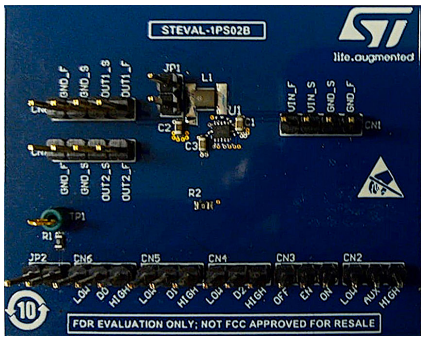
STEVAL-1PS02B

Data brief

Evaluation board based on ST1PS02BQTR 400 mA nano-quiescent synchronous step-down converter with AUX switch



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.
- Dynamically selectable output voltages from 1.8 V to 2.5 V
- Output voltage Power Good
- Auxiliary load switch Vout2 (AUX control input)
- WEEE and RoHS compliant (hardware only)

Description

The STEVAL-1PS02B evaluation board demonstrates a smart converter design able to deliver up to 400 mA output current from a 1.8 V to 5.5 V input, with a dynamically adjustable1.8 V to 2.5 V output voltage.

The board features the ST1PS02BQTR nano-quiescent miniaturized synchronous step-down converter which implements enhanced peak current control (PCC) and advanced design circuitry to minimize quiescent current. The device embeds a controlled load switch to supply a subsystem with same voltage rail.

The board demonstrates how highly efficient conversion can be achieved with just the ST1PS02BQTR, a 2.2 µH inductor and two small capacitors.

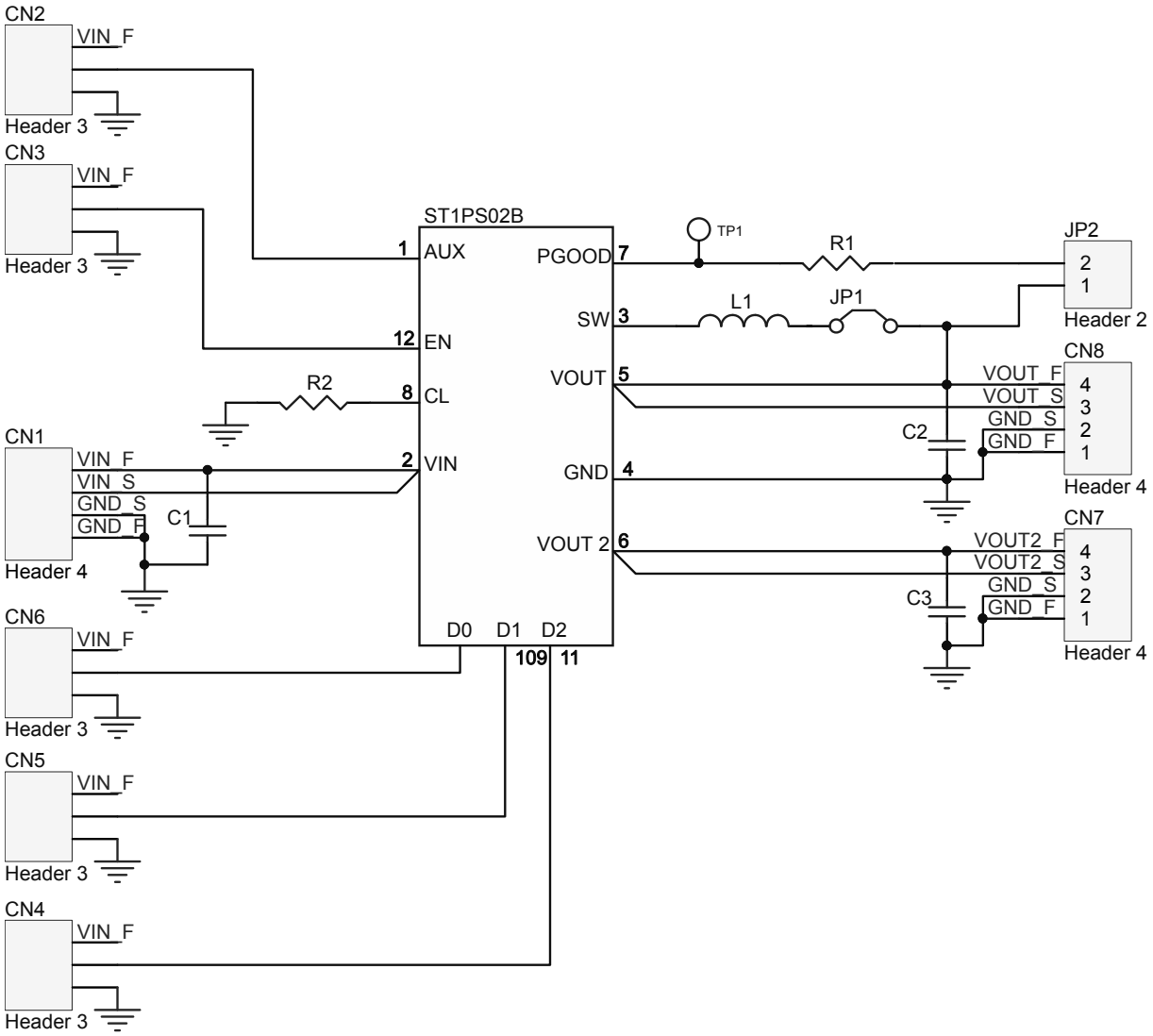
The board highlights key application benefits made possible by the ST1PS02BQTR, including high efficiency and small PCB size and thickness, and is ideal for power management solutions in wearable applications and fitness accessories, personal tracking monitors, smart watches, sports bands, energy harvesting, wireless sensors, industrial sensors, portable low power devices, single cell Li-Ion battery applications, and Bluetooth® low energy and Zigbee applications.

The device used on this board is supplied in the thin TQFN12 (2.0x1.7 mm) package, but other packages are also available.

Product summary	
evaluation board for ST1PS02 step-down converter	STEVAL-1PS02B
400mA nano-quiescent synchronous step-down converter with digital voltage selection, Power Good and AUX switch	ST1PS02BQTR
Applications	Buck Converter

1 Schematic diagrams

Figure 1. **STEVAL-1PS02B schematic diagram**



Revision history

Table 1. **Document revision history**

Date	Version	Changes
15-Apr-2020	1	Initial release.

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