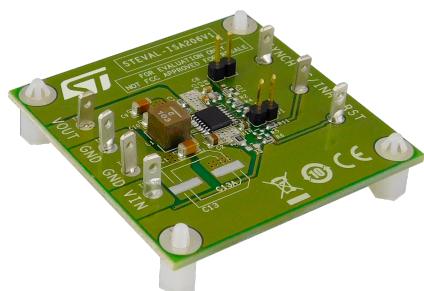


38 V, 2 A synchronous step-down switching regulator evaluation board based on L6986H



Features

- 2 A DC output current
- 4 V to 38 V operating input voltage.
- Low consumption mode or low noise mode
- Programmable I_{SKIP} current
- 30 μA I_Q at light load (LCM $V_{IN} = 12$ V and $V_{OUT} = 3.3$ V)
- 8 μA $I_{Q-SHTDWN}$
- Adjustable f_{SW} (250 kHz - 2 MHz)
- Output voltage adjustable from 0.85 V to V_{IN}
- Embedded output voltage supervisor
- Synchronization (in all f_{SW} range)
- Adjustable soft-start time
- Internal current limiting
- Overvoltage protection
- Output voltage sequencing
- Peak current mode architecture
- $R_{DS(on)HS} = 180$ m Ω ; $R_{DS(on)LS} = 150$ m Ω
- Thermal shutdown
- RoHS and WEEE compliant

Product summary

38 V, 2 A synchronous step-down switching regulator evaluation board based on L6986H	STEVAL-ISA206V1
38 V, 2 A synchronous step-down switching regulator with 30 μA quiescent current	L6986H

Description

The **STEVAL-ISA206V1** product evaluation board is based on the **L6986H** synchronous step-down switching regulator that can deliver up to 2 A and withstand cold cranking across 100% duty cycle, which, along with its wide input operating voltage range, render the **L6986H** the ideal choice for 12 V - 24 V industrial standard Bus.

Synchronous rectification helps to achieve higher efficiency at full load as well as application compactness, while high-frequency switching (programmable up to 2 MHz) helps to cut on power passive costs and size while staying outside of the AM band.

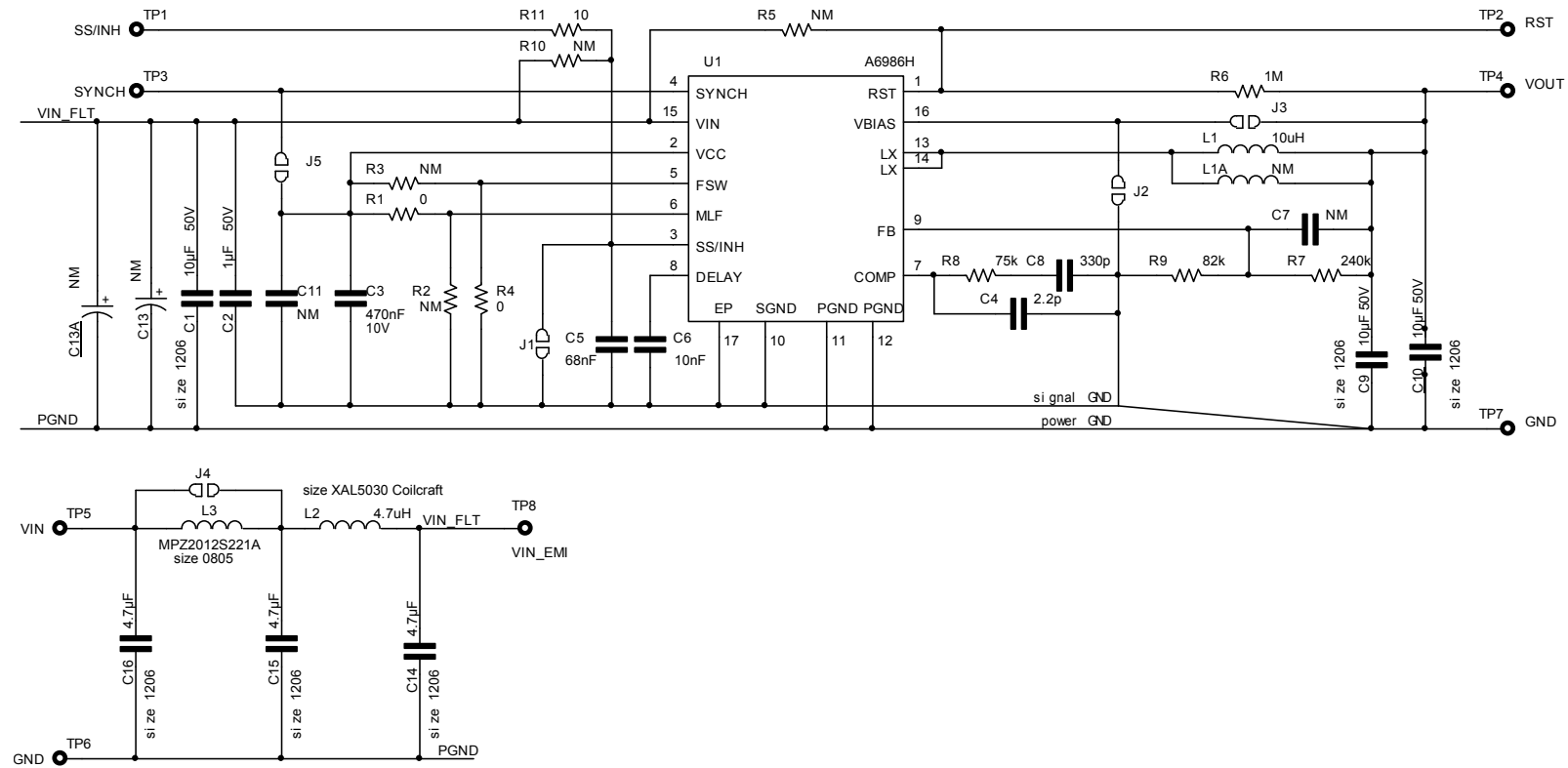
The device can operate in a low consumption mode (LCM) with a quiescent current down to 30 μA at $V_{IN} = 12$ V and $V_{OUT} = 3.3$ V, hence assuring high efficiency at light loads, as required by typical car body applications that active during car parking.

A low noise mode (LNM) is also available to meet the requirements of infotainment applications of forced PWM mode in all loading conditions.

The default configuration of the board is output voltage set to 3.3 V configured in LCM, 500 kHz switching frequency, I_{SKIP} current set to high level and the switchover feature disabled. All of these configurations can be easily changed by the user to evaluate different application scenarios.

Schematic diagram

Figure 1. STEVAL-ISA206V1 board schematic



Revision history

Table 1. Document revision history

Date	Version	Changes
02-Apr-2019	1	Initial release.

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. For additional information about ST trademarks, please refer to www.st.com/trademarks. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2019 STMicroelectronics – All rights reserved

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9