

## CCLDO01A130A - Low-Dropout Voltage Regulator (UMC 130 nm)

### Symbol



### Pinlist

Pin	Description	Type
VIN	Input voltage	Analog
VOUT	Output supply voltage	Supply
VSS	Negative supply	Supply

### Applications

- Low Power Handled Portable Device
- Supply Voltage for Microcontrollers
- Supply Voltage for Analog
- Supply Voltage for Mixed-Signal

### Deliverables

- Datasheet/Integration Guide
- GDSII database/LVS & SPICE netlist
- HDL Model/Footprint (.LEF)
- IP implement. support, 6 months maintenance (delivery of the IP and documentation up-dates)

### Product Overview

The cell is a silicon proven low-dropout voltage regulator (LDO) generating 1.2 V supply voltage. The dropout voltage is only 0.2 V and maximum load current is 100 mA. The LDO has build-in reference voltage generator but can be configured to work with external reference voltage. The LDO can work with or without external load capacitor. The quiescent current is lower than 46  $\mu$ A, with internal voltage reference, and lower than 30  $\mu$ A, without internal voltage reference.

### Key Features

- Foundry, Node: UMC 130 nm LL/FSG
- Small Area: 0.013 mm<sup>2</sup>, size: 204  $\mu$ m x 195  $\mu$ m
- Input Voltage: 1.4 V ÷ 3.63 V
- Nominal  $V_{OUT}$  = 1.2 V
- Max. load current: < 100 mA
- Quiescent current:
  - <46  $\mu$ A (with voltage reference)
  - <30  $\mu$ A (without voltage reference)
- Load capacitance  $C_L$  < 2 nF or  $C_L$  > 2  $\mu$ F
- Operational Temp. Range: -40°C ÷ 125°C
- Silicon proven, easy portable for other process