

Broadband Low Noise RF Amplifier (LNA)

10MHz-50GHz, 13dBm power, 23dB gain



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Features

- Frequency: 10MHz-50GHz
- Small signal gain: 23dB
- Noise Figure: 5dB
- Single Power Supply

Applications

- Broadband Communication
- Test Equipment
- ROF (RF Over Fiber)
- Radar System

Broadband low noise amplifier from 10MHz to 50GHz. The NF is 4.5dB from 100MHz-40GHz. The DC power requirement is +5V/170mA. The module is with 2.4mm Female. Other connector is available according to request.

The LNA can also work from 10MHz to 100MHz with good gain but no guarantee for NF. 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 +27dBm, and connectors from SMA to 1.85mm.

Specifications

Parameter	Min	Typical	Max	Unit
Frequency		10 - 50		MHz - GHz
Gain	20	23		dB
P1dB (10MHz-40GHz)		+12		dBm
Psat (10MHz-40GHz)		+15		dBm
NF(1-40GHz)		4.5	6.5	dB
Input Return Loss	-5	-10		
Output Return Loss	-5	-10		
Drain Supply		+5	+8	V
Current		170	200	mA
Spec Temp		25		°C
Drain Supply		+13		V
RF Input Power		+10		dBm
Operating Temperature(note)		-40 to +85		°C
Storage Temperature		-55 to +125		°C
Input Port		2.4mm Female		
Output Port		2.4mm Female		
Case Material		Copper		
Package Sealing		Epoxy Sealed		
Finish		Gold Plated		
Weight		50		g
Size		See outline		

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Rev 10/24/24

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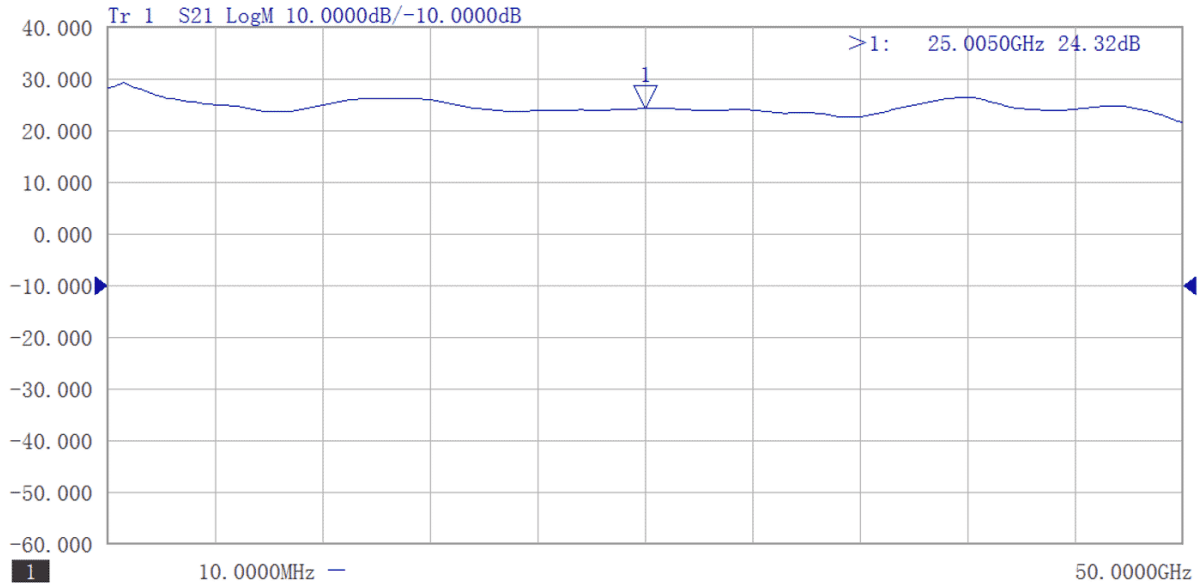
10MHz-50GHz, 13dBm power, 23dB gain



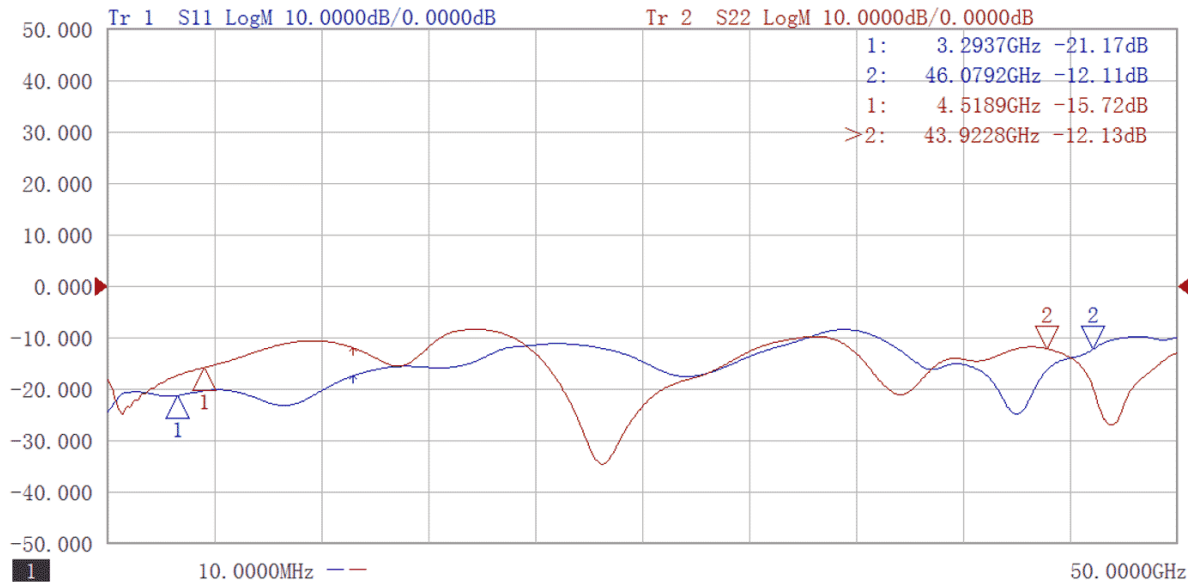
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Test Data (25°C)

Gain vs Frequency from 10MHz-50GHz



Return Loss vs Frequency



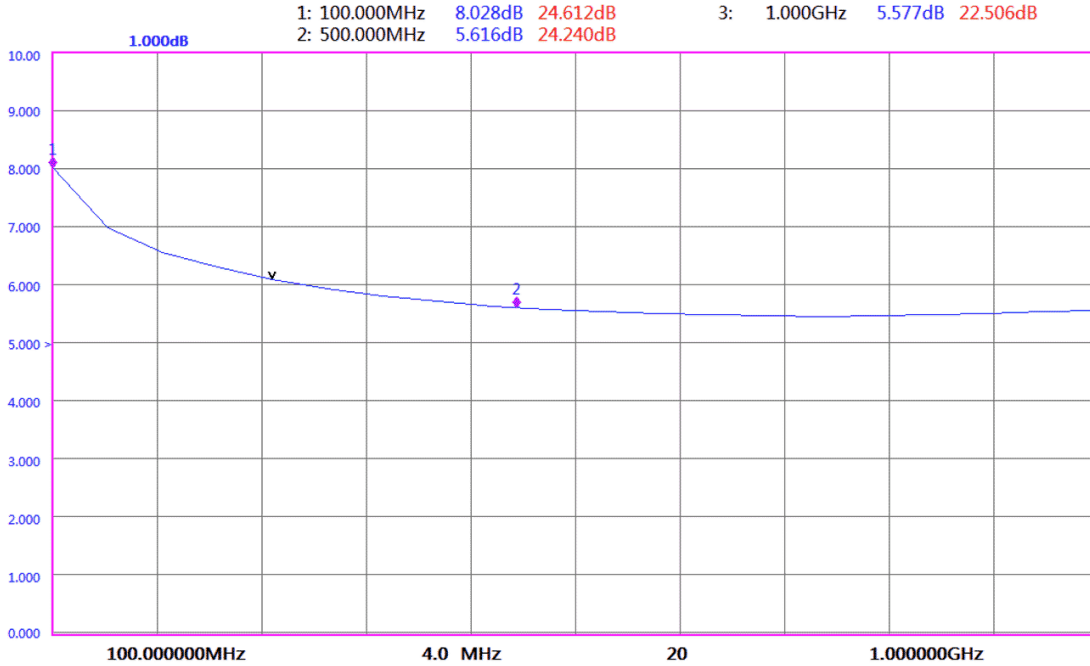
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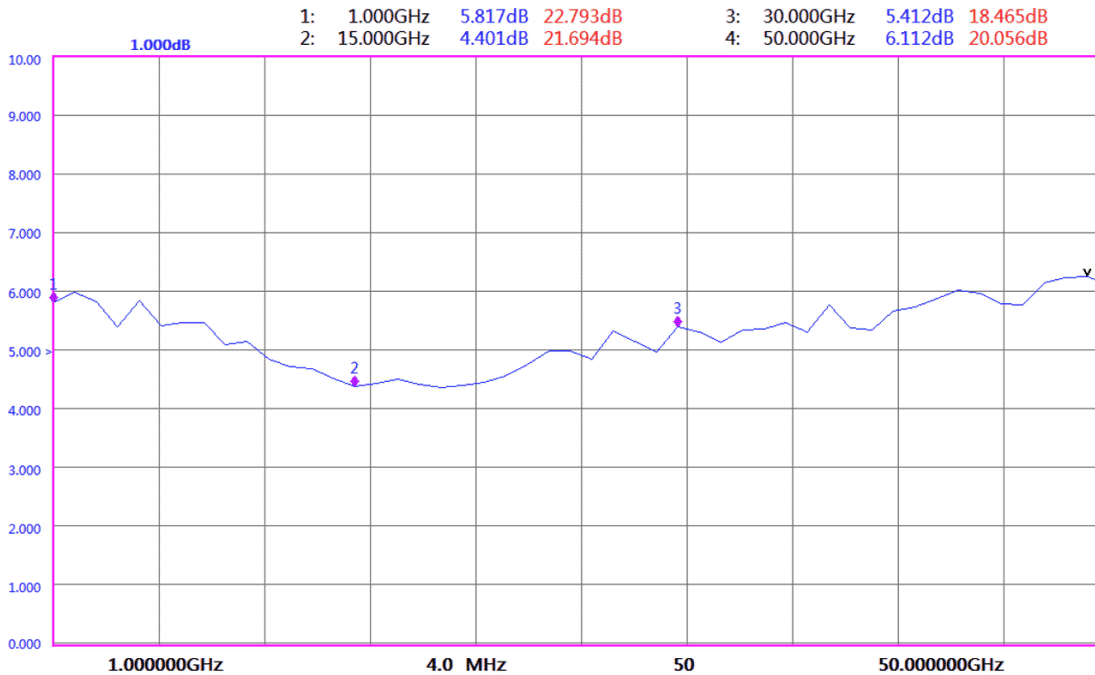


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NF test 100MHz to 1GHz



NF Test from 1GHz to 50GHz



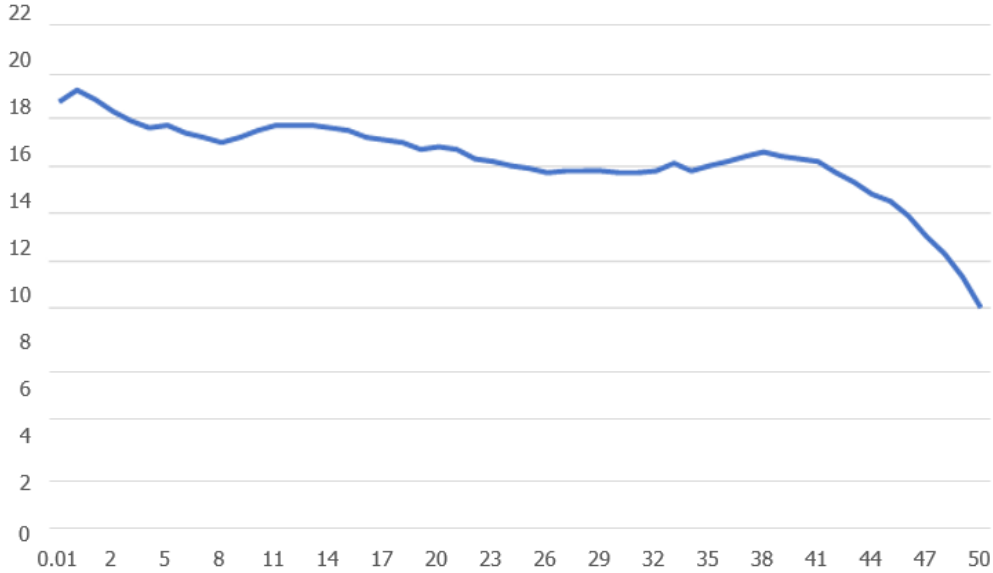
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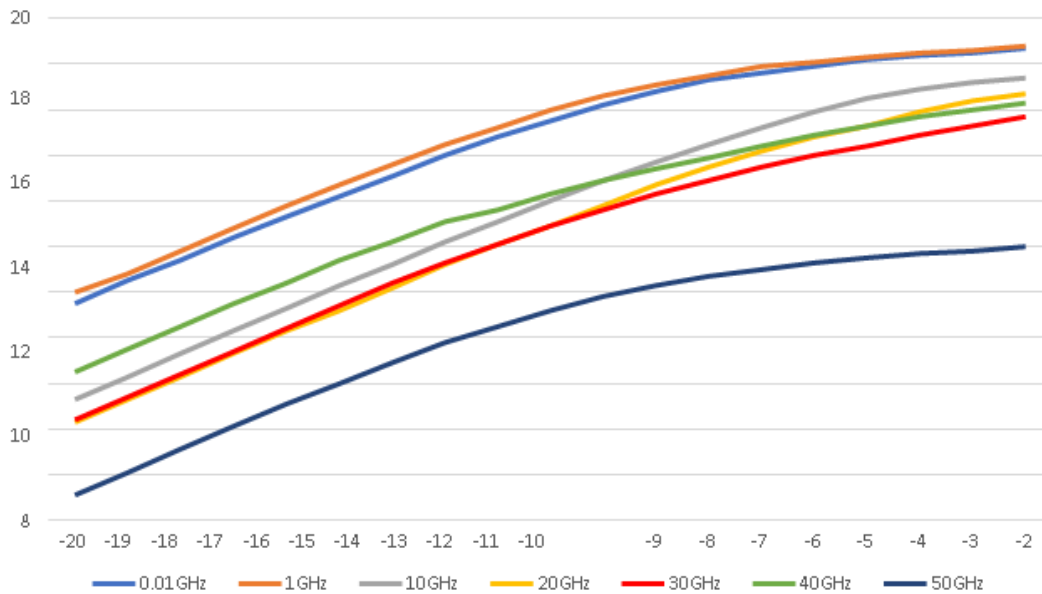


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Psat vs Frequency



Pout vs Pin



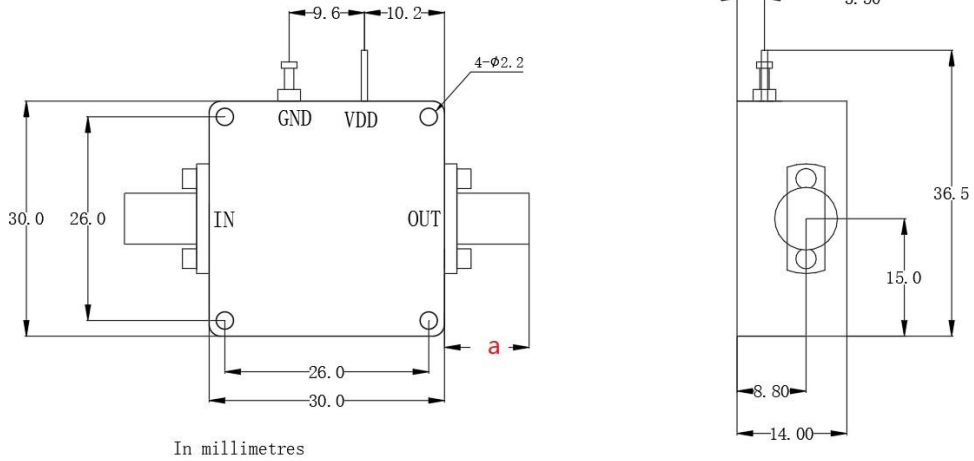
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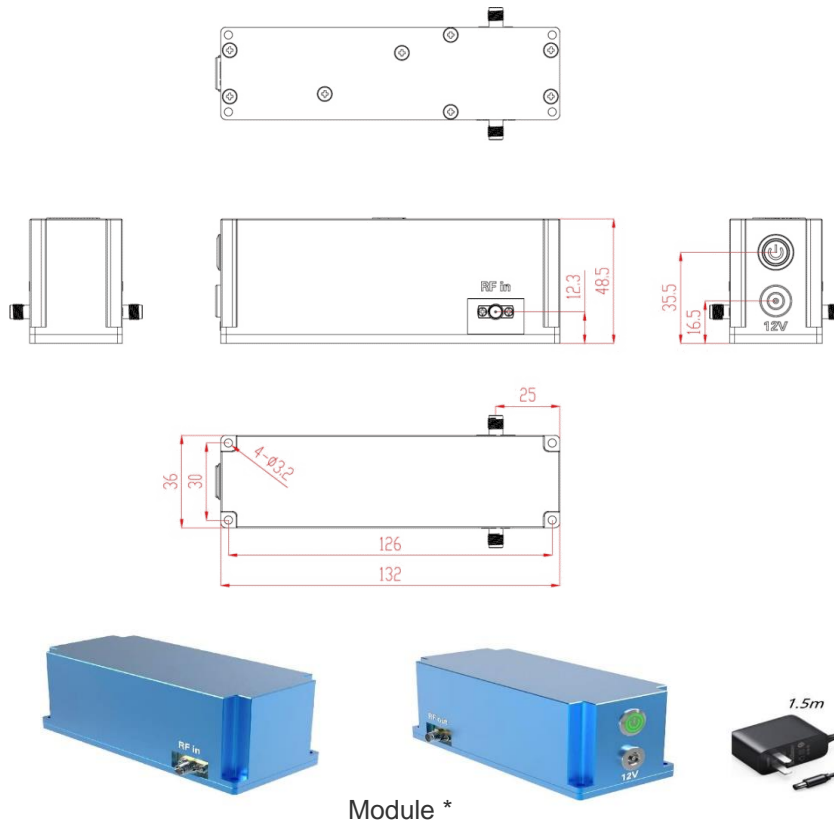
Dimensions (mm)



	<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.

-LCBT Option Dimension (mm)



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Ordering Information *

Prefix	Low Frequency	High Frequency	Gain	NF	P1dB	Module*
LNAM-	10MHz = 0010	50GHz = 50	23dB = 3	4.5dB = 4	12dBm = 12	No = 0 Yes = 1

* Module integrates DC power supply