

STEVAL-ISA139V1

350 mA valley current limit adjustable step-down regulator based on the PM6644

Data brief



Features

- 4.5 V to 25 V input voltage range
- Fixed 3.43 V or adjustable 0.9 V to 5 V
- Reference accuracy = +-1%, Tj=0 °C to 85 °C
- 380 mA maximum output current
- Constant on-time control with current sense
- Programmable switching frequency in PWM mode
- Pulse skipping mode (skip mode) at light loads
- Independent EN signal
- Latched OVP and UVP
- High accuracy 3.3 V reference voltage

Description

This product evaluation board is based on STMicroelectronics' PM6644. The device combines a 350 mA valley current limit step-down regulator with a high accuracy 3.3 V voltage reference in a small DFN10 3x3 package.

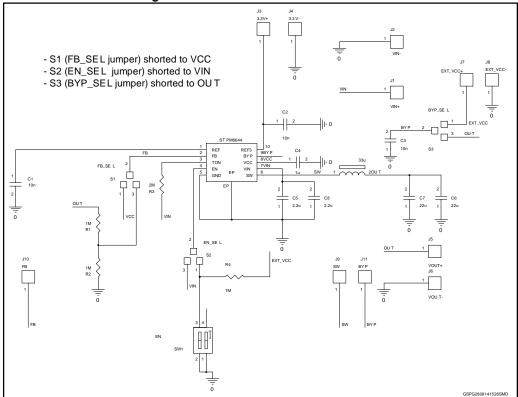
The switching regulator is based on a CoT (constant on time) architecture that assures fast load transient response. The embedded voltage feed-forward provides nearly constant switching frequency operation. Pulse-skipping is employed to increase efficiency at very light load. The switching frequency can be adjusted from 200 kHz to 600 kHz by means of a simple resistor.

The switching regulator can be programmed to regulate a fixed value of 3.43 V or it can deliver an adjustable voltage, depending on the FB pin setup. The high precision integrated 3.3 V reference can source up to 5 mA.

Schematic diagram STEVAL-ISA139V1

1 Schematic diagram

Figure 1: STEVAL-ISA139V1 circuit schematic



STEVAL-ISA139V1 Revision history

2 Revision history

Table 1: Document revision history

Date	Revision	Changes
28-Aug-2014	1	Initial release.



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