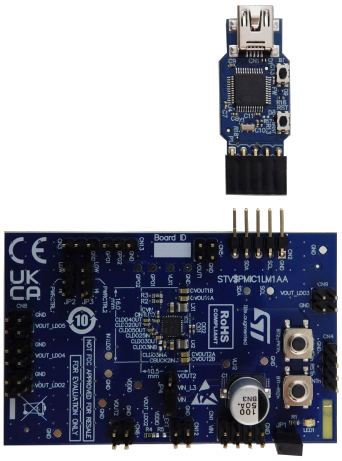
STEVAL-PMIC1LKV1

Data brief

Evaluation board for high integration STPMIC1L power management IC for microprocessor units



Features

- Input voltage range from 2.8 to 5.5 V
- 2 buck converters with adaptive constant on-time (COT) topology
  - 2 MHz switching frequency
  - Selectable forced PWM
- 2 adjustable general purpose LDOs
- 1 LDO configurable as:
  - Sink-source mode for DDRx termination
  - Adjustable output (normal mode) for general purpose use
- 1 LDO with fixed output voltage of 3.3 V for USB PHYsupply
- 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
- 2 GPO output control for external command
- Advanced customizable safety managements
- Typical applications:
  - Power management for embedded microprocessor units
  - Wearable and IoT
  - Portable devices, man-machine interfaces, smart home, power management unit companion chip of the STM32MP13/15 MPUs

Product summary	
Evaluation board for high integration STPMIC1L power management IC for microprocessor units	STEVAL-PMIC1LKV1
Highly integrated power management IC for micro processor units	STPMIC1LAPQR
Software for STEVAL-PMIC1LKV1 evaluation board	STSW-PMIC1LGUI
Software for USB dongle	STSW-USBDNGFW
Mainstream Mixed signals MCUs Arm Cortex-M4 core	STM32F303CCT6
Applications	Telecom infrastructure Factory automation Human machine interface IoT for smart industry Home and professional appliances Wearables

Description

The STEVAL-PMIC1LKV1 is a power evaluation kit made by a STEVAL-PMIC1LM1A evaluation board and a STEVAL-USBDNGV1 USB dongle.

The STEVAL-PMIC1LM1A is a power management IC evaluation board for the highly integrated STPMIC1L, which is designed to manage the power requirements of the core, memory and interfaces of the STM32MP1x series MPU and other application microprocessors.

The STEVAL-USBDNGV1 USB dongle mounts the STM32F303CC, which provides the I^2C access for the configuration of the STPMIC1L device registers, 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.

Internal routing via jumpers to satisfy any physical configuration requirements is also included.

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

1 Schematic diagrams

Figure 1. **STEVAL-PMIC1LM1A circuit schematic (1 of 3)**

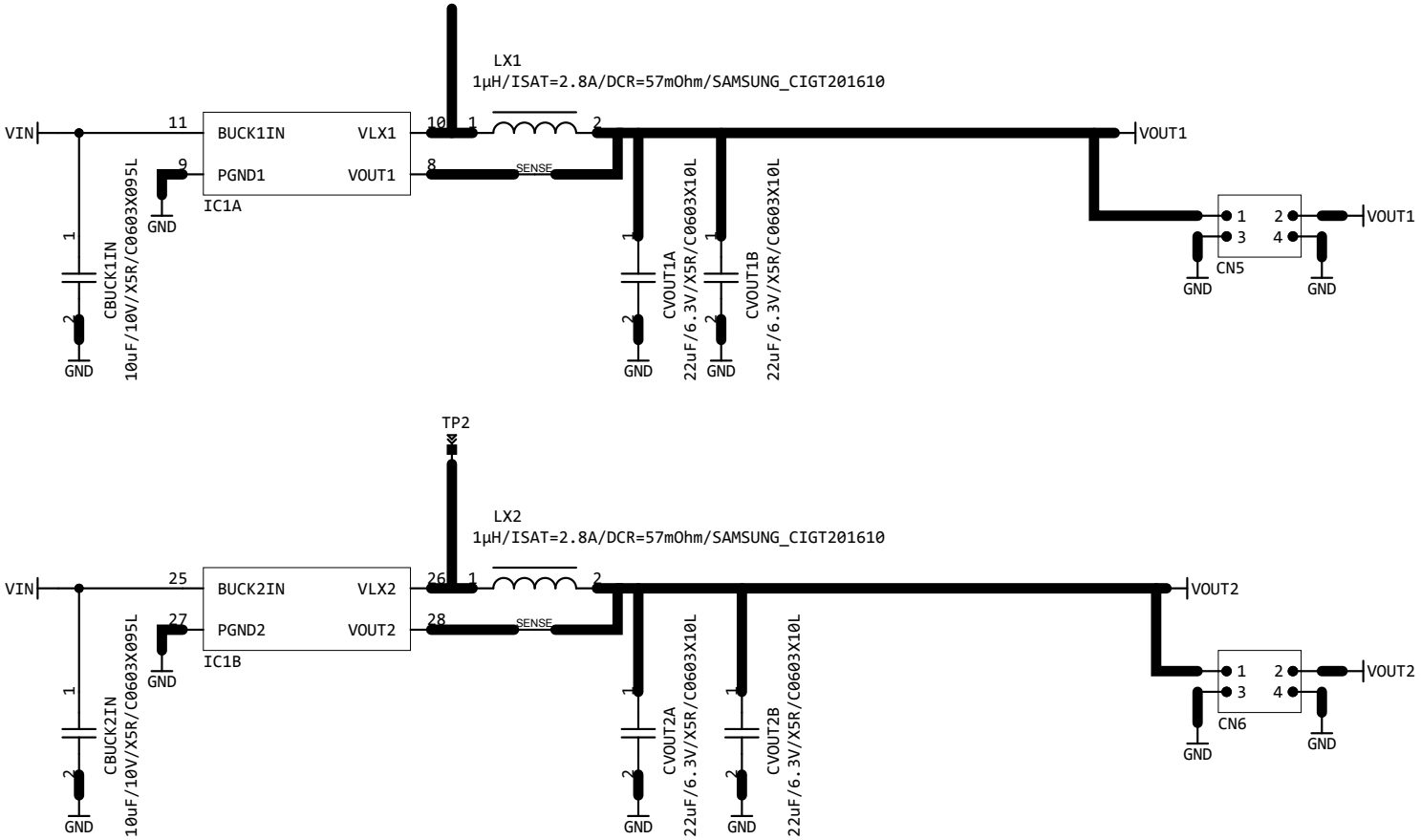


Figure 2. STEVAL-PMIC1LM1A circuit schematic (2 of 3)

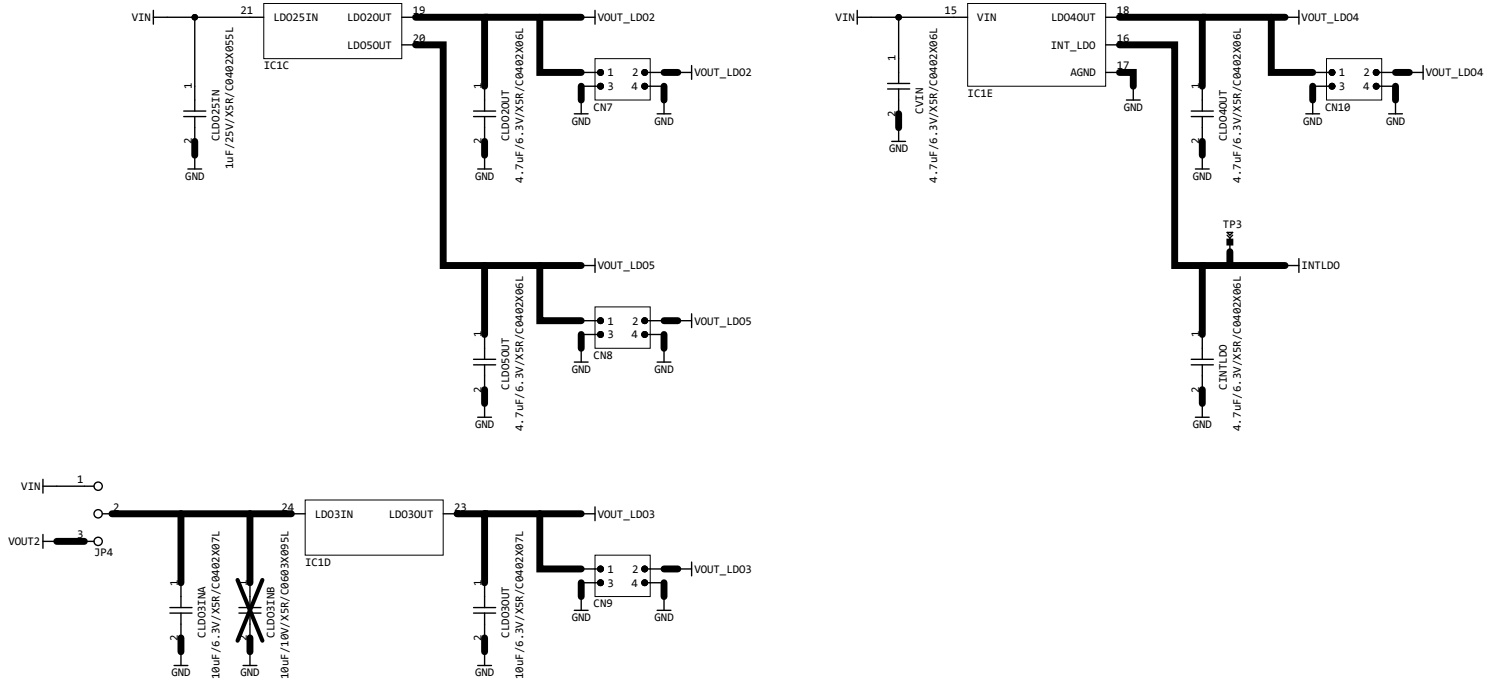


Figure 3. STEVAL-PMIC1LM1A circuit schematic (3 of 3)

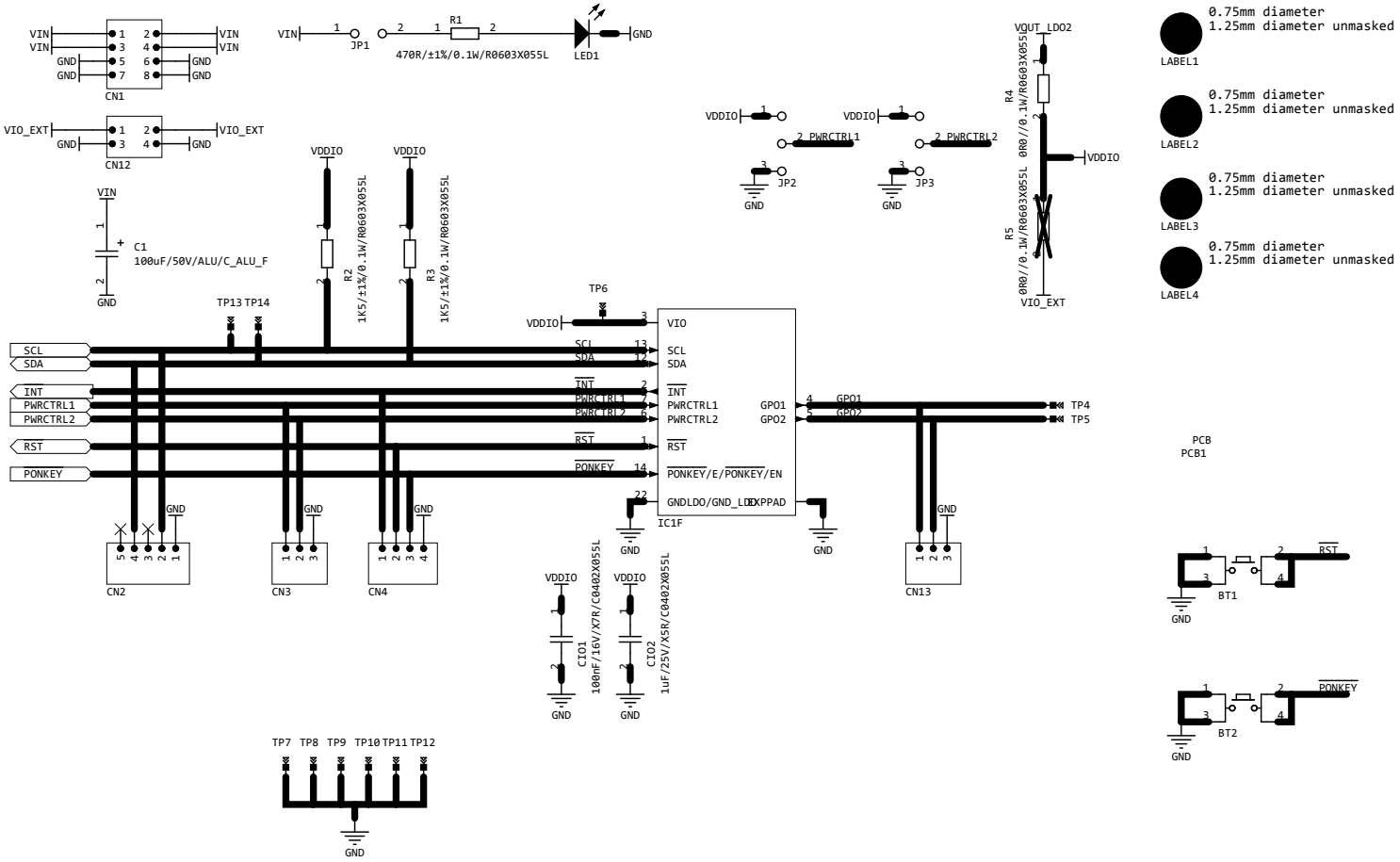
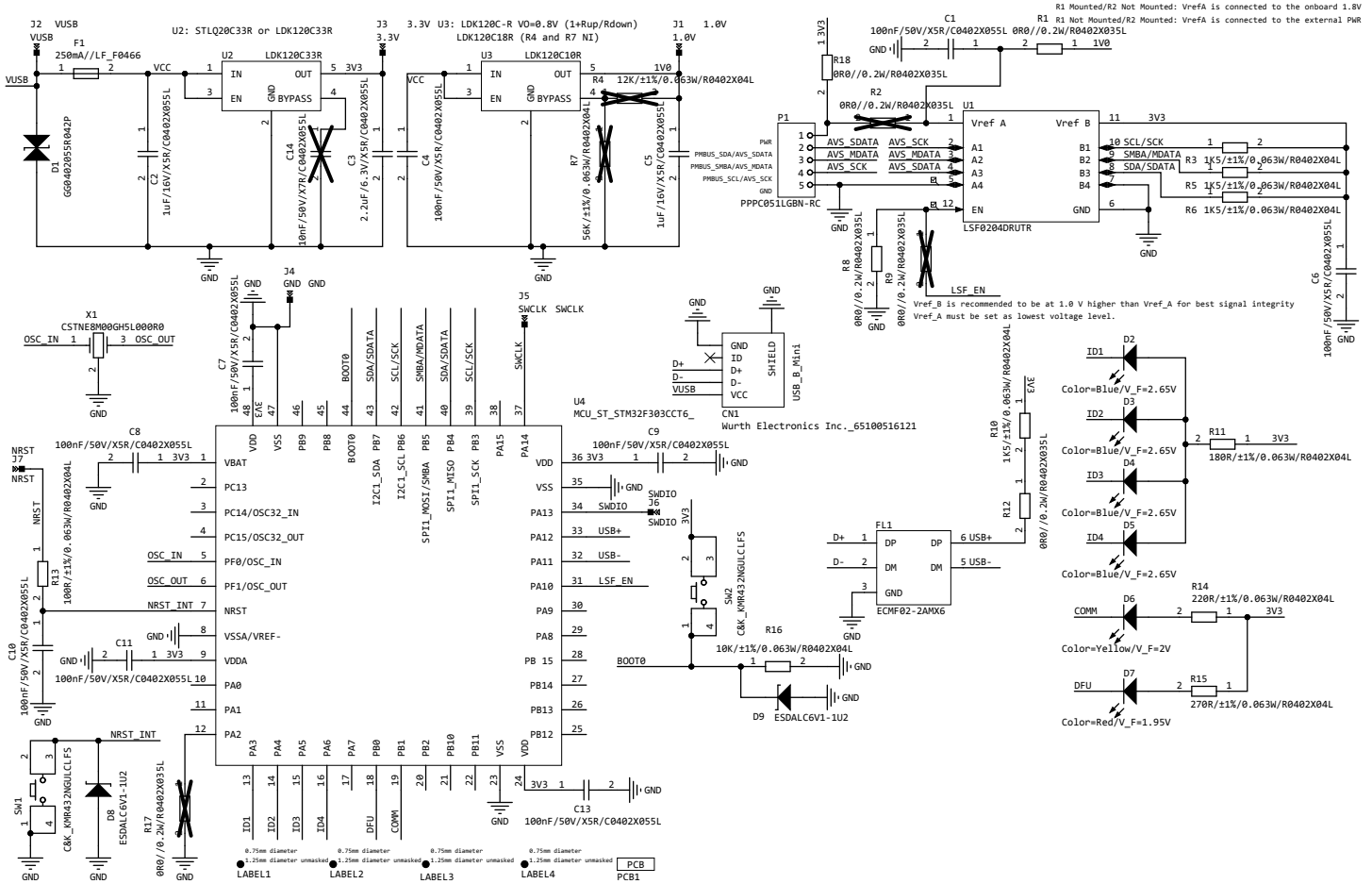


Figure 4. STEVAL-USBDNGV1 circuit schematic



2 Kit versions

Table 1. STEVAL-PMIC1LKV1 kit versions

Finished good	Schematic diagrams	Bill of materials
STV$PMIC1LKV1A[1]	STV$PMIC1LKV1A schematic diagrams	STV$PMIC1LKV1A bill of materials

1. *This code identifies the STEVAL-PMIC1LKV1 evaluation kit first version. The kit consists of a STEVAL-PMIC1LM1A whose version is identified by the code STV$PMIC1LM1AA and a STEVAL-USBDNGV1 whose version is identified by the code STEVAL$USBDNGV1A.*

Revision history

Table 2. **Document revision history**

Date	Revision	Changes
20-Nov-2025	1	Initial release.
24-Nov-2025	2	Updated Description and Product summary.

IMPORTANT NOTICE – READ CAREFULLY

STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice.

In the event of any conflict between the provisions of this document and the provisions of any contractual arrangement in force between the purchasers and ST, the provisions of such contractual arrangement shall prevail.

The purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgment.

The purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of the purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

If the purchasers identify an ST product that meets their functional and performance requirements but that is not designated for the purchasers' market segment, the purchasers shall contact ST for more information.

ST and the ST logo are trademarks of ST. For additional information about ST trademarks, refer to www.st.com/trademarks. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.