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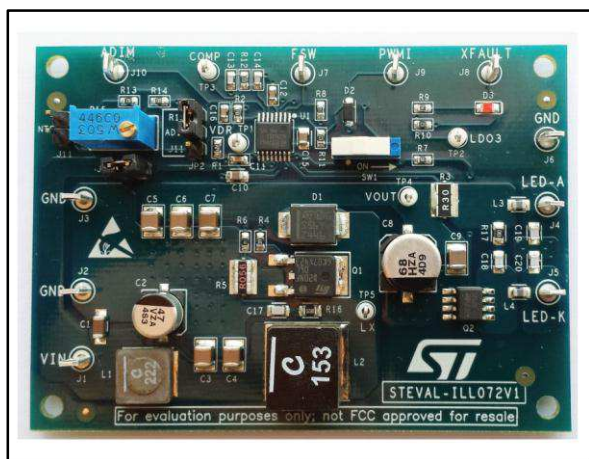
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Single channel, 1 A automotive LED driver with boost controller for interior/exterior lights

Data brief



Description

The purpose of this evaluation board is to provide an application example of a single-channel, high-current LED driver using the ALED6001 chip operating with a boost topology. The brightness of the LED string connected to its output can be controlled through a PWM signal (0%-100% dimming) or a control voltage (10:1 analog dimming). Open LED, feedback disconnection & LED overcurrent fault conditions are detected and managed. The evaluation board has been designed to provide an example of a compact solution for all automotive applications involving several LEDs arranged as a single string, and day-time running lights (DTRL) in particular.

Features

- Wide DC input voltage (8 V - 24 V)
- Single channel, 1000 mA constant-current output with PWM brightness control
- 500 kHz switching frequency
- Up to 10 high-brightness white LEDs (40 V OVP threshold)
- High efficiency (92% @ $V_{in}=12\text{ V}$, $V_{out}=32\text{ V}$, $I_{out}=1\text{ A}$)
- RoHS compliant
- All automotive grade components

1 Schematic diagram

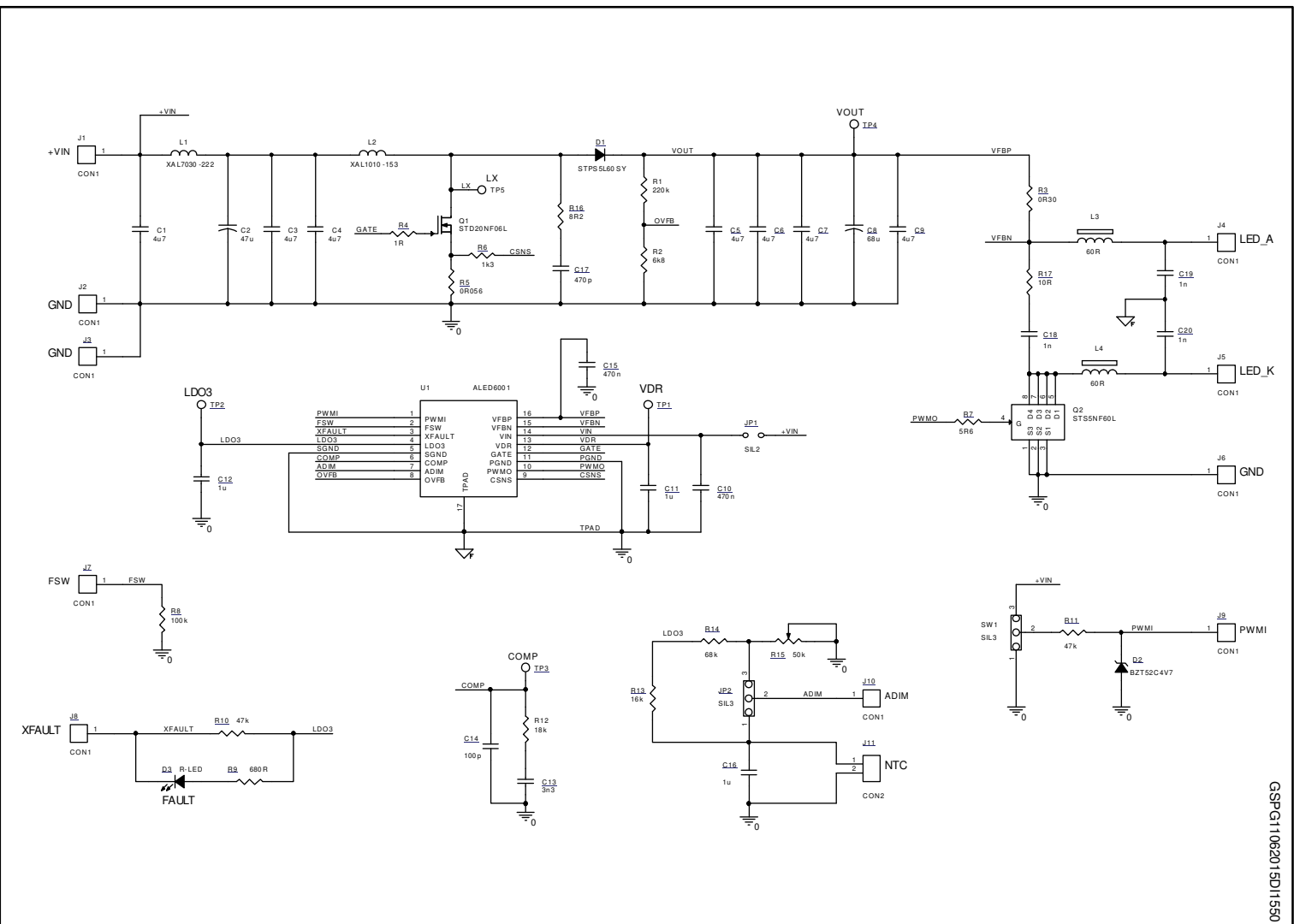


Figure 1: STEVAL-ILL072V1 circuit schematic

GSP/G11/06/2015/D11/550



2 Revision history

Table 1: Document revision history

Date	Version	Changes
12-Jun-2015	1	Initial release.

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