

1.5A Dual WLED Flash Driver with I²C Compatible Interface

DESCRIPTION

The EUP2471 is a 2MHz fixed frequency, current mode synchronous boost converter. The device is designed to operate as a dual 750mA (1.5A total) constant current driver for flash white LED application.

An industry-standard I²C serial digital input is used to enable, disable and set the movie-mode current for each flash LED with up to 16 movie-mode settings. The EUP2471 also includes a separate Flash Enable input to initiate both the flash operation and the default timer, which can be used either to terminate a flash event at the end of a user-programmed delay or as a safety feature. The maximum flash and movie-mode current is set by one external resistor; the ratio of Flash to Movie-mode current is set at approximately 6.1:1.

An over-voltage protection feature keeps the output voltage below the OVP threshold in case of an open LED and an output short circuit protection limits the output current during an output short to GND. The chip's quiescent current is less than 1.0μA in shutdown mode.

FEATUES

- 2.7V to 5.5V Input Supply Range
- Dual Channel Output with Separate Flash Enable
- Up to 1.5A Regulated Output Current (750mA per channel)
- Up to 85% Efficiency
- 2 MHz Fixed Switching Frequency
- I²C Compliant Serial Interface
 - 400kHz Serial Transfer Rate
 - 16 Level Movie-mode Current
 - Flash/Movie-mode
 - Programmable LED Current
 - Programmable Flash Safety Timer
- True Load Disconnect
- Input Current Limit
- Output Over-Voltage, Short Circuit, and Over-Temperature Protection
- 3mm×3mm TDFN-14 Package
- RoHS Compliant and 100% Lead (Pb)-Free Halogen-Free

APPLICATIONS

- Camera-enabled Cellular Phones and Smart Phones
- Digital Still Cameras (DSCs)
- LED Photo Flash/Torch

Typical Application Circuit

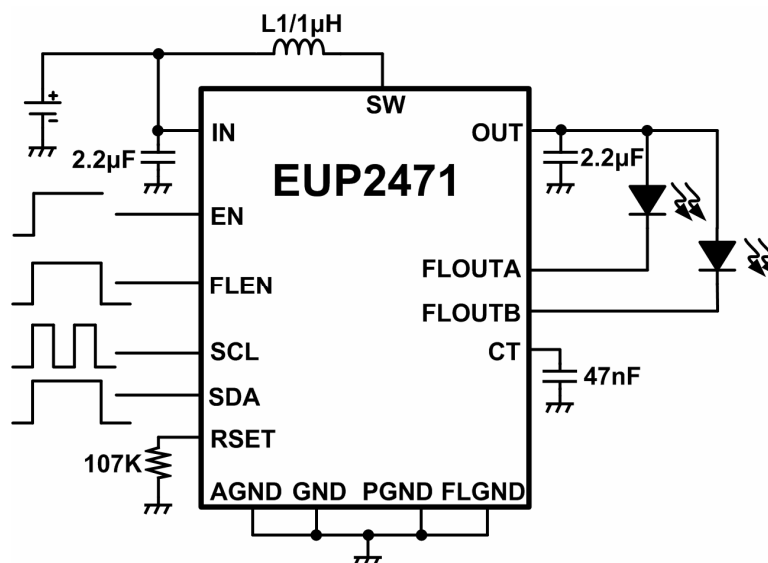


Figure 1. EUP2471 Two Flash LEDs Typical Application