



Products

Some of our new products

- AS3630 8A flash LED driver
- AS3729 dual-phase DC-DC power stage
- AS3721 multiphase DC-DC PMIC

Applications

Innovative analog solutions for consumer, industrial, healthcare, and automotive applications

Support

Extensive resources and support services for all your design and technical needs

AS3630

8A Supercap Flash LED Driver

Description

The AS3630 is an inductive high efficient 4MHz dual DCDC step up converter with several sources. It supports the charging of a Supercap, its voltage balancing and a highly efficient DCDC step up from the Supercap to the LED and from VIN to the LED to power the flash LED with up to 8A. The AS3630 supports the pre-charging of the Supercap (to VIN) to reduce the startup time for the flash without reducing the lifetime of the Supercap.

The system concept supports an immediate torch function without first charging the Supercap.

The AS3630 includes flash timeout, over-/under voltage, over temperature and LED short circuit protection.

The device is controlled by an I2C interface for adjustment of the currents and timings, set the end of charge voltage and measure the Supercap and LED parameters through the internal ADC. A dedicated TXMASK/TORCH input can be used for a torch button - or- reducing the battery current if a RF PA is operated at the same time (TX Masking). A hardware enable pin -ON can be used as a reset input.

The AS3630 is available in a space-saving WL-CSP 5x5 balls package measuring only 2.5x2.5x0.6mm and operates over the -30°C to +85°C temperature range.

[Back to Top](#)

Key Features

- Dual high efficiency boost converter with soft start allows small coils
- Immediate torch functions with charging of the Supercap
- 4MHz fixed frequency DCDC
- 10bit ADC converter for system monitoring with protection functions:
 - automatic flash timeout timer to protect the LED
 - overvoltage and under voltage protection
 - LED (NTC) and device over temperature protection
 - LED short/open circuit protection
- Flash LED(s) cathode connected to ground
- LED currents (fully adjustable by interface)
 - 8A for 33ms and 6A for 120ms flash, 2.9mA - 272mA for torch

- 1mA-8mA indicator current

I2C Interface with interrupt output and ON pin

[Back to Top](#)

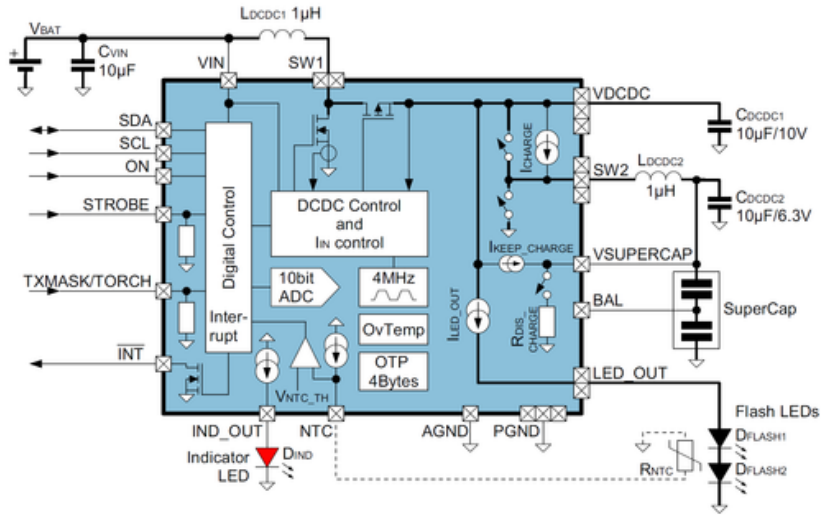
Applications

Flash/Torch for smartphones, feature phones, DSC and tablets

[Back to Top](#)

Block Diagram

[Print Block Diagram](#)



[Back to top](#)



[myams](#) [Disclaimer](#) [Privacy Policy](#) [Imprint](#) [Sitemap](#) [Website Feedback](#) [Search](#)

© 2013 ams AG. All Rights Reserved.