



PRODUCT OUTLINE

CM1311bg – Ultra Low Power PMU

Ultra Low Voltage ($V_{in} > 1.2V$), Ultra Low Power ($6\mu W$)

Part Number

- CM1311bg

Features

- Ultra low power PMU w/ 2 LDO's
- Flexible supply voltage 1.2–3.6V
- Low current (w/ 1 LDO on): $3.8\mu A$
- Internal 750mV/17.5nA references
- Built-in oscillator and POR
- ADC for supply voltage monitoring
- Indicative area: $0.32mm^2$

Applications

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

Technology

- LFoundry $0.15\mu m$ LF150 CMOS

Deliverables

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

Status

- Silicon Proven

Overview

This macro-cell is an ultra low consumption Power Management Unit (PMU) core designed for LFoundry $0.15\mu m$ LF150 CMOS technology STD (Standard) and LP (Low Power) process.

The circuit has 2 LDO voltage regulators, internal voltage and bias current generators, built-in power-on-reset and oscillator, and an 8-bit low power and low frequency ADC for general purpose voltage monitoring. Internal blocks are programmable via 3-pin serial digital interface providing high IP flexibility.

The core is easily retargeted to any other CMOS technology with R-poly devices.

Functional Diagram

