

LM324N Quad Operational Amplifier IC

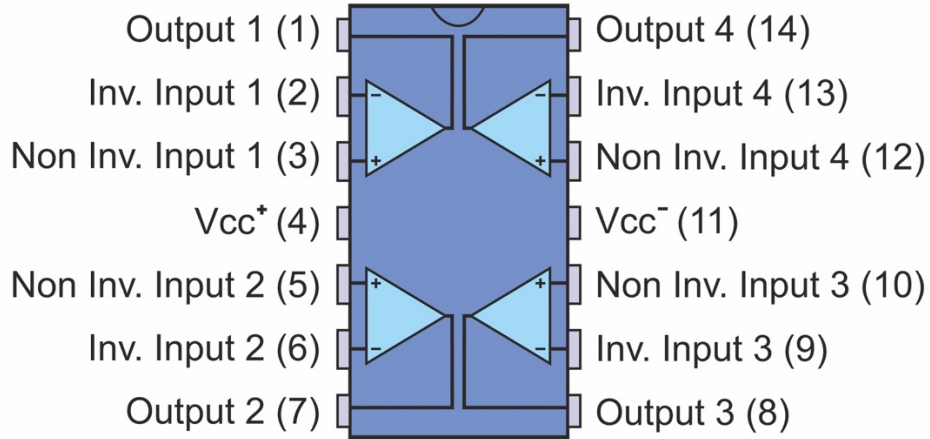


Features:

The LM324N Quad Operational Amplifier IC combines four independent high gain operational amplifiers in a single DIP-14 package. It supports single supply operation from 3V to 32V, has true differential inputs, internally compensated amplifiers, short circuit protected outputs, and low operating current, making it suitable for low power amplifier, sensor, filter, comparator, and microcontroller interface circuits.

Specifications	
Part Number	LM324N
Device Type	Quad operational amplifier IC
Package	DIP-14
Number of Amplifiers	4
Supply Operation	Single supply
Supply Voltage Range	3V to 32V
DC Gain	100dB
Bandwidth	1MHz
Operating Current	700uA to 800uA
Input Stage	True differential input
Common Mode Range	Extends to negative supply
Output Voltage Range	Includes negative power supply voltage
Output Protection	Short circuit protected outputs
Input and Output Protection	Protected from overload
Internal Compensation	Yes
Standard Pinout	Yes
Logic and Microcontroller Use	Can be used with logic devices and microcontrollers
Operating Temperature	0 deg C to 70 deg C
Dimensions	1.9x0.9x0.7cm
Storage Temperature	-65 deg C to 150 deg C
Applications	Sensor circuits, small signal amplification, general op-amp circuits, audio preamplifiers, filters, comparator applications
Usage	Low power amplification, control, regulation, sensor, filter, and comparator circuits

Pinouts:



Pin Number	Type	Description
1	Output 1	Output of the first operational amplifier
2	Input 1 (-)	Inverting input of the first operational amplifier
3	Input 1 (+)	Non-inverting input of the first operational amplifier
4	Vcc / Positive Supply	Positive supply for the IC and all operational amplifiers
5	Input 2 (+)	Non-inverting input of the second operational amplifier
6	Input 2 (-)	Inverting input of the second operational amplifier
7	Output 2	Output of the second operational amplifier
8	Output 3	Output of the third operational amplifier
9	Input 3 (-)	Inverting input of the third operational amplifier
10	Input 3 (+)	Non-inverting input of the third operational amplifier
11	Ground / Negative Supply	Ground or negative supply for the IC and all operational amplifiers
12	Input 4 (+)	Non-inverting input of the fourth operational amplifier
13	Input 4 (-)	Inverting input of the fourth operational amplifier
14	Output 4	Output of the fourth operational amplifier

Product Pictures:

