



# STEVAL-ISB013V1

## Battery monitor demonstration board with alarm output for gas gauge applications based on the STC3105

Data brief

### Features

- Accurate battery voltage measurement
- Coulomb counter to monitor the battery state-of-charge (SOC)
- Internal 32.768 kHz time base
- Low-battery alarm output with programmable SOC and voltage thresholds
- Relaxation timer to track load condition (user-programmable load current threshold)
- I<sup>2</sup>C interface for battery monitoring and device control
- Low power consumption:
  - 100  $\mu$ A in active operating conditions
  - 50  $\mu$ A in power saving operating conditions
  - 2  $\mu$ A in standby mode
  - 1  $\mu$ A in power-down mode
- RoHS compliant

### Description

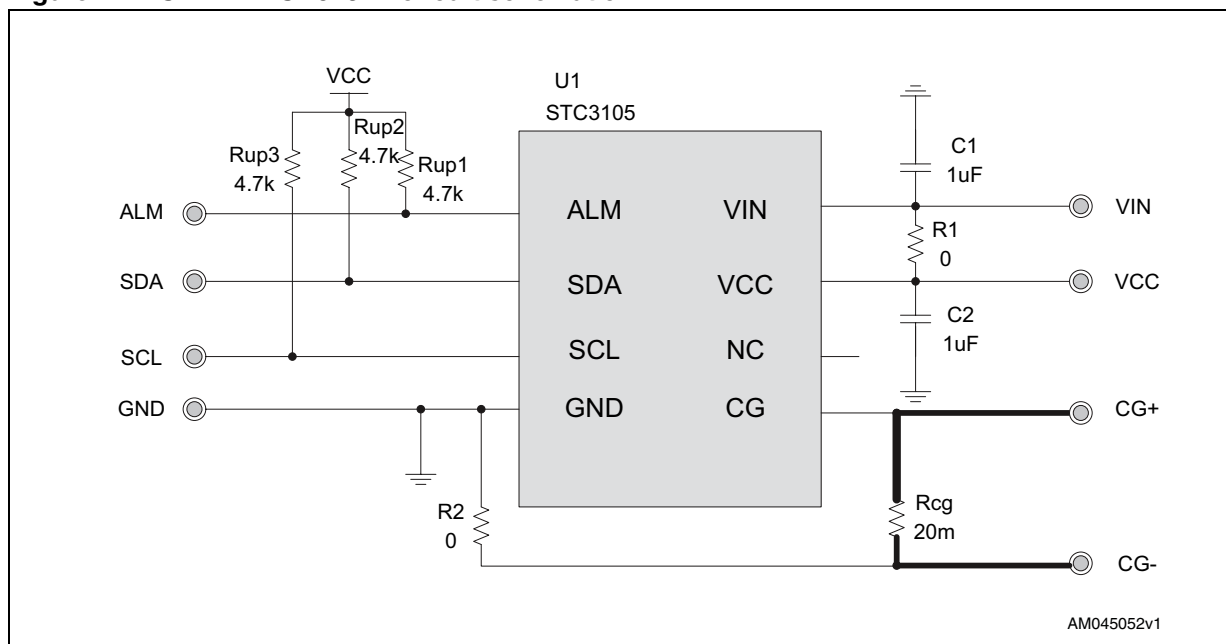
The STEVAL-ISB013V1 is a demonstration board based on the STC3105 battery monitor IC. The application monitors the voltage and current of a battery and includes a Coulomb counter to keep track of the charge/discharge status.

An alarm output signals a low state-of-charge (SOC) condition and/or low battery voltage. In addition, a relaxation register begins counting when the gas gauge is in a specified light-load condition, indicating when an OCV (open circuit voltage) measurement should be made for SOC correction.



# 1 Schematic diagram

Figure 1. STEVAL-ISB013V1 circuit schematic



## 2 Revision history

**Table 1. Document revision history**

| Date        | Revision | Changes          |
|-------------|----------|------------------|
| 14-Nov-2011 | 1        | Initial release. |

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