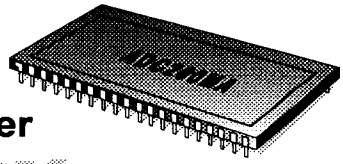
ADC200
24 Bit, High Speed Integrating A/D Converter



PRELIMINARY

THALER CORPORATION • 10940 N. STALLARD PLACE • TUCSON, AZ 85737 • (602) 742-5572

FEATURES

- 24 BIT RESOLUTION
- UP TO 4,000 CONVERSIONS PER SECOND
- SOFTWARE SELECTABLE FEATURES
- 1ppm/°C MAX. SCALE FACTOR ERROR
- 2 ppm MAX. LINEARITY ERROR
- AUTO CALIBRATION or AUTO ZERO
- BUS COMPATIBLE
- INTERNAL CLOCK and REFERENCE
- LOW POWER CONSUMPTION (0.450 WATTS)

APPLICATIONS

- SEISMOLOGICAL EQUIPMENT
- TEST EQUIPMENT
- DATA ACQUISITION
- SCIENTIFIC INSTRUMENTS
- MEDICAL INSTRUMENTS
- ROBOTIC SYSTEMS
- WEIGHING SYSTEMS

DESCRIPTION

ADC200 is a high performance programmable 24-bit Integrating A/D Converter based on a proprietary patented architecture. The integration time, auto zero/calibration, and power cycle selection can be easily programmed through the Mode Control Byte.

Type	Temperature Operating Range	Max. Scale Factor Deviation
ADC200C	-25°C to +85°C	60ppm
ADC200CA	-25°C to +85°C	30ppm
ADC200M	-55°C to +125°C	100ppm

ADC200 offers 2 ppm max. linearity error and 1 ppm/°C max. scale factor error over the military temperature range. It also has excellent offset stability at 2 ppm max. which the user can auto zero if desired.

ADC200's compatibility with popular microcomputer buses increases its ease of application in smart systems. An on-board microprocessor controls all internal functions of the ADC200. Thaler designers have minimized external connections to greatly reduce the problem often encountered when applying ADC's.

Operating from ±15VDC and a +5VDC power supply, ADC200 is packaged in a hermetically sealed 40-pin ceramic DIP package.

Seismological equipment, scientific and medical instruments, and data acquisition systems are primary application areas for the unusually high resolution, speed, and accuracy of this ADC.

ADC200DS REV. B OCT. 1992