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

Data brief



Description

The STEVAL-ISA131V3 is a product evaluation board designed around the ST1S15, a high-efficiency miniaturized step-down converter able to provide 500 mA output current from an input voltage of 2.3 V to 5.5 V.

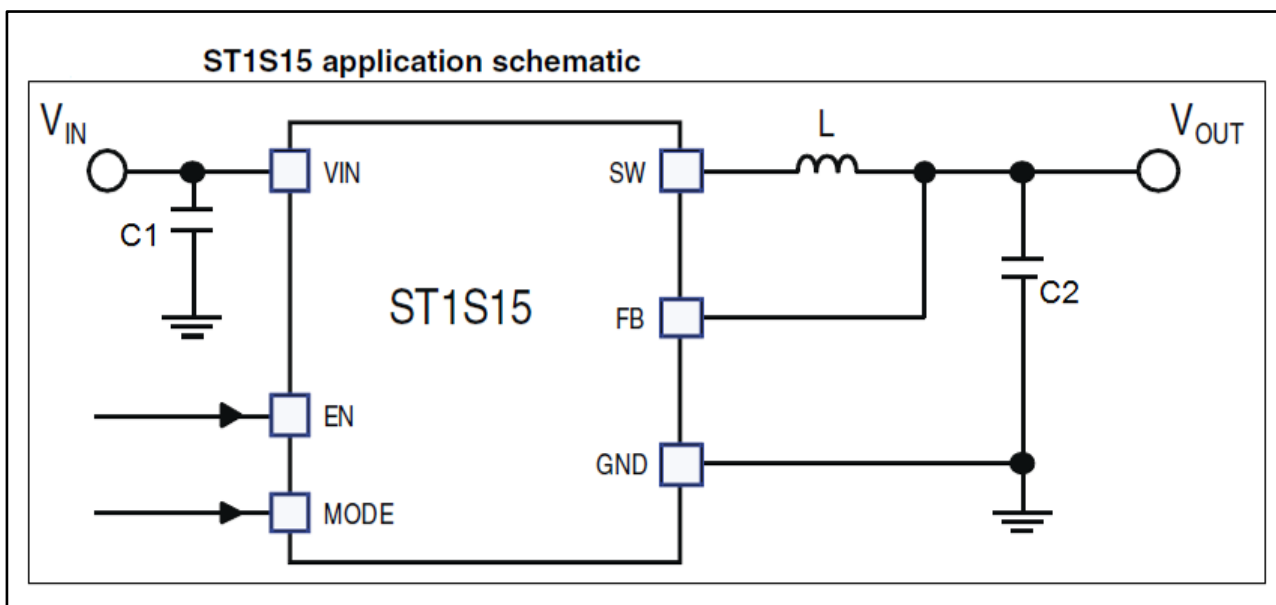
The converter operates at a switching frequency of 6 MHz and is specifically designed for applications where high efficiency and small application areas are key factors.

Features

- 85% typical efficiency
- 500 mA output current capability
- 45 μ A typical quiescent current
- PFM or PWM operation for best efficiency over the entire load range
- Ultra-fast load and line transients
- Short-circuit and thermal protection
- Tiny external components
- Auto or forced PWM selection using a dedicated pin
- ST1S15TPUR in DFN6 (2 x 2 mm)
- RoHS compliant

1 Application schematic

Figure 1: ST1S15 application schematic



2 Revision history

Table 1: Revision history

Date	Revision	Changes
22-Jan-2013	1	Initial release

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