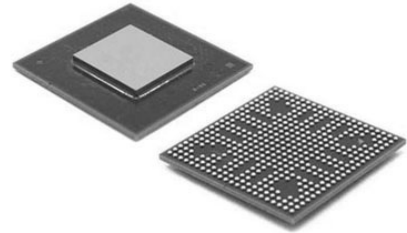


General-Purpose, -55 to +125, Wide Bandwidth, DC-Coupled VGA

Manufacturers	Analog Devices, Inc
Package/Case	LFCSP-16
Product Type	Amplifier ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD8336ACPZ-R7 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD8336 is a low noise, single-ended, linear in dB, general-purpose variable gain amplifier, usable over a large range of supply voltages. It features an uncommitted preamplifier with a usable gain range of 6 dB to 26 dB. The VGA gain range is 0 dB to 60 dB, with absolute gain limits of -26 dB to +34 dB. When the preamplifier gain is adjusted for 12 dB, the combined 3 dB bandwidth of the preamplifier and VGA is 100 MHz, and the amplifier is fully usable to 80 MHz. With ± 5 V supplies, the maximum output swing is 7 V p-p.

Because of the X-AMP® architecture, frequency response is maintained across the entire gain range of the VGA. The differential gain control interface provides precise linear in dB gain scaling of 50 dB/V over the temperature span of -55°C to +125°C and is simple to interface with a variety of external sources.

The large supply voltage range makes the AD8336 suited for industrial medical applications and video circuits. Dual-supply operation enables bipolar input signals, such as those generated by photodiodes or photomultiplier tubes.

The fully independent voltage feedback preamplifier allows both inverting and noninverting gain topologies. The AD8336 can be used within the specified gain range of -14 dB to +60 dB by selecting a preamplifier gain between 6 dB and 26 dB and choosing appropriate feedback resistors. For the nominal preamplifier gain of 4 \times , the overall gain range is -14 dB to +46 dB.

If required, quiescent power is limited to a safe level by asserting the PWRA pin.

Features

Low noise

Voltage noise: 3 nV/ $\sqrt{\text{Hz}}$

Current noise: 3 pA/ $\sqrt{\text{Hz}}$

Small-signal BW: 115 MHz

Large-signal BW: 2 V \times

Slew rate: 550 V/ μs , 2 V p-p

Gain ranges (specified)

0 dB to 60 dB

Gain scaling: 50 dB/V

DC-coupled

Single-ended input and output

Supplies: ± 3 V to ± 12 V

Temperature range: -55°C to $+125^{\circ}\text{C}$

Power

150 mW at ± 3 V, $-55^{\circ}\text{C} < T < +125^{\circ}\text{C}$

84 mW at ± 3 V, \times

Application

Industrial process controls

High performance AGC systems

I/Q signal processing

Video

Industrial and medical ultrasound

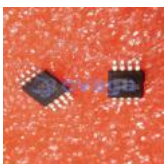
Radar receivers

Related Products



[AD8418BRMZ-RL](#)

Analog Devices, Inc
MSOP-8



[ADA4084-2ARMZ](#)

Analog Devices, Inc
MSOP-8



[AD8567ARUZ](#)

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