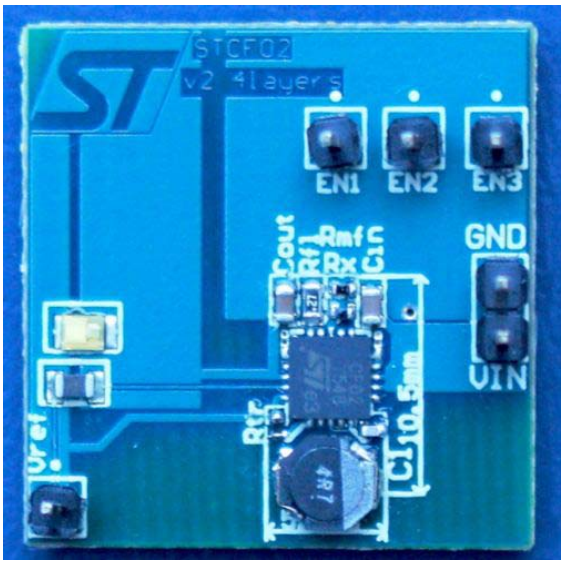
STEVAL-TLL003V1

Power flash LED driver evaluation board based on the STCF02

Data Brief

Features

- Flash LED driver based on the STCF02 high-power white LED driver
- A High operating frequency: 1.8 MHz
- The device can operate in five modes which are selected using a combination of logic signals (connected to three enable pins) Five selectable operating modes:
  - Shutdown mode: quiescent current less than 1µA (typical)
  - Shutdown mode with activated negative temperature coefficient (NTC) LED temperature sensing, useful for measuring the temperature before starting both torch and flash modes
  - Torch mode: drives the LED up to 250 mA
  - Flash mode: drives the LED up to 600 mA
  - Middle flash mode: the current is set between the torch and the flash mode levels



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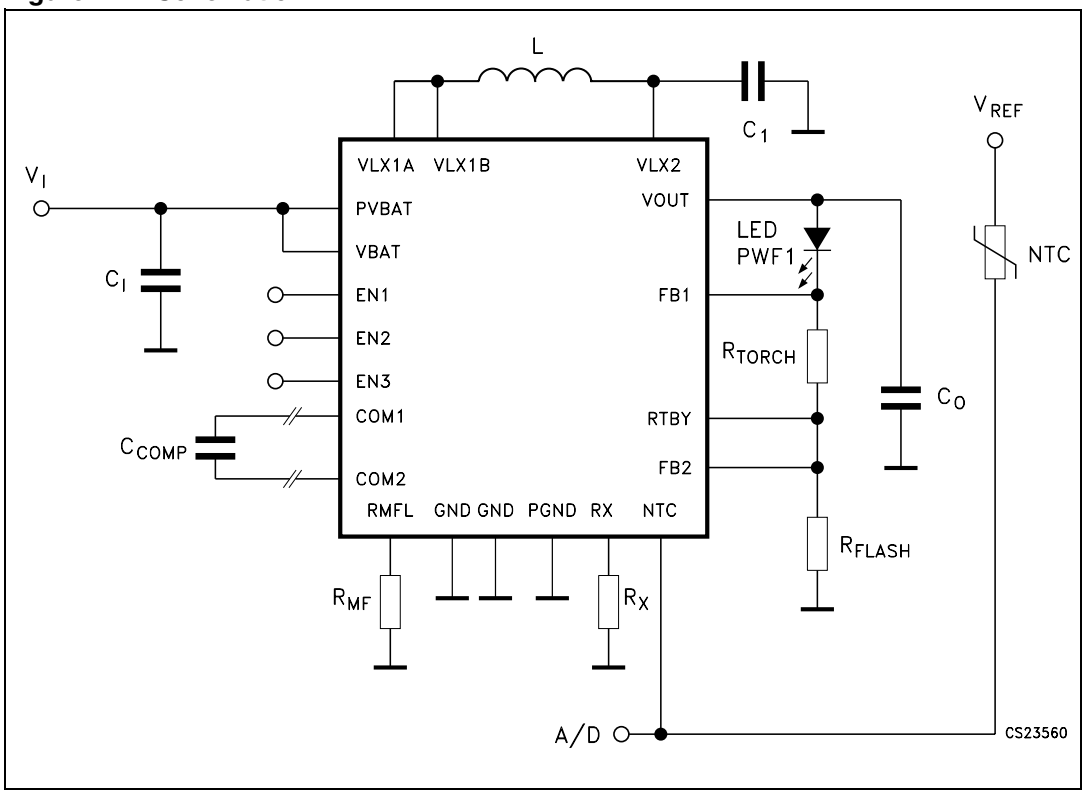
Description

This evaluation board is dedicated to the design of a flash LED driver using the STCF02 step-up/down current mode converter, providing the proper recommendations for PCB layout and external components. The device can operate in five modes which are selected using a combination of logic signals (connected to three enable pins). Also implemented is a simple programmable RC circuit used to shut down the device to prevent LED burning during flash mode in the event of microcontroller fault. This evaluation board drives a single flash LED with a forward voltage range of 2.7 to 5 V.

1 Board schematic

Figure 1. Schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
10-Dec-2007	1	Initial release.