STEVAL-ILL035V2

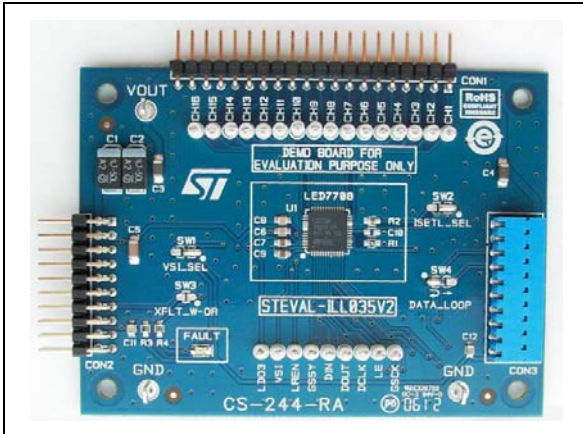## Multi-channel LED driver with integrated boost controller for medium/large LCD panel backlight based on LED7708

Data brief

Features

- Wide DC input voltage: 10 V - 28 V
- 16-channels with up to 85 mA/channel current capability and independent PWM brightness control
- Up to 15 white LEDs per channel
- Embedded open-channel and LED short-circuit faults management
- Expansion connector to cascade other STEVAL-ILL035V2 evaluation boards
- RoHS compliant

Description

The STEVAL-ILL035V2 product evaluation board is an extension (daughterboard) of the STEVAL-ILL035V1 (motherboard) based on the LED7708 LED driver. It allows implementation of a daisy-chained configuration for applications requiring more than 16 channels.

The LED7708 is configured as slave on the STEVAL-ILL035V2, and as master on the STEVAL-ILL035V1.

The boost controller section is not used and the supply voltage for the LED strings is derived from the motherboard (STEVAL-ILL035V1, master) by extending the output voltage optimization through dedicated hand-shake signals. Additional daughterboards can be connected to a single motherboard to increase the number of channels. The brightness control of the LED strings and the fault management options are identical to the ones available for the STEVAL-ILL035V1 evaluation board. The evaluation board is intended as a solution for medium/large LCD panel backlight drivers, but is suitable for any application involving several LEDs arranged is strings (e.g. advertisement panels, signs, gaming, etc.).

1   Schematic diagram

Figure 1. STEVAL-ILL035V2 circuit schematic
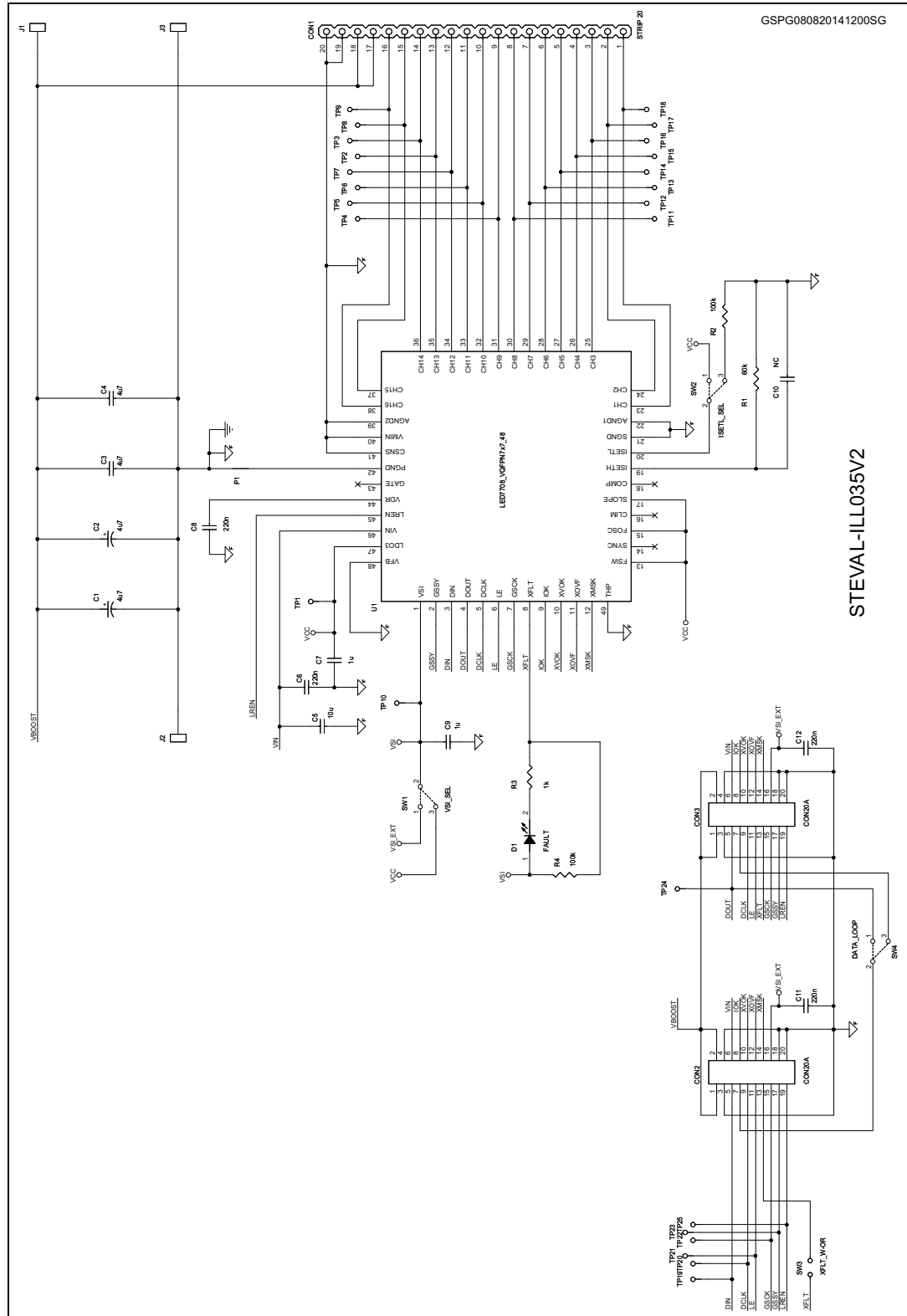
2   Revision history

Table 1. Document revision history

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

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