



4-channel LED driver with charge pump based on the STP4CMP

Data brief

Features

- Operating voltage range: 2.7 V to 5.5 V
- Full RGB function support
- 4-channel LED driver with individual ON/OFF control directly from input pins
- Individual programmable output current for the 4 channels through 4 external resistors with a max. capability of 30 mA
- Absolute output current accuracy of max. $\pm 7\%$ and channel-to-channel mismatch of max. $\pm 4\%$
- Selectable charge pump enable/disable
- Thermal protection
- RoHS compliant



Description

The STEVAL-TLL012V1 demonstration board demonstrates the performance of the STP4CMP, a charge pump based 4-channel LED driver designed for RGB illumination or LCD display backlighting.

This device works off a battery with an input voltage between 2.7 V - 5.5 V. The device generates regulated current sinks with high absolute and channel-to-channel accuracy to drive up to 4 LEDs.

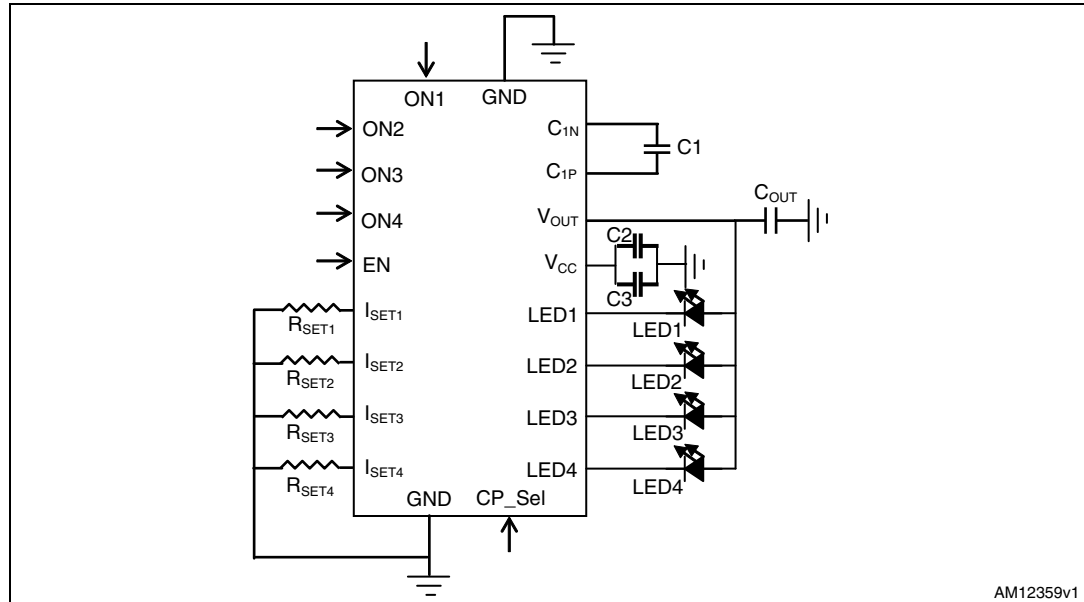
It can support LEDs with forward voltage as high as 3.8 V.

The current sink for each channel can be set with 4 individual external resistors. Each channel is controlled independently.

The PWM control can be applied directly to the 4 EN (enable) inputs to provide brightness control.

1 Schematic diagram

Figure 1. Schematic diagram



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
08-Jun-2012	1	Initial release.

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