EnerChip™ CC CBC3150
Data Sheet Preview

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EnerChip CC with Integrated Battery Management

Features

- Power Manager with Charge Control
- Integrated 50 µAh Thin Film Battery
- Built-in Battery Protection
- Temperature Compensated Charge Control
- Adjustable Switchover Voltage
- Charges Battery Over a Wide Supply Range
- Low Standby Power
- SMT - Lead-Free Reflow Tolerant
- Thousands of Recharge Cycles
- Low Self-Discharge
- Eco-Friendly, RoHS Compliant

Applications

- **Standby supply** for non-volatile SRAM, Real-time clocks, controllers, supply supervisors, and other system-critical components.
- **Wireless sensors and RFID tags** and other powered, low duty cycle applications.
- **Localized power source** to keep microcontrollers and other devices alert in standby mode.
- **Power bridging** to provide back-up power to system during exchange of main batteries.
- **Consumer appliances** that have real-time clocks; provides switchover power from main supply to backup battery.
- **Business and industrial systems** such as: Network routers, Point-of-sale terminals, Single-board computers, Test equipment, Multi-function printers. Industrial controllers, Utility meters
- **Energy Harvesting** by coupling the EnerChip with energy transducers such as solar panels.

SMT Package:
9 mm x 9 mm DFN

The EnerChip CC is the world's first Intelligent Thin Film Battery. It is an integrated solution that provides battery backup and power management in systems requiring power bridging and/or secondary power. A single EnerChip CC can charge up to 10 additional EnerChips connected in parallel.

During normal operation, the EnerChip CC charges itself with a controlled voltage using an internal charge pump that operates from 2.5V to 5.5V. An ENABLE pin allows the designer to activate and deactivate the charge pump using an external control line in order to minimize current consumption and take advantage of the fast recharge time of the EnerChip.

When the primary power supply dips below a user-defined threshold voltage, the EnerChip CC will signal this event and route the battery voltage to VOUT . The EnerChip CC also has battery protection circuitry to enable thousands of recharge cycles.

The CBC3150 is a 20-pin, 9 mm x 9 mm Dual Flat No-lead (DFN) package. It is available in tubes, trays, or tape/reels for use with automatic insertion equipment.

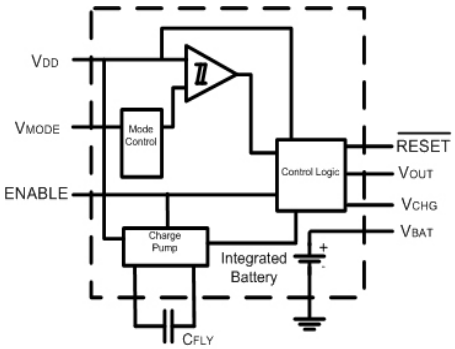

Figure 1 - EnerChip CC CBC3150 Internal Block Diagram

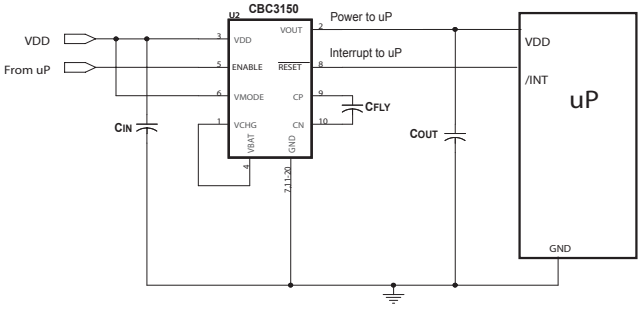

Figure 2 - Typical EnerChip CC Application Circuit