



STEVAL-ISA077V1

High efficiency synchronous rectifier step-up converter demonstration board based on the L6920DB

Data brief

Features

- Up to 5.5 V operating input voltage
- Internal synchronous rectifier
- Adjustable output voltage from 1.8 V
- 3.3 V and 5 V fixed output voltages
- Low battery voltage detection
- Reverse battery protection
- 750 mA input current limit
- Switching frequency up to 1 MHz
- RoHS compliant

Description

The STEVAL-ISA077V1 demonstration board is based on the L6920DB which is a high efficiency monolithic step-up switching converter IC especially designed for battery powered applications, thanks to its minimum startup of 0.8 V, and a minimum operating voltage of 0.6 V.

It requires only three external components to realize the conversion from battery voltage to the selected output voltage.

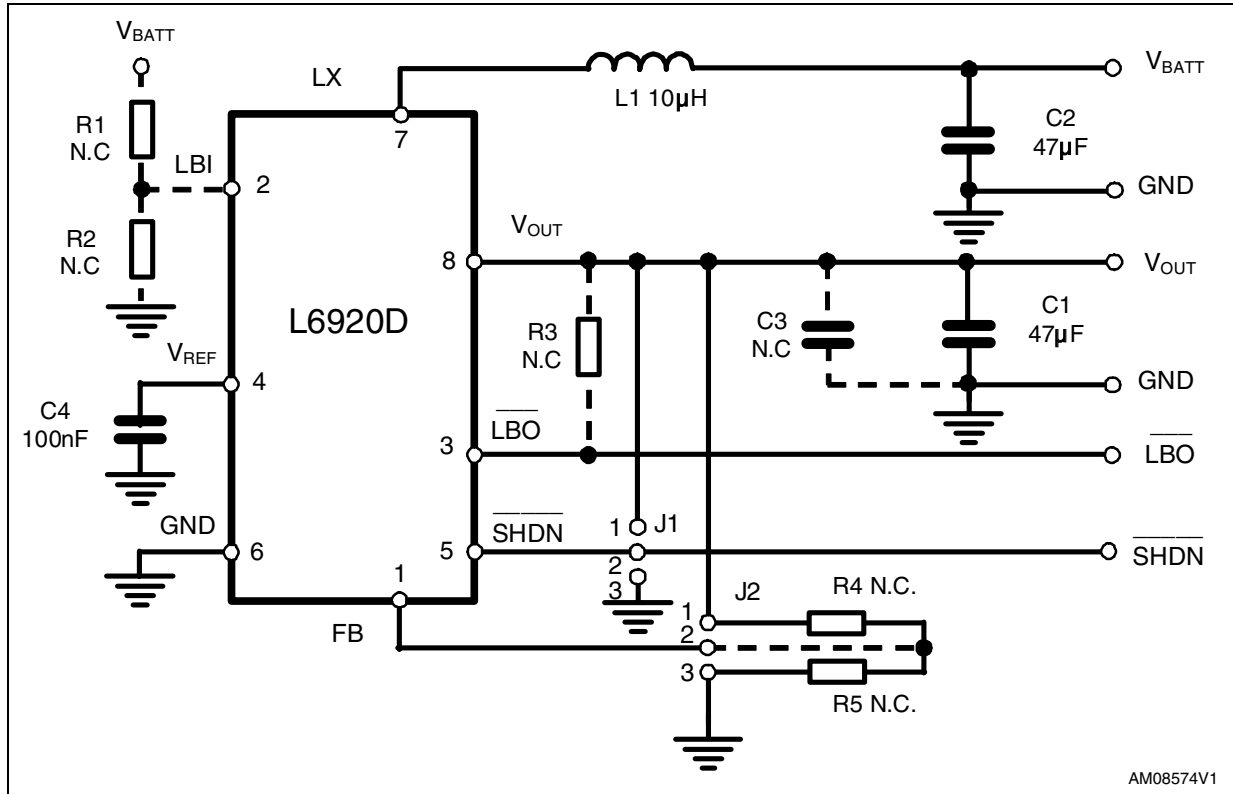
It has a minimum output voltage of 1.8 V, which is enough to supply even the most advanced ASICs and microprocessors.

The high switching frequency allows the user to choose small inductors and output capacitors for their designs. Supervisory functions include reference voltage, low battery detection, and shutdown, which are provided with overcurrent protection.



1 Circuit schematic

Figure 1. Schematic circuit



AM08574V1

2 Revision history

Table 1. Document revision history

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

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