

**AK9235****Dual 12-Bit 1.03MSPS SAR A/D Converter****1. General Description**

The AK9235 is a 12-bit 1.03MSPS SAR A/D converter. It supports a wide range of power supply voltage, realizing to compose a general purpose system while reducing the cost. It is easy to achieve the system characteristics since it is configured with small input capacity. In addition, low current consumption is achieved therefore a low power consumption system can be designed.

The AK9235 is available in a small package, saving space on the printing board.

Application

- Motor Control: Position Measurement Using SinCos Encoders
- Three-Phase Power Controls
- Programmable Logic Controllers
- Power Quality Measurement
- Industrial Automation

2. Features

- 2ch Simultaneous Sampling 12-bit SRA A/D Converter
- Sampling Rate: 1.03MSPS
- Differential/Pseudo Differential Inputs
- 12-bit No Missing Code, INL: ± 1.0 LSB (Max.)
- S/N 73 dB (Typ.) at 20kHz Input
- Power Consumption VDD: 6 mA (Typ.)
DRVDD: 0.25 mA (Typ.)
(fs=1.03MSPS, VDD= 5.0V, DRVDD=3.3V)
- Input Capacitance: 13 pF (Typ.)
- Power Supply VDD: 3.0 ~ 5.5 V
DRVDD: 2.7 ~ 5.5 V
- Operation Temperature: -40 ~ 125°C
- Package: Small 16-pin QFN (3mm x 3mm, 0.5mm pitch)
- Pin Compatible with ADS7250

3. Block Diagram

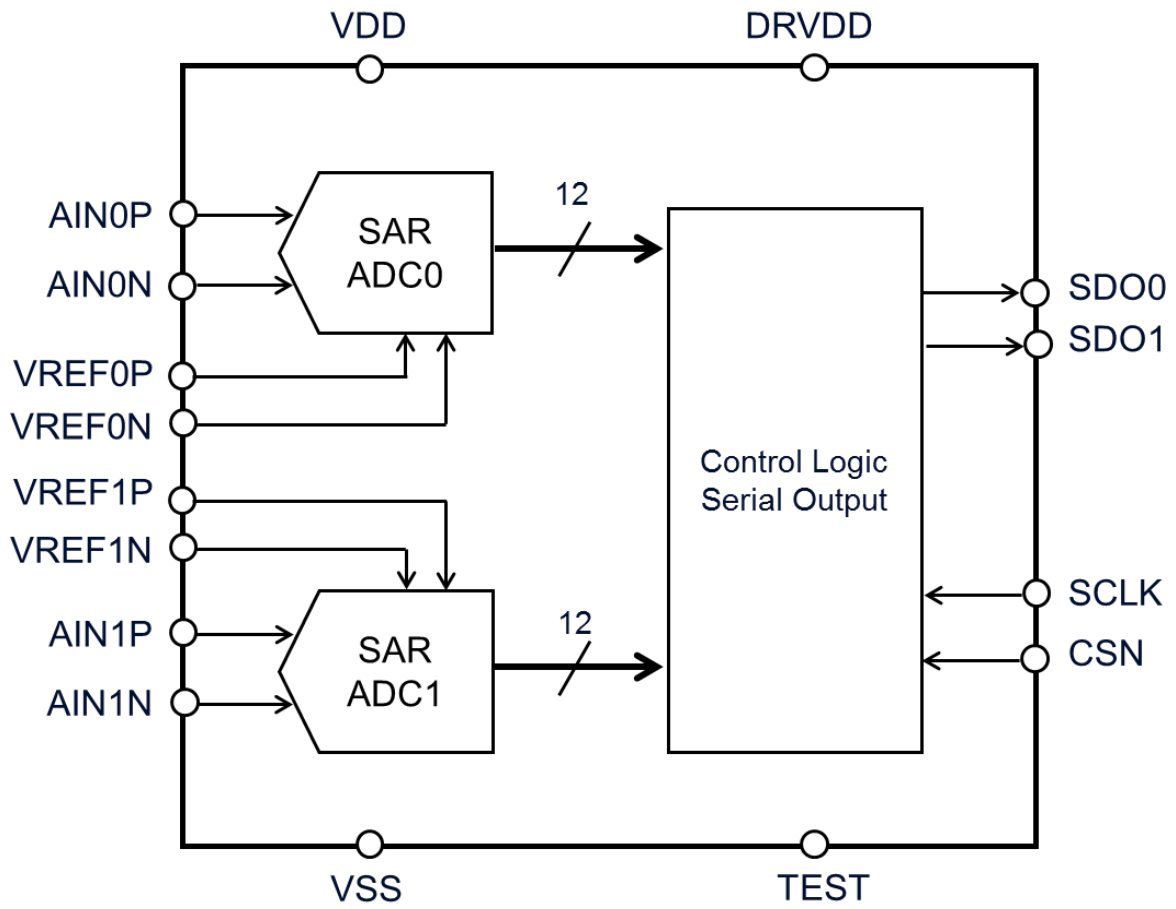
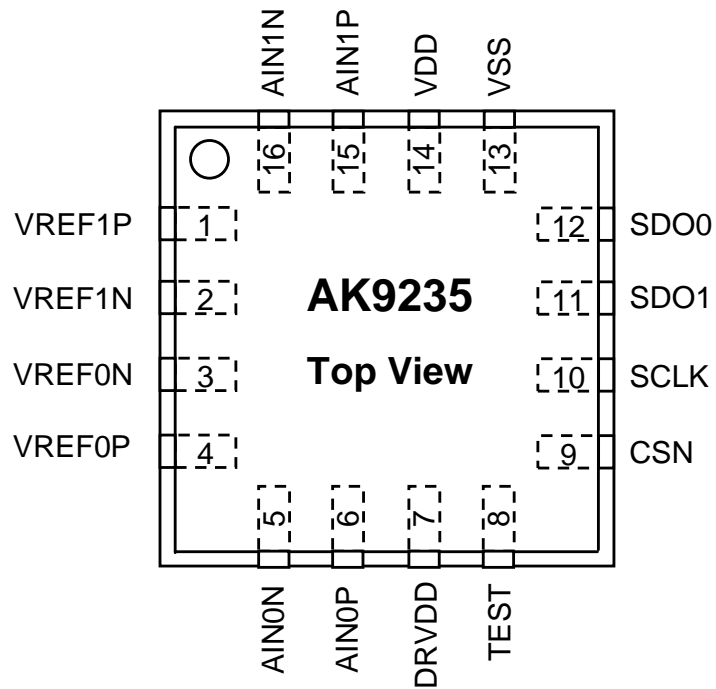


Figure 1. Block Diagram

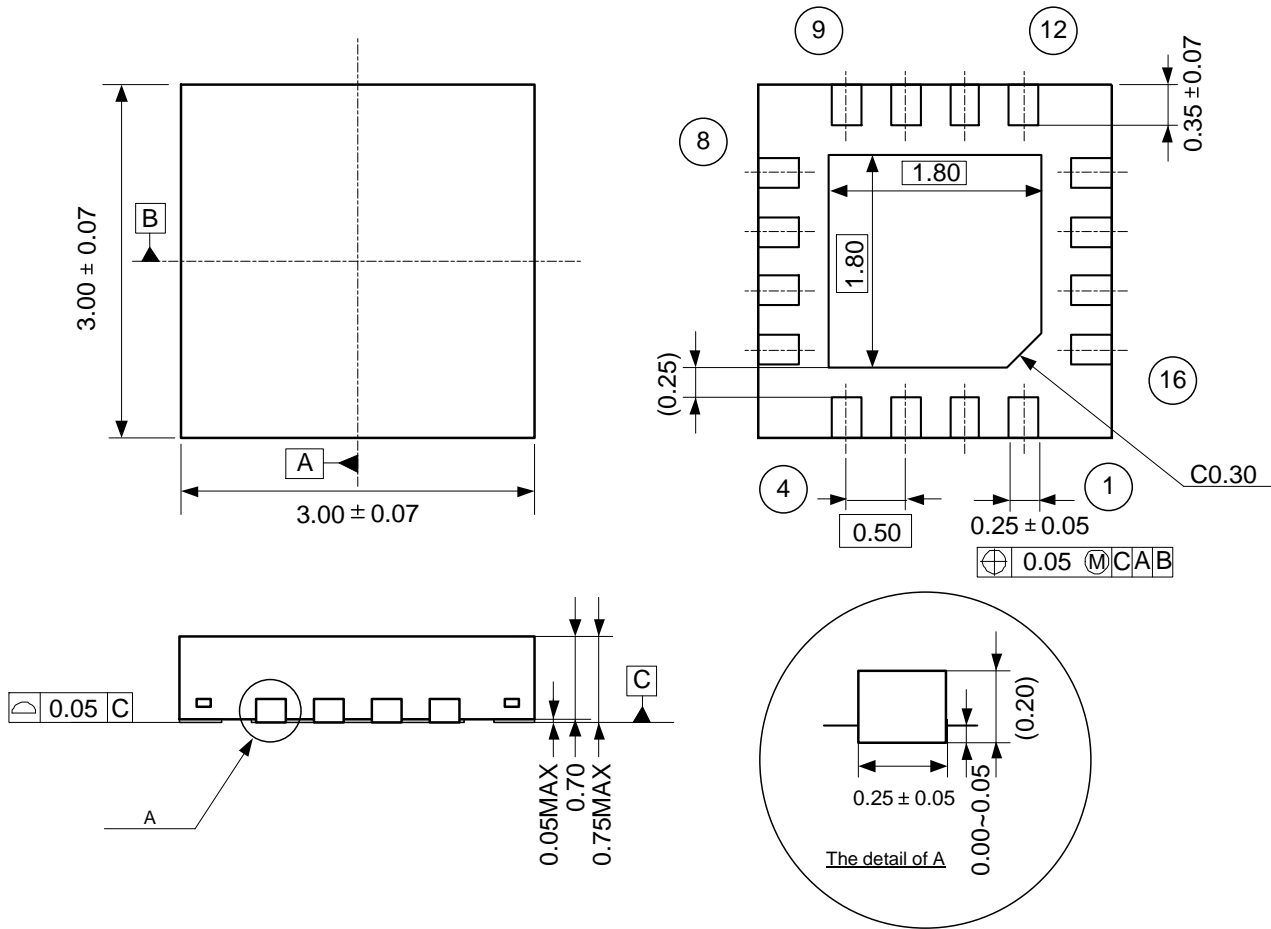
4. Pin Configurations

■ Pin Layout



5. Package

■ Outline Dimensions



Note:

- * 1. The exposed pad on the bottom surface of the package must be open or connected to the ground. The PCB wiring density must be more than 200%. AKM recommends connecting the exposed pad to the ground.

Thank you for your access to AKM product information.

**More detail product information is available,
please contact our sales office or authorized distributors.**

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