

AT-LNA-0118-2702P22

1-18GHz High Power Low Noise Amplifier

1-18GHz High Power LNA

Gain=27dB, Pout=+22dBm, NF=2dB



Product Overview

AT-PA-0118-2702P22 is high power Low noise amplifier with +22dBm output power in the frequency of 1-18GHz. The DC power requirement is +12V/250mA. The module is with SMA connector.

The power amplifier has high gain, high linearity, low input/output return loss and flat gain response.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 1-18GHz
- ✓ Psat:+22dBm
- ✓ Small signal gain: 27dB
- ✓ Single Power Supply

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		1-18GHz	
Gain	26	27dB	
Gain Flatness		+/-2dB	+/-3dB
P1dB		+20dBm	
Psat		+22dBm	
NF		1.8dB	2.5dB
Drain Supply	+8V	+12V	+13V
Current		250 mA	
Input Return Loss		-8dB	
Output Return Loss		-8dB	
Spec Temp		25C	





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Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	SMA Female
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	150g
Size:	30x30x14 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

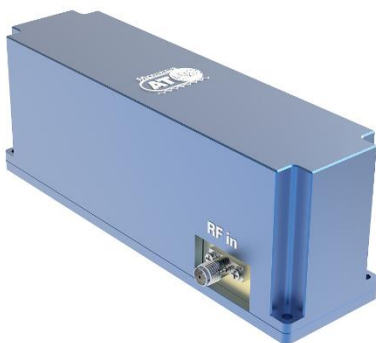
Note: -40 to +85C is available according to request.

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.

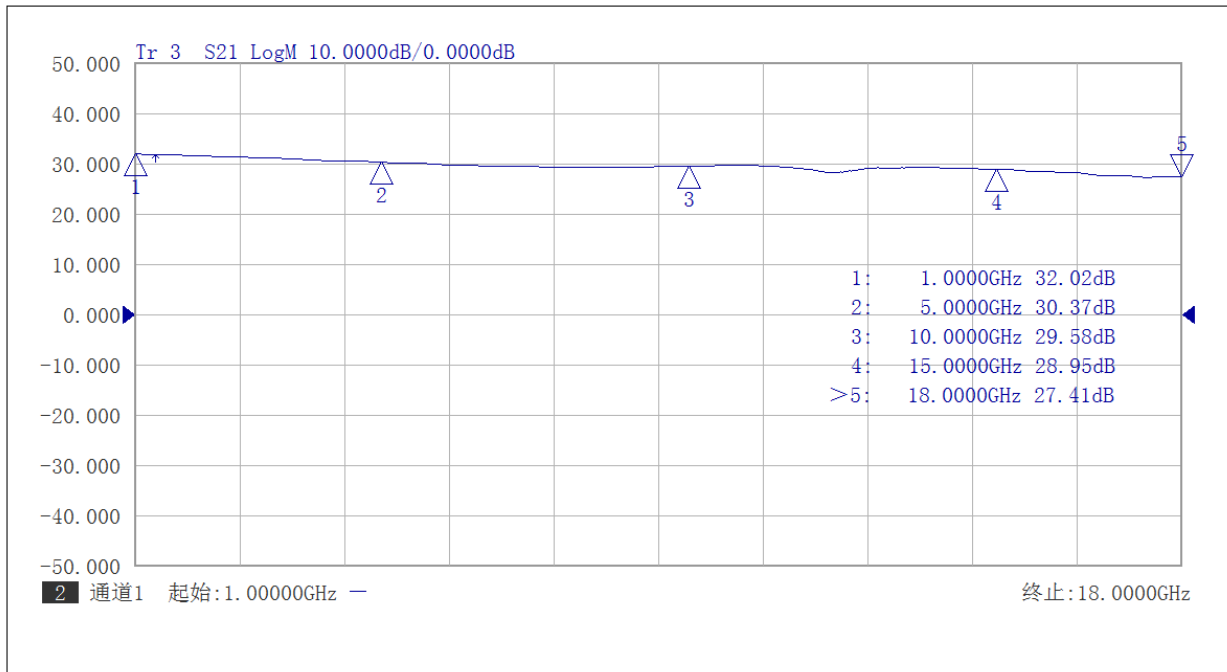
Part Number Selection Guide

Item	Description
PN	Stand Module with DC Power Supply
PN-LCBT	L ow Cost, C ompact B ench- T op, +220V Supply with AC/DC Adapter

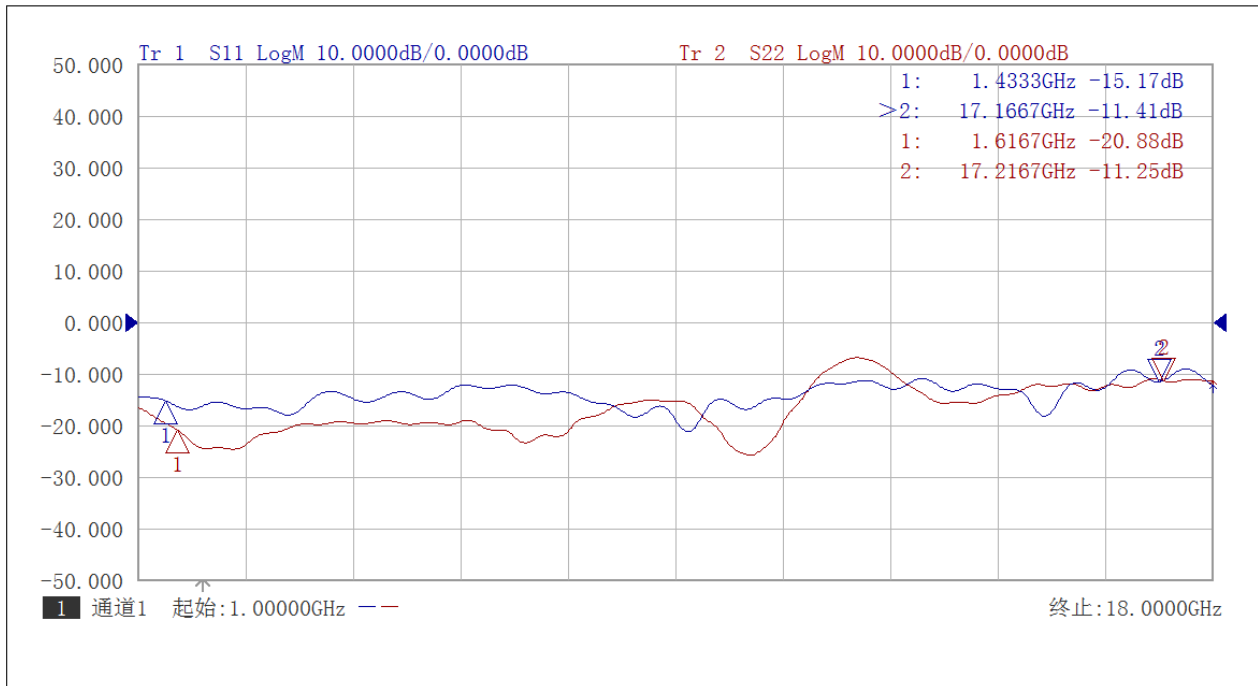


Test Data (25C)

Please note that test curves will vary slightly from unit to unit.

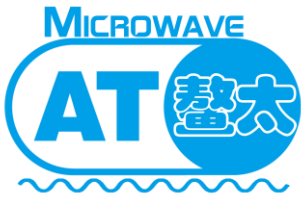


S21 vs Frequency



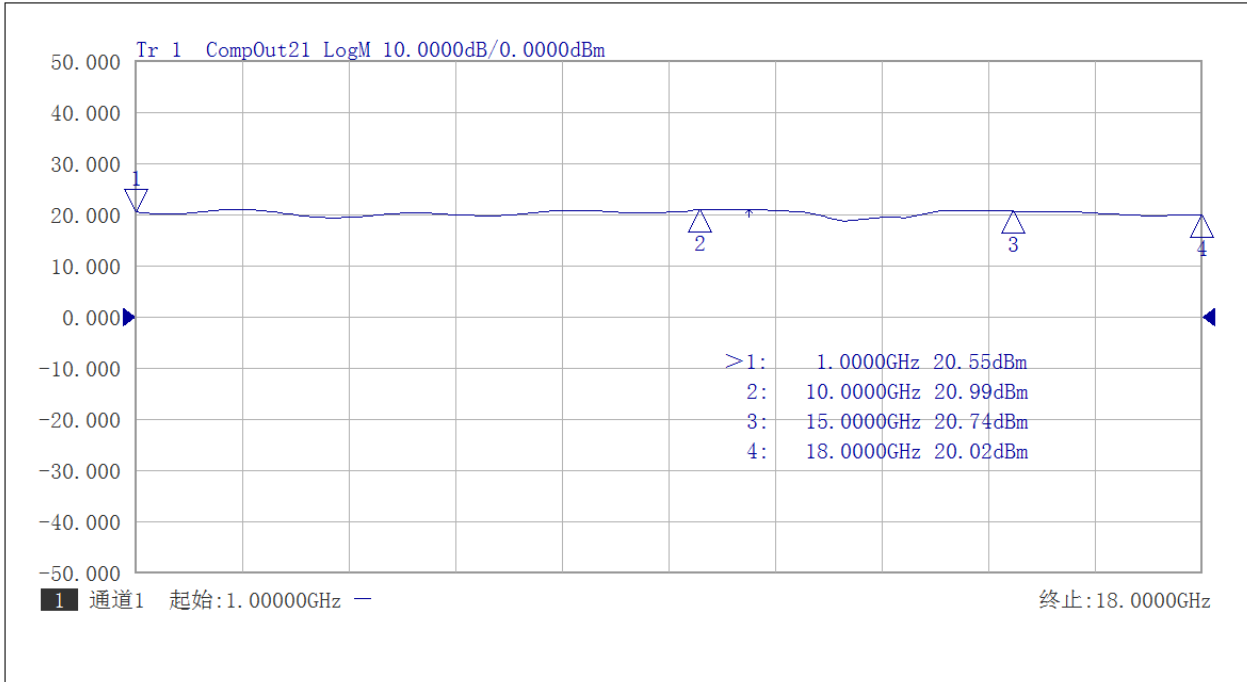
Return Loss vs Frequency



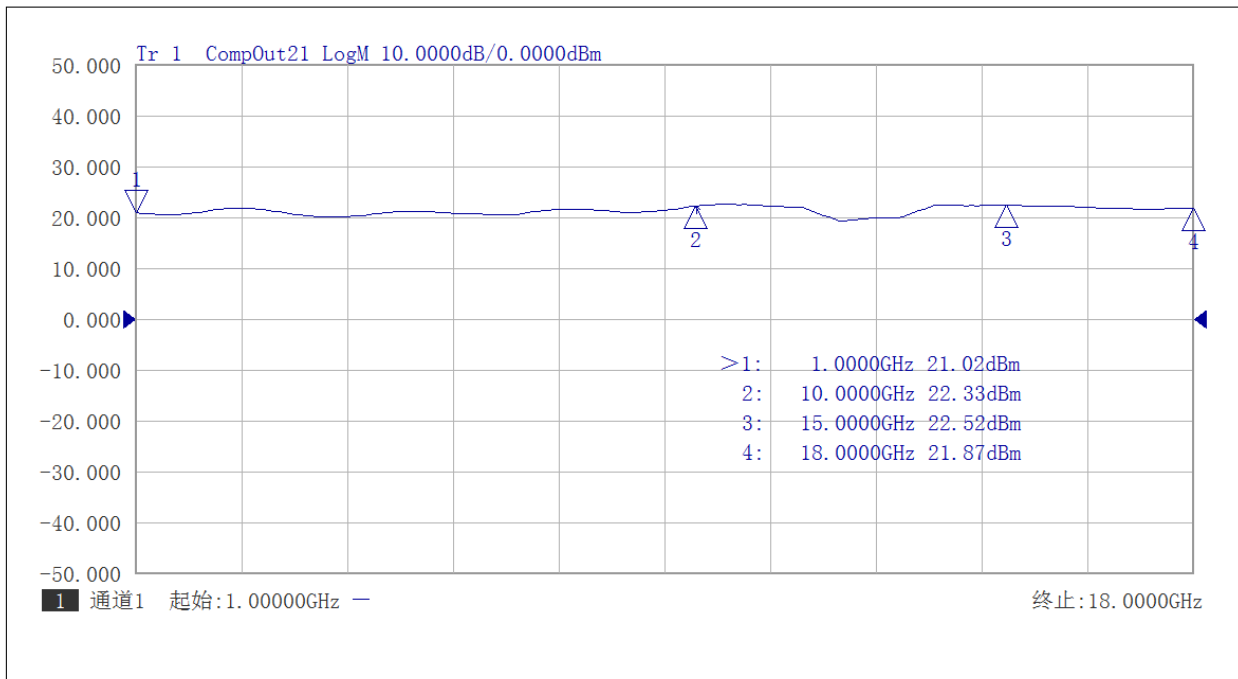


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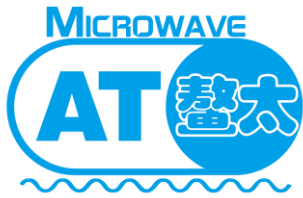


P1Db vs Frequency



P3Db vs Frequency





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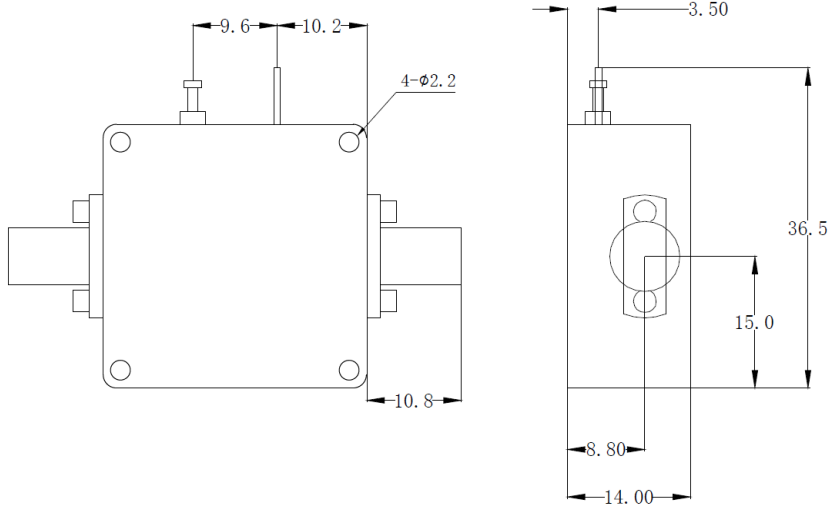
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NF vs Frequency

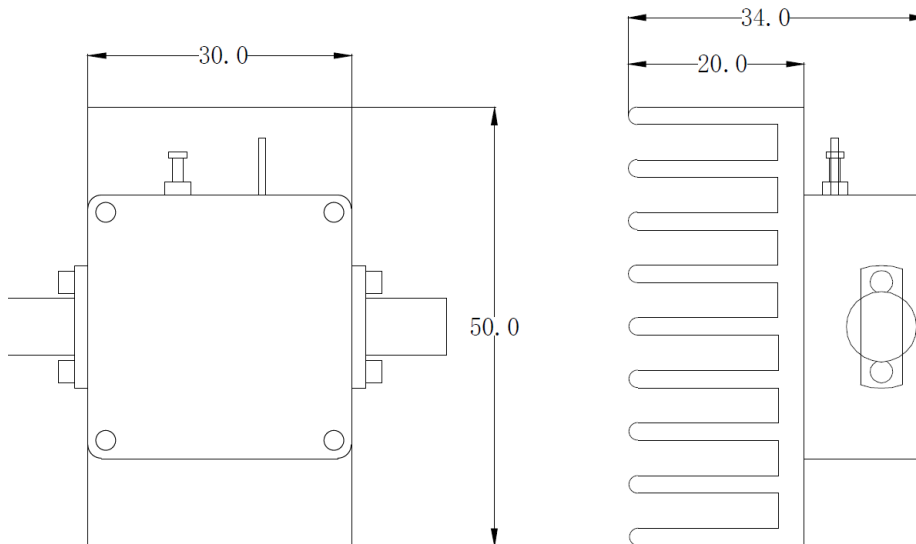


Dimension: (unit in mm)



	<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

