

## 1.5 GHz Ultrahigh Speed Op Amp

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	LFCSP-8
Product Type	Amplifier ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD8000YCPZ-REEL7 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD8000 is an ultrahigh speed, high performance, currentfeedback amplifier. Using Analog Devices, Inc., proprietary Xtra Fast Complementary Bipolar (XFCB) process, the amplifier can achieve a small signal bandwidth of 1.5 GHz and a slewrate of 4100 V/ $\mu$ s.

The AD8000 has low spurious-free dynamic range (SFDR) of 75 dBc at 20 MHz and input voltage noise of 1.6 nV/ $\sqrt$ Hz. The AD8000 can drive over 100 mA of load current with minimal distortion. The amplifier can operate on +5 V to  $\pm$ 6 V. These specifications make the AD8000 ideal for a variety of applications, including high speed instrumentation.

With a differential gain of 0.02%, differential phase of 0.01°, and 0.1 dB flatness out to 170 MHz, the AD8000 has excellent video specifications, which ensure that even the most demanding video systems maintain excellent fidelity.

The AD8000 power-down mode reduces the supply current to 1.3 mA. The amplifier is available in a tiny 8-lead LFCSP package, as well as in an 8-lead SOIC package. The AD8000 is rated to work over the extended industrial temperature range ( $-40^{\circ}$ C to  $+125^{\circ}$ C). A triple version of the AD8000 (AD8003) is under development.

## Features

High speed

1.5 GHz, -3 dB bandwidth

650 MHz, full power bandwidth = 2 V p-p)

Slew rate: 4100 V/ $\mu$ s

0.1% settling time: 12 ns

Excellent video specifications

0.1 dB flatness: 170 MHz

Differential gain: 0.02%

Differential phase: 0.01°

Output overdrive recovery: 22 ns

Low noise: 1.6 nV/ $\sqrt{\text{Hz}}$  input voltage noise

Low distortion over wide bandwidth

75 dBc SFDR at 20 MHz

62 dBc SFDR at 50 MHz

Input offset voltage: 1 mV typical

High output current: 100 mA

Wide supply voltage range: 4.5 V to 12 V

Supply current: 13.5 mA

Power-down mode

## Application

Professional video

High speed instrumentation

Video switching

IF/RF gain stage

CCD imaging

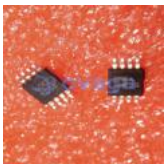


## Related Products



[AD8418BRMZ-RL](#)

Analog Devices, Inc  
MSOP-8



[ADA4084-2ARMZ](#)

Analog Devices, Inc  
MSOP-8



[ADA4528-2ARMZ-R7](#)

Analog Devices, Inc  
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[AD8062ARMZ](#)

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[AD8567ARUZ](#)

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