

Evaluation board based on ST1PS01AJR 400 mA nano-quiescent synchronous step-down converter



Features

- 1.8 V to 5.5 V input operating range
- Up to 400 mA output current capability
- Tiny external components: L=2.2 μ H typ.
- Selectable output voltages: 1.9 V to 2.8 V
- Output voltage Power Good
- Dynamic output voltage selection (D0, D1)
- Suitable for the following applications:
 - Wearable applications
 - Personal tracking monitors
 - Smart watches, sport bands
 - Energy harvesting, wireless sensors
 - Wearable and fitness accessories
 - Industrial sensors, portable low power devices
 - Single cell Li-Ion battery applications
 - Bluetooth® low energy
 - Zigbee
- WEEE and RoHS compliant (hardware only)

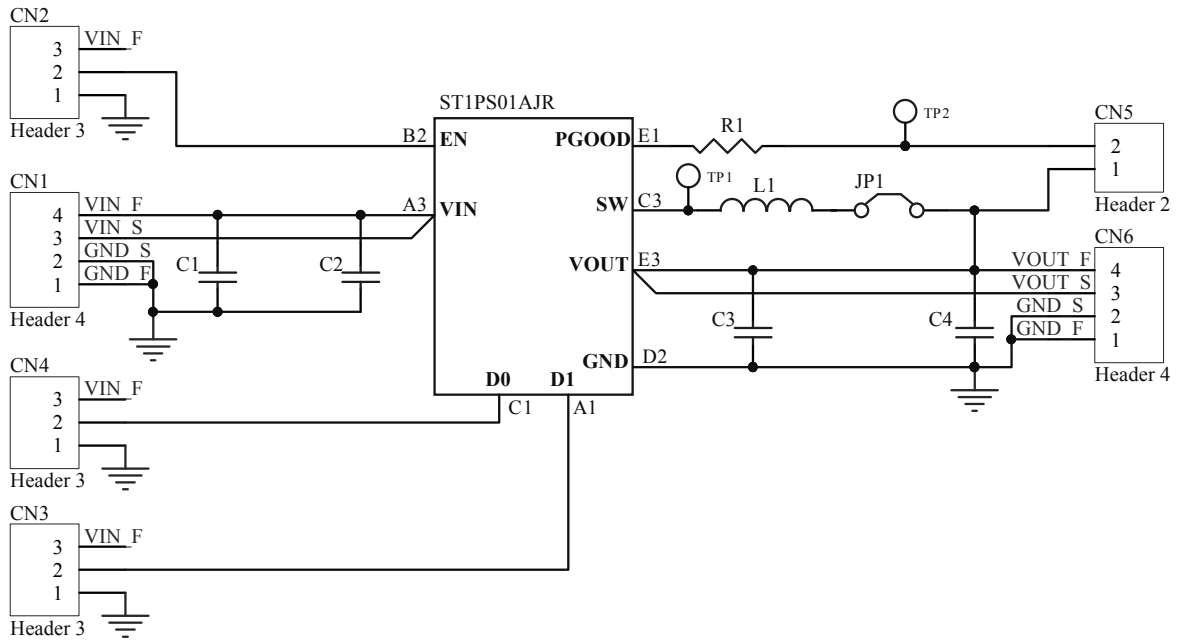
Description

The STEVAL-1PS01AJR evaluation board features the **ST1PS01** miniaturized, nano-quiescent, synchronous step-down converter designed for applications where high efficiency, PCB size and thickness are the key factors. The converter can provide up to 400 mA output current with a 1.8 V to 5.5 V input voltage range. The output voltage can be dynamically adjusted from 1.9 V to 2.8 V using two digital control inputs.

Thanks to the enhanced peak current control (PCC), the **ST1PS01** can achieve very high efficiency conversion using only a 2.2 μ H inductor and two small capacitors. Furthermore, the converter's advanced design circuitry reduces quiescent current to a minimum.

Product summary	
evaluation board based on ST1PS01AJR 400mA nano-quiescent synchronous step-down converter	STEVAL-1PS01AJR
400 mA nano-quiescent synchronous step-down converter with digital voltage selection and power good	ST1PS01

1 Schematic diagram

Figure 1. STEVAL-1PS01AJR board schematic


Revision history

Table 1. Document revision history

Date	Version	Changes
04-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