

# AD620SQ/883B

Data Sheet

RFO

INSTRUMENTATION AMP, 1MHZ, 73DB, No. of Amplifiers:1 Amplifier, Input Offset Voltage:125 V, Slew Rate:1.2V/s, Bandwidth:1MHz, Supply Voltage Range: 2.3V to 18V, Amplifier

| Manufacturers | Analog Devices, Inc |                               |
|---------------|---------------------|-------------------------------|
| Package/Case  | CDIP8               |                               |
| Product Type  | Amplifier ICs       |                               |
| RoHS          |                     | Images are for reference only |
| Lifecycle     |                     |                               |
|               |                     |                               |

Please submit RFQ for AD620SQ/883B or Email to us: sales@ovaga.com We will contact you in 12 hours.

## **General Description**

The AD620 is a low cost, high accuracy instrumentation amplifier that requires only one external resistor to set gains of 1 to 10,000. Furthermore, the AD620 features 8-lead SOIC and DIP packaging that is smaller than discrete designs and offers lower power (only 1.3 mA max supply current), making it a good fit for battery powered, portable (or remote) applications.

The AD620, with its high accuracy of 40 ppm maximum nonlinearity, low offset voltage of 50  $\mu$ V max, and offset drift of 0.6  $\mu$ V/°C max, is ideal for use in precision data acquisition systems, such as weigh scales and transducer interfaces. Furthermore, the low noise, low input bias current, and low power of the AD620 make it well suited for medical applications such as ECG and noninvasive blood pressure monitors.

The low input bias current of 1.0 nA max is made possible with the use of Superbeta processing in the input stage. The AD620 works well as a preamplifier due to its low input voltage noise of 9 nV/ $\sqrt{\text{Hz}}$  at 1 kHz, 0.28  $\mu$ V p-p in the 0.1 Hz to 10 Hz band, and 0.1 pA/ $\sqrt{\text{Hz}}$  input current noise. Also, the AD620 is well suited for multiplexed applications with its settling time of 15  $\mu$ s to 0.01%, and its cost is low enough to enable designs with one in-amp per channel.

### Features

# EASY TO USEGain Set with One External Resistor(Gain Range 1 to 10,000)Wide Power Supply Range ( $\pm 2.3$ V to $\pm 18$ V)Higher Performance than ThreeOp Amp IA DesignsAvailable in 8-Lead DIP and SOIC PackagingLow Power, 1.3 mA max Supply

LOW NOISE9 nV/VHz, @ 1 kHz, Input Voltage Noise0.28 µV p-p Noise (0.1 Hz to 10 Hz)

EXCELLENT DC PERFORMANCE (B GRADE)50 µV max, Input Offset Voltage0.6 µV/°C max, Input Offset Drift1.0 nA max, Input Bias Current100 dB min Common-Mode Rejection Ratio>

EXCELLENT AC SPECIFICATIONS120 kHz Bandwidth>

### Weigh scales

**Application** 

ECG and medical instrumentation

Transducer interface

Data acquisition systems

Industrial process controls

Battery-powered and portable equipment

#### **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



<u>ADA4528-2ARMZ-R7</u>

Analog Devices, Inc MSOP-8

AD8062ARMZ

Analog Devices, Inc MSOP8



Analog Devices, Inc SOP23

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AD8041AR Analog Devices, Inc SOP-8

