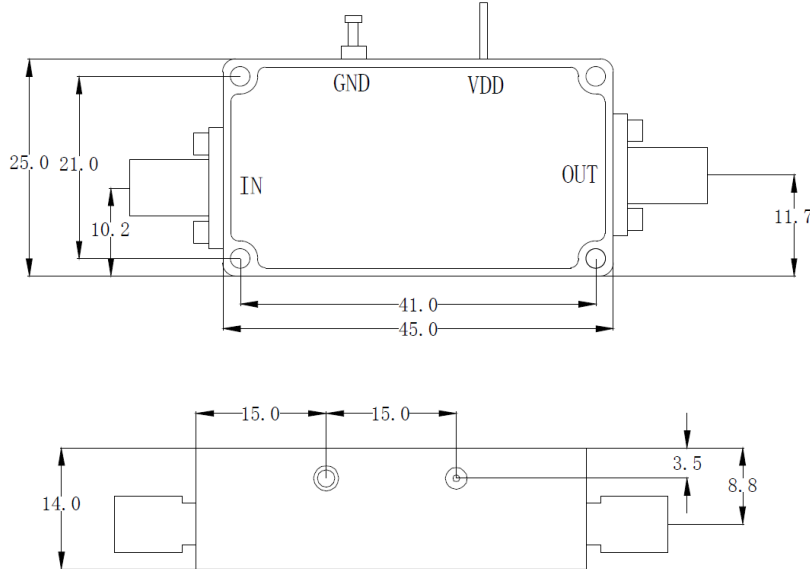
P1dB vs Frequency



P3dB vs Frequency

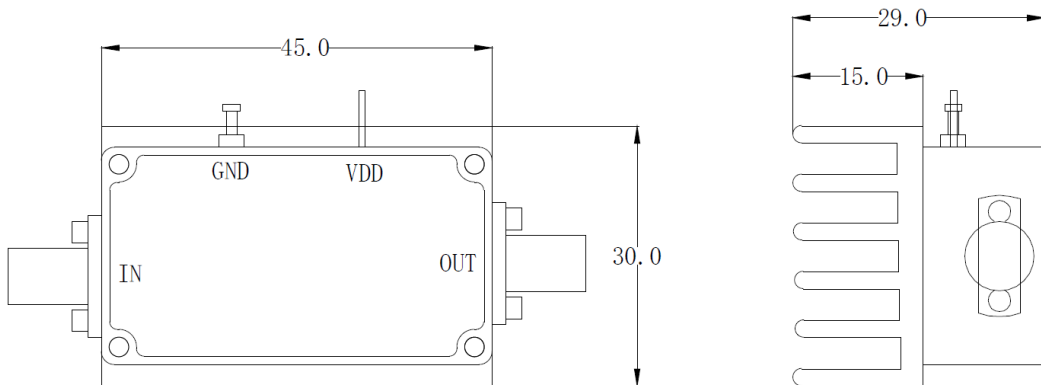


Dimension: (unit in mm)



	<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 removed it or use their own heatsink according to actual situation.

Heat Sink Required During Operation

