

Video Amplifier, 1 Amplifiers, 120 MHz, 230 V/ μ s, -40 °C, 125 °C, 32 mA

Manufacturers	Analog Devices, Inc
Package/Case	SOP8
Product Type	Amplifier ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD829ARZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The external compensation pin of the AD829 gives it exceptional versatility. For example, compensation can be selected to optimize the bandwidth for a given load and power supply voltage. As a gain-of-2 line driver, the -3 dB bandwidth can be increased to 95 MHz at the expense of 1 dB of peaking. Its output can also be clamped at its external compensation pin. The AD829 exhibits excellent dc performance. It offers a minimum open-loop gain of 30 V/mV into loads as low as 500 Ω , a low input voltage noise of 1.7 nV/ $\sqrt{\text{Hz}}$, and a low input offset voltage of 1 mV maximum. Common-mode rejection and power supply rejection ratios are both 120 dB.

This op amp is also useful in multichannel, high speed data conversion where its fast (90 ns to 0.1%) settling time is important. In such applications, the AD829 serves as an input buffer for 8-bit to 10-bit ADCs and as an output I/V converter for high speed DACs.

Operating as a traditional voltage feedback amplifier, the AD829 provides many of the advantages that a transimpedance amplifier offer. A bandwidth >50 MHz can be maintained for a range of gains through the replacement of the external compensation capacitor. The AD829 and the transimpedance amplifier are both unity-gain stable and provide similar voltage noise performance (1.7 nV/ $\sqrt{\text{Hz}}$); however, the current noise of the AD829 (1.5 pA/ $\sqrt{\text{Hz}}$) is less than 10% of the noise of transimpedance amplifiers. The inputs of the AD829 are symmetrical.

Features

High Speed 120 MHz bandwidth,>

Ideal for video applications 0.02% differential gain 0.04° differential phase

Low noise 1.7 nV/ $\sqrt{\text{Hz}}$ input voltage noise 1.5 pA/ $\sqrt{\text{Hz}}$ input current noise

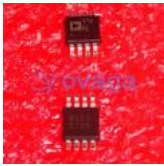
Excellent dc precision 1 mV maximum input offset voltage (over temperature) 0.3 $\mu\text{V}/^\circ\text{C}$ input offset drift

Flexible operation Specified for $\pm 5\text{ V}$ to $\pm 15\text{ V}$ operation $\pm 3\text{ V}$ output swing into a 150 Ω load External compensation for gains 1 to 205 mA supply current

Available in tape and reel in accordance with EIA-481A standard



Related Products



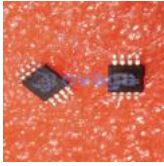
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