



STEVAL-ISB002V1

High efficiency step-down controller demonstration board with embedded 2 A LDO regulator based on the ST72F324L

Data brief

Features

- 1 % measurement accuracy
- Firmware easily upgradeable
- Li-ion battery or 2-cell NiMH batteries
- 5 V supply
- RoHS compliant

Description

The STEVAL-ISB002V1 is a universal battery charger (UBC) demonstration board based on the ST72F324L microcontroller.

The charger used in this demonstration board uses a modified form of a non-inverting buck-boost converter to support the charging voltage requirement for single-cell Li-ion batteries.

The board includes a 3.3 V power supply generated from a KF33 regulator and a precision reference voltage generated from the TL1431, bearing in mind the accuracy requirement for charging. A status LED is used to show the charging status.

This demonstration board is capable of charging single cell Li-ion batteries with in-built NTC or a 2-cell NiMH battery from a 5 V supply. The firmware is easily upgradeable and can be modified for other ST7 microcontrollers depending on application requirements.

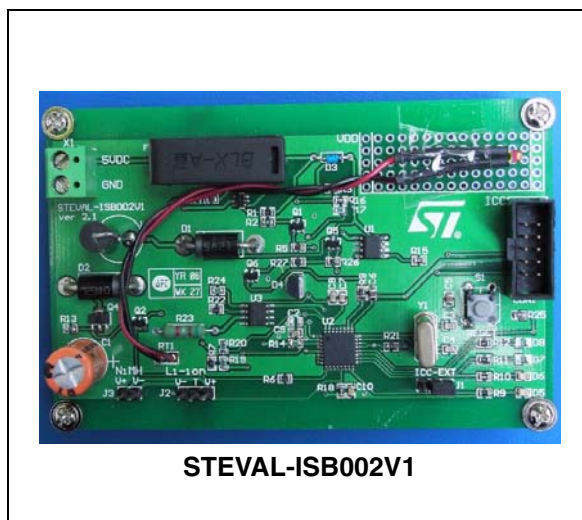
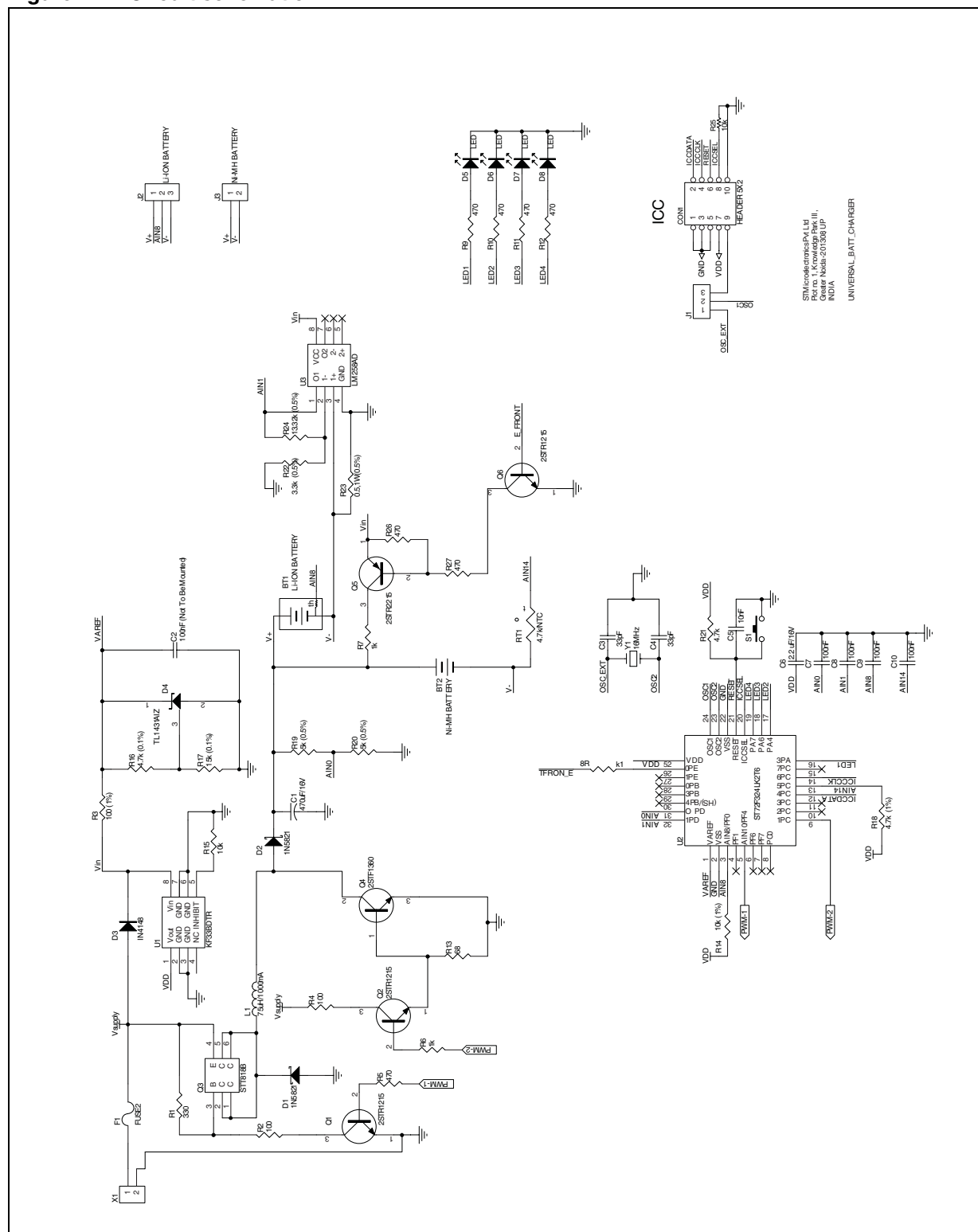


Figure 1. Circuit schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
19-Nov-2010	1	Initial release.

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