

General Description

SY3408 is a single-chip IC specially designed for Bluetooth cradle charging cases, integrated with charging management module, LED driver, synchronous boost output and D+ and D- protocol modules, minimizing the peripheral circuits and components, and providing the simplest low-cost solution for the applications of Bluetooth cradle charging cases.

It is available in a SOP8 package.

Applications

- ◆ TWS cradle charging cases
- ◆ Portable lithium battery
- ◆ Charge/discharge applications of small-capacity lithium batteries
- ◆ Other low-power supply applications

Features

- ◆ Linear charging, synchronous boost output, built-in charge & discharge power MOSFETs
- ◆ 0.2A default charging current
- ◆ C/10 charge termination and automatic recharging
- ◆ Adjustable charging current by adaptive adapter, VINDPM: 4.6 V
- ◆ Preset 4.2V charge voltage with $\pm 1\%$ accuracy
- ◆ Charge-discharge synchronization
- ◆ Automatic load identification and automatic shutdown at low load
- ◆ 0.5A synchronous boost output current
- ◆ Standby power loss: 3.5uA
- ◆ Over-current, short-circuit, over-voltage and over-temperature protections during the discharge output
- ◆ 2*LED for charge/discharge indication
- ◆ Click KEY to enable the boost output, click it again or long press to disable the boost output
- ◆ D+ and D- protocols

Typical Application Circuit

