



STEVAL-ISB012V1

Battery monitoring system demonstration board based on the STC3105

Data brief

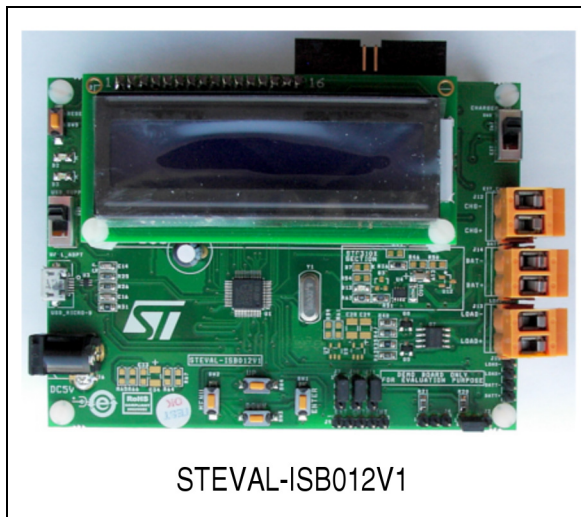
Features

- The STC3105 device uses the Coulomb counter method to track state-of-charge (SOC) or to track when the battery is charging or discharging
- Accurate measurements of the battery voltage to estimate the battery state-of-charge
- Battery parameters are sent to the PC via USB using a virtual COM port and can be observed using HyperTerminal as well as a GUI
- The board can also display parameters on the LCD
- Charging and discharging status is displayed by the + and - sign respectively on both the LCD and LED
- The board also shows low voltage and SOC alarms
- The board can monitor a battery with a capacity up to +/-10950 mAh
- RoHS compliant

Description

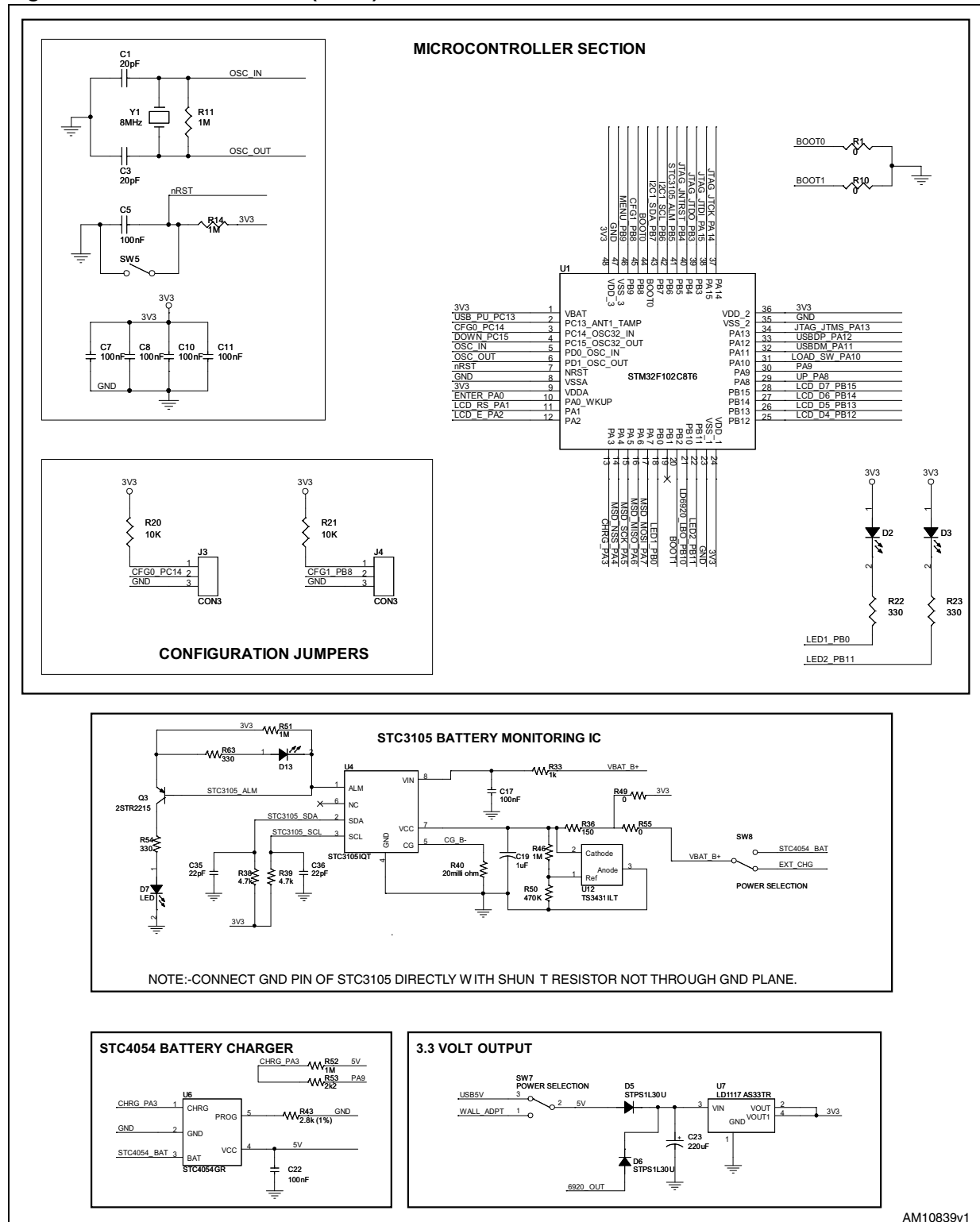
The STEVAL-ISB012V1 demonstration board provides a simple, compact solution to monitor voltage, current, and capacity of single cell Li-Ion batteries using the STC3105, which has a highly efficient gas gauge.

The STEVAL-ISB012V1 demonstration board has an internal charger in order to charge the battery and can be powered through a USB port or by using a DC adaptor.



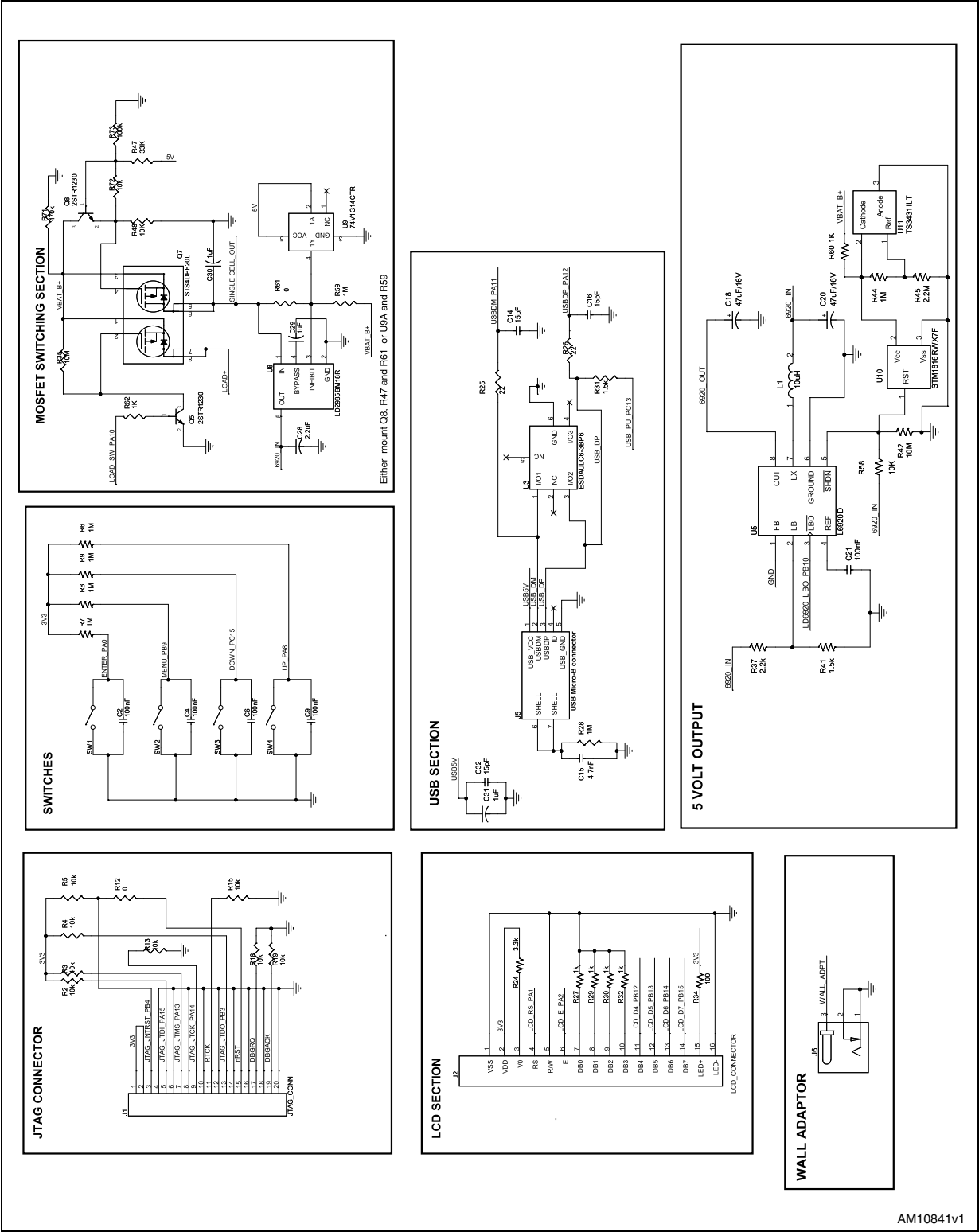
1 Circuit schematic

Figure 1. Circuit schematic (1 of 3)



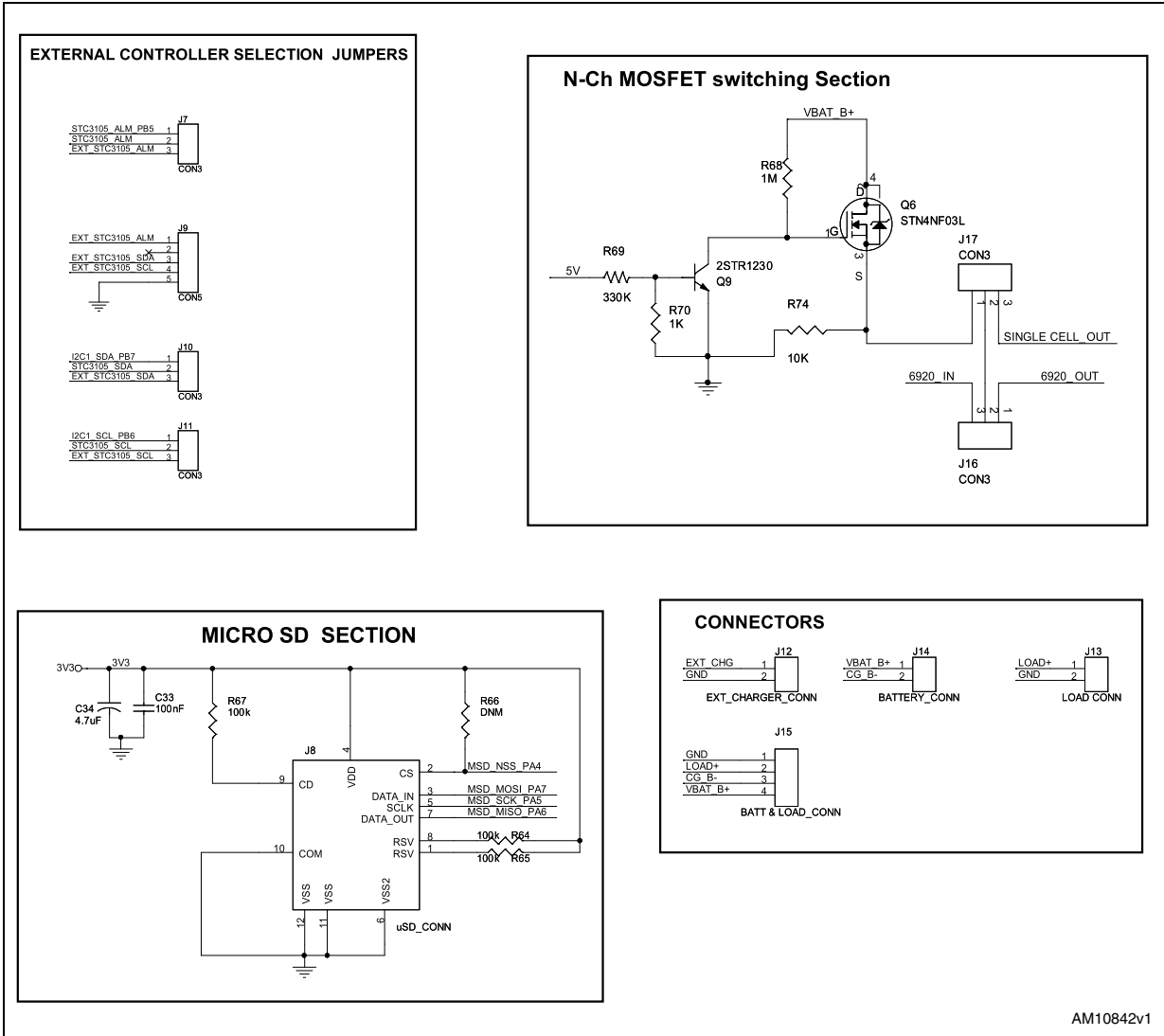
AM10839v1

Figure 2. Circuit schematic (2 of 3)



AM10841v1

Figure 3. Circuit schematic (3 of 3)



AM10842v1

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
23-Nov-2011	1	Initial release.

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