

Broadband Low Noise RF Amplifier (LNA)

10MHz-50GHz, 13dBm power, 35dB gain



DATASHEET

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This LNAM broadband Low Noise RF Amplifier provides output power up to 13 dBm with a gain of 35 dB across a frequency range of 10 MHz to 50 GHz. It features a noise figure (NF) of 4.5 dB within the 0.01 to 43 GHz range. The amplifier operates on +5V DC at 360 mA and is equipped with a 2.4 mm female connector.

Features

- Frequency: 10MHz-50GHz
- NF=4.5dB
- High gain: 35dB
- Single Power Supply

Applications

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

Specifications

Parameter	Min	Typical	Max	Unit
Frequency	0.01		50	GHz
Gain	32	35		dB
Gain Flatness		+/-2		dB
P1dB (10MHz-43GHz)	+10	+12		dBm
Psat (10MHz-43GHz)	+13	+15		dBm
NF(1-40GHz)		4.5	6.5	dB
Input Return Loss		-8		dB
Output Return Loss		-8		dB
Drain Supply		+5	+8	V
Current		360		mA
Spec Temp		25		°C
Drain Supply			15	V
RF Input Power			10	dBm
Operating Temperature(note)	-40		+ 85	°C
Storage Temperature	-55		+100	°C
Input Port		2.4mm Female		
Output Port		2.4mm Female		
Case Material		Copper		
Package Sealing		Gold Plated		
Finish		Epoxy Sealed		
Weight (Without Heatsink)		80		g
Size		See outline		

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Rev 10/24/24

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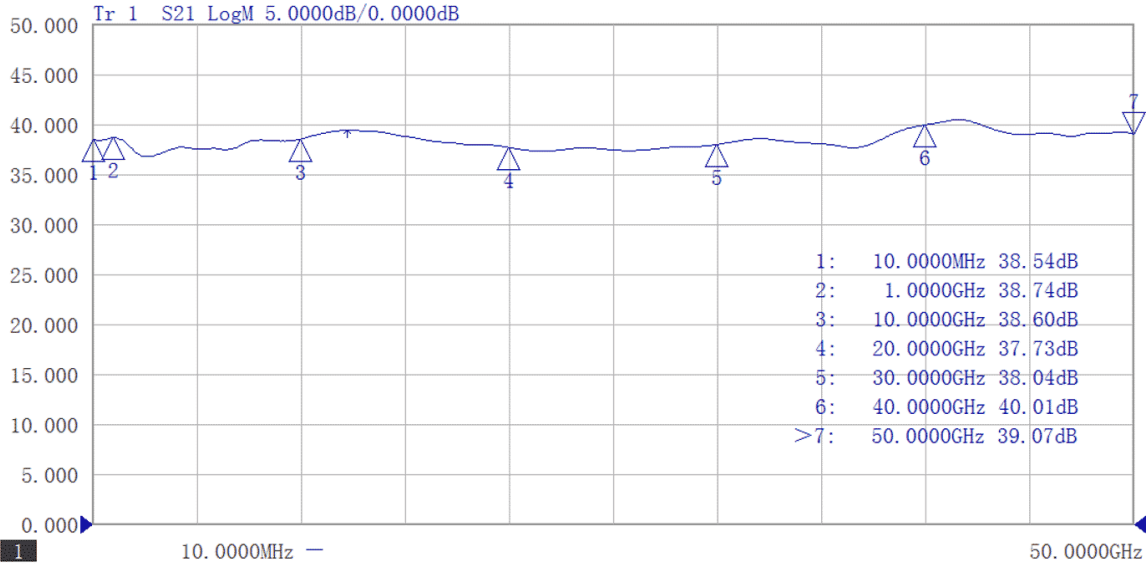
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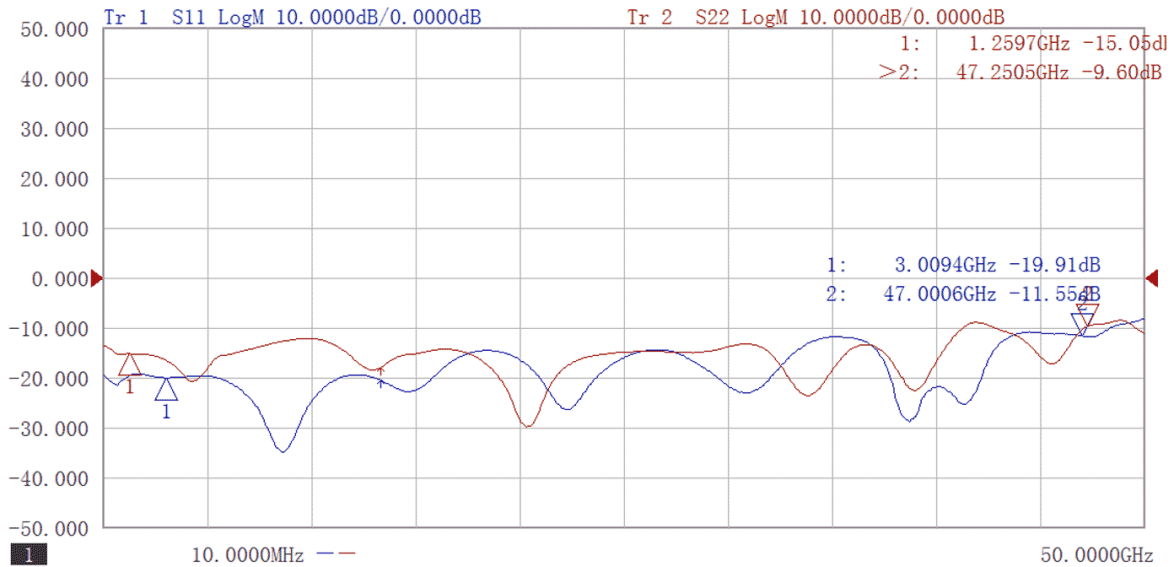
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Test Data (25°C)

Gain vs Frequency



Return Loss vs Frequency



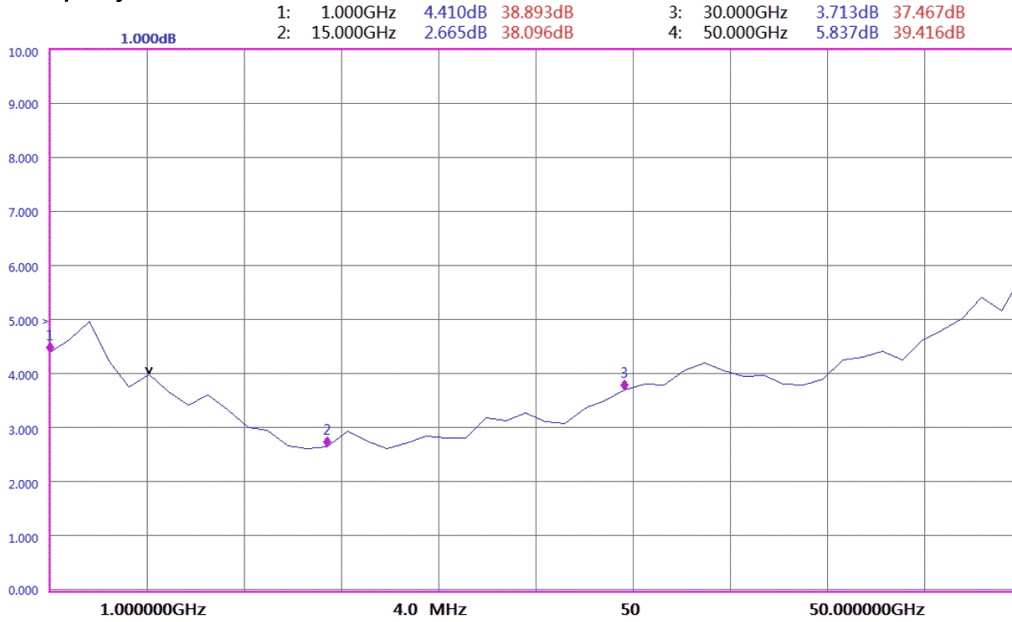
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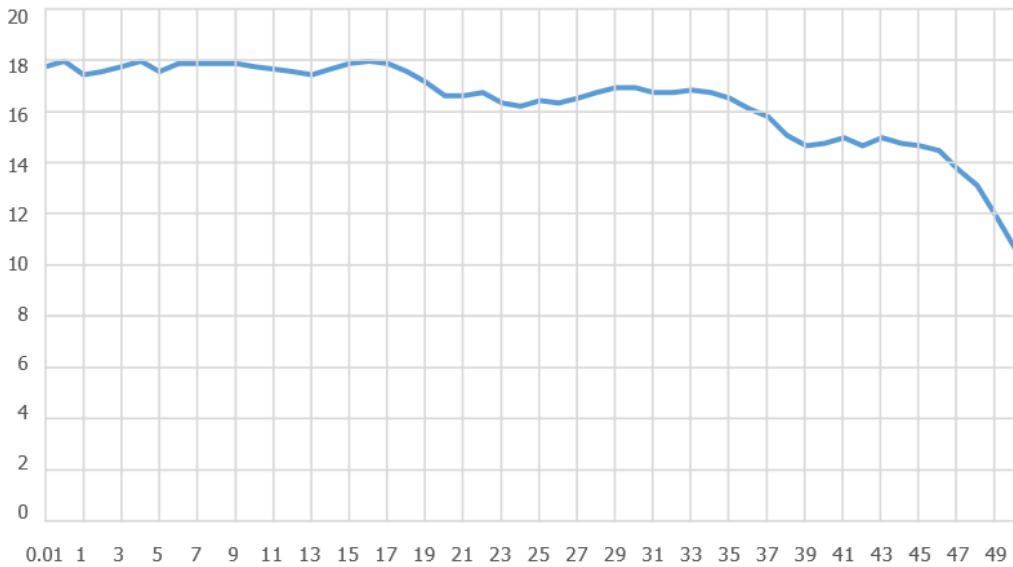


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NF vs Frequency 1-50GHz



Psat vs Frequency



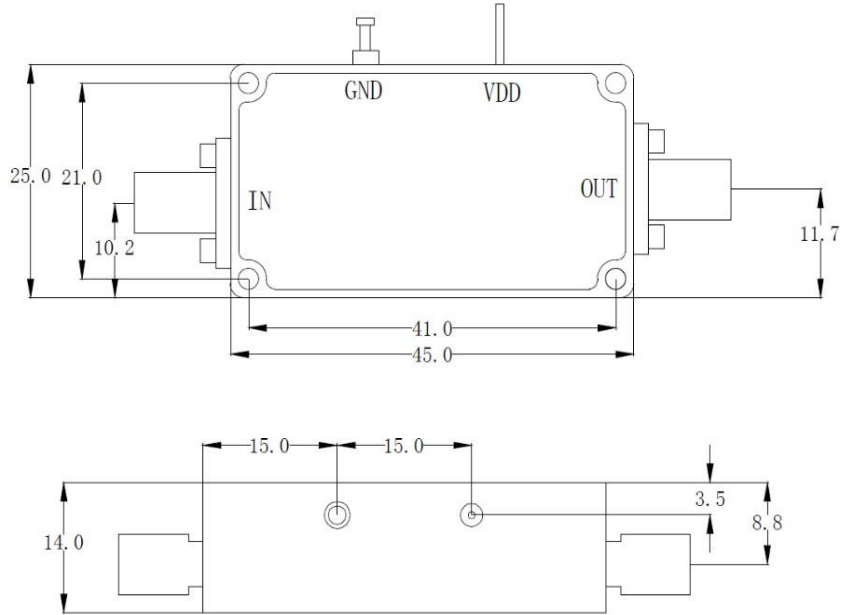
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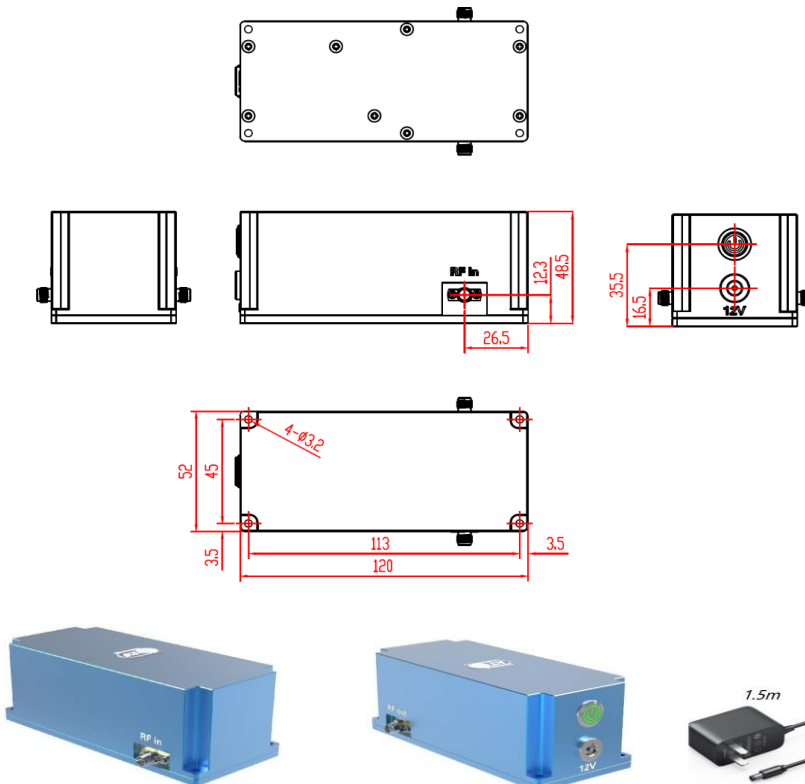
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Dimensions (mm)



Standard module outline, Heat sink required if case temp exceeds 50°C

Optional Module Integrated with Power Supply Dimension (mm)



Module*

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Ordering Information

Prefix	Low Frequency	High Frequency	Gain	NF	P1dB	Module*
LNAM-	10MHz = 0010	50GHz = 50	35dB = 5	4.5dB = 4	12dBm = 12	No = 0 Yes = 1

* Module integrates DC power supply