

Battery monitor with alarm output for gas gauge applications based on the GG25L

Data brief



Description

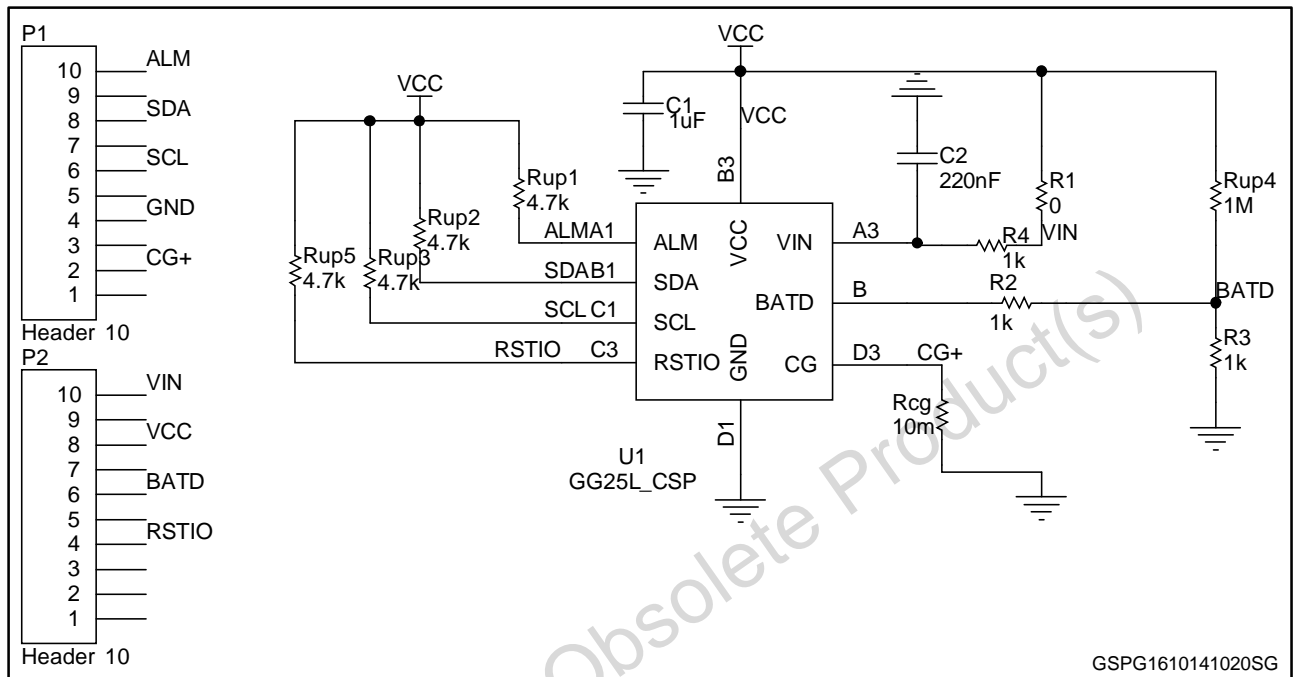
The STEVAL-ISB014V3 product evaluation board is based on the GG25L. This device includes the hardware functions required to implement a low-cost gas gauge for battery monitoring. It uses current sensing, Coulomb counting and accurate battery voltage measurements to estimate the state-of-charge (SOC) 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 GG25L offers advanced features to ensure high performance gas measurement in all application conditions. The STEVAL-ISB014V3 evaluation board is suitable for all wearable fitness and healthcare applications as well as for portable medical equipment.

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 μ A in power-saving mode
 - 2 μ A max in standby mode
- 1.4 x 2.0 mm 10-bump CSP package
- RoHS compliant

1 Schematic diagram

Figure 1: STEVAL-ISB014V3 circuit schematic



2 Revision history

Table 1: Document revision history

Date	Rev	Changes
20-Oct-2014	1	First release.

Obsolete Product(s) - Obsolete Product(s)

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