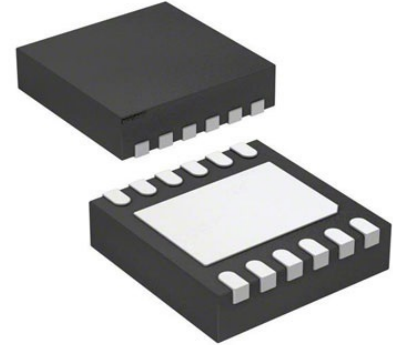


Operational Amplifier, 2 Amplifier, 180 MHz, 225 V/ μ s, 2.7V to 11V, LFCSP, 10 Pins

Manufacturers	Analog Devices, Inc
Package/Case	10-WDFN, CSP
Product Type	Amplifier ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for ADA4807-2ACPZ-R2 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADA4807-1/ADA4807-2 are low power, low noise, rail-to-rail voltage feedback amplifiers with exceptionally high performance. They are designed to have the lowest input noise (3.1 nV/ $\sqrt{\text{Hz}}$ and 0.7 pA/ $\sqrt{\text{Hz}}$) among high speed, rail-to-rail amplifiers in the industry while operating on only 1 mA or less of quiescent supply current, making them ideal for a wide range of applications from battery-powered, portable instrumentation to high speed systems where component density requires lower power dissipation. The ADA4807 operate over a wide range of supply voltages from ± 1.5 V to ± 5 V, as well as from 3 V to 10 V single supplies, and include a disable feature that allows reduction of the typical quiescent supply current to 2.4 μ A or less when asserted.

For systems with high dynamic range signals, the output voltage swings to within 50 mV of each rail, maximizing the output dynamic range, and the full, rail-to-rail input stage permits input operation up to and beyond the supply rails.

The ADA4807 feature high speed performance of 180 MHz small signal -3 dB bandwidth, a 225 V/ μ s slew rate, and a settling time of 47 ns to 0.1% (4 V step) with a low input offset voltage of ± 20 μ V and 0.7 μ V/ $^{\circ}$ C drift. For ± 5 V supplies, the HD2 is -112 dBc and HD3 is -115 dBc for a 2 V p-p, 100 kHz output signal driving a 1 k Ω load. The low distortion and fast settling time make these amplifiers ideal for driving high speed single-supply precision ADCs with up to 18-bit resolution. The ADA4807 deliver this excellent performance while consuming 1 mA or less of quiescent current.

The ADA4807-1 (single) is available in space-saving 6-lead SC70 and 6-lead SOT-23 packages. The ADA4807-2 (dual) is available in 10-lead LFCSP and 8-lead MSOP packages. The ADA4807 operate over the -40° C to $+125^{\circ}$ C industrial temperature range.

Applications

High speed, battery operated systems

High component density systems

High resolution analog-to-digital converter (ADC) drivers

Portable test instruments

Active filters

Features

Low Noise $3.1 \text{ nV}/\sqrt{\text{Hz}}$ at 100 kHz $0.7 \text{ pA}/\sqrt{\text{Hz}}$ at 100 kHz

Low Distortion (HD2/HD3) -141/-144 dBc at 1 kHz -112/-115 dBc at 100 kHz -84/-79 dBc at 1 MHz

High speed performance -3dB bandwidth: 180 MHz Slew Rate: 225 V/ μs 0.1% Settling Time: 47 ns

Low input offset voltage and drift $\pm 20 / \pm 125 \mu\text{V}$ (typical / max) $0.7 / 3.7 \mu\text{V}/^\circ\text{C}$ (typical / max)

Low input offset current and drift $8 / 100 \text{ nA}$ (typical / max) $30 / 250 \text{ pA}/^\circ\text{C}$ (typical / max)

Rail-to-Rail Input and Output

Low quiescent current: Enabled: 1 mA at $\pm 5\text{V}$ Disabled: 2.4 μA at $\pm 5\text{V}$

Wide supply range: 2.7V to 11V

Small Packaging: 10-lead 3 mm x 3 mm LFCSP and 8-lead MSOP

Application

High speed, battery operated systems

High resolution analog-to-digital converter (ADC)

drivers

Portable test instruments

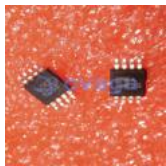
Active filters

Related Products



[AD8418BRMZ-RL](#)

Analog Devices, Inc
MSOP-8



[ADA4084-2ARMZ](#)

Analog Devices, Inc
MSOP-8



[AD8567ARUZ](#)

Analog Devices, Inc
TSSOP-14



[AD8022ARMZ](#)

Analog Devices, Inc
MSOP-8



[ADA4528-2ARMZ-R7](#)

Analog Devices, Inc
MSOP-8



[AD8062ARMZ](#)

Analog Devices, Inc
MSOP8



[AD8628AUJZ](#)

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SOP23



[AD8041AR](#)

Analog Devices, Inc
SOP-8