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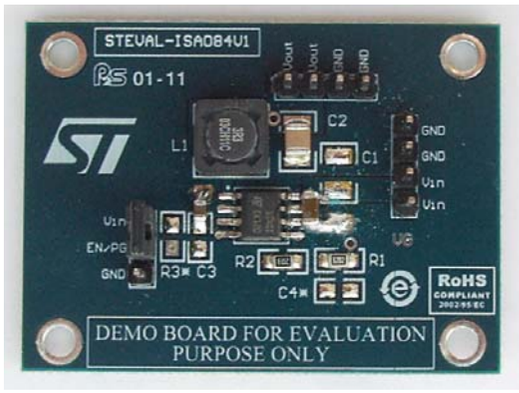
STEVAL-ISA084V1

4 A peak, 800 kHz fixed-frequency PWM synchronous step-down demonstration board with enable on/off based on the ST1S40

Data brief

Features

- V_{in}: 4 V to 18 V
- V_{out}: 3.3 V
- Maximum output current: 4 A
- Switching frequency: 800 kHz
- Short-circuit: protected
- RoHS compliant



STEVAL-ISA084V1

Description

The STEVAL-ISA084V1, based on the ST1S40, is an internally compensated 800 kHz fixed-frequency PWM synchronous step-down converter demonstration board.

The ST1S40 operates from 4.0 V to 18 V input, while it regulates an output voltage as low as 0.8 V and up to V_{IN} (100% duty-cycle).

The ST1S40 integrates 95 mΩ high side switch and 69 mΩ synchronous rectifier allowing very high efficiency with very low output voltages.

The peak current mode control with internal compensation delivers a very compact solution with a minimum component count.

The device is protected through cycle-by-cycle current limiting in case of overload and is also protected by current foldback function with frequency reduction in case of short-circuit

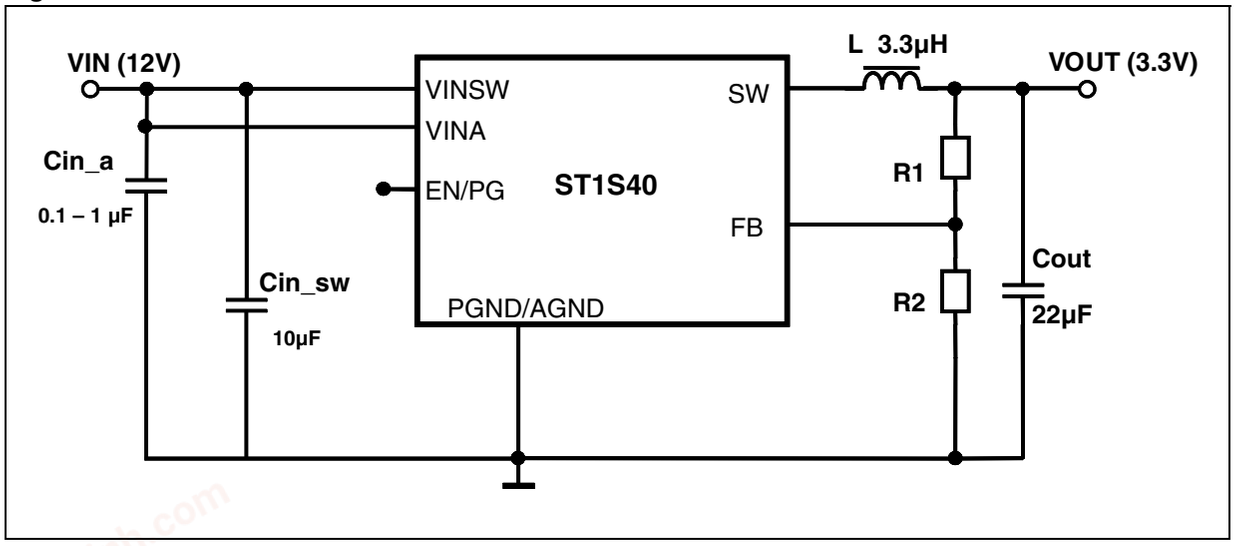
The device is available with an enable on/off function.

For further information contact your local STMicroelectronics sales office. www.st.com

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1 Circuit schematic

Figure 1. Circuit schematic



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2 Revision history

Table 1. Document revision history

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

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