

Evaluation board based on ST1PS01DJR 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: 1.8 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-1PS01DJR evaluation board features the ST1PS01 miniaturized, nano-quiescent, synchronous step-down converter designed for applications where high efficiency and PCB size and thickness are key factors.

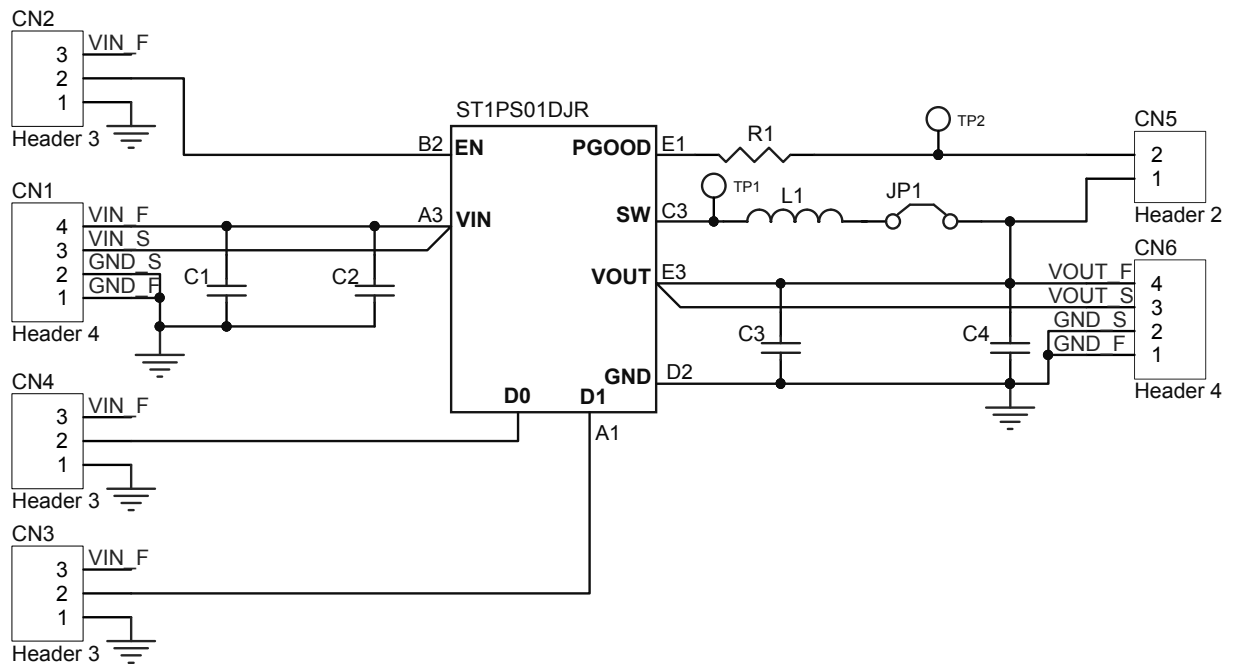
The converter can provide up to 400 mA output current with a 1.8 V to 5.5 V input voltage range. The output voltage can be dynamically adjusted from 1.8 V to 2.8 V using two digital control inputs.

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 advanced design circuitry reduces quiescent current to a minimum.

Product summary	
Evaluation board based on ST1PS01DJR 400mA nano-quiescent synchronous step-down converter	STEVAL-1PS01DJR
400 mA nano-quiescent synchronous step-down converter with digital voltage selection and power good	ST1PS01

1 Schematic diagram

Figure 1. STEVAL-1PS01DJR board schematic



Revision history

Table 1. Document revision history

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

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