SKY81296: 2.4 A/2 A Dual Independent Flash LED Driver with TrueFlash™

Applications

- LED photo flash with Movie/Torch mode
- Camera-enabled mobile devices
- Cell phones/smartphones
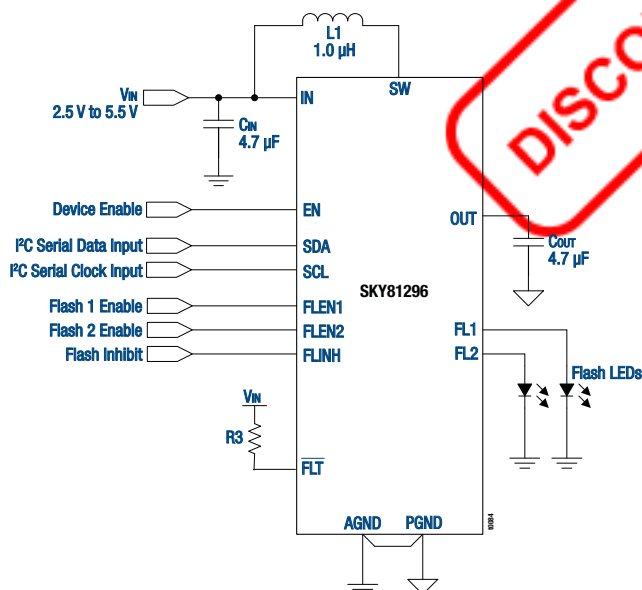- Digital still cameras
- Multimedia mobile phones

Figure 1. SKY81296 Typical Application Circuit

Skyworks Green™ products are compliant with all applicable legislation and are halogen-free. For additional information, refer to *Skyworks Definition of Green™*, document number SQ04–0074.

Features

- Input voltage range: 2.5 V to 5.5 V
- Up to 1.5 A regulated output current, up to 2.4 A/2 A total combined output current from both outputs
- TrueFlash™:
  - Independent control of each LED using I²C and Flash enable pins
  - Each flash LED can be configured separately in flash, movie mode, or notification mode
  - Enables sophisticated flash management to optimize image quality
- Up to 90% efficiency
- Input voltage monitoring and dynamic flash current control with readback
- 2.75 MHz switching frequency
- Soft-start and input current limit
- Separate flash enable/flash inhibit
- Programmable blinking LED notification
- Fast Mode Plus 1 MHz I²C programming:
  - Flash and Movie mode (MM) current
  - Input voltage monitor with programmable thresholds
  - Current read-back in input voltage monitor operation
  - Programmable safety timer
  - Fault read back
- Fault protection:
  - Integrated flash safety timer
  - Over-voltage protection (open LED, open circuit)
  - Short circuit
  - Over-temperature protection
  - Programmable inductor current limit
  - Flash mode input voltage monitor
  - Open-drain fault output
- −40 ºC to +85 ºC temperature range
- Small WLCSP (20-bump, 1.75 mm × 2.30 mm, 0.4 mm pitch)

Ordering Information

Model Name	Package	Manufacturing Part Number	Evaluation Board Part Number
SKY81296 2.4 A Dual Flash LED Driver with I²C Control Interface	1.75 mm × 2.30 mm, 20-bump WLCSP	SKY81296-11-001	SKY81296-EVB
SKY81296 2 A Dual Flash LED Driver with I²C Control Interface	1.75 mm × 2.30 mm, 20-bump WLCSP	SKY81296-12-001	SKY81296-EVB