



PRODUCT OUTLINE

CM2013ae – 10-bit 50kSPS SAR ADC

10 bits, 50kSPS, 4 multiplexed inputs

Part Number

- CM2013ae

Features

- General purpose SAR ADC
- 10-bit resolution, 50kSPS speed
- $avdd = 3.3V$, $dvdd = 3.3V$
- Current consumption = $105\mu A$ (in active mode)
- $INL = \pm 0.5$ LSB, $DNL = \pm 0.5$ LSB
- Indicative area: $0.19mm^2$

Applications

- Microcontrollers
- Housekeeping
- Consumer electronics
- Tuning machines

Technology

- X-FAB $0.35\mu m$ XH035 CMOS

Deliverables

- Datasheet/Integration Guide
- HDL Model
- Flat GDSII database/LVS netlist
- Customer Support

Status

- Silicon proven

Overview

This macro-cell is a low power, general purpose, 10-bit, 50kSPS, Successive Approximation Register (SAR) Analog-to-Digital Converter (ADC) core designed for X-FAB $0.35\mu m$ XH035 CMOS technology.

The circuit uses one 3.3V analog supply and one 3.3V digital supply and is targeted for microcontroller applications.

The core is easily retargeted to any other CMOS technology with R-poly devices.

Functional Diagram

