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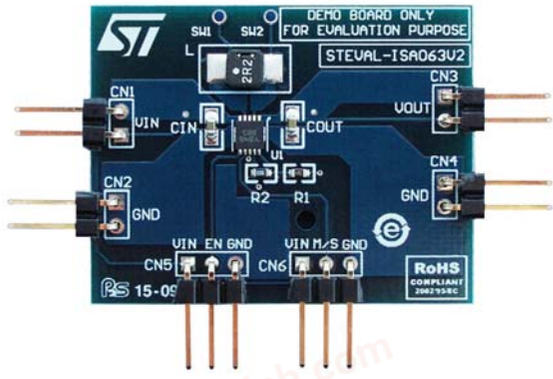
STEVAL-ISA063V2

1 A, high efficiency single inductor DC-DC converter based on the STBB1-APUR

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-ISA063V2

Description

The STEVAL-ISA063V2 demonstration board implements a typical buck-boost DC-DC converter based on STMicroelectronics' STBB1-APUR high efficiency single inductor dual mode buck-boost DC-DC converter.

The device is fixed frequency and 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 STBB1-APUR can operate with input voltages higher than, equal to, or lower than the output voltage, rendering the product suitable for single lithium-ion (Li-Ion), multicell alkaline or NiMH applications where the output voltage is within the battery voltage range.

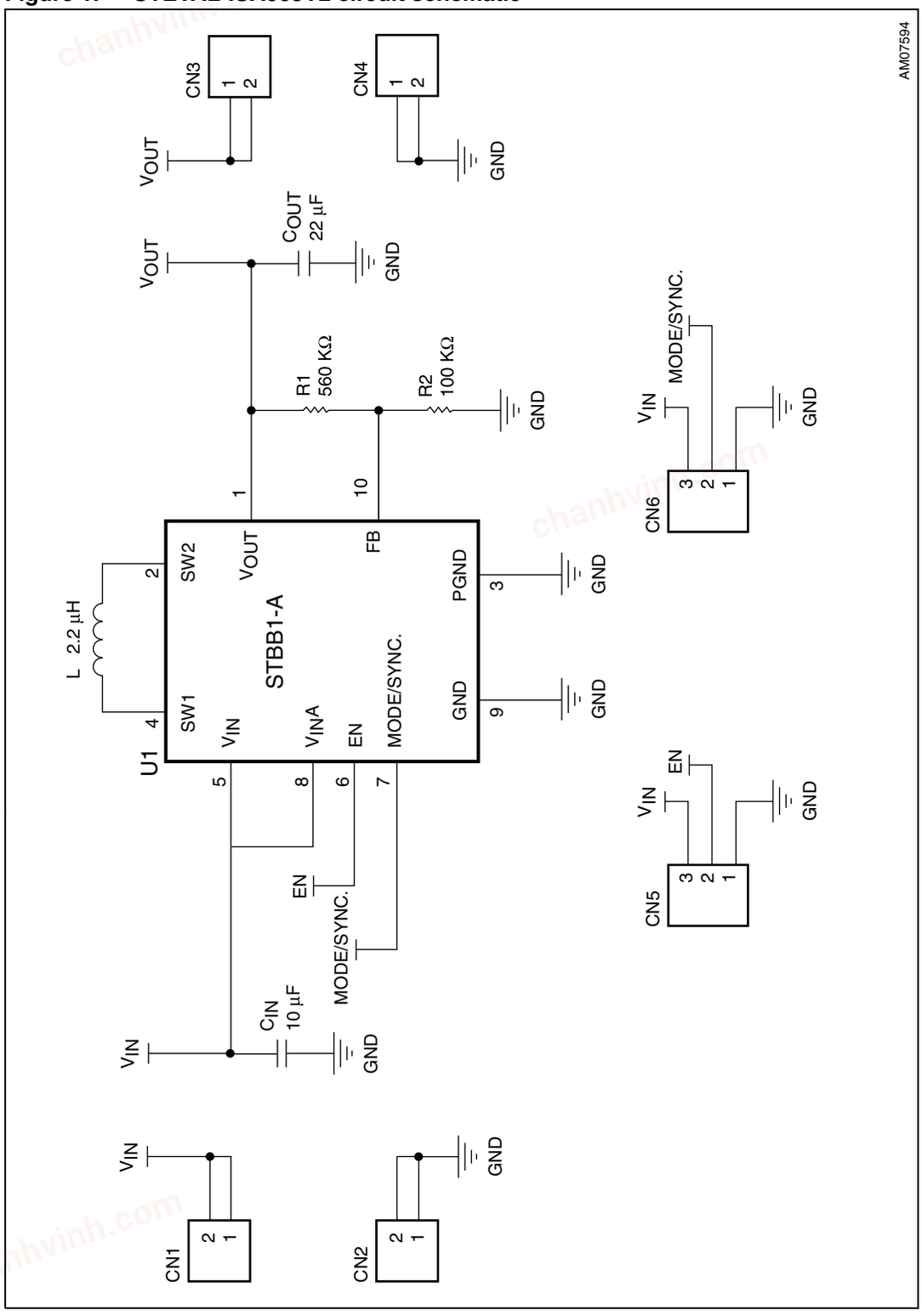
The integrated low-R_{DSon} N-channel and P-channel MOSFET switches contribute to its high efficiency.

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1 Schematic diagram

Figure 1. STEVAL-ISA063V2 circuit schematic



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2 Revision history

Table 1. Document revision history

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

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