



XRP6840 4.3A Super Capacitor Flash LED Driver with I2C

General Description:

XRP6840 controlled current dual cell super capacitor charger and high power LED driver. Operating from a standard lithium-ion battery the XRP6840 provides up to 4.3A of programmable flash LED current and up to 600mA and 5.6V of programmable super capacitor charging current and voltage.

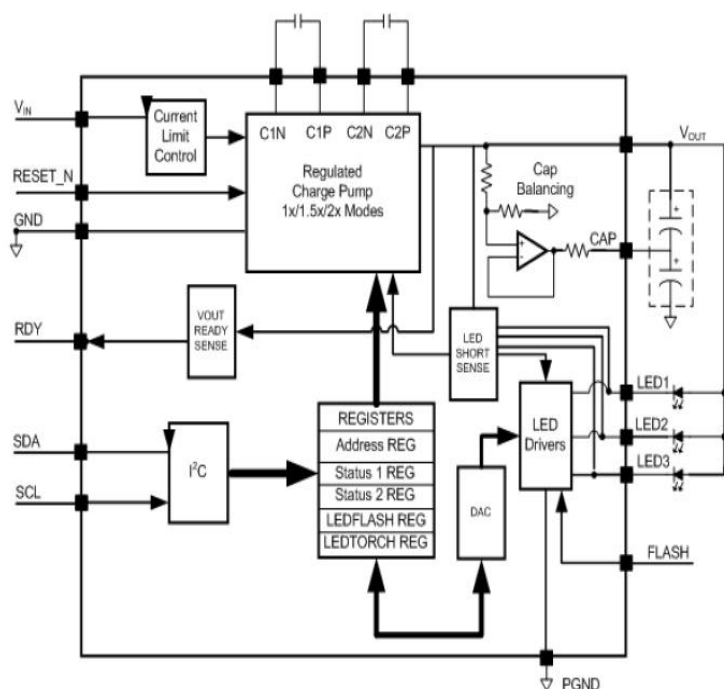
Architected around a 2.4Mhz tri mode 1x,1.5x and 2x pump charges the stacked super capacitor to programmed output voltage with no more than 600mA drawn from the battery. While charging, an internal active balance circuitry insures matching of the stacked capacitor's voltages.

A Standard 2-line I2C serial interface allows the dynamic programming of LED currents in Flash and torch modes, flash timeout and channel enable, gain control, capacitor charge voltage and enable. The XRP6840 comes in a 2 and 3 channel versions supporting respectively 440mA/2.15A per channel and 300mA/1.45A in torch/flash modes.

The flexibility designed into the XRP6840 can also allow it to reverse the power flow back to the input to prevent unintended system resets as the battery voltage drops. The XRP6840 is available in a lead-free "green"/halogen free 20-pin TQFN package.

Key Features:

- Programmable 4.3A flash led driver



- Torch and flash modes
 - 2 and 3 channel version
- programmable super capacitor charger
 - 600mA adjustable charging current
 - programmable super capacitor voltage
 - In-rush current control
 - Active voltage balance control
- Trimode charge pump Architecture
 - 1x,1.5x and 2x operation mode
 - 2.4Mhz Switching Frequency
- I2c serial Interface
- Thermal, Over Current and Output Short Protection
- LED Short Detection
- RoHS complaint “green”/halogen free 20-pin TQFN package

Applications:

- High Power Torch/Strobe/Flash LED
- High Resolution cameras
- Generic High Power Lighting
- High Power White LED Backlighting

Related Products Information:

Mfr Part #	Farnell #	Newark #	Description
XRP6840AILB-F	1799153	60R5466	4.3A supercapacitor Flash LED Driver With I2C- 20pin TQFN package