

Precision, Very Low Noise, Low Input Bias Current, Wide Bandwidth JFET 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 AD8513ARZ-REEL7 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD8510/AD8512/AD8513 are single-, dual-, and quad-precision JFET amplifiers that feature low offset voltage, input bias current, input voltage noise, and input current noise.

The combination of low offsets, low noise, and very low input bias currents makes these amplifiers especially suitable for high impedance sensor amplification and precise current measurements using shunts. The combination of dc precision, low noise, and fast settling time results in superior accuracy in medical instruments, electronic measurement, and automated test equipment. Unlike many competitive amplifiers, the AD8510/AD8512/AD8513 maintain their fast settling performance even with substantial capacitive loads. Unlike many older JFET amplifiers, the AD8510/AD8512/AD8513 do not suffer from output phase reversal when input voltages exceed the maximum common-mode voltage range.

Fast slew rate and great stability with capacitive loads make the AD8510/AD8512/AD8513 a perfect fit for high performance filters. Low input bias currents, low offset, and low noise result in a wide dynamic range of photodiode amplifier circuits. Low noise and distortion, high output current, and excellent speed make the AD8510/AD8512/AD8513 great choices for audio applications.

The AD8510/AD8512 are both available in 8-lead narrow SOIC_N and 8-lead MSOP packages. MSOP-packaged devices are only available in tape and reel. The AD8513 is available in 14-lead SOIC_N and TSSOP packages.

The AD8510/AD8512/AD8513 are specified over the -40°C to $+125^{\circ}\text{C}$ extended industrial temperature range.

Features

Fast settling time: 500 ns to 0.1%

Low offset voltage: 400 μ V maximum

Low TCVOs: 1 μ V/ $^{\circ}$ C typical

Low input bias current: 25 pA typical at \geq

Dual-supply operation: \pm 5 V to \pm 15 V

Low noise: 8 nV/ $\sqrt{\text{Hz}}$ typical at \geq

Low distortion: 0.0005%

No phase reversal

Unity-gain stable

Application

Instrumentation

Multipole filters

Precision current measurement

Photodiode amplifiers

Sensors

Audio



Related Products



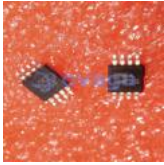
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