

## Battery monitor with alarm output for gas gauge applications based on the STC3115

Data brief



### Features

- 0.25% accuracy battery voltage monitoring
- Coulomb counter and voltage-mode gas gauge operations
- Robust initial open-circuit-voltage (OCV) measurement at power-up with debounce delay
- Low battery level alarm output with programmable thresholds
- Internal temperature sensor
- Battery swap detection
- Low power
  - 45  $\mu$ A in power-saving mode
  - 2  $\mu$ A max in standby mode
- 1.4 x 2.0 mm 10-bump CSP package
- RoHS compliant

### Description

The STEVAL-ISB014V2 product evaluation board is based on the STC3115. This device includes the hardware functions required to implement a low-cost gas gauge for battery monitoring. It uses current sensing, Coulomb counting and accurate battery voltage measurements to estimate the state-of-charge (SOC) of the battery. An internal temperature sensor simplifies implementation of temperature compensation.

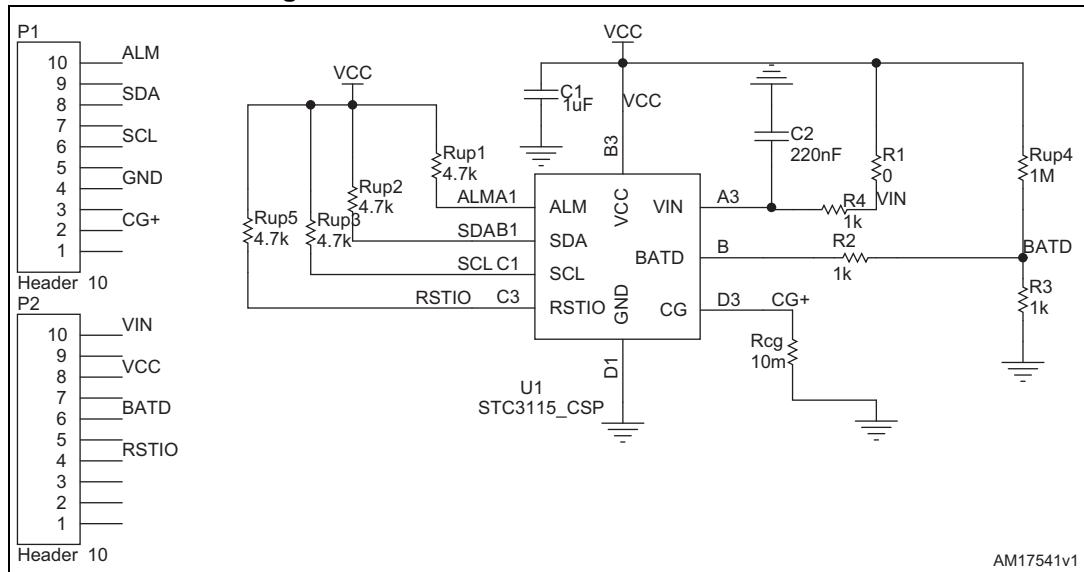
An alarm output signals a low SOC condition and can also indicate low battery voltage. The alarm threshold levels are programmable.

The STC3115 offers advanced features to ensure high performance gas measurement in all application conditions.

The STEVAL-ISB014V2 evaluation board is suitable for portable medical equipment, mobile phones, multimedia players and digital cameras.

# 1 Schematic diagram

Figure 1. STEVAL-ISB014V2 circuit schematic



## 2 Revision history

**Table 1. Document revision history**

Date	Revision	Changes
01-Dec-2013	1	Initial release.

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