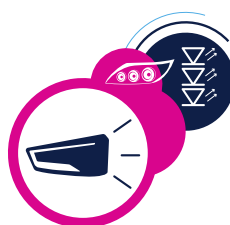
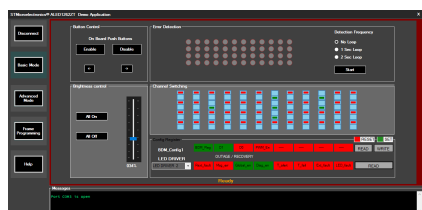


GUI for STEVAL-LLL002V1 evaluation kit for rear automotive lighting applications



Features

- Auto port selection and board identification
- Dedicated help section
- Basic Mode:
 - enable or disable hardware buttons
 - driver error detection and visualization
 - collective and individual LED on and off switching
 - read and write configuration registers
- Advanced Mode:
 - individual channel brightness control
- Frame Programming:
 - program up to 4 preset animation patterns on board
 - design and preview custom animation patterns
 - set frame counts and delays

Product summary

Evaluation kit for automotive rear lights with pattern animations based on ALED1262ZT and STM8AF6266	STEVAL-LLL002V1
GUI for STEVAL-LLL002V1 evaluation kit for rear automotive lighting applications	STSW-LLL002GUI
GUI communicates with: automotive 8-bit MCU with 32 Kbytes Flash, LIN, 16 MHz CPU and integrated EEPROM	STM8AF6266
Communication interface	USB-UART bridge board included in STEVAL-LLL002V1 kit
Automotive-grade 12-channel LED driver	ALED1262ZT
Application scenario	Rear automotive LED lighting

Description

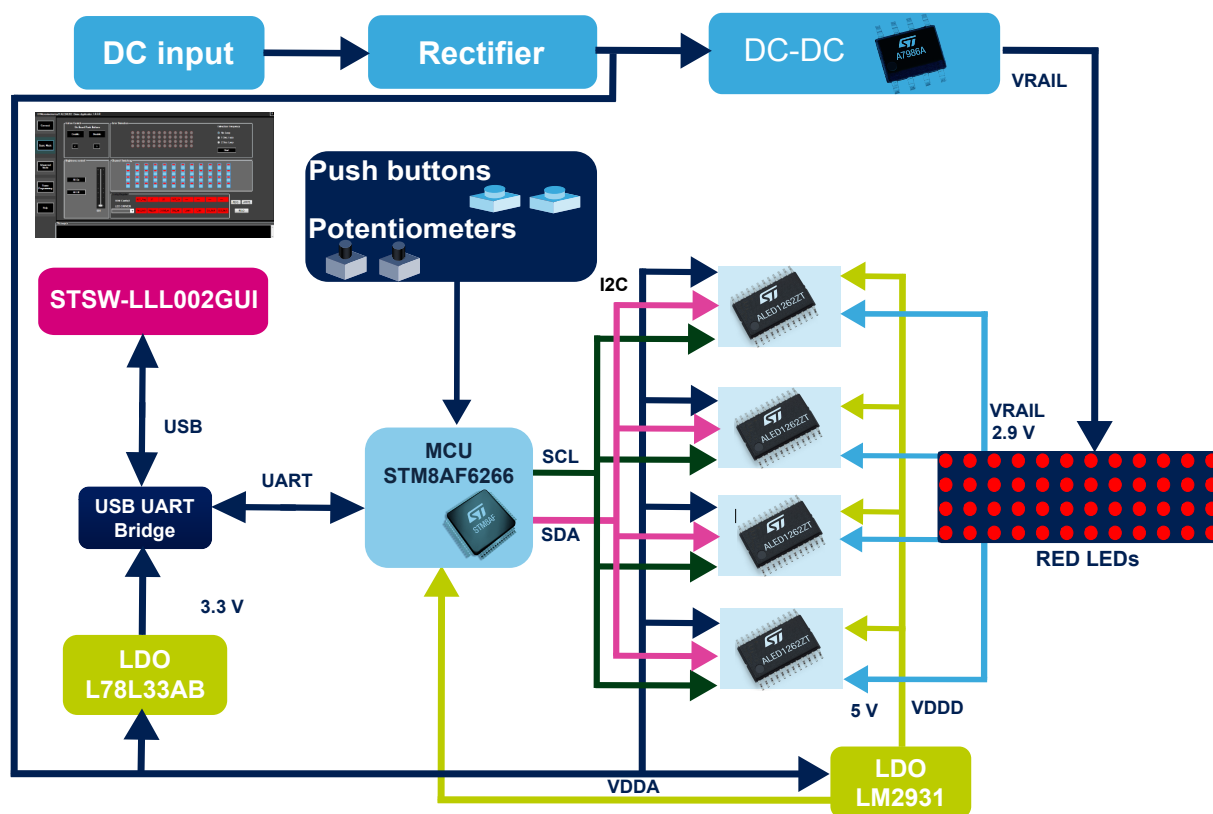
This PC application provides a graphical interface to control the 4 x 12 LED lighting array and monitor the fault detection capabilities of the [STEVAL-LLL002V1](#) evaluation kit, which is designed to represent rear automotive LED lighting applications and features an [STM8AF6266](#) microcontroller and four [ALED1262ZT](#) automotive-grade LED drivers.

The GUI connects quickly once the [STEVAL-LLL002V1](#) array board and UART bridge are properly connected, and 12 - 24 V DC power is supplied. You can then begin manipulating any or all of the 48 red LEDs on the array board using separate interfaces for basic and advanced mode control.

The GUI also provides a special third interface for designing and recording custom animations and patterns that you can subsequently download and run on the LED driver array board.

1 Block diagram

Figure 2. STEVAL-LLL002V1 block diagram



2 STSW-LLL002GUI modes

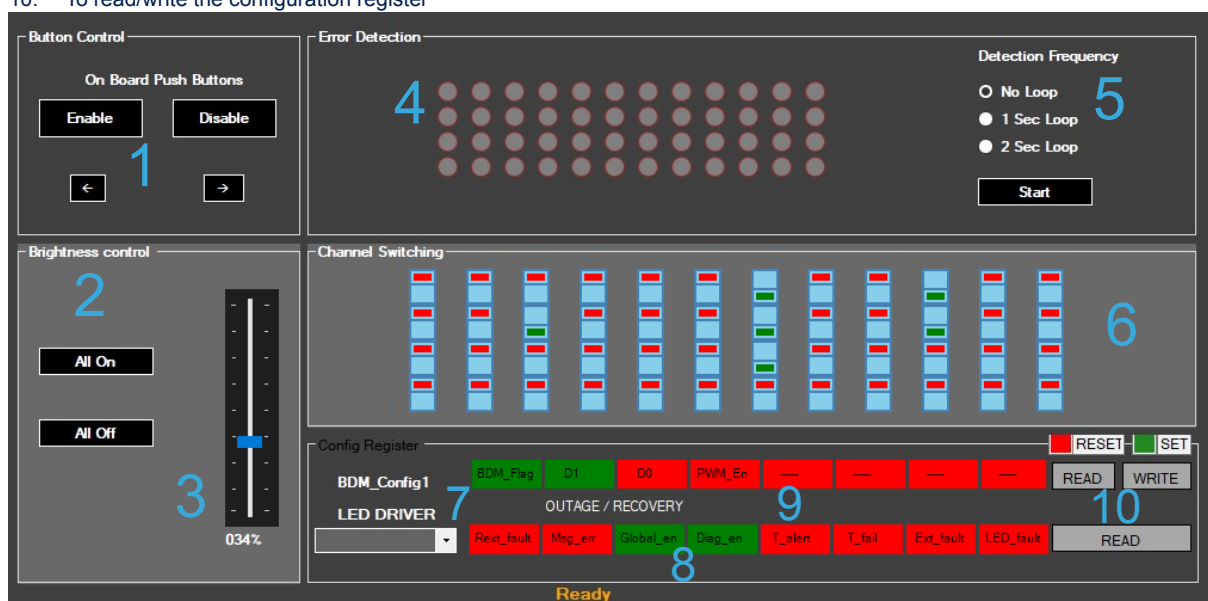
Figure 3. STSW-LLL002GUI home screen

1. To select VCOM port and connect
2. For enabling/disabling on-board buttons, global brightness, configuration register and error detection
3. To set brightness on individual channels
4. To load and program preset animation patterns and design custom patterns
5. To display quick help

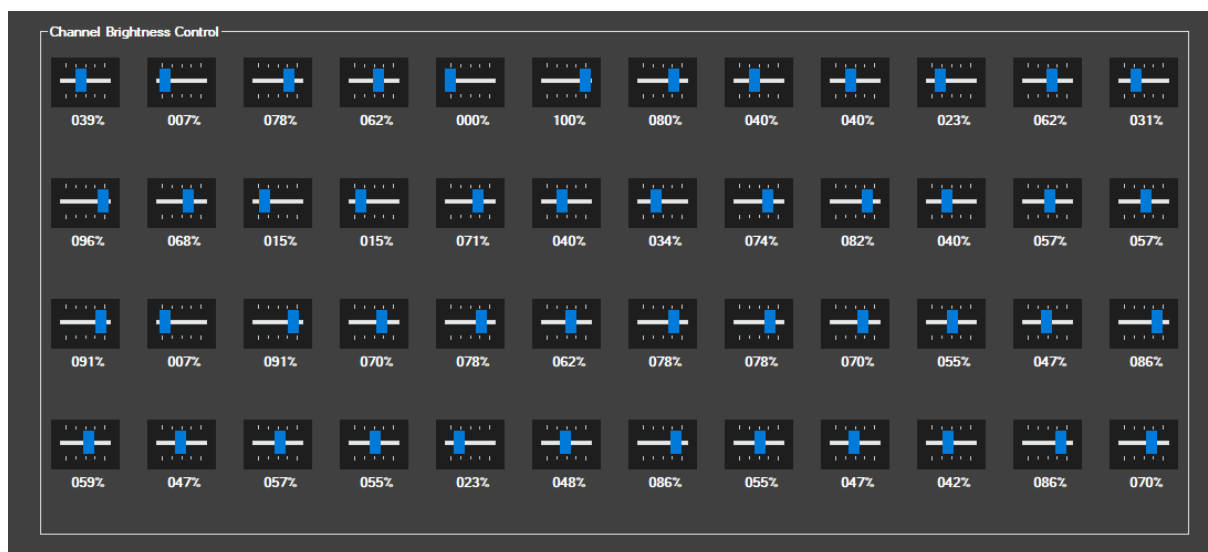


Figure 4. STSW-LLL002GUI basic mode screen

1. To enable/disable on-board buttons
2. For global brightness control
3. To set brightness of all channels
4. LED matrix to display error
5. To read error status in 1 second or two second loop after pressing the start button for detection routine
6. To switch individual LEDs ON/OFF
7. SAM/BDM modes
8. BDM status register
9. To enable/disable PWM
10. To read/write the configuration register



The advanced mode is used to control brightness of all individual channels.

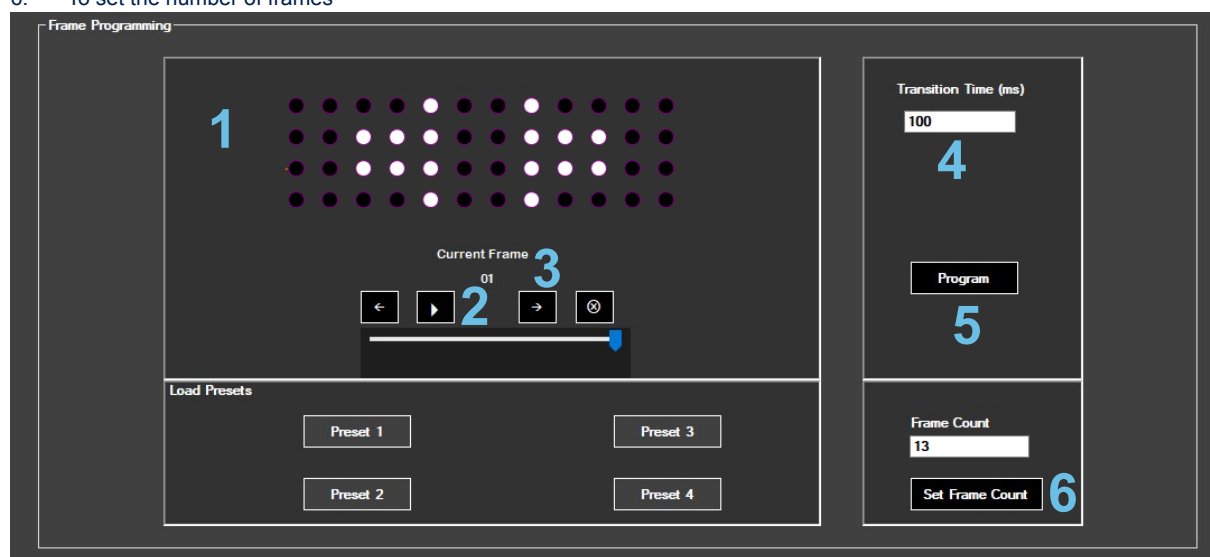
Figure 5. STSW-LLL002GUI advanced mode screen


2.1 Frame programming mode

To create your own pattern with the STSW-LLL002GUI, follow the steps below.

Figure 6. STSW-LLL002GUI frame programming mode screen

1. To create the desired pattern
2. Play button
3. To select next frame
4. Transition time among successive frames
5. To program the current pattern onto the board
6. To set the number of frames



- Step 1.** Set the number of frames
- Step 2.** Click LEDs to toggle and create the desired pattern
- Step 3.** Advance to the next frame
- Step 4.** Repeat step 2 until all the frames are designed
- Step 5.** Click [**Play**] for preview
- Step 6.** Set transition time
- Step 7.** Program the board

Revision history

Table 1. Document revision history

Date	Version	Changes
03-Jun-2019	1	Initial release.

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