

General Description

SY8803 is a power and communication chip. The device is integrated with a charger and a boost inside. It is utilizing two signal lines (ground and power line) for data transmission. The device is also equipped with a standard I2C interface for data exchange with MCU, an interrupt output and an EN PIN. Load in detect and load current detect are also available.

SY8803 is perfectly suited for True Wireless headset application thanks for these features. It can realize a smart charge cradle with few instruments outside.

SY8803 supports QFN16 4mmX4mm package.

Applications

- ◆ Smart charge cradle

Features

- ◆ Low quiescent current: 5uA
- ◆ Charge current is set by external resistor
- ◆ Charge current up to 1A
- ◆ Input voltage withstand up to 28V
- ◆ Switch charger with high efficiency up to 93%@0.5A
- ◆ Switch frequency for charger: 1MHz
- ◆ Dynamic Power-Path Management for charger
- ◆ Support charging the charge cradle and

earbuds at the same time

- ◆ Dynamic Temperature Management for charger
- ◆ Auto charge end and recharge
- ◆ Terminated charge voltage: 4.2V; 4.35V is available; The accuracy is 1%
- ◆ Input OVP protection and NTC protection is available
- ◆ Boost output is 5V with High efficiency up to 93%@0.1A
- ◆ Switch frequency for boost: 1MHz
- ◆ Support load in detect
- ◆ Support shut down current detect, shut down current is set by external resistor
- ◆ Support temperature management for boost
- ◆ Over-current protection (OCP), over voltage
- ◆ protection (OVP), over temperature protection (OTP) and short circuit protection (SCP) are integrated for boost
- ◆ Standard I2C interface and Enable PIN
- ◆ Conform to the latest standard of CN48790 of IEC62368

Typical Application Circuit

