



PRODUCT OUTLINE

CM4015gf – 4MHz Low Power Oscillator
 Low power (4.6 μ W), Internal Current Reference

Part Number

■ CM4015gf

Features

- Supply voltage from 1V to 2V
- Frequency calibrated against process variations through 4-bit trimming
- Accuracy within $\pm 5\%$
- 2MHz and 500kHz outputs also available
- Low current (2.5 μ A@1.8V)
- Enable control
- Indicative area = 0.012mm²

Applications

- Energy harvesting ICs
- Housekeeping applications
- Battery powered equipment
- General purpose measurements

Technology

- TowerJazz TS18SL (0.18 μ m 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, low power, 4MHz internal oscillator core designed for TowerJazz TS18SL 0.18 μ m CMOS technology. Two other oscillator outputs are available: 2MHz and 500kHz.

A 4-bit digital bus allows frequency calibration against process variations. It includes a start-up circuit and an internal 17nA current bias that is also available in two output pins (200nA) after mirroring. Alternatively, an external 135nA current bias can be used.

The core is ideal for applications where power consumption is critical.

Functional Diagram

