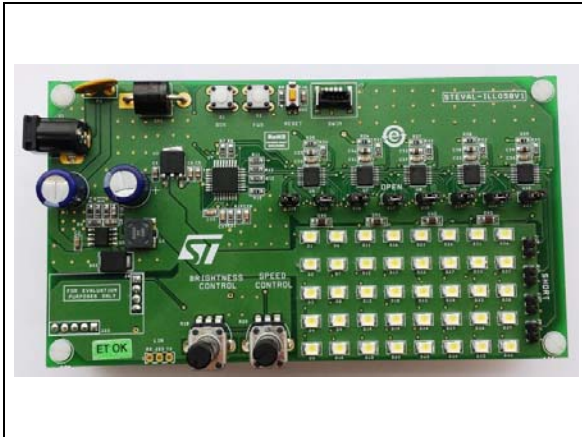


High brightness LED array driver with diagnostics for automotive applications based on the STAP08DP05 and STM8A

Data brief



Description

The STEVAL-ILL058V1 evaluation board is a high brightness LED array driver application with diagnostics based on the automotive grade, low voltage, 8-bit constant current LED sink driver STAP08DP05 from STMicroelectronics.

The LED driver is configured and controlled through an 8-bit automotive grade STM8A microcontroller via SPI interface.

An automotive grade A5974D DC-DC converter provides the voltages and power for the overall functioning of the board.

Features

- 6 - 24 V DC power supply with reverse voltage protection, short-circuit protection and standard DC jack input
- Backward/forward transition switch and reset switch
- SWIM connector to program microcontroller and for debugging purposes
- Connector for LIN development and evaluation
- Brightness control potentiometer
- Speed control potentiometer
- 40 white LEDs (PLCC 4)
- 8 jumpers to simulate open-circuit errors
- 4 jumpers to simulate short-circuit errors
- Slot for USB-to-UART daughterboard
- Demonstrates pre-configured patterns (dot-sequence, backlighting, alphanumeric text etc.) in stand-alone mode
- Demonstrates basic mode or frame programming mode with GUI SW
- RoHS compliant

Figure 3. Jumpers to simulate open circuit

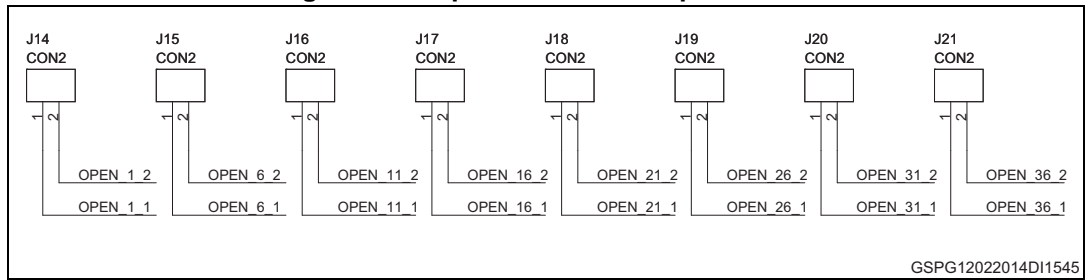


Figure 4. Jumpers to simulate short circuit

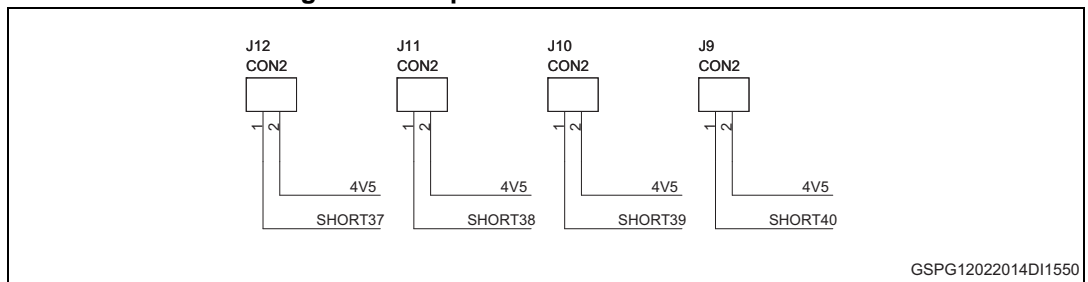


Figure 5. Connector

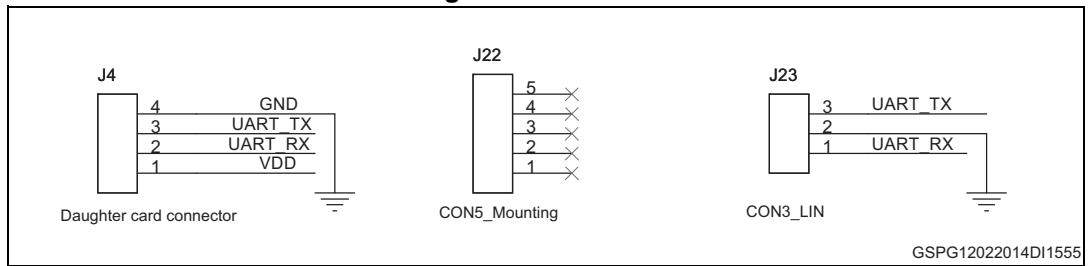
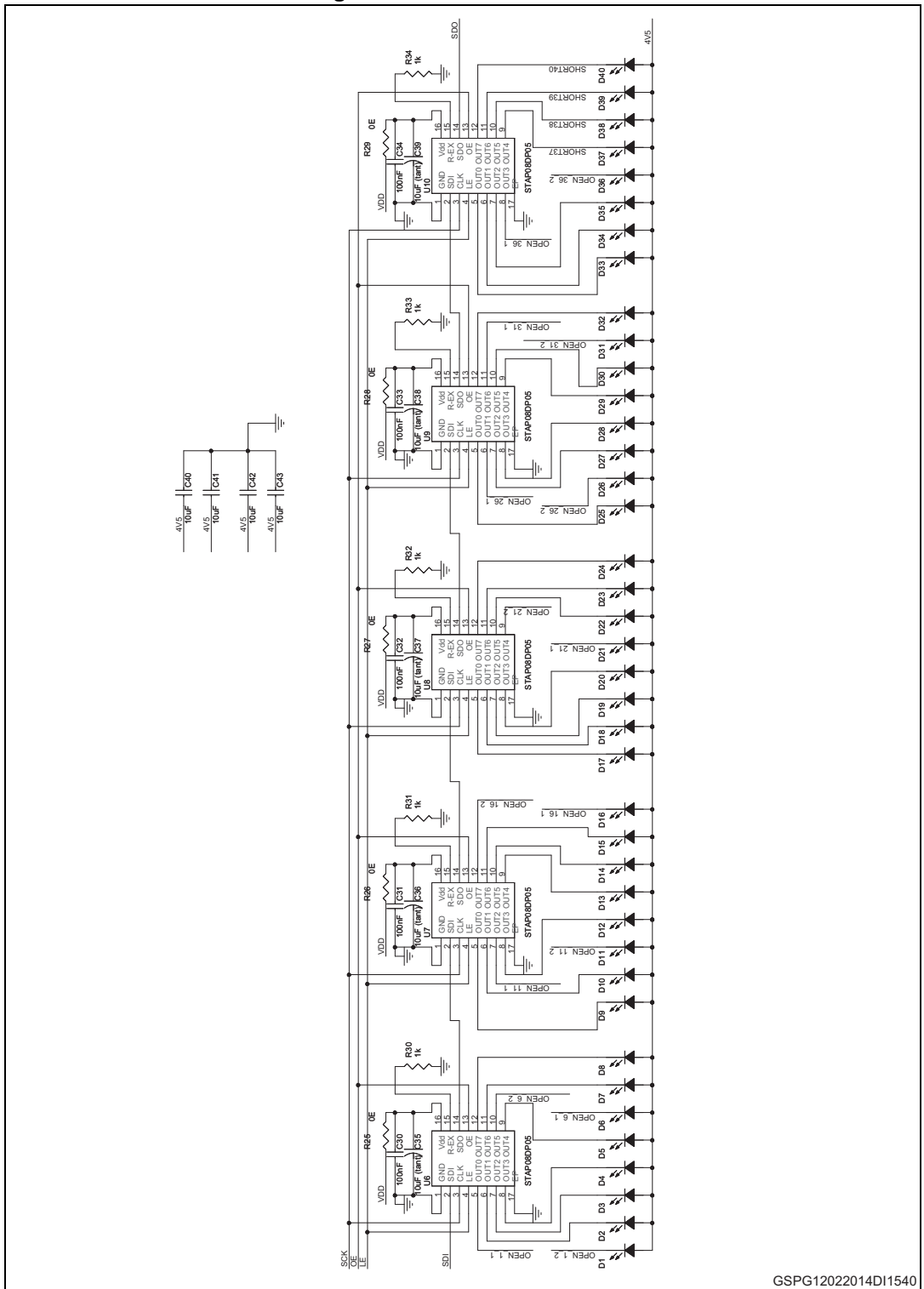


Figure 6. LED driver section



GSPG12022014DI1540

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
07-Aug-2014	1	Initial release.