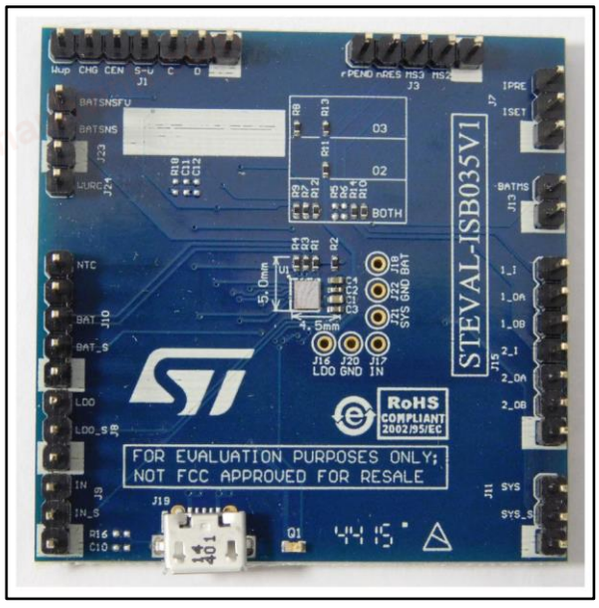
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STEVAL-ISB035V1

Li-Ion/Li-Po battery power management evaluation board based on STBC03

Data brief



Features

- Charges single-cell Li-Ion/Li-Po batteries with CC-CV algorithm and charge termination
- Fast charge current programmable from 1 mA to 650 mA
- Pre-charge current programmable from 1 mA to 650 mA
- Adjustable floating voltage up to 4.45 V
- Integrated always-ON low quiescent LDO regulator
- Battery overcharge and over-discharge protections
- Overcurrent protection
- Shipping mode entry and exit inputs
- Integrated dual 3 Ω SPDT load switches
- Digital control inputs
- RoHS compliant

Description

The STEVAL-ISB035V1 is an evaluation board based on the STBC03 battery power management IC, integrating a linear charger for single-cell Li-Ion batteries with battery protection functions, an LDO regulator and two SPDT load switches.

The device uses a CC-CV algorithm to charge the battery; the fast-charge and pre-charge currents can be programmed using an external resistor.

The input supply voltage is used to charge the battery and provide power to the LDO regulator. When a valid input voltage is not present and the battery is not empty, the device automatically switches to battery power.

When shutdown mode is activated, battery power consumption falls to less than 100 nA.

Two 3-Ω SPDT load switches with dedicated control input are embedded to intelligently manage overall system power consumption. The STEVAL-ISB035V1 can work in standalone mode, but several digital inputs can be used to control the STBC03 for full operation.

The STEVAL-ISB035V1 evaluation board provides full access to STBC03 functions through header connectors and can be supplied through a micro-AB USB connector.

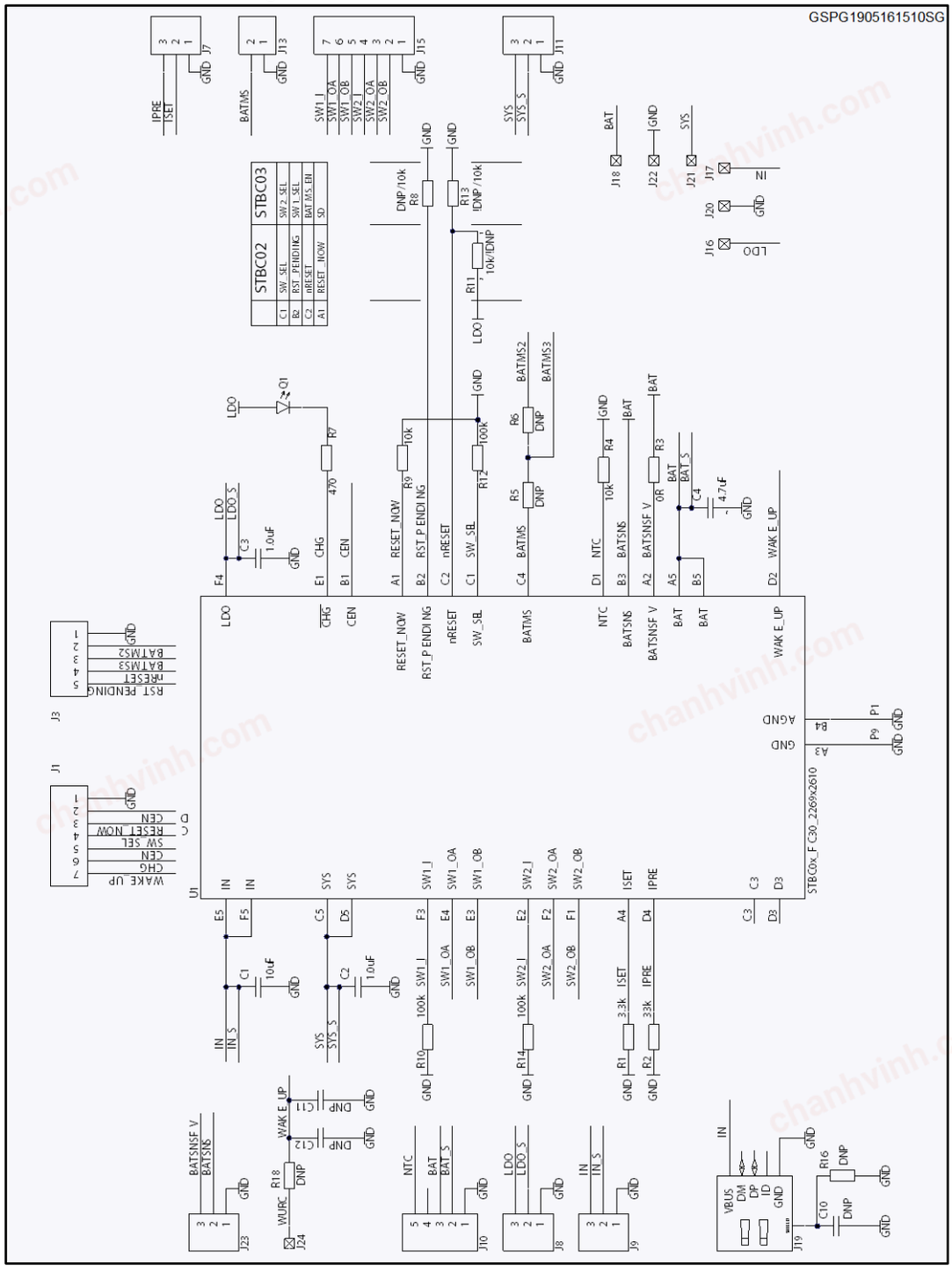
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1 Schematic diagram

Figure 1: STEVAL-ISB035V1 circuit schematic



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2 Revision history

Table 1: Document revision history

Date	Version	Changes
27-Sep-2017	1	Initial release.

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