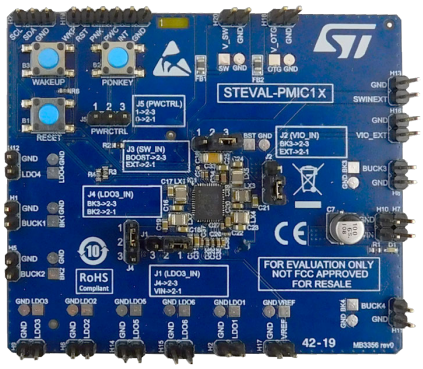
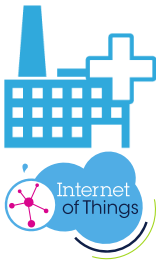
STEVAL-PMIC1K1

Data brief

Evaluation board for high integration STPMIC1x power management IC for microprocessor units





Product summary	
evaluation board for the STPMIC1x high integration power management IC for MPUs	STEVAL-PMIC1K1
14 output rail PMIC 4 Adjustable Constant ON Time (COT) Buck SMPS converters BOOST with Bypass, LDO for Memory Power Supply	STPMIC1
graphical user interface to configure STPMIC1 device registers via I²C interface	STSW-PMIC1GUI

Features

- Single device MPU supply solution embedding:
  - 5 LDOs
  - 5 high efficiency DC/DC converters
  - 1 termination for DDR memory
  - 1 voltage reference for DDR memory
  - 2 power switches
- Programmable voltage outputs and protection parameters
- Programmable power-on and power-off sequences
- Single supply input from 3.1 V to 5.5 V
- I²C control and non-volatile memory configuration storage

Description

The STEVAL-PMIC1K1 is a power management IC evaluation board for the highly integrated STPMIC1, which is designed to manage the power requirements of the core, memory and interfaces of the STM32MP1 series MPU and other application microprocessors.

The package includes a USB dongle which provides I²C access to the configuration registers of the STPMIC1 device, where voltage settings, power sequences, protection thresholds and other parameters can be set.

The evaluation board includes header connectors for external access to the embedded regulators and switches in the device, as well as internal routing via jumpers to satisfy any physical configuration requirements.

The passive components on the board are chosen for optimal performance across most use conditions, and three push buttons and digital I/Os allow triggering of the digital controls of the device.

Product summary	
Applications	Telecom Infrastructure Factory Automation Human Machine Interface IoT for Smart Industry Home and Professional Appliances Wearable

1 Schematic diagrams

Figure 1. STEVAL-PMIC1K1 board schematic

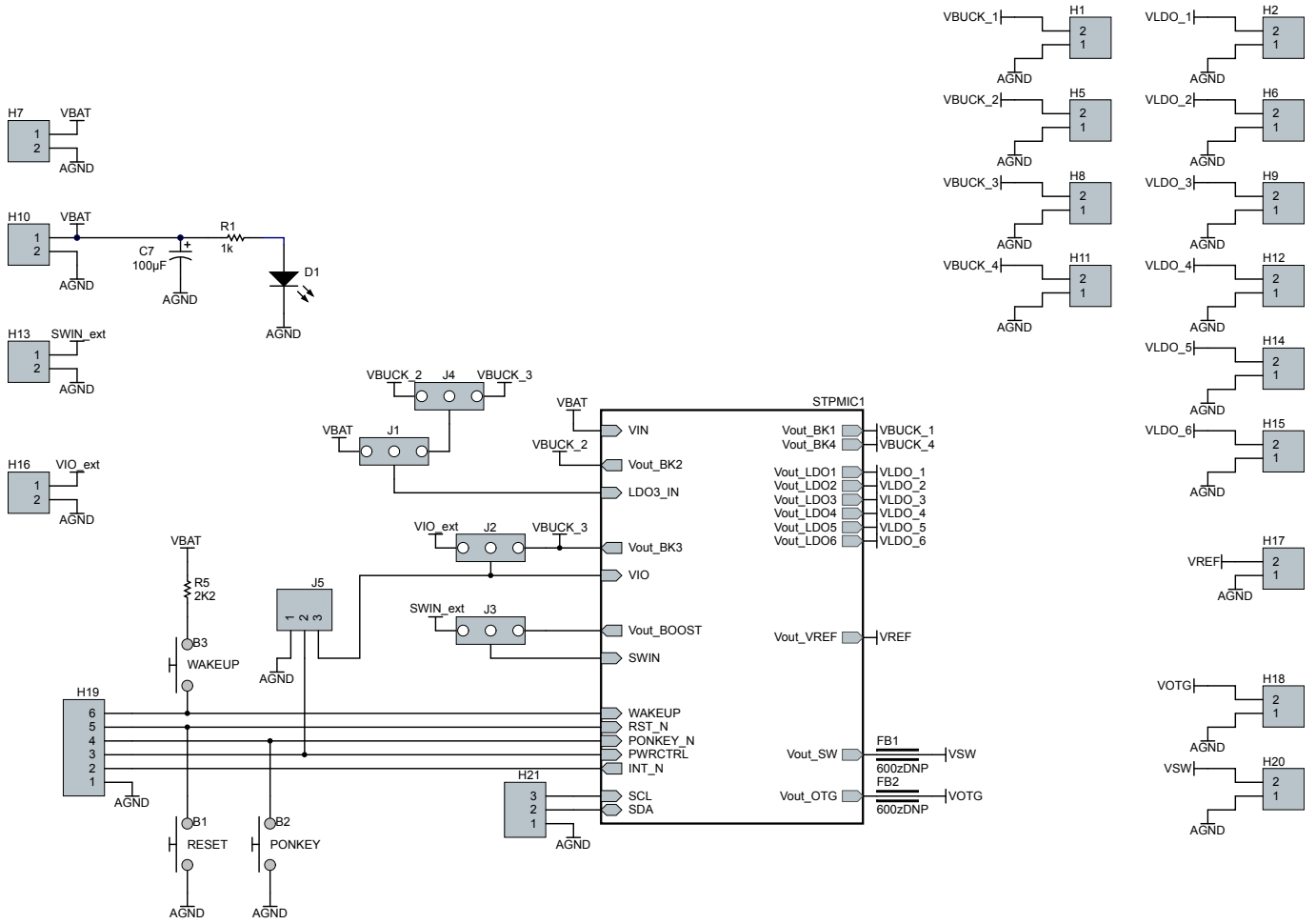
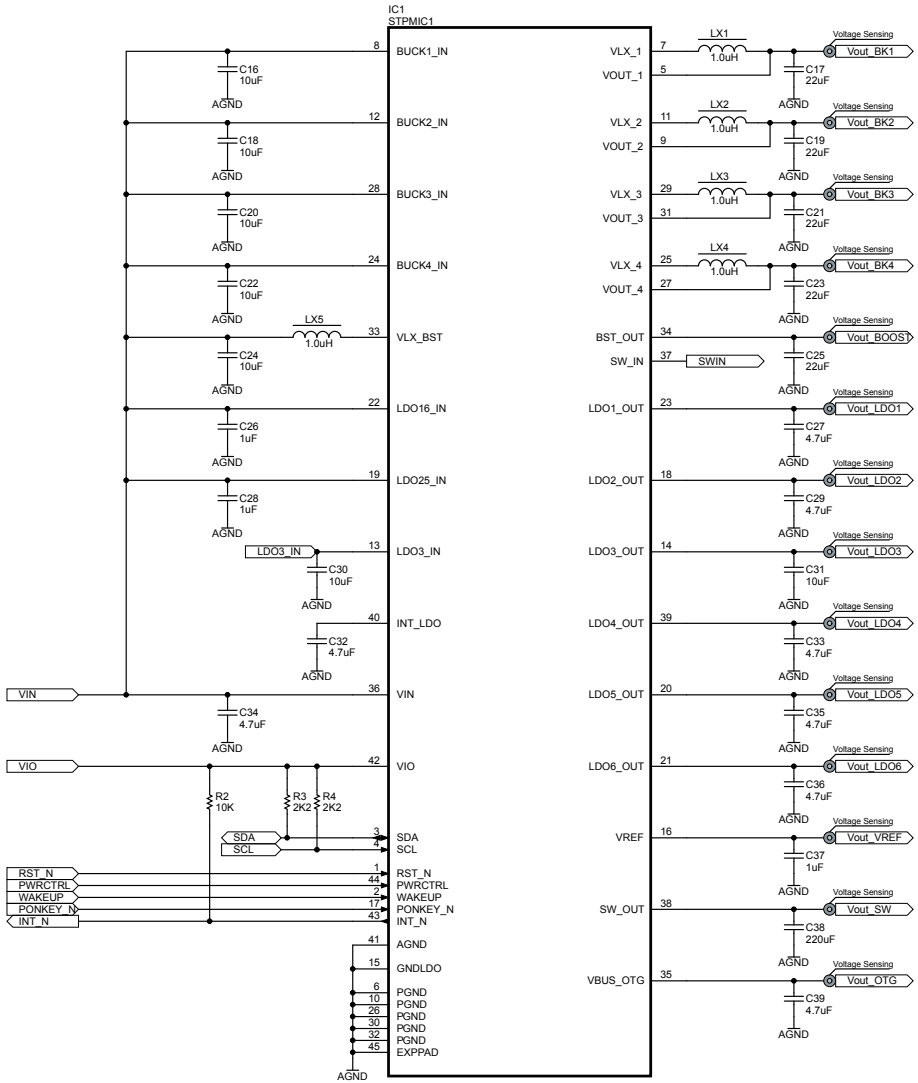


Figure 2. STEVAL-PMIC1K1 power management IC schematic



Revision history

Table 1. **Document revision history**

Date	Version	Changes
12-Nov-2019	1	Initial release.