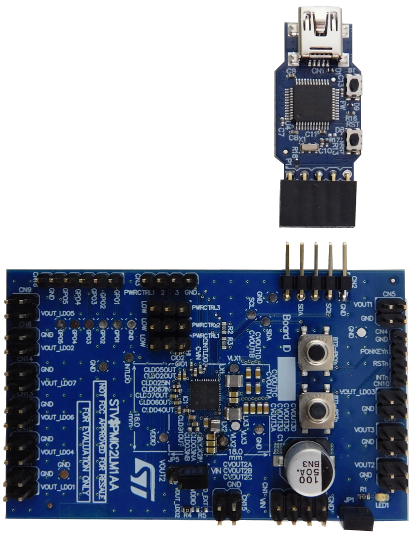
STEVAL-PMIC2LKV1

Data brief

Evaluation kit for the STPMIC2Lx high integration power management IC for microprocessor units



Product summary	
Evaluation kit for the STPMIC2Lx high integration power management IC for microprocessor units	STEVAL-PMIC2LKV1
Power management IC for MPU	STPMIC2LAQTR
Mainstream Mixed signals MCUs Arm Cortex-M4 core	STM32F303CCT6
Software for STEVAL-PMIC2LM1A	STSW-PMIC2LGUI
Software for USB dongle	STSW-USBDNGFW
Applications	Telecom infrastructure Factory automation Human machine interface IoT for smart industry Home and professional appliances Wearables

Features

- Input voltage ranges from 2.8 V to 5.5 V
- 3 buck converters with adaptive constant on-time (COT) topology
  - 2 MHz switching frequency
  - Selectable forced PWM
  - Spread spectrum function
  - Phase shift synchronization
- 5 adjustable general purpose LDOs
- 1 LDO configurable as:
  - Sink-source mode for DDR4 termination
  - Adjustable output (normal mode) for general purpose use
- 5 GPO output control for external command
- User programmable non-volatile memory (NVM), enabling scalability to support a wide range of applications
- Immediate output alternate settings toggle by dedicated power control pins
- Programmable output voltages Turn ON/OFF sequences
- I²C and digital IO control interface
- Advanced customizable safety managements
- WFQFN 40 L (5.0 x 5.0 x 1.0 mm)
- Typical applications:
  - Power management for embedded microprocessor units, wearable and IoT, portable device, man-machine interfaces, smart home, power management unit companion chip of the STM32MP2x MPU

Description

The STEVAL-PMIC2LKV1 is a power evaluation kit made by two components:

- STEVAL-PMIC2LM1A evaluation board.
- STEVAL-USBDNGV1 USB dongle.

The STEVAL-PMIC2LM1A is a power management IC evaluation board for the highly integrated STPMIC2L, which is designed to manage the power requirements of the core, memory, interfaces of the STM32MP2x series MPU, and other application microprocessors.

The USB dongle which provides I²C access to the configuration registers of the STPMIC2L 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.

1 Schematic diagrams

Figure 1. **STEVAL-PMIC2LM1A circuit schematic (1 of 4)**

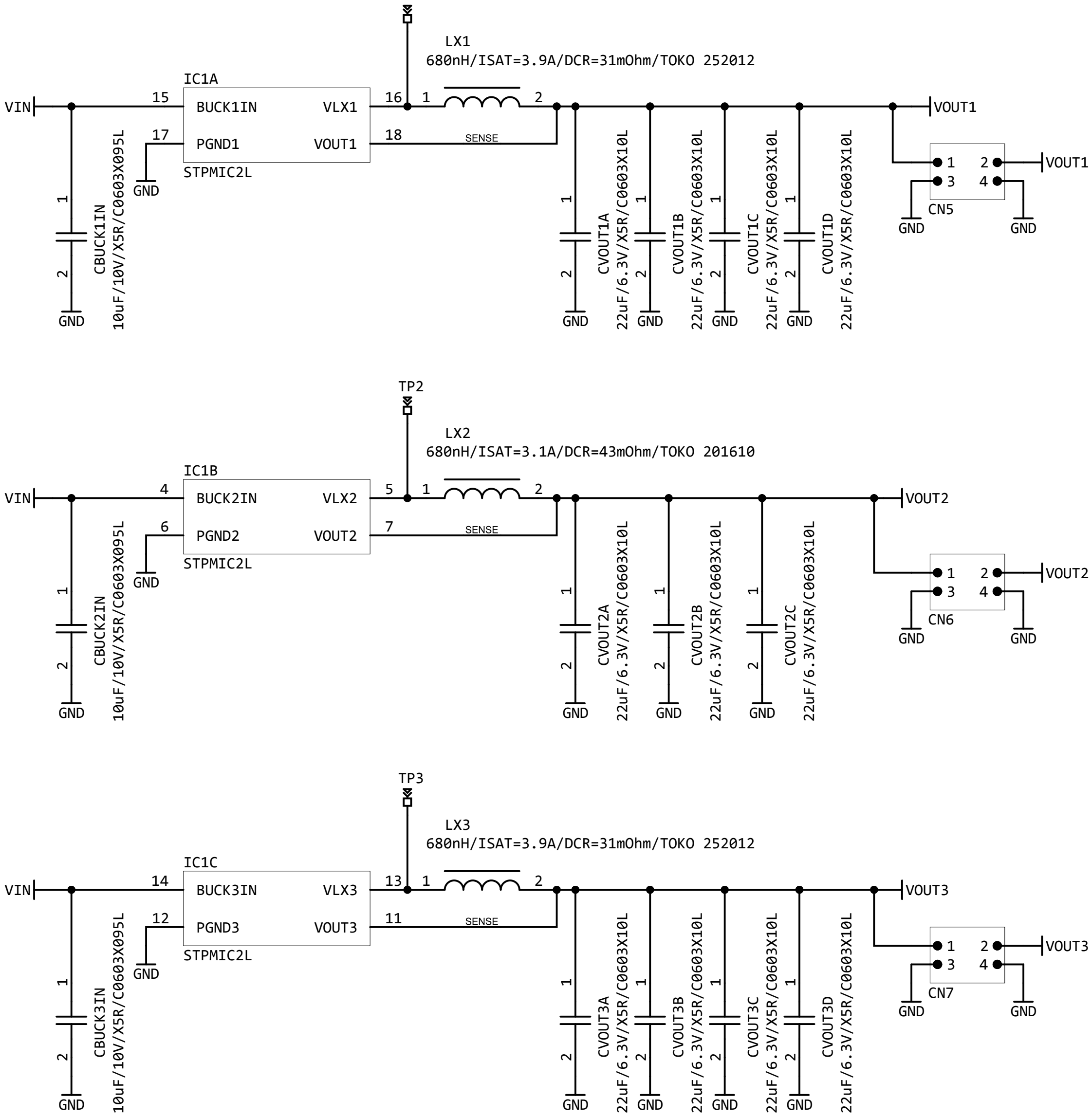


Figure 2. **STEVAL-PMIC2LM1A circuit schematic (2 of 4)**

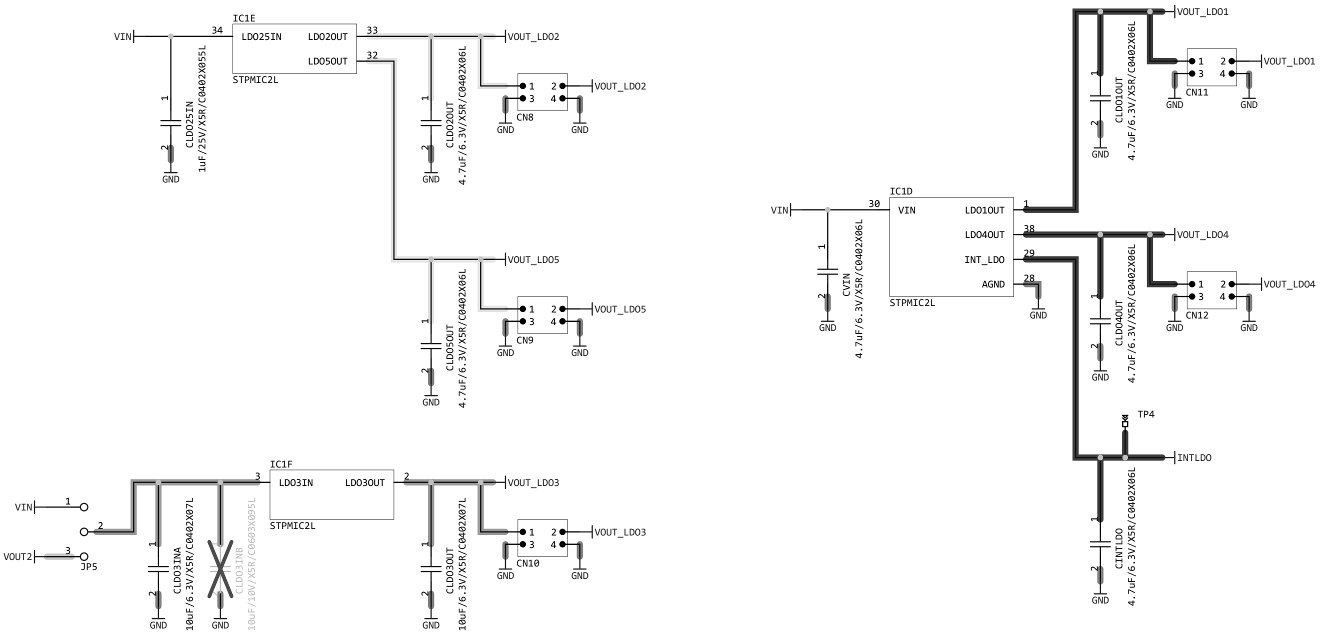


Figure 3. **STEVAL-PMIC2LM1A circuit schematic (3 of 4)**

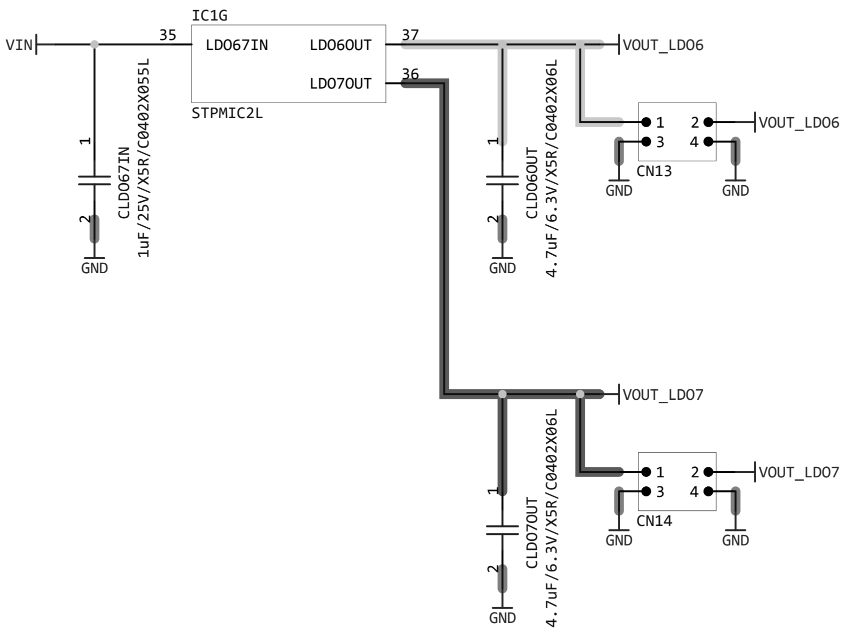
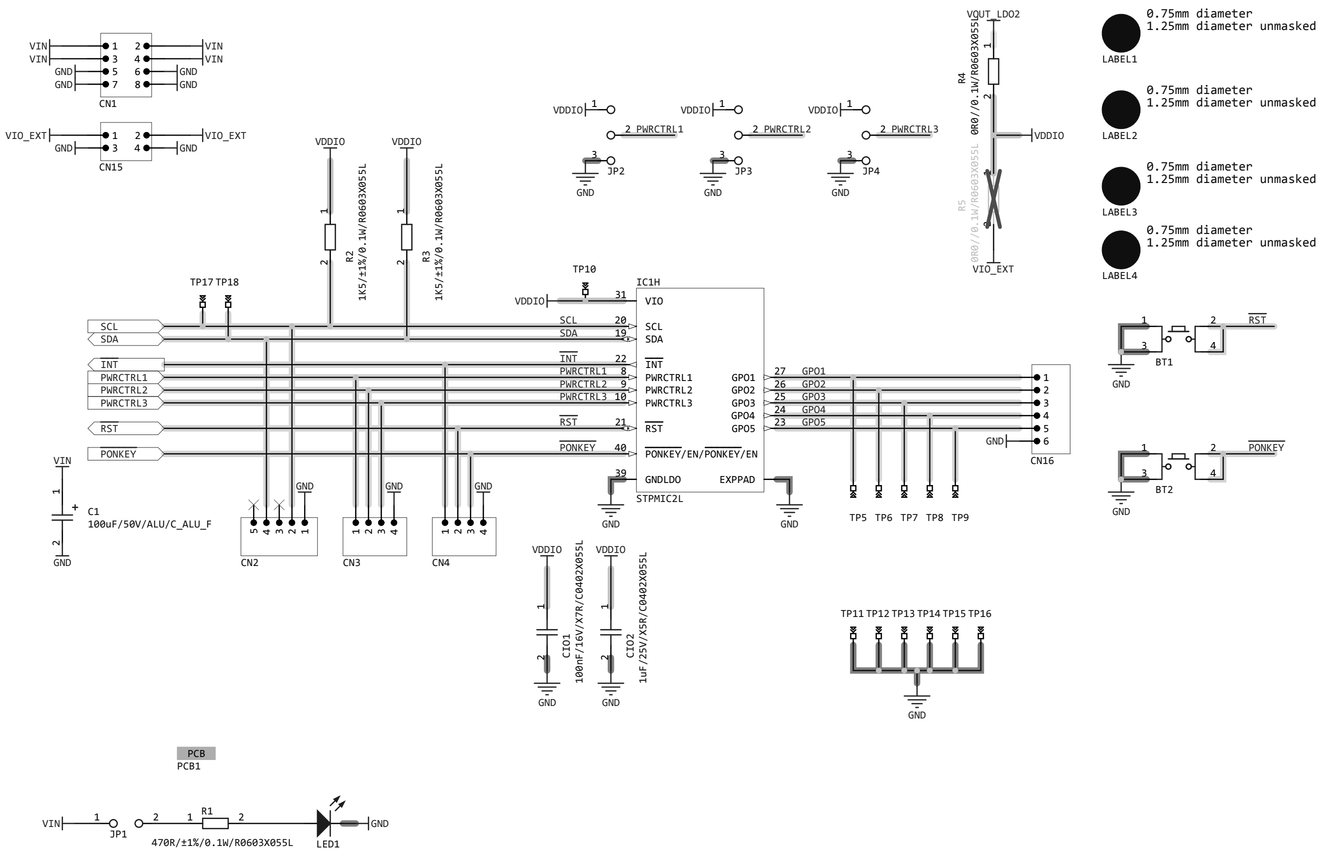


Figure 4. **STEVAL-PMIC2LM1A circuit schematic (4 of 4)**



2 Kit versions

Table 1. STEVAL-PMIC2LKV1 kit versions

Finished good	Schematic diagrams	Bill of materials
STV$PMIC2LKV1A(1)	STV$PMIC2LKV1A schematic diagrams	STV$PMIC2LKV1A bill of materials

1. *This code identifies the STEVAL-PMIC2LKV1 evaluation kit first version. The kit consists of a STEVAL-PMIC2LM1A whose version is identified by the code STV$PMIC2LM1AA and a STEVAL-USBDNGV1 whose version is identified by the code STEVAL$USBDNGV1A.*

Revision history

Table 2. **Document revision history**

Date	Revision	Changes
19-Nov-2025	1	Initial release.
23-Apr-2026	2	Updated Product summary.