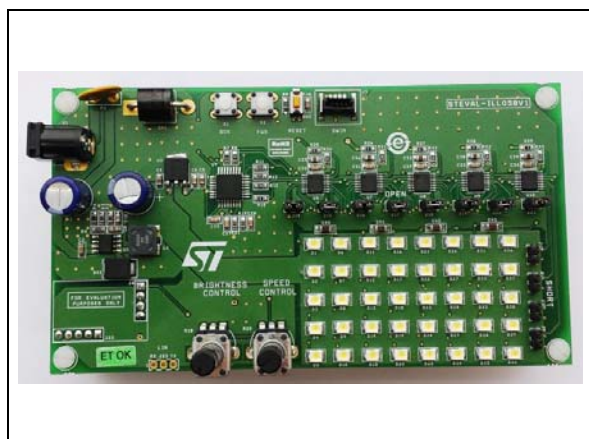


High brightness LED array driver with diagnostics for automotive applications based on the STAP08DP05 and STM8A

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

1 Schematic diagrams

Figure 1. Power section

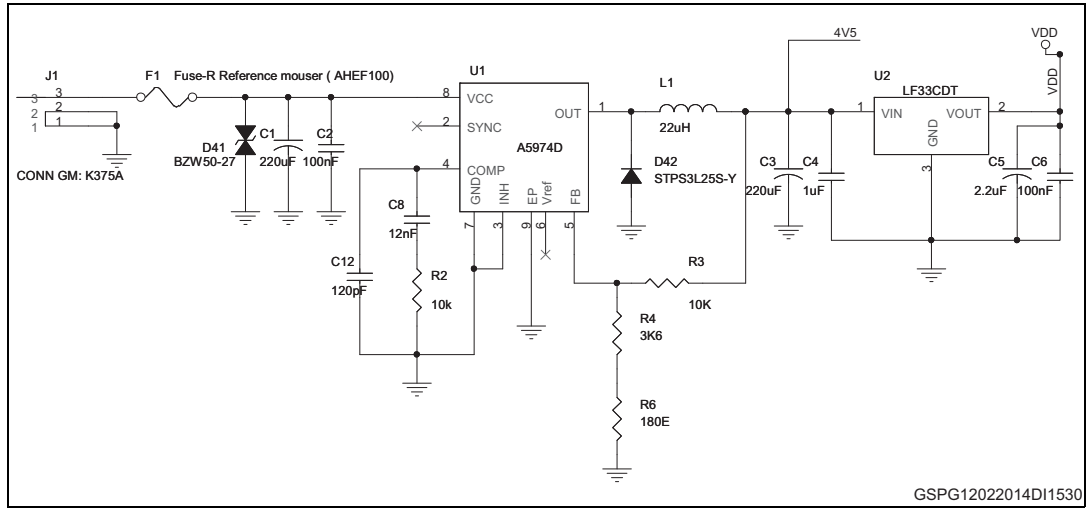


Figure 2. Microcontroller

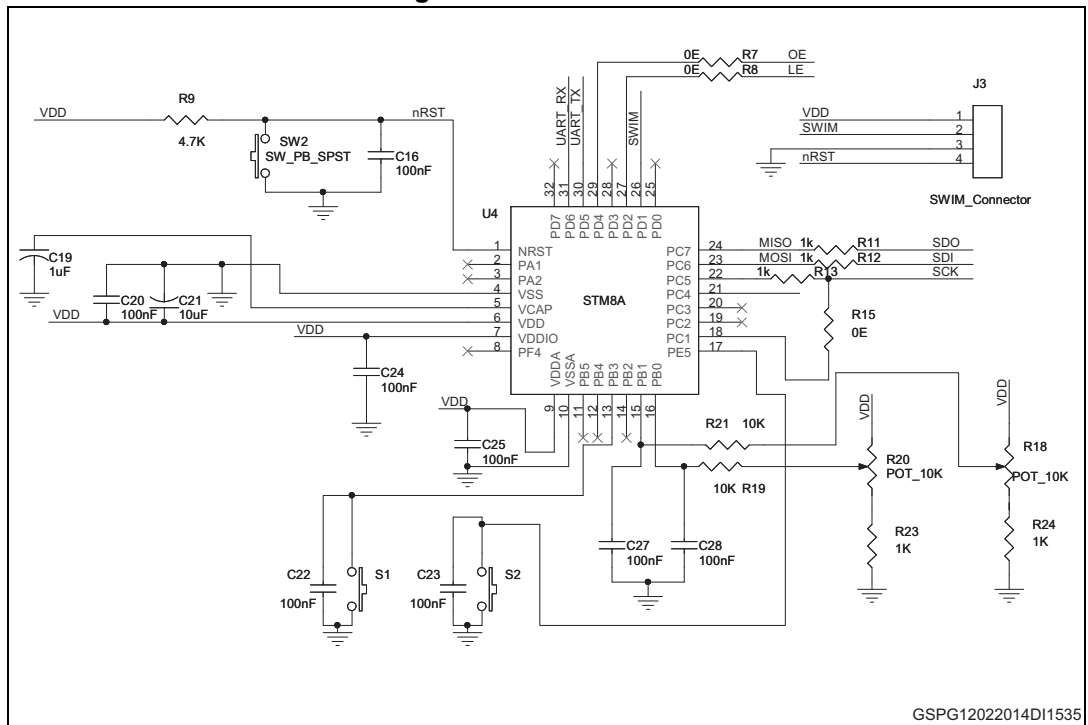


Figure 3. Jumpers to simulate open circuit

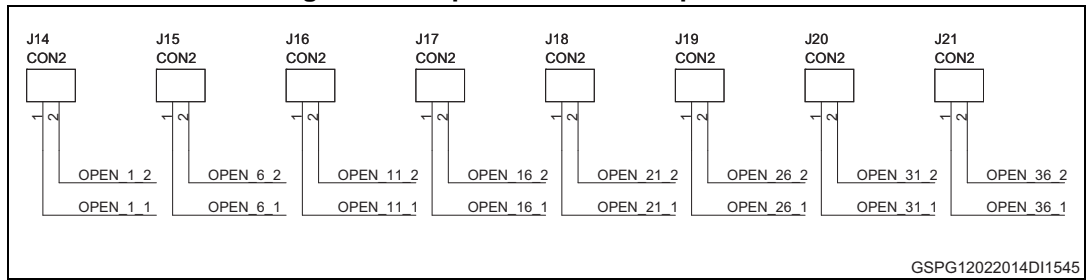


Figure 4. Jumpers to simulate short circuit

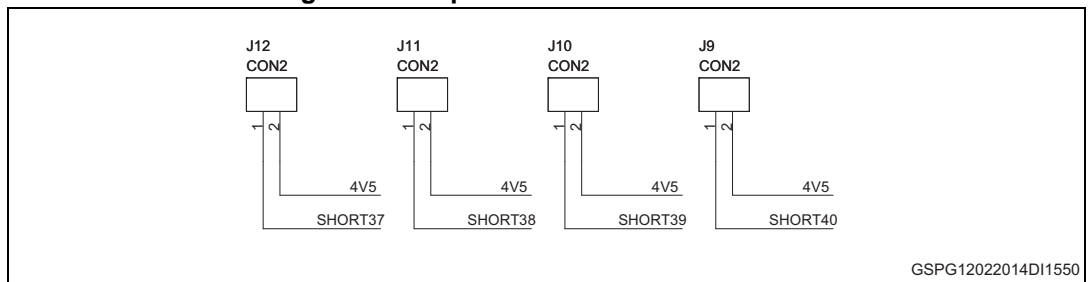


Figure 5. Connector

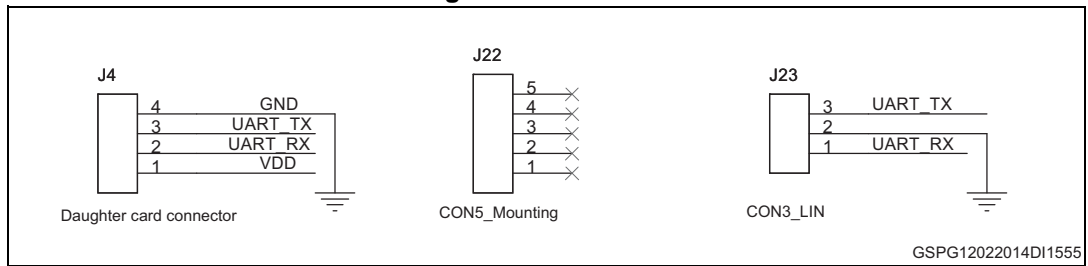
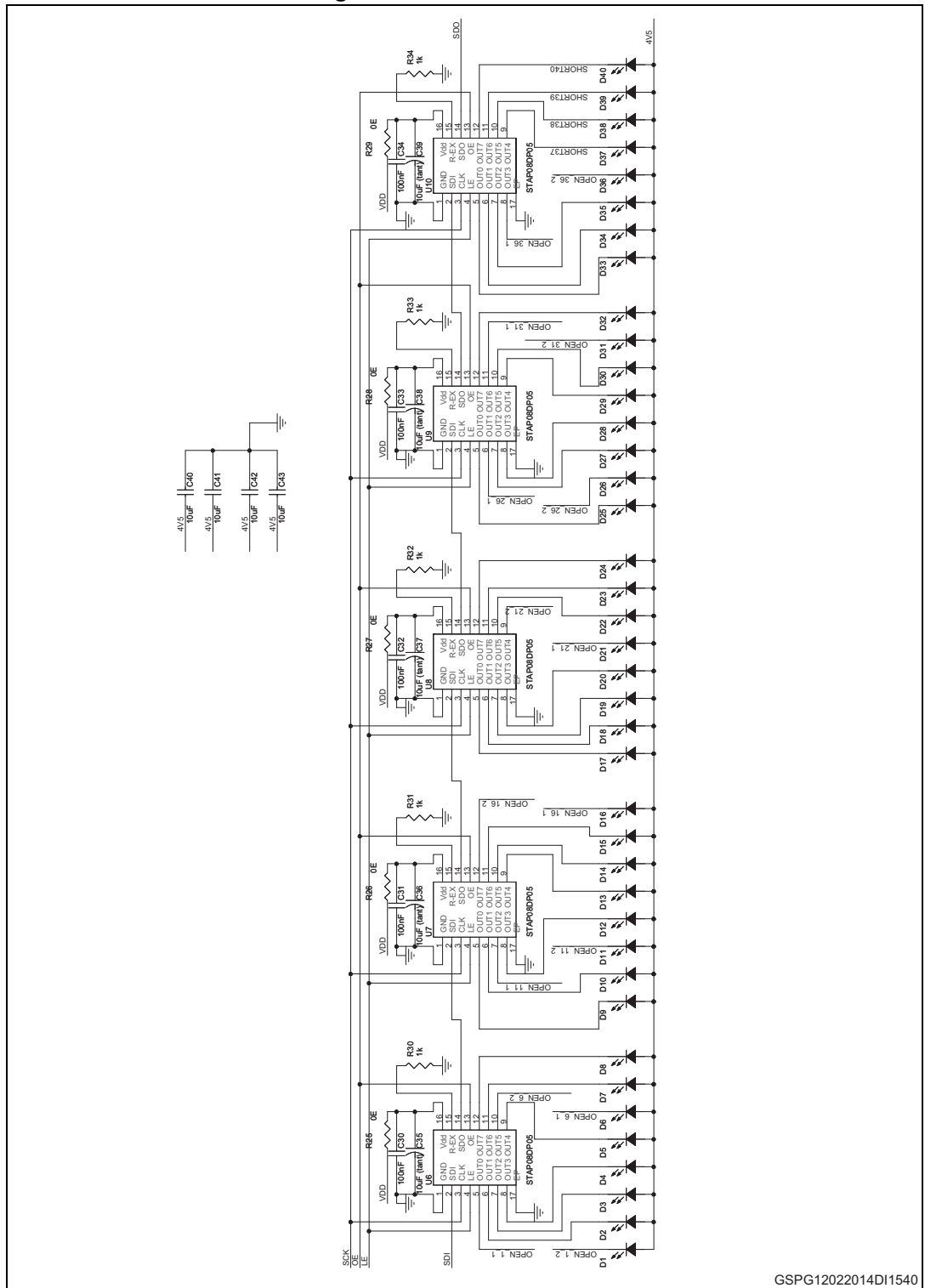


Figure 6. LED driver section



GSPG12022014DI1540

2 Revision history

Table 1. Document revision history

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

IMPORTANT NOTICE – PLEASE 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. 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 acknowledgement.

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 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.

ST and the ST logo are trademarks of ST. 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.

© 2014 STMicroelectronics – All rights reserved



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [LED Lighting Development Tools](#) category:

Click to view products by [STMicroelectronics](#) manufacturer:

Other Similar products are found below :

[MIC2870YFT EV](#) [ADP8860DBCP-EVALZ](#) [LM3404MREVAL](#) [ADM8843EB-EVALZ](#) [TDGL014](#) [ISL97682IRTZEVALZ](#) [LM3508TLEV](#)
[EA6358NH](#) [MAX16826EVKIT](#) [MAX16839EVKIT+](#) [TPS92315EVM-516](#) [MAX6956EVKIT+](#) [OM13321,598](#) [DC986A](#) [DC909A](#) [DC824A](#)
[STEVAL-LLL006V1](#) [IS31LT3948-GRLS4-EB](#) [PIM526](#) [PIM527](#) [MAX6946EVKIT+](#) [MAX20070EVKIT#](#) [MAX21610EVKIT#](#)
[MAX6951EVKIT](#) [MAX20090BEVKIT#](#) [MAX20092EVSYS#](#) [PIM498](#) [AP8800EV1](#) [ZXLD1370/1EV4](#) [MAX6964EVKIT](#) [TLC59116EVM-](#)
[390](#) [1216.1013](#) [TPS61176EVM-566](#) [TPS61197EVM](#) [TPS92001EVM-628](#) [1270](#) [1271.2004](#) [1272.1030](#) [1273.1010](#) [1278.1010](#) [1279.1002](#)
[1279.1001](#) [1282.1000](#) [1293.1900](#) [1293.1800](#) [1293.1700](#) [1293.1500](#) [1293.1100](#) [1282.1400](#) [1282.1100](#)