

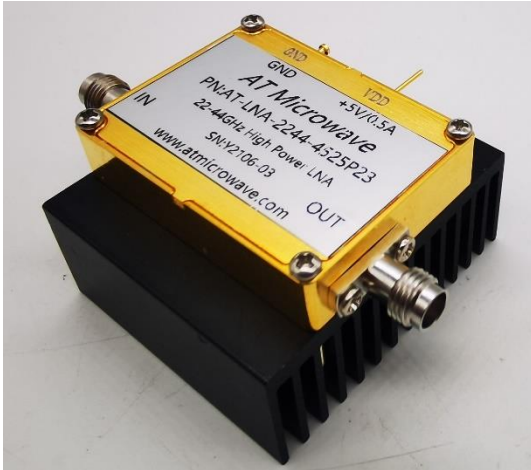


AT-LNA-2244-4525P23

22-44GHz Low Noise Amplifier

2021-5-31

22-44GHz High Power LNA



Product Overview

AT-LNA-2244-4525P23 is high gain low noise amplifier with 45dB gain in the frequency of 22-44GHz. The DC power requirement is +5V/500mA. The module is with 2.4mm Female connector.

AT Microwave can provide all kinds of coaxial low noise amplifiers, with frequency from 0.01-67GHz, gain from 20 to 60dB, Pout from +5 to +33dBm, and connectors from SMA to 1.85mm. If you don't find what you need, just send us email sales@atmicrowave.com

Advantages

- ✓ Frequency: 22-44GHz
- ✓ Small signal gain: 45dB
- ✓ NF=2.5dB
- ✓ High Pout=+23dBm

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		22-44GHz	
Gain		45 dB	
Gain Flatness		+/-3dB	
NF		2.5dB	3.5
P1dB		+22dBm	
Psat		+23dBm	
Drain Supply		+5V	+8V
Current		500 mA	600mA
Input Return Loss	-5	-10dB	
Output Return Loss	-5	-10dB	
Spec Temp		25C	





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Mechanical Information

Item	Description
Input Port	2.4mm Female
Output Port	2.4mm Female
Case Material	Copper
Finish	Gold Plated
Package Sealing	Epoxy Sealed
Weight (Without Heatsink)	80g
Size:	45x34x9.5 mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+10 dBm
Operating Temperature(note)	-20 to + 70C
Storage Temperature	-65 to +150C

Note: -45 to +85C is available according to request.

Caution:

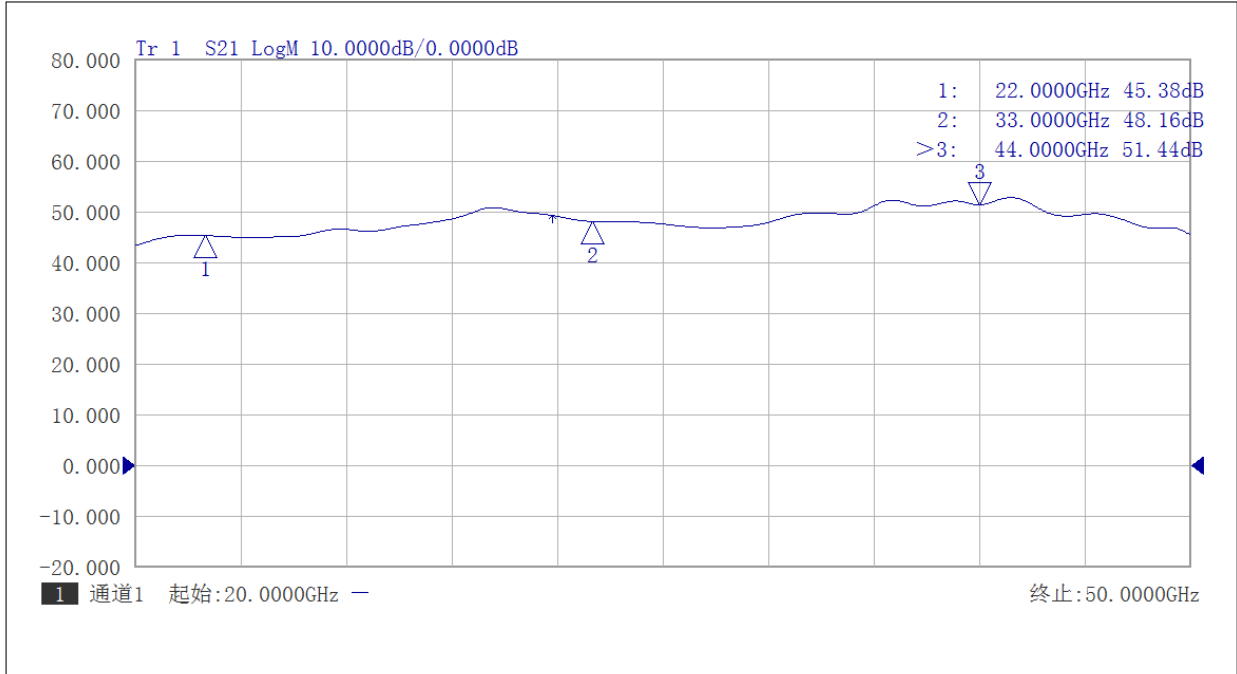
Please pay attention to the case temperature. If case temperature exceed higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

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:

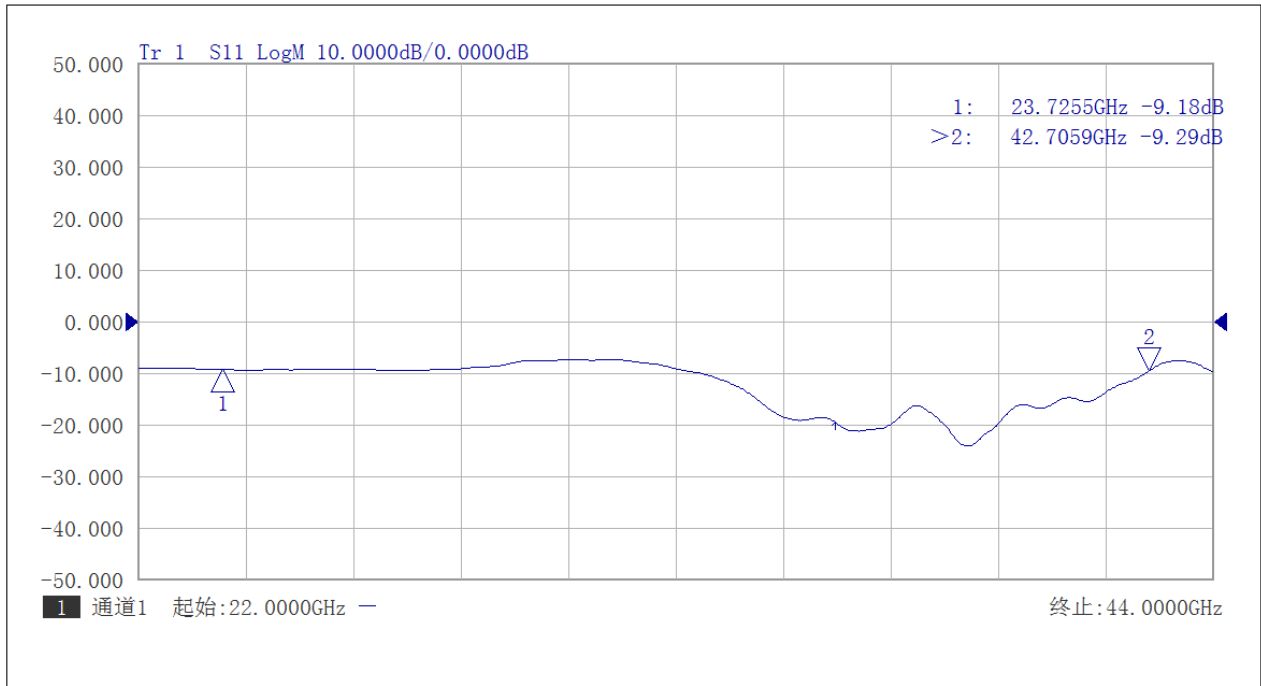


Gain vs Frequency

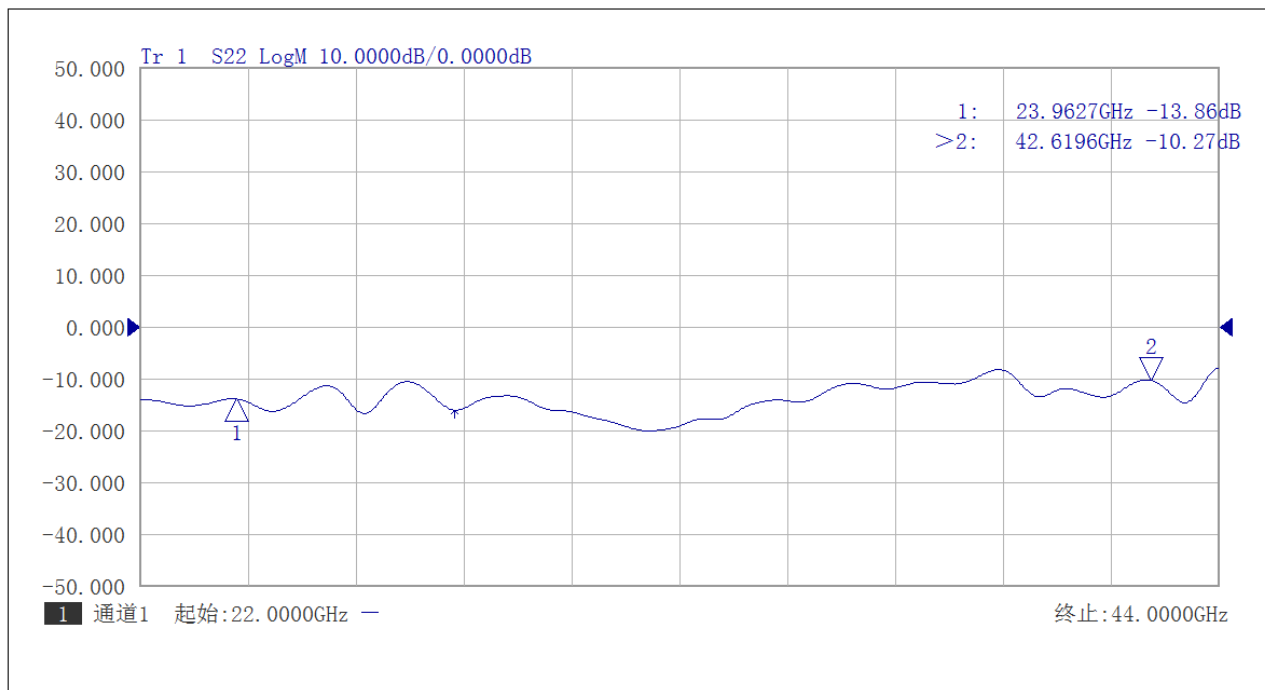


NF vs Frequency



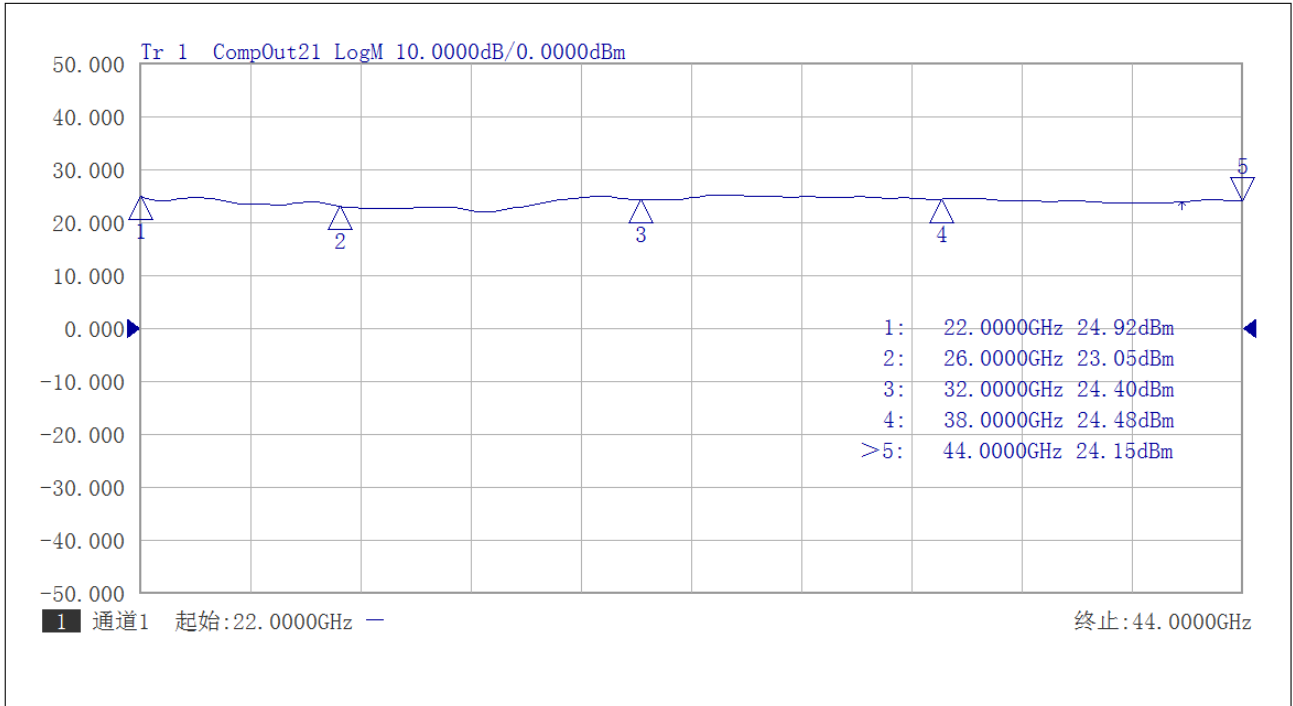


S11 Input Return Loss

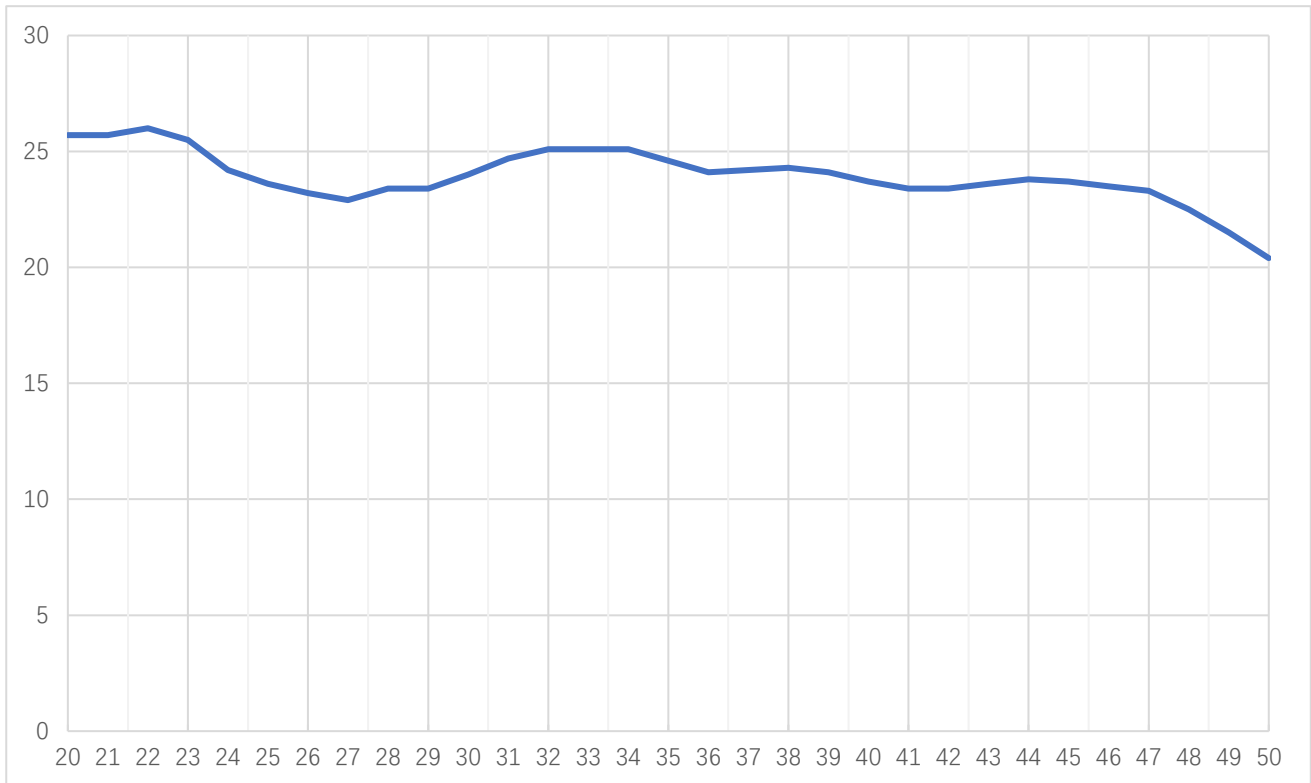


S22 Output Return Loss





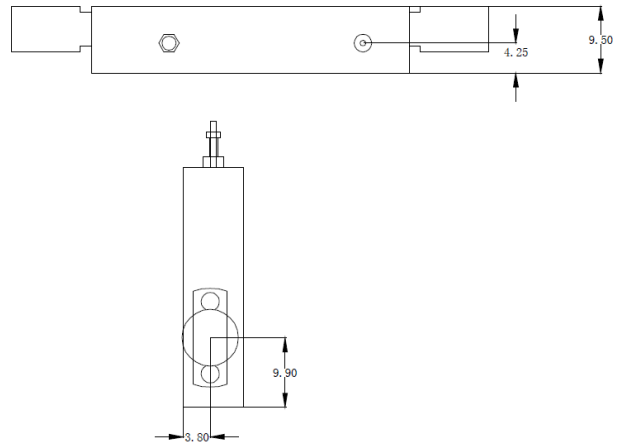
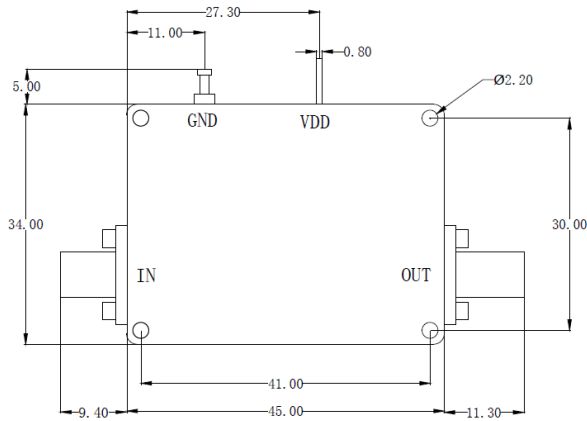
P1dB vs Frequency



PSAT VS Frequency

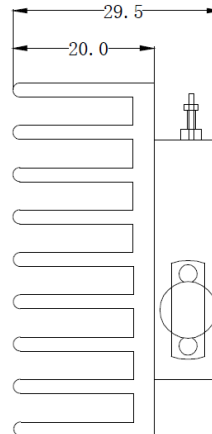
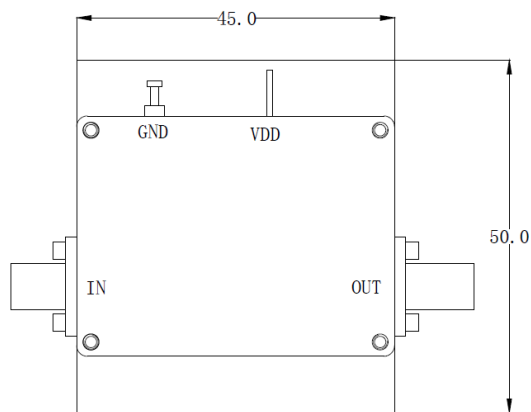


Dimension: (unit in mm)



	<26.5GHz	<40GHz	<50GHz	<67GHz
Connector	SMA	2.92mm	2.4mm	1.85mm
Lenth 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

