



PRODUCT OUTLINE

CM4011bg – 130kHz Internal Oscillator

Low voltage (1V), Low Power (160nW@130kHz)

Part Number

- CM4011bg

Features

- 130kHz internal oscillator
- Low consumption (2nA/kHz)
- Flexible supply voltage: 1.0–3.6V
- Frequency calibrated (typ. $\pm 5\%$)
- Internal level shifter and current bias
- Power down mode
- Indicative area: 0.02mm²

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 a start-up circuit. A 4-bit digital bus allows frequency calibration against process variations. A digital output signal indicating that the oscillator is operating properly is also available. 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

