



CW2217B

Fuel Gauge IC with Low to 1mOhm Current Sensing

Features

- System-Side or Pack-Side Fuel Gauging
- High C-Rate Charging Compliance
- High precision ADCs for Voltage, Current and Temperature Measurement
- High Side or Low Side Current Sensing
- Support Low to 1mOhm Sense Resistor
- External Thermistor or Host Reported Temperature
- Battery Voltage, Current, Temperature, SOC, and Cycle Count Report
- No Offset Accumulation during Life Time
- No Full-To-Empty Calibration Cycles Required
- Interrupt for SOC, Temperature and 1% SOC Change
- Ultra-low Power Consumption
 - Active Mode 12 μ A
 - Shutdown Mode 0.5 μ A
- General I²C Control Interface
- Lead-Free, WLCSP-9 Package

Applications

- Smart Phone
- Tablets
- Wearables
- Low-Power Handheld Devices

General Description

The CW2217B is an ultra-compact, system-side or pack-side fuel gauging IC for Lithium-ion based batteries used in wearable and portable devices.

The CW2217B tracks battery operating conditions and performs state-of-the-art algorithm to calculate the State-of-Charge (SOC) of various battery chemistry systems, including LiCoOx, polymer Li-ion and LiMnOx etc.

The CW2217B includes two high precision ADCs, voltage reference circuits and build-in NTC thermistor bias circuits. It continually monitors the battery voltage and temperature and measures the current flow through the sense resistor. All the measurements and the battery characterization data are utilized by the IC embedded FastCali algorithm and accurate battery SOC is reported and refreshed in a wide variety of operating conditions.

The CW2217B also provides alarm functions. When SOC or temperature reaches the pre-programmed threshold, the relevant interrupt will be generated to alert the host MCU.

The CW2217B use a 2-wire I²C compatible serial interface that operates in standard mode or fast mode. The IC is available in Lead-free 0.5mm pitch, 1.58mmx1.53mm, 9-ball WLCSP package.

Typical Application

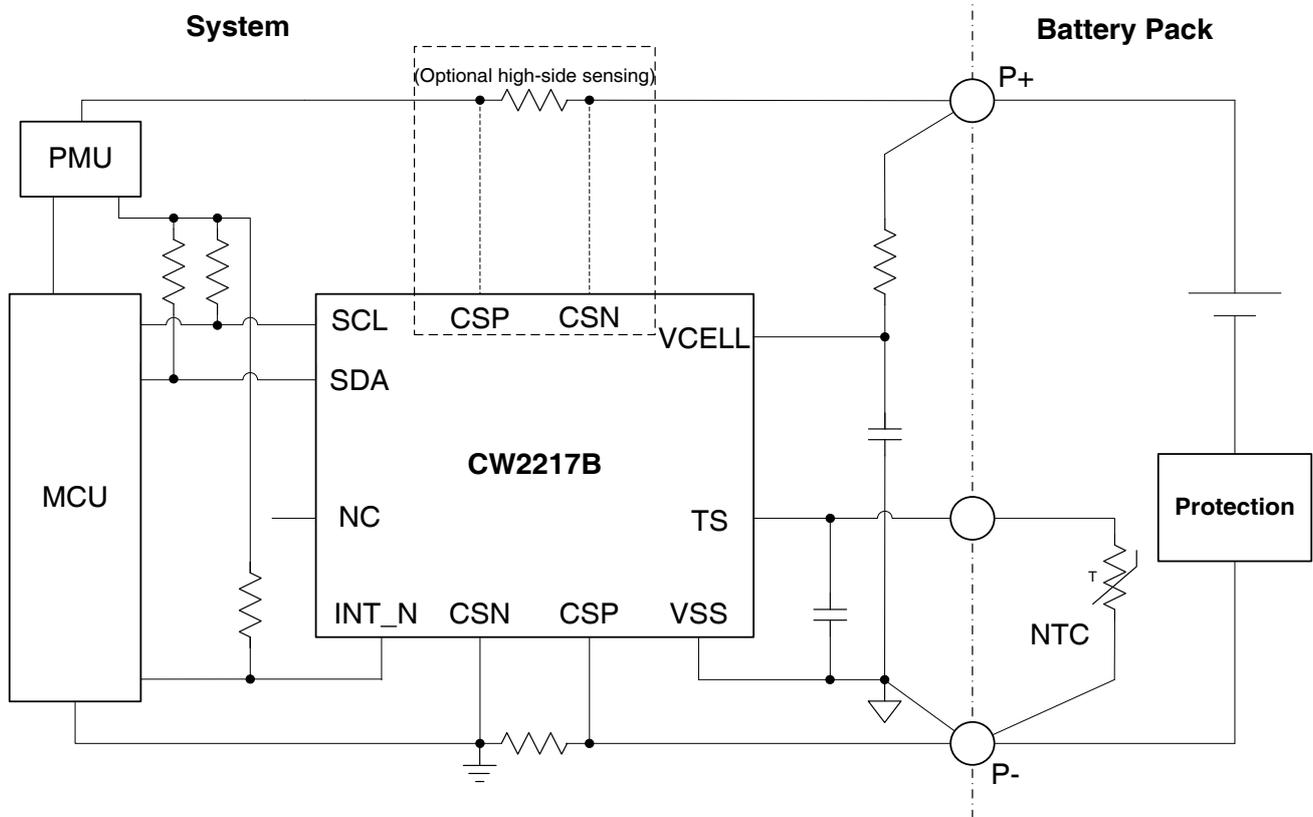


Figure 1. Typical Application Schematic

Ordering Information

PART NUMBER	I ² C DEVICE ADDRESS	OPERATING TEMPERATURE	PACKAGE	SIZE	TOP MARK
CW2217BAAC	0x64	-40°C to 85°C	WLCSP-9	1.58mmx1.53mm	2217 BAAC XXXX XXXX XXXX

Note: XXXX stand for manufacture info. Contact Cellwise for details.