TEXAS INSTRUMENTS

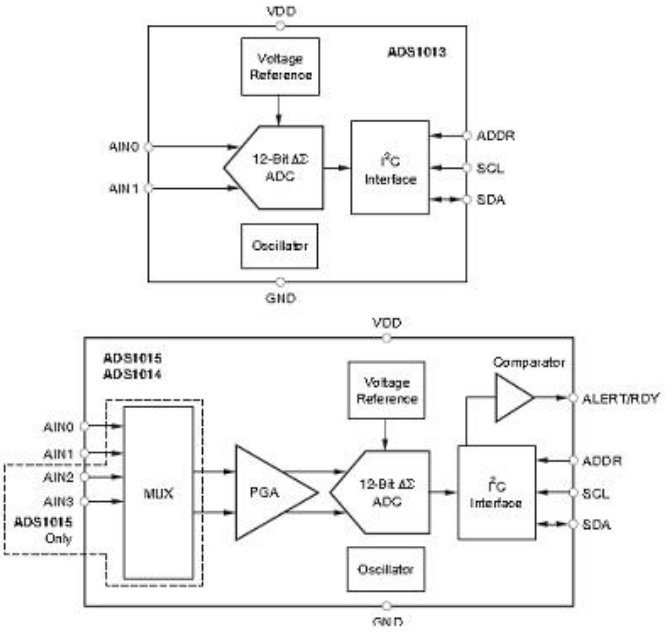
ADS101x 12Bit ADC with Internal Reference

General Description:

The ADS1013, ADS1014, and ADS1015 are precision analog-to-digital converters (ADCs) with 12 bits of resolution offered in an ultra-small, leadless QFN-10 package or an MSOP-10 package. The ADS1013/4/5 are designed with precision, power, and ease of implementation in mind. The ADS1013/4/5 feature an onboard reference and oscillator. Data are transferred via an I2C-compatible serial interface; four I2C slave addresses can be selected. The ADS1013/4/5 operate from a single power supply ranging from 2.0V to 5.5V.

The ADS1013/4/5 can perform conversions at rates up to 3300 samples per second (SPS). An onboard PGA is available on the ADS1014 and ADS1015 that offers input ranges from the supply to as low as ±256mV, allowing both large and small signals to be measured with high resolution.

Key Features:



- Ultra-Small QFN Package: 2mm × 1,5mm × 0,4mm
- Wide Supply Range: 2.0V to 5.5V
- Low Current Consumption:
  Continuous Mode: Only 150µ
  Single-Shot Mode: Auto Shut-Down
- Programmable Data Rate: 128SPS to 3.3kSPS
- Internal Low-Drift voltage Reference
- Internal Oscillator
- Internal PGA
- I2C Interface: Pin-Selectable Addresses
- Four Single-ended or Two Differential Inputs(ADS1015)
- Programmable Comparator(ADS1014 and ADS1015)

Applications:

- Potable Instrumentation
- Consumer Goods
- Battery Monitoring
- Temperature Measurement
- Factory Automation and Process Controls

Related Products Information:

Mfr Part #	Farnell #	Newark #	Description
ADS1013IDGST	1778209	35R0209	12Bit ADC with Internal Reference
ADS1014IDGST	1778210	35R0210	12Bit ADC with Internal Reference
ADS1015IDGST	1778211	35R0211	12Bit ADC with Internal Reference
ADS1013IRUGT	1771737	33R2086	12Bit ADC with Internal Reference
ADS1014IRUGT	1771738	33R2087	12Bit ADC with Internal Reference
ADS1015IRUGT	1771739	33R2088	12Bit ADC with Internal Reference