

## Evaluation kit for the ALED8102S 8-channel LED driver with direct switch control



### Features

- One ALED8102SXTTR driving two different LED configurations at once
- An STM8 MCU controlling the ALED8102SXTTR
- Two operating modes (manual and demo)
- RoHS and China RoHS compliant
- WEEE compliant (2012/19/UE RAEE II)

### Description

The STEVAL-ILL090V1 evaluation board is based on the ALED8102SXTTR LED driver, which is directly controlled by an STM8 MCU.

It can be supplied via a USB mini connector or through J2 connected to a 12 V power supply.

The board implements two automotive scenarios that you can select via the SW2 switch.

The first one is an ambient light scenario based on three RGB LEDs with configurable brightness and color. You can change color and intensity via the SEL switch and the SW1 rotary switch, respectively. A short flashing signals the right RGB channel selection. If all the RGB channels are flashing, it means that the global brightness has been selected. If no user interaction is detected within about 30 seconds, the RGB LEDs automatically sweep through various color shades. The FADE switch performs a global fade in/fade out action.

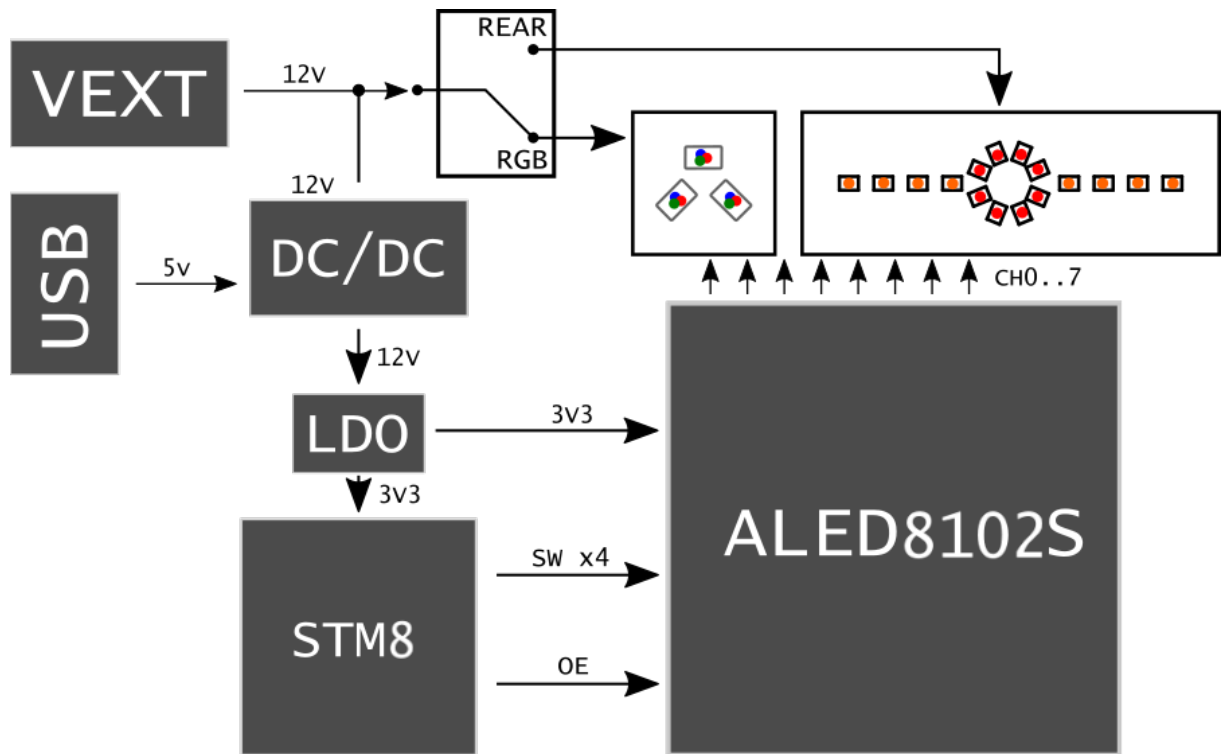
The second scenario simulates a motorcycle rear light: two orange LED strips, representing the arrow lights, are placed side by side, separated by a red LED circle, whose function is to simulate the position/stop lights. By slightly rotating the SW1 switch counterclockwise, the left arrow light flashes, whereas a small clockwise rotation makes the right arrow flash memory. The red LED circle brightens up with a medium intensity until the STOP switch is pressed: in this case, the brightness significantly increases, signaling a BRAKE condition. If no user action is performed for a while, the rear tail LED enters the demo mode.

#### Product summary

Evaluation kit for the ALED8102S 8-channel LED driver with direct switch control	STEVAL-ILL090V1
8-channel LED driver with direct switch control	ALED8102SXTTR
8-bit microcontroller	STM8
Application	LED Lighting

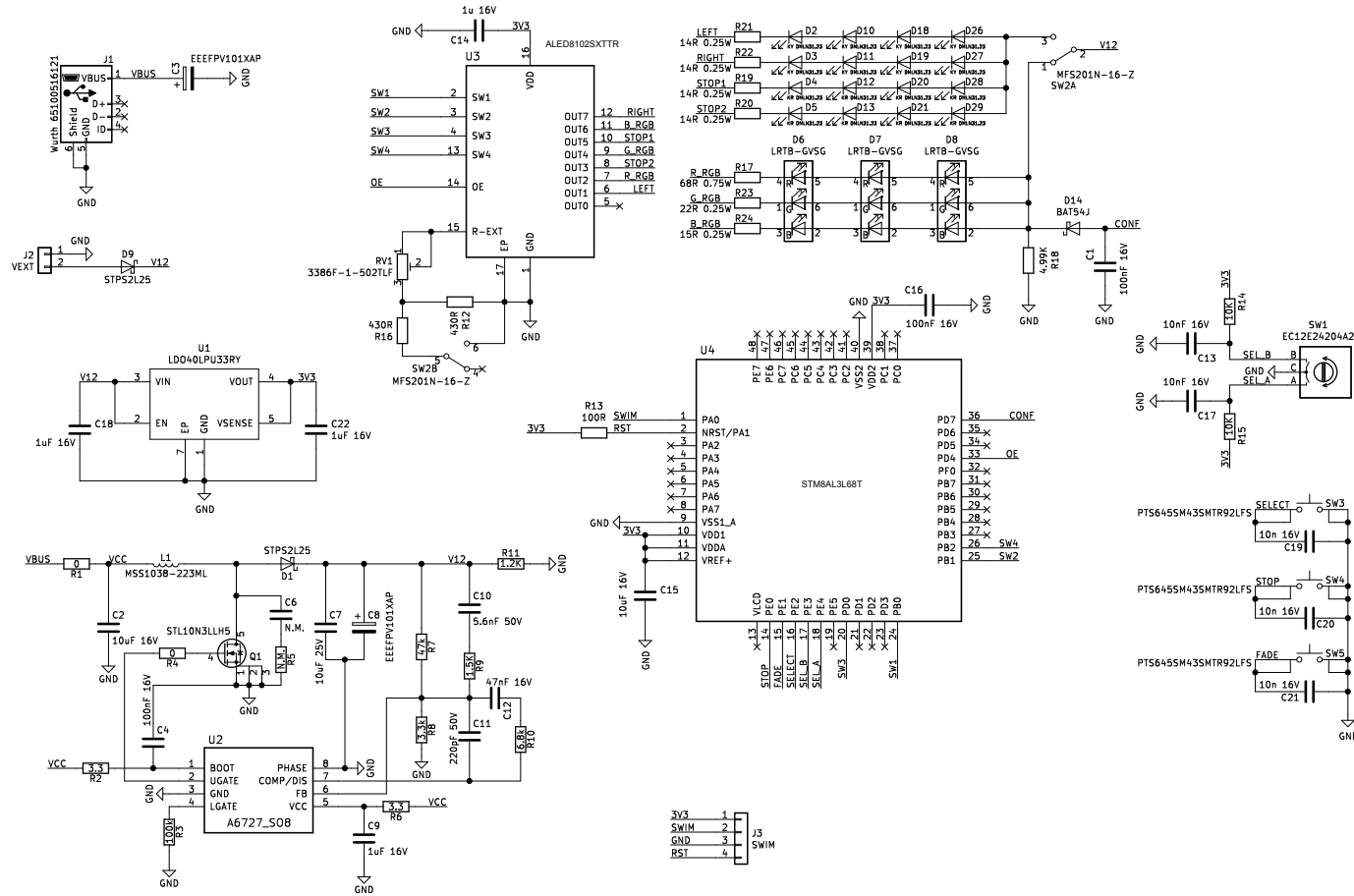
# 1 Block diagrams

Figure 1. STEVAL-ILL090V1 block diagram



## 2 Schematic diagrams

Figure 2. STEVAL-ILL090V1 circuit schematic



## Revision history

**Table 1. Document revision history**

Date	Version	Changes
01-Feb-2022	1	Initial release.

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