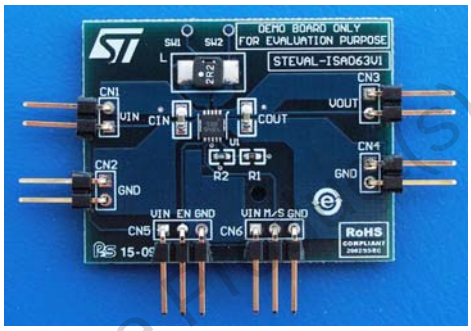
STEVAL-ISA063V1

1 A high efficiency single inductor DC-DC converter based on the STBB1XX

Data brief

Features

- Buck-boost DC-DC converter
- Operating input voltage range: 2.0 V to 5.5 V
- 2% DC feedback voltage tolerance
- Synchronous rectification
- Shutdown function
- 1.5 MHz switching frequency
- Power save mode at light load
- Typical efficiency: > 94%
- 1 A output current capability
- Shutdown current < 1 µA
- RoHS compliant



STEVAL-ISA063V1

AM03157

Description

The STEVAL-ISA063V1 demonstration board represents a typical buck-boost DC-DC converter application, intended to demonstrate the function and performance of the STBB1XX device. The STBB1XX is a fixed frequency, high efficiency Dc-DC converter capable of providing output voltages ranging from 1.2 V to 5.5 V, and input voltages from 2.0 V to 5.5 V.

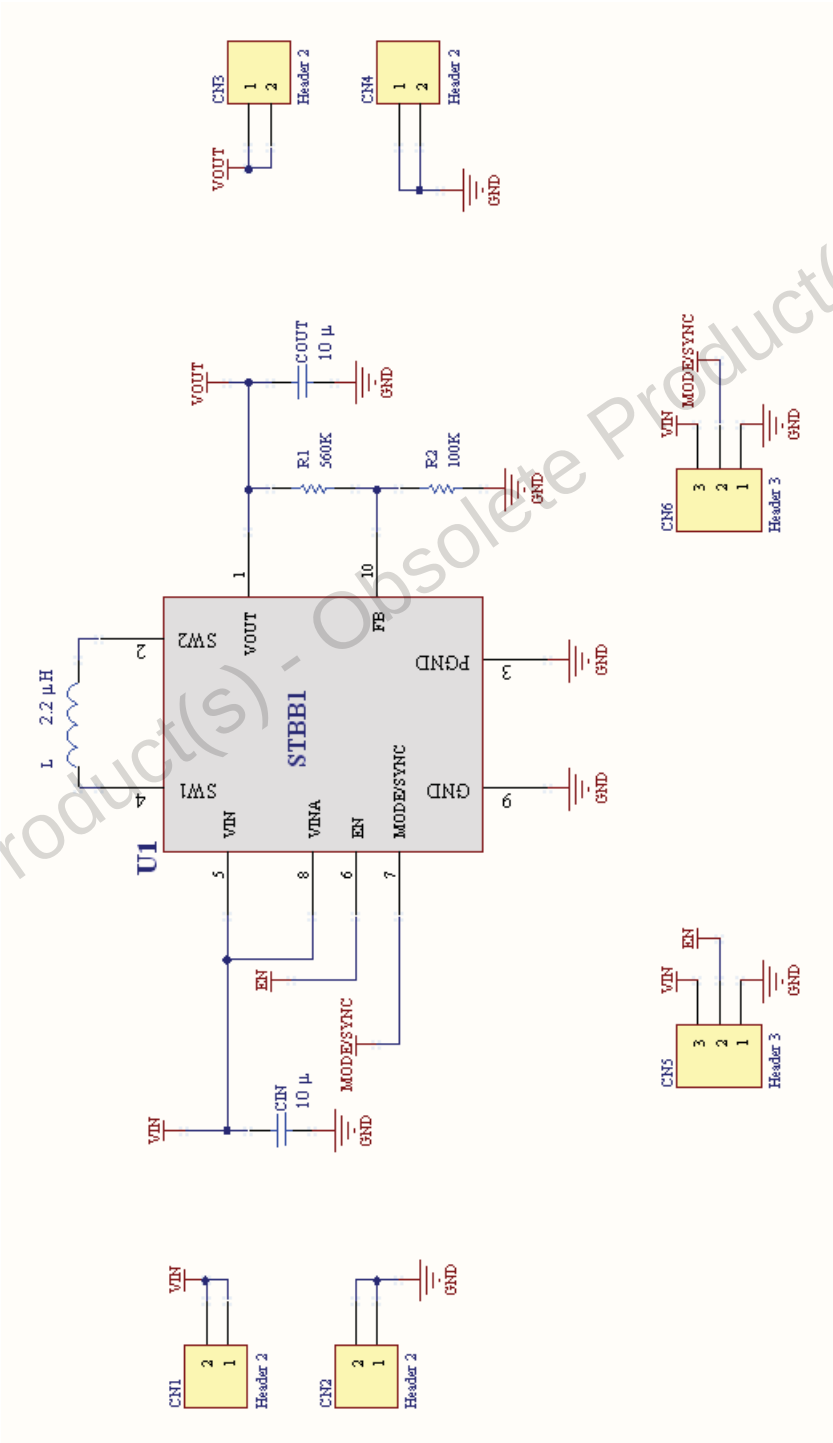
The STBB1XX device can operate with input voltages higher than, equal to, or lower than the output voltage, making the product suitable for single Li-ion, multi-cell alkaline or NiMH battery-powered applications where the output voltage is within the battery voltage range. The integrated low RDS_{ON} N-channel and P-channel MOSFET switches contribute to the high efficiency of the STBB1XX device.

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1 Schematic circuit

Figure 1. Schematic diagram



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2 Revision history

Table 1. Document revision history

Date	Revision	Changes
15-Jun-2009	1	Initial release.

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