

# Broadband Low Noise RF Amplifier (LNA)

50kHz-20GHz, 35 dB gain



DATASHEET

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## Features

- Frequency: 50kHz-20GHz
- Signal Gain: 30dB
- NF=3dB
- Vout=4.48Vpp

## Applications

- 5G Communication
- Test Equipment
- Optical Modulator Driver
- Radar System



This LNA broadband Low Noise RF Amplifier provides output power up to 17 dBm with a gain of 35 dB across a frequency range of 50 kHz to 18 GHz. It features a noise figure (NF) of 3 dB within the 0.1-20GHz range. The amplifier operates on +12V DC at 120 mA and is equipped with a SMA Female connector.

## Specifications

Parameter	Min	Typical	Max	Unit
Frequency Range	0.00005	18	20	GHz
Gain		30	35	dB
NF (0.1-20GHz)		3	5	dB
Input Power		-10	0	dBm
P1dB		+17		dBm
Psat		+16		dBm
Output Vpp		4.48		Vpp
Drain Supply	+8	+12	+15	V
Current		80		mA
Input Return Loss		-10		dB
Output Return Loss		-10		dB
Spec Temp		25		°C
Drain Supply		+16		V
RF Input Power		+20		dBm
Input Vpp		3.56		Vpp
Operating Temperature(note)	-20		70	°C
Storage Temperature	-65		+150	°C
Input Port		GPPO Male	2.92mm Female	
Output Port		GPPO Male	2.92mm Female	
Weight (Without Heatsink)		50		g

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

## Caution

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

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# Broadband Low Noise RF Amplifier (LNA)

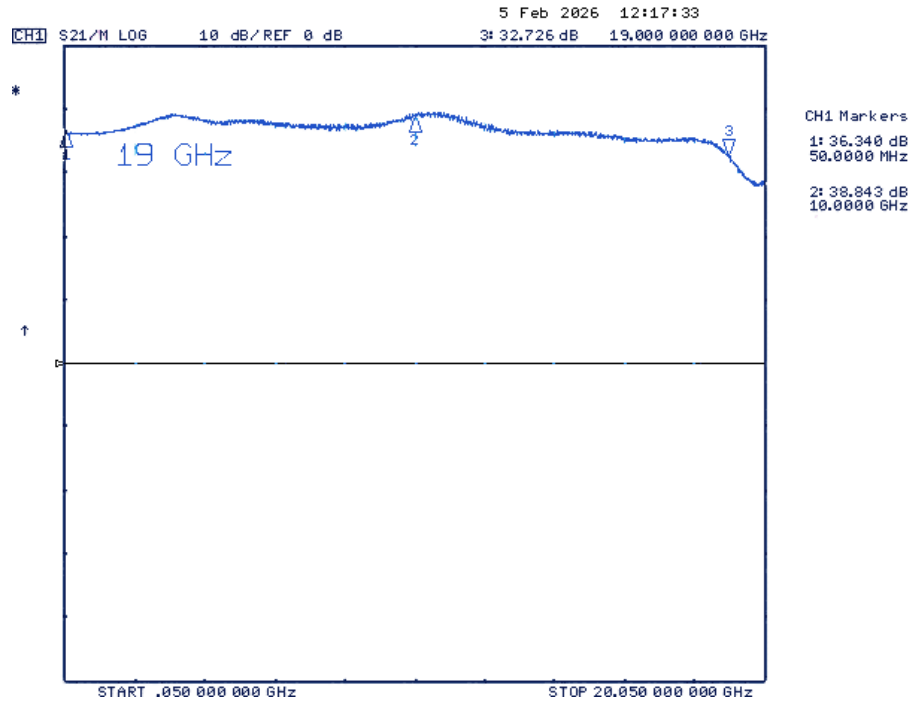
50kHz-20GHz, 35 dB gain



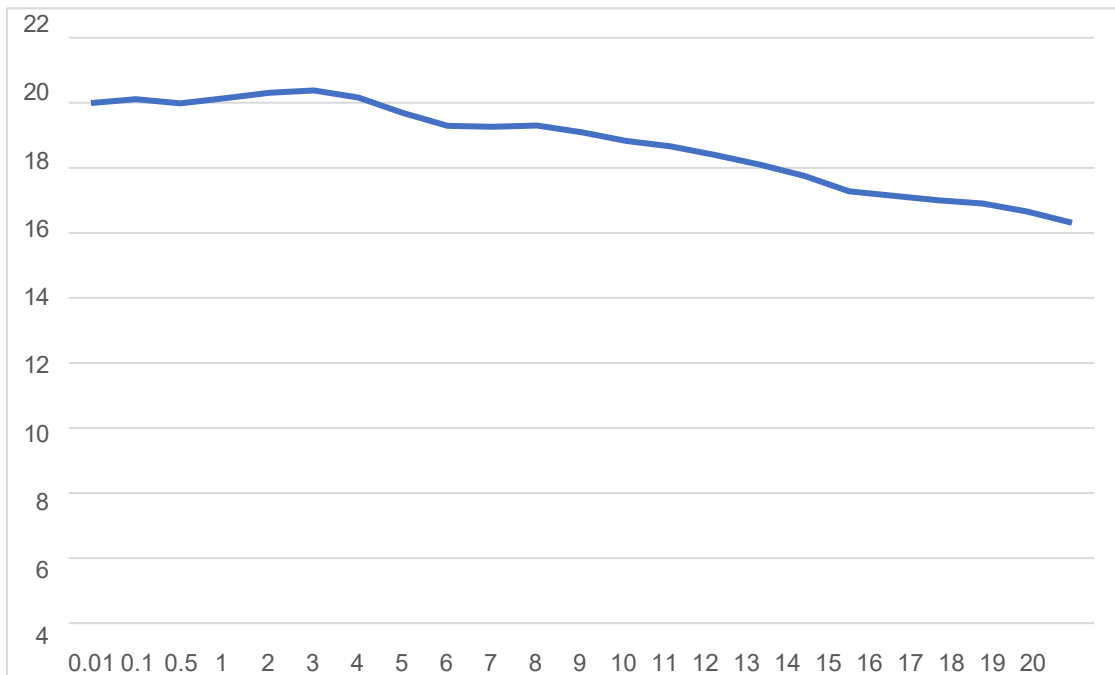
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### Test Data (25°C)

#### S21 50MHz-20GHz



### Psat vs Frequency



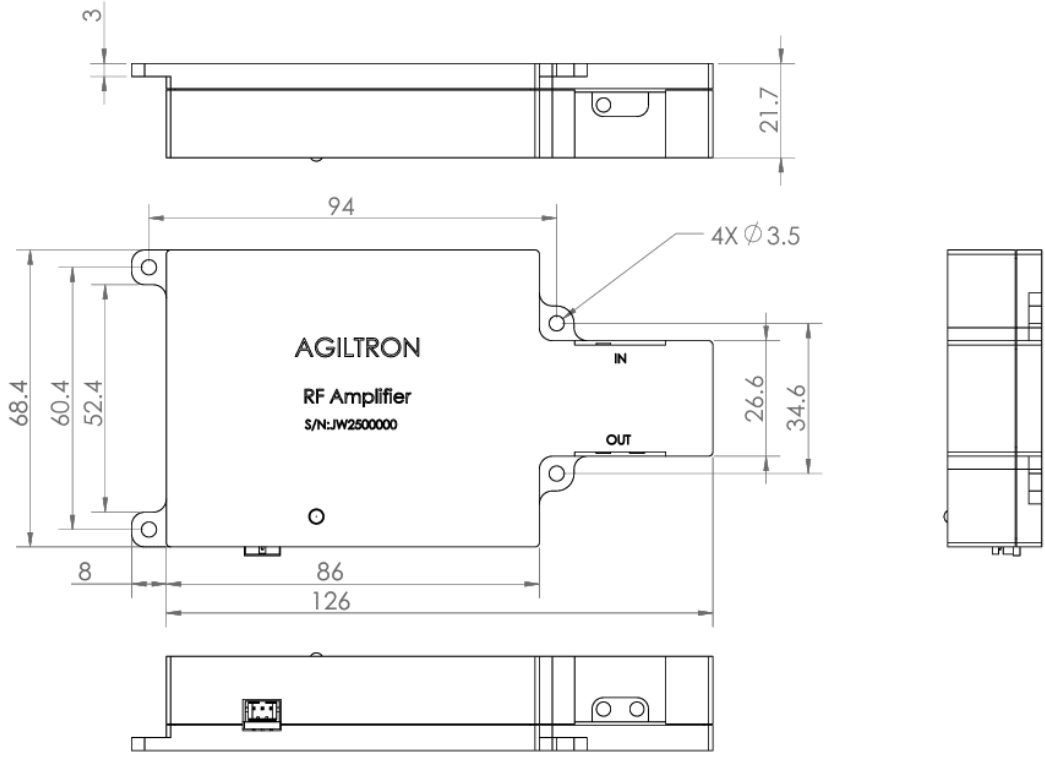
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### Dimensions (mm)



### Ordering Information (Part Number)

Prefix	0005	20	30	3	17	<input type="checkbox"/>
Prefix	Low Frequency	High Frequency	Gain	NF	P1dB	Module <sup>[1]</sup>
<b>LNAM-</b>	0.05MHz = 0005	20GHz = 20	30dB = 30	3dB = 3	17dBm = 17	No = 0 Yes = 1

[1]. The module is a small metal box integrated with a power supply.