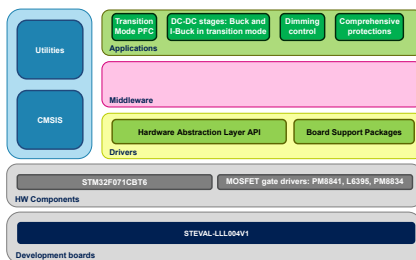# 75 W digitally controlled constant current HB LED driver

Features

- Firmware implementation based on the STM32F071xx line of 32-bit microcontrollers
- PI loop control of PFC section
- Hysteretic control of buck and inverse buck section
- Source code freely available with developer-friendly license terms

Description

The STSW-LLL004FW software package is designed to support the STEVAL-LLL004V1 75 W digitally controlled constant current LED driver.

The application firmware controls the PFC stage and the two DC-DC converters in Transition Mode. The firmware also manages the LED current according to the selected dimming level. Advanced timers and precise ADCs allow the firmware to dim the LEDs down to 0.5% of the maximum brightness level with flicker free operation for both analog and digital techniques.

The firmware continuously monitors input mains voltage for high and low cut-offs and output LED current for short circuit protection.

The firmware is based on libraries generated from STM32CubeMX on the STM32F071CB high performance 32-bit ARM® Cortex®-M0 microcontroller.

Summary table	
STEVAL-LLL004V1 evaluation board	STEVAL-LLL004V1
Mainstream ARM Cortex-M0 Access line MCU with 128 Kbytes Flash, 48 MHz CPU and CEC functions	STM32F071CB

DB3641 - Rev 1 - December 2018
For further information contact your local STMicroelectronics sales office.

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Revision history

Table 1. Document revision history

Date	Version	Changes
04-Dec-2018	1	Initial release.

IMPORTANT NOTICE – PLEASE READ CAREFULLY