

STEVAL-ISA046V1

2 A / 1.2 V high-efficiency synchronous buck converter evaluation board based on the ST1S09 with inhibit

Data Brief

Features

■ Input voltage range: 2.7 V to 5.5 V

■ Max I_{out}: 2 A

■ High internal switching frequency: 1.5 MHz

■ Inhibit function

■ Short-circuit protection

Output voltage: 1.2 V

■ ST1S09I in the DFN6 3x3 package

Description

This evaluation board, based on the ST1S09I family of synchronous step-down DC-DC converters, is optimized for powering all low-voltage applications and, generally, replaces high current linear solutions when power dissipation may cause high heating of the application environment. It provides up to 2 A over an input voltage range of 2.7 V to 5.5 V.

A high 1.5 MHz switching frequency allows the use of tiny surface-mount components and in addition to the resistor divider to set the output voltage value, an inductor and two capacitors are required.

The ST1S09I features an inhibit function.

A low output ripple is guaranteed by the current mode PWM topology and by the use of low ESR surface-mount ceramic capacitors.

The device is thermally protected and current limited to prevent damage due to accidental short-circuit.

The ST1S09 family is available in the DFN6 3x3 package.

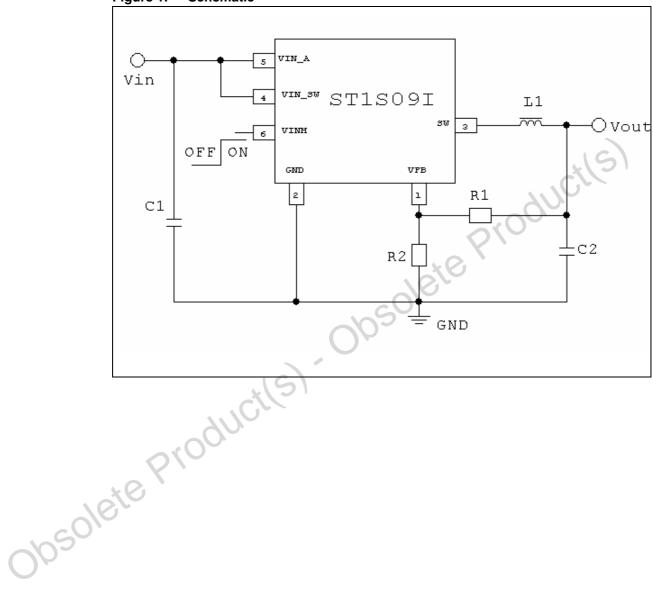


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Circuit schematic STEVAL-ISA046V1

1 Circuit schematic

Figure 1. Schematic



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STEVAL-ISA046V1 Revision history

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
03-Mar-2008	1	Initial release.

Obsolete Product(s). Obsolete Product(s)

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