

Power Management IC for 1S Battery Charging

1 Descriptions

SC6605 is a highly-integrated power management IC for single cell battery charging. It integrates a 4A switching charger, an 8A charge pump and two channels LED drivers. In addition, SC6605 supports BC1.2/PD3.1/UFCS/ protocols for fast charging, thus turning out to be highly compatible with more kinds of charger.

SC6605 adopts 64pin CSP 3.47mm x 3.41mm package.

2 Features

- High Efficiency 4A Switching Charger
 - ✓ 90% charging efficiency @ 3A Iout, 5V Vin
 - ✓ Supports input range 3.9V~13.5V
 - ✓ Integrates Narrow VDC (NVDC) power path management
 - ✓ Integrates Dynamic Power Management (DPM) for both input voltage and current
 - ✓ 15mΩ BATFET for high efficiency discharging up to 10A
 - ✓ BATFET control to support sleep mode, wake up and full system reset
- High Efficiency 8A Charge Pump
 - ✓ 96.5% charging efficiency @ 6A Iout, 4.4V Vout
 - ✓ Support both 2:1 and 1:1 fast charging
 - ✓ CFLY/CBOOT short detection before switch
 - ✓ VBUS_VOUT in-range protection before switch
- 2 Channels LED Drivers
 - ✓ Up to 1.5A flash current for each channel
 - ✓ Up to 500mA torch current for each channel
- Support 1.5A OTG
 - ✓ 93% boost efficiency @ 1A Iout, 5V Vout
- 9-channel 12-bit ADC
 - ✓ VAC, VBUS, IBUS, VBAT, VSYS, IBAT, TSBUS, TSBAT, TDIE

3 Applications

- Smartphones
- Tablet PCs
- Portable Devices and Accessory

4 Device Information

Part Number	Package	Body Size
SC6605CFFR	CSP64	3.47mm x 3.41mm x 0.575mm