

## General Description

SY3511 is a single-chip IC specially designed for portable power sources, highly integrating charging module, LED battery display cell and synchronous boost output, minimizing the peripheral circuits and components. and providing the simplest, low-cost solution for power bank applications such as large-capacity single-cell or multi-cell connected lithium battery (lithium ion or lithium polymer). SY3511 is available in a ESOP8 package.

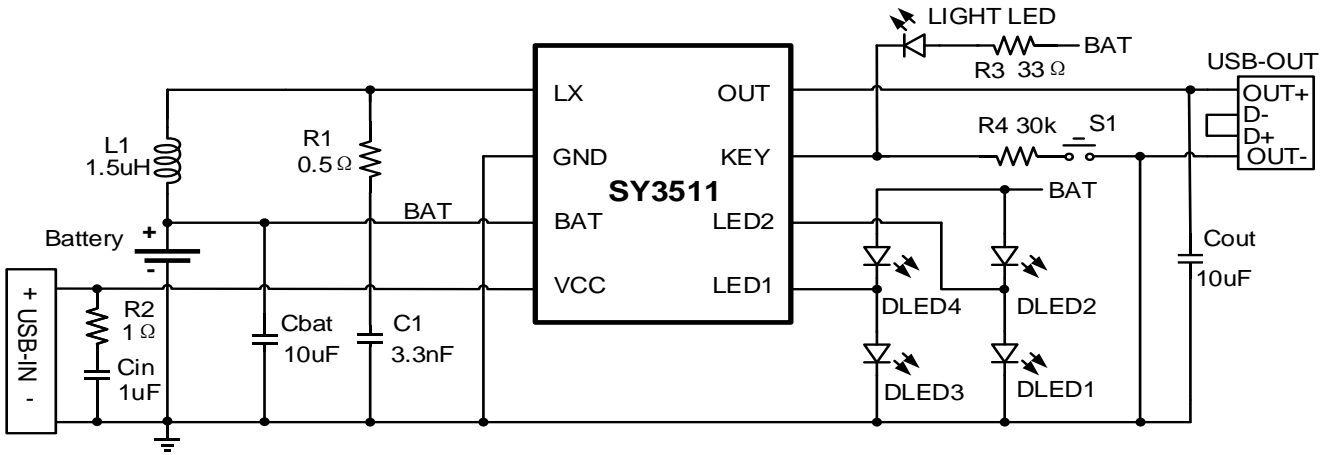
## Applications

- ◆ Mobile devices such as mobile phones, tablets, GPS, and electric tools

## Features

- ◆ Linear charging, synchronous boost output, built-in charge & discharge power MOSs
- ◆ 1A default charging current
- ◆ KEY-based boost output, automatic end-of-discharge when the load is fully charged
- ◆ 1A synchronous boost output current
- ◆ Original temperature management technology for boost
- ◆ Charging in trickle current / constant current / constant voltage mode with thermal regulation for realizing the maximum charge rate without overheat risk
- ◆ C/10 charge termination and automatic recharging
- ◆ Preset 4.2V charge voltage with  $\pm 1\%$  accuracy
- ◆ Over-current, short-circuit, over-voltage and over-temperature protections during the discharge output
- ◆ 4 LEDs display to indicate the battery fuel gauge, charge/discharge and abnormality
- ◆ Double click to turn on/off torch

Typical Application Circuit



Typical Application Circuit of SY3511