



PRODUCT OUTLINE

CM4014ff – 2MHz Ultra Low Power Oscillator
Ultra low power (720nW)

Part Number

■ CM4014ff

Features

- Frequency calibrated (typ. $\pm 2\%$)
- Internal level shifter
- Enable control
- Ultra low current (600nA@1.2V)
- Indicative area = 0.0022

Applications

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

Technology

- SilTerra 0.18 μm C18G 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 SilTerra 0.18 μm CL180G CMOS technology.

The circuit has internal level shifting. A 4-bit digital bus allows frequency calibration against process variations. It requires an external 15.5nA current bias (sink), which can be implemented with **chipus CM1014ff** IP.

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

Functional Diagram

