



PRODUCT OUTLINE

CM4012bg – 4MHz Internal Oscillator
Ultra Low Power (1 μ A@4MHz@1V)

Part Number

■ CM4012bg

Features

- 4MHz internal oscillator
- Low consumption (< 1 μ A)
- Flexible supply voltage: 1.0–3.6V
- Frequency calibrated (typ. \pm 2.5%)
- Internal level shifter and current bias
- Indicative area: 0.012mm²

Applications

- Battery powered equipment
- Passive/active RFID tag ICs
- Energy Harvesting ICs
- Hearing aids

Technology

- LFoundry 0.15 μ m LF150 CMOS

Deliverables

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

Status

- Silicon Proven

Overview

This macro-cell is a general purpose, ultra low power internal oscillator core designed for LFoundry 0.15 μ m LF150 CMOS technology STD (Standard) and LP (Low Power) process.

The circuit has internal level shifting and start-up circuits. A 4-bit digital bus allows frequency calibration against process variations. It also includes an internal current bias.

The core is easily retargeted to any other CMOS technology due to its MOSFET-only oscillator architecture.

Functional Diagram

