STEVAL-ISA198V1

## 2 A step down $\mathrm{DC}-\mathrm{DC}$ switching regulator ( $\mathrm{VIN}=4.5 \mathrm{~V}$ to 60 V ) based on the L7987L

Data brief


## Features

- $\quad 4.5 \mathrm{~V}$ to 60 V input voltage
- Step-down (buck) conversion
- 5 V output voltage (Vin > 6 V )
- Up to 2 A DC output current
- 500 kHz switching frequency
- 5 ms programmed soft-start
- Compliant with ceramic output capacitors
- $180^{\circ}$ out of phase synchronization available
- Auto recovery overcurrent and thermal protection
- RoHS compliant


## Description

The STEVAL-ISA198V1 product evaluation board is a step-down switching power supply based on the L7987L regulator in an HTSSOP16 package. The output voltage can be set starting from 0.8 V . Low drop-out operation, due to the advanced integrated switch management, can be achieved.

The L7987L is a 61 V , 2 A step-down asynchronous switching regulator with embedded power MOSFET capable of delivering up to 2 A of current, depending on the application conditions

The embedded switch-over feature on the $\mathrm{V}_{\text {BIAS }}$ pin and the light load management (pulse skipping) help maximize power conversion efficiency across the entire load range.
The soft-start, current limit threshold and switching frequency are adjustable for application optimization.

The device includes an internal 250 kHz oscillator that can be externally adjusted up to 1.5 MHz ; two L7987L regulators can be synchronized in a $180^{\circ}$ out-of-phase configuration for reduced total input RMS current.

## 1 Schematic diagram

Figure 1: STEVAL-ISA198V1 circuit schematic


## 2 Revision history

Table 1: Document revision history

| Date | Version | Changes |
| :---: | :---: | :--- |
| 11-Nov-2016 | 1 | Initial release. |

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