Features

- 94% typical efficiency at 1 mA load ($V_{IN} = 3.6\, V$, $V_{OUT} = 3.3\, V$)
- 1.8 V to 5.5 V input operating range
- Up to 400 mA output current capability
- Tiny external components: $L = 2.2\, \mu H$ typ.
- Selectable output voltages: 1.8 V to 3.3 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®
- Hardware is WEEE and RoHS compliant

Description

The STEVAL-1PS01EJR evaluation board features the ST1PS01 nano-quiescent miniaturized synchronous step-down converter that is designed for applications where high efficiency, PCB size and thickness are key factors.

The converter can provide up to 400 mA output current with an input voltage ranging from 1.8 V to 5.5 V. The output voltage can be dynamically adjusted from 1.8 V to 3.3 V using two digital control inputs.

Thanks to the enhanced peak current control (PCC), the ST1PS01 can achieve very high conversion efficiency using only a 2.2 $\mu H$ inductor and two small capacitors.

The advanced design circuitry minimizes quiescent current.
Figure 1. STEVAL-1PS01EJR block diagram
Figure 2: STEVAL-1PS01EJR schematic
# Revision history

**Table 1. Document revision history**

<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Changes</th>
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</thead>
<tbody>
<tr>
<td>21-Dec-2018</td>
<td>1</td>
<td>Initial release.</td>
</tr>
<tr>
<td>17-Jun-2019</td>
<td>2</td>
<td>Updated features and photo in cover page.</td>
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