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STEVAL-TLL007V1

High-power LED driver demonstration board for dual flash with I²C interface based on the STCF05

Data brief

Features

- Boost DC-DC converter with synchronous rectification
- Drives two power white LEDs in series with a current up to 400 mA
- Efficiency up to 85%
- 3 passive components only
- 24 mm² PCB area only
- 1.8 MHz fixed frequency PWM
- Full I²C control
- Motherboard based on μ PSD used like USB bridge
- RoHS compliant



Description

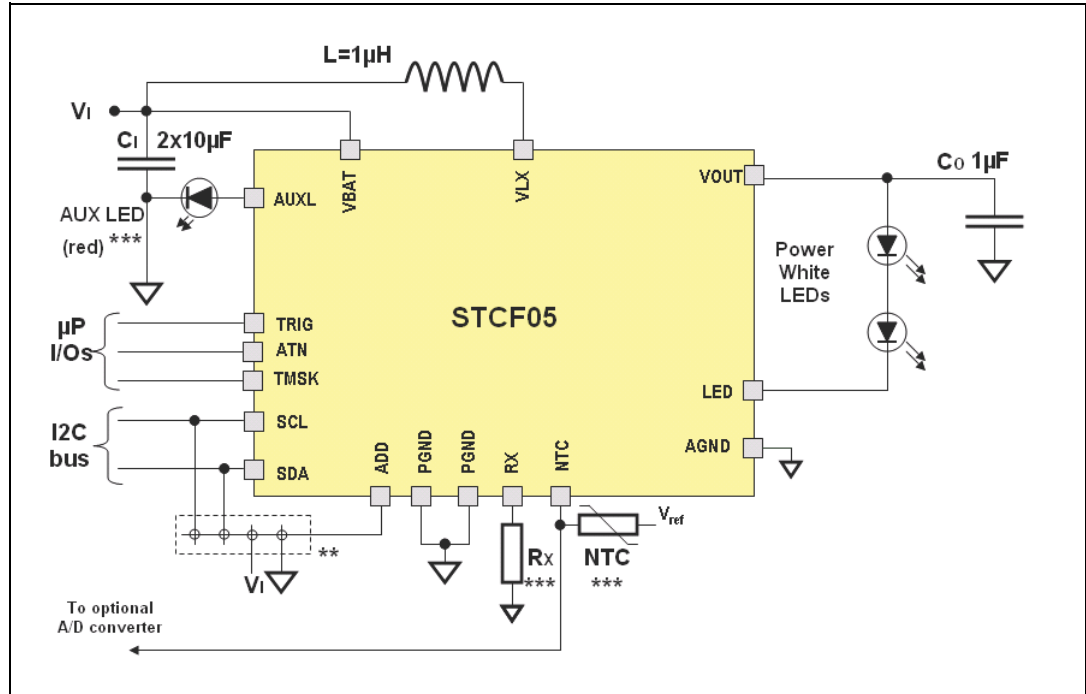
This demonstration board is dedicated to the STCF05 flash LED driver IC, which is a boost current mode converter with an I²C interface and internal current source. The STCF05 is designed to drive two LEDs in series with a total forward voltage from 5.3 V to 10.2 V.

For easy connection to a PC, the STEVAL-TLL007V1 uses a μ PSD-based motherboard used as a bridge.

The STCF05 motherboard uses a USB human interface device to communicate with the PC. It is not necessary to install a driver, if the operating system in use is capable of enumerating USB human interface devices.

1 Circuit schematic

Figure 1. Typical application schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
15-May-2009	1	Initial release.
12-Jan-2010	2	Minor text changes.

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