

1.82 V - 500 mA, 6 MHz synchronous step-down converter based on the ST1S15

Data brief



Description

The STEVAL-ISA131V1 is a product evaluation board designed around the ST1S15, a high efficiency miniaturized step-down converter capable to providing 500 mA of output current from an input voltage from 2.3 V to 5.5 V.

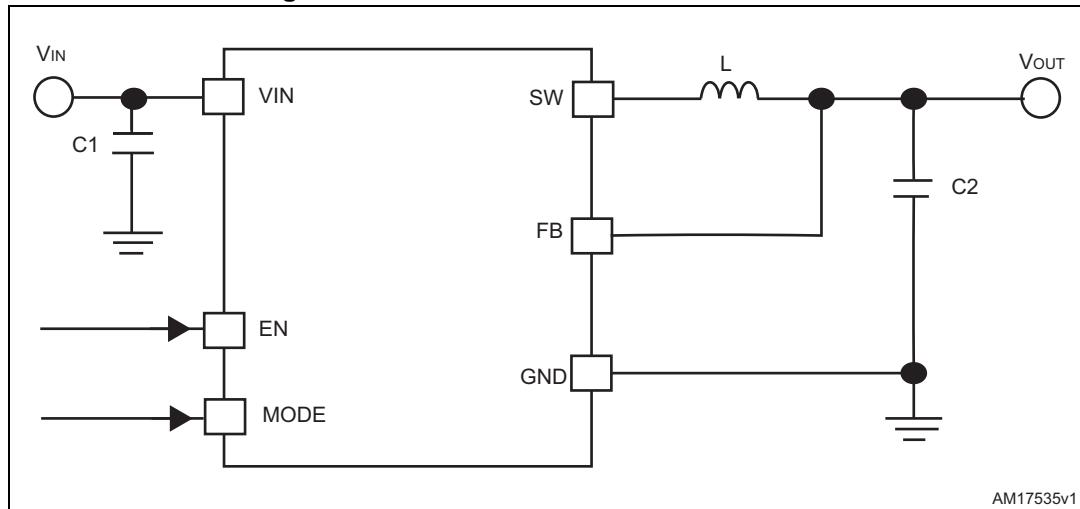
This converter works at a 6 MHz switching frequency and is specifically designed for applications where high efficiency and small application area are key factors.

Features

- 85% typical efficiency
- 500 mA output current capability
- 45 μ A typical quiescent current
- PFM or PWM operation for best efficiency over entire load range
- Ultra-fast load and line transient
- Short-circuit and thermal protection
- Tiny external components
- Auto or forced PWM selection with dedicated pin
- ST1S15J18R in Flip-Chip 6-bumps package
- RoHS compliant

1 Schematic diagram

Figure 1. STEVAL-ISA131V1 circuit schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
30-Jan-2014	1	Initial release.

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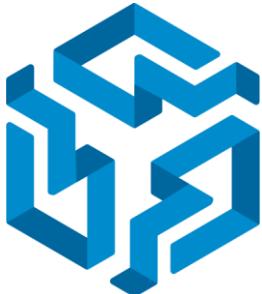
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