

Data brief

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





Product summary evaluation board hased on ST1PS01AJR STEVAL-1PS01AJR 400mA nanoquiescent synchronous stepdown converter 400 mA nanoquiescent synchronous stepdown converter with ST1PS01 digital voltage selection and power good

Features

- 1.8 V to 5.5 V input operating range
- Up to 400 mA output current capability
- Tiny external components: L=2.2 µH 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-lon battery applications
 - Bluetooth® low energy
 - Zigbee
- WEEE and RoHS compliant (hardware only)

Description

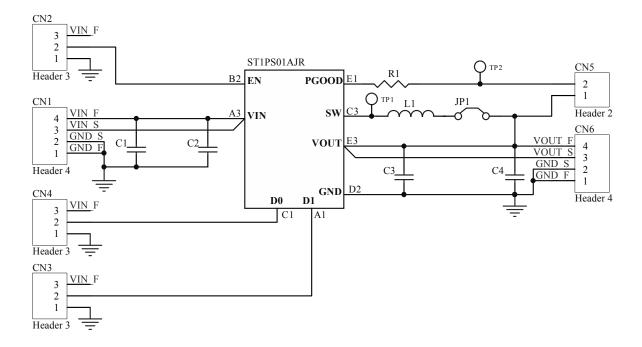
The STEVAL-1PS01AJR evaluation board features the ST1PS01 miniaturized, nano-quiescent, synchronous step-down converter designed for applications where high efficiency, PCB size and thickness are the key factors. The converter can provide up to 400 mA output current with a 1.8 V to 5.5 V input voltage 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 µH inductor and two small capacitors. Furthermore, the converter's advanced design circuitry reduces quiescent current to a minimum.



1 Schematic diagram

Figure 1. STEVAL-1PS01AJR board schematic



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Revision history

Table 1. Document revision history

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

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