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)
- I²C interface for battery monitoring and device control
- Low power consumption:
  - 100 µA in active operating conditions
  - 50 µA in power saving operating conditions
  - 2 µA in standby mode
  - 1 µA 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

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Changes</th>
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<tbody>
<tr>
<td>14-Nov-2011</td>
<td>1</td>
<td>Initial release.</td>
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