ADA4941-1YRZ

Data Sheet

Differential Amplifier, Single-Supply, 1 Amplifiers, 400 µV, 31 MHz, -40 °C, 125 °C

Manufacturers	Analog Devices, Inc
Package/Case	SOIC-8
Product Type	Amplifier ICs
RoHS	Rohs
Lifecycle	

Images are for reference only

Please submit RFQ for ADA4941-1YRZ or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The ADA4941-1 is a low power, low noise differential driver foranalog-to-digital converters (ADCs) up to 18 bits in systemsthat are sensitive to power. The ADA4941-1 is configured in aneasy-to-use, single-ended-to-differential configuration andrequires no external components for a gain of 2 configuration.A resistive feedback network can be added to achieve gains greaterthan 2. The ADA4941-1 provides essential benefits, such as lowdistortion and high SNR that are required for driving highresolution ADCs.

With a wide input voltage range (0 V to 3.9 V on a single 5 Vsupply), rail-to-rail output, high input impedance, and a user-adjustablegain, the ADA4941-1 is designed to drive single-supplyADCs with differential inputs found in a variety of low powerapplications, including battery-operated devices and singlesupplydata acquisition systems.

The ADA4941-1 is ideal for driving the 16-bit and 18-bitPulSAR® ADCs, such as the AD7687, AD7690, and AD7691.The ADA4941-1 is manufactured on Analog Devices, Inc.,proprietary, second-generation, eXtra fast complementarybipolar (XFCB) process, which enables the amplifier to achieve18-bit performance on low supply currents.

The ADA4941-1 is available in a small 8-lead LFCSP as well as astandard 8-lead SOIC and is rated to work over the extendedindustrial temperature range, −40°C to +125°C.

Features

Single-ended-to-differential converter

Excellent linearity

Distortion −110 dBc at 100 kHz for VO,>

Low noise: 10.2 nV/√Hz, output-referred,>

Extremely low power: 2.2 mA (3 V supply)

High input impedance: 24 MΩ

User-adjustable gain

High speed: 31 MHz, −3 dB bandwidth>

Fast settling time: 300 ns to 0.005% for a 2 V step

Low offset: 0.8 mV maximum, output-referred,>

Rail-to-rail output

Disable feature

Wide supply voltage range: 2.7 V to 12 V

Available in space-saving, 3 mm × 3 mm LFCSP

Application

Single-supply data acquisition systems

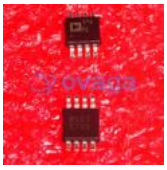
Instrumentation

Process control

Battery-power systems

Medical instrumentation

Related Products



AD8418BRMZ-RL

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MSOP-8

ADA4528-2ARMZ-R7

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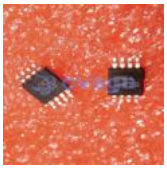

ADA4084-2ARMZ

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AD8062ARMZ

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MSOP8

AD8567ARUZ

Analog Devices, Inc

TSSOP-14

AD8628AUJZ

Analog Devices, Inc

SOP23

AD8022ARMZ

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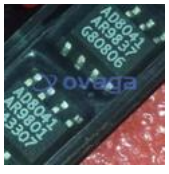
MSOP-8



AD8041AR

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