

Low Noise RF/Microwave Amplifiers

(for driving lithium niobate modulators, 50kHz to 50GHz)



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Features

- Increase Modulator Extinction Ratio

Applications

- Radar
- RoF
- Laboratory Uses
- Concept Proving
- Instrumentation



The LNAM series low noise amplifiers are designed to drive lithium niobate modulators. These amplifiers enhance the RF input signal to reach modulator's V_p at high frequencies. They use 50 Ohm SMA connectors and operate within a frequency range of 50 kHz to 50 GHz.

This device requires a high current to start. Using a $>2A$ source to driver this device, do not limit the current which can cause permanent damage.

Specifications

Parameter	Min	Typical	Max	Unit
Frequency Range	0.00005		50	GHz
Small Signal Gain	18		35	dB
Noise Figure	3		5	dB
1dB Compression Point (P1dB)	10		15	dBm
DC Power Voltage	5		8	V
DC Current	80		300	mA
Output Voltage Precision	0.04		0.1	mV
Output Current			10	mA
Dither Frequency		1		KHz
RF Input Power			30	dBm
Storage Temperature	-45		85	°C

Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this link](#):

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Dimensions (mm)

*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Electrical Connection

Ordering Information (Part Number) *

	☐	☐	☐	☐	☐	☐	1	☐	☐
Prefix	Low Frequency	High Frequency	Gain	NF	P1dB	Current		VD	Connector
LNAM-	50kHz = 1	20GHz = 1	18dB = 1	3dB = 1	15dBm = 1	80mA = 1		8V = 1	SMA = 1
	50kHz = 1	20GHz = 1	30dB = 2	3dB = 1	17dBm = 1	160mA = 2		8V = 1	SMA = 1
	50kHz = 1	40GHz = 2	23dB = 4	4dB = 2	10dBm = 2	170mA = 3		5V = 2	2.92mm = 2
	50kHz = 1	40GHz = 2	35dB = 5	4dB = 2	10dBm = 2	300mA = 4		5V = 2	2.92mm = 2
	10MHz = 2	50GHz = 3	23dB = 4	5dB = 5	13dBm = 2	170mA = 3		8V = 2	2.4mm = 3
	10MHz = 2	50GHz = 3	35dB = 5	5dB = 5	13dBm = 2	3000mA = 4		8V = 2	2.4mm = 3
	50GHz = 3	50GHz = 3	35dB = 5	5dB = 5	13dBm = 2	3000mA = 4		8V = 2	2.4mm = 3

* Each color indicate one available type of configuration. Select the entire line of parameters to place an order

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