



Data Sheet

Zero-Drift, Single-Supply, Rail-to-Rail Input/Output Operational Amplifier (Quad); Package: SOIC; No of Pins: 14; Temperature Range: Industrial

Manufacturers

Analog Devices, Inc

Package/Case

SOIC-14

Product Type

Amplifier ICs

RoHS

Rohs

Lifecycle



Images are for reference only

Please submit RFQ for AD8554ARZ or <a href="mailto-us:sales@ovaga.com"><u>Emailto-us:sales@ovaga.com</u></a> We will contact you in 12 hours.

**RFO** 

## **General Description**

This family of amplifiers has ultralow offset, drift, and bias current. The AD8551, AD8552, and AD8554 are single, dual, and quad amplifiers featuring rail-to-rail input and output swings. All are guaranteed to operate from 2.7 V to 5 V with a single supply.

The AD8551/AD8552/AD8554 provide the benefits previously found only in expensive auto-zeroing or chopper-stabilized amplifiers. Using Analog Devices, Inc. topology, these new zero-drift amplifiers combine low cost with high accuracy. No external capacitors are required.

With an offset voltage of only 1  $\mu$ V and drift of 0.005  $\mu$ V/°C, the AD8551/AD8552/AD8554 are perfectly suited for applications in which error sources cannot be tolerated. Temperature, position and pressure sensors, medical equipment, and strain gage amplifiers benefit greatly from nearly zero drift over their operating temperature range. The rail-to-rail input and output swings provided by the AD8551/AD8552/AD8554 make both high-side and low-side sensing easy.

The AD8551/AD8552/AD8554 are specified for the extended industrial/auto motive temperature range (-40°C to +125°C). The AD8551 single amplifier is available in 8-lead MSOP and 8-lead narrow SOIC packages. The AD8552 dual amplifier is available in 8-lead narrow SOIC and 8-lead TSSOP surface-mount packages. The AD8554 quad is available in 14-lead narrow SOIC and 14-lead TSSOP packages.

Applications

Temperature sensors

Pressure sensors

Precision current sensing

Strain gage amplifiers

Medical instrumentation

Thermocouple amplifiers

**Features** 

Low offset voltage:  $1 \,\mu V$ 

Input offset drift:  $0.005 \mu V/^{\circ}C$ 

Rail-to-rail input and output swing

5 V/2.7 V single-supply operation

High gain, CMRR, PSRR: 130 dB

Ultralow input bias current: 20 pA

Low supply current: 700 µA/op amp

Overload recovery time: 50 µs

No external capacitors required

## **Application**

Temperature sensors

Pressure sensors

Precision current sensing

Strain gage amplifiers

Medical instrumentation

Thermocouple amplifiers



## **Related Products**



AD8418BRMZ-RL
Analog Devices, Inc
MSOP-8



ADA4528-2ARMZ-R7
Analog Devices, Inc
MSOP-8



**ADA4084-2ARMZ** 

Analog Devices, Inc MSOP-8



AD8567ARUZ

Analog Devices, Inc TSSOP-14



AD8022ARMZ

Analog Devices, Inc MSOP-8



AD8062ARMZ

Analog Devices, Inc MSOP8



AD8628AUJZ

Analog Devices, Inc SOP23



**AD8041AR** 

Analog Devices, Inc SOP-8