



## PRODUCT OUTLINE

### CM1413ffm – Power-On Reset

Flexible Threshold (1–1.3V), Ultra Low Current (100nA)

## Part Number

- CM1413ffm

## Features

- Supply voltage: 1.0–2.0V
- Configurable assertion threshold (1.0V – 1.3V)
- Adjustable hysteresis (70mV – 200mV)
- Ultra low current consumption (100nA)
- Indicative area: 0.0064mm<sup>2</sup>

## Applications

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

## Technology

- SiTerra 0.16μm CL160G CMOS

## Deliverables

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

## Status

- Silicon available

## Overview

This macro-cell is an ultra low consumption Power-On Reset (POR) core designed for SiTerra 0.16μm CL160G CMOS technology.

The threshold sensing voltage can be configured from 1V to 1.3V (default is 1.15V). A hysteresis of 120mV is added to avoid false reset glitches in noisy supplies. This value can be digitally configured from 70mV to 200mV. The POR features an internal process compensated voltage reference. It requires an external 7.75nA current bias (sink), which can be implemented using the **chipus CM1017ffm** or **CM1018ffm** IPs.

The core is easily retargeted to any other CMOS technology.

## Functional Diagram

