



PRODUCT OUTLINE

CM2012bg – Low-Power 8-bit SAR ADC

8 bits, 50kSPS, Low Voltage (1.8V), Low Power (30µA)

Part Number

- CM2012bg

Features

- General purpose SAR ADC
- 8-bit resolution, 50kSPS speed
- $v_{dd} = 1.8V$, $dv_{dd} = 1.8V$
- Low power (30µA) in active mode
- $INL = \pm 0.5$ LSB, $DNL = \pm 0.5$ LSB
- Enable control
- Indicative area: 0.1mm²

Applications

- Energy harvesting ICs
- Housekeeping
- Portable devices
- General purpose measurements

Technology

- LFoundry 0.15µm LF150 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, 8-bit, 50kSPS, Successive Approximation Register (SAR) Analog-to-Digital Converter (ADC) core designed for LFoundry 0.15µm LF150 CMOS technology STD (Standard) and LP (Low Power) process.

The circuit has an internal sample-and-hold circuit, and is optimized for low power consumption.

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

Functional Diagram

