

INST Amp Single R-R O/P $\pm 18\text{V}/36\text{V}$ 8-Pin SOIC N Tube

Images are for reference only

[Inquiry](#)

Manufacturer: [Analog Devices, Inc](#)

Package/Case: SOP-8

Product Type: Amplifier ICs

Lifecycle: Obsolete

General Description

The AD627 offers superior flexibility by allowing the user to set the gain of the device with a single external resistor while conforming to the 8-lead industry-standard pinout configuration. With no external resistor, the AD627 is configured for a gain of 5. With an external resistor, it can be set to a gain of up to 1000.

A wide supply voltage range (+2.2 V to ± 18 V) and micropower current consumption make the AD627 a perfect fit for a wide range of applications. Single-supply operation, low power consumption, and rail-to-rail output swing make the AD627 ideal for battery-powered applications. Its rail-to-rail output stage maximizes dynamic range when operating from low supply voltages. Dual-supply operation (± 15 V) and low power consumption make the AD627 ideal for industrial applications, including 4 to 20 mA loop-powered systems.

The AD627 does not compromise performance, unlike other micropower instrumentation amplifiers. Low voltage offset, offset drift, gain error, and gain drift minimize errors in the system. The AD627 also minimizes errors over frequency by providing excellent CMRR over frequency. Because the CMRR remains high up to 200 Hz, line noise and line harmonics are rejected.

The AD627 provides superior performance, uses less circuit board area, and costs less than micropower discrete designs.

Key Features

Micropower, 85 μ A maximum supply current

Wide power supply range(+2.2 V to \pm 18 V)

Easy to use Gain set with one external resistor Gain range 5 (no resistor) to 1000

Higher performance than discrete designs

Rail-to-rail output swing

High accuracy dc performance 0.03% typical gain accuracy = +5) 125 μ V maximum input offset voltage (AD627B dual supply) 200 μ V maximum input offset voltage (AD627A dual supply)

1 μ V/ $^{\circ}$ C maximum input offset voltage drift (AD627B) 3 μ V/ $^{\circ}$ C maximum input offset voltage drift (AD627A)

Noise: 38 nV/ $\sqrt{\text{Hz}}$ RTI noise @ 1 kHz>

Excellent ac specifications AD627A: 77 dB minimum = +5) 80 kHz bandwidth = +5, 5 V step)

Application

4 mA to 20 mA loop-powered applications

Low power medical instrumentation—ECG, EEG

Transducer interfacing

Thermocouple amplifiers

Industrial process controls

Low power data acquisition

Portable battery-powered instruments

Recommended For You

AD8309ARUZ

Analog Devices, Inc

TSSOP16

AD524BDZ

Analog Devices, Inc

CDIP-16

AD8221BR

Analog Devices, Inc

SOP-8

AD8221ARZ

Analog Devices, Inc

SOP8

AD627BRZ

Analog Devices, Inc

SOP8

AD622ANZ

Analog Devices, Inc

DIP8

ADA4930-2YCPZ-R7

Analog Devices, Inc

LFCSP24

AD8034ARZ

Analog Devices, Inc

SOP8

AD8561ARZ

Analog Devices, Inc

SOP8

AD633JRZ

Analog Devices, Inc

SOP8

AD632AH

Analog Devices, Inc

CAN10

AD8422BRZ

Analog Devices, Inc

SOP8

ADCMP600BKSZ-R2

Analog Devices, Inc

SC70-5

AD620BN

Analog Devices, Inc

DIP8

AD620BR

Analog Devices, Inc

SOP