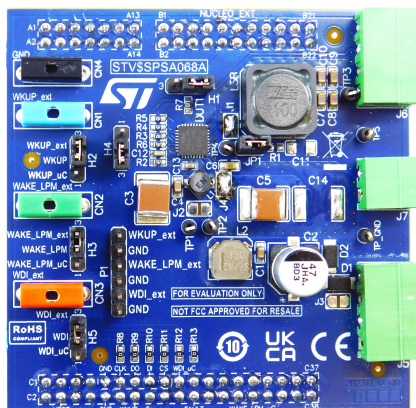


Evaluation board based on SPSA068 automotive PMIC with BUCK and precise voltage reference



Features

- 4.2 V to 19 V input operating voltage
- 1.2 V output voltage without external resistor
- 1.2 V to 5 V output voltage using external resistor
- 400 kHz switching frequency
- 1 A load current
- Watchdog disabled
- +/-5% overvoltage/undervoltage thresholds
- Evaluation board design with optimized bill of materials
- VREF, tracking of VBUCK in power-up phase enabled
- Short circuit protected outputs and fault detection pin
- Thermal warning and thermal shutdown

Description

Product summary	
Evaluation board based on SPSA068 automotive PMIC with BUCK and precise voltage reference	STEVAL-SPSA068
PMIC with buck and precise voltage reference for MCU applications	SPSA068-TR
Applications	Telematics and Connectivity control unit Rear view camera Driver monitoring system (DMS) On Board Charger (OBC)

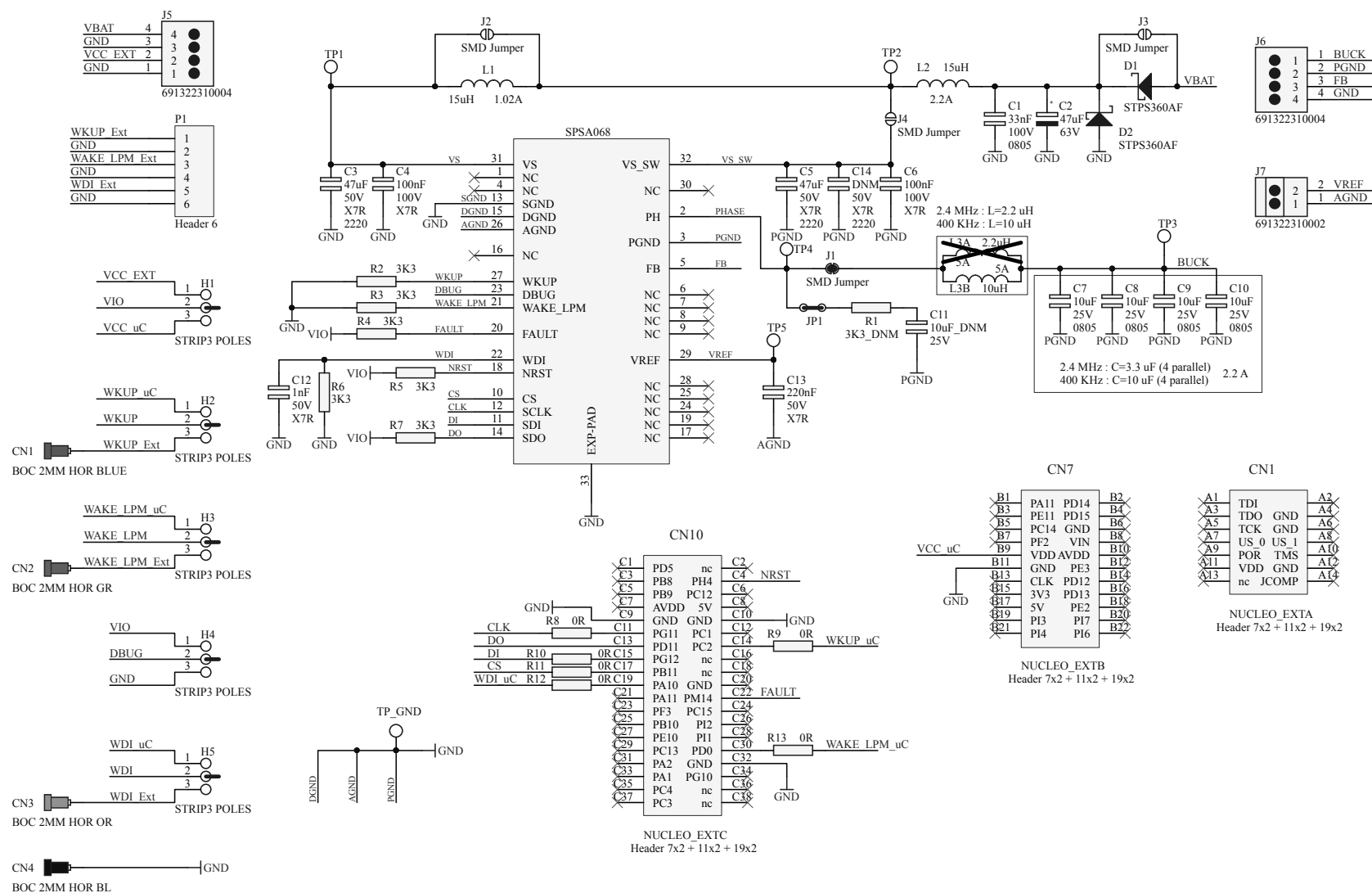
The [STEVAL-SPSA068](#) is a tool designed to evaluate [SPSA068](#), a BUCK voltage regulator with a precise voltage reference for automotive MCU applications. All the regulators have internal power switches.

An internal programmable memory allows selecting the main device parameters. [STEVAL-SPSA068](#) has been programmed in the following condition: $V_{OUT} = 1.2\text{ V}$, switching frequency = 400 kHz, watchdog disabled, V_{REF} enabled, OV/UV = +/-5%.

The SPSA068 is already programmed, so no external microcontroller is necessary to control the [STEVAL-SPSA068](#) application. It is possible to set a V_{OUT} different than 1.2 V by using an external resistor divider.

STEval-SPSA068

Schematic diagram



2 Board versions

Table 1. STEVAL-SPSA068 versions

Finished good	Schematic diagrams	Bill of materials
STV\$SPSA068A ⁽¹⁾	STV\$SPSA068A schematic diagrams	STV\$SPSA068A bill of materials

1. This code identifies the STEVAL-SPSA068 evaluation board first version.

Revision history

Table 2. Document revision history

Date	Revision	Changes
23-May-2025	1	Initial release.

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