

## High Voltage 4:1 Switched-Capacitor Charger

### 1 Descriptions

SC8562 is a high efficiency, 5V/12A slave charger using a switched cap architecture. With its internal 17 low  $R_{ds(on)}$  MOSFET and external flying caps, it can be configured into six different operation modes: forward 4:1/2:1/1:1 charger mode and reverse 1:4/1:2/1:1 converter mode. The switched cap architecture and the integrated FETs are optimized to enable a 50% cycle, decreasing the cable current to be quarter of the current delivered to the battery, reducing the losses over the charging cable as well as limiting the temperature rise in the application.

SC8562 adopts 132pin CSP 4.885mm X 4.485mm package.

### 2 Applications

- Smartphones
- Tablet PCs

### 3 Device Information

Part Number	Package	Dimension
SC8562CFFR	CSP132	4.855mm x 4.455mm

### 4 Features

- Dual-phase switched cap architecture optimized for 50% duty cycle
- Operation mode
  - ✓ Forward 4:1 mode
  - ✓ Forward 2:1 mode
  - ✓ Forward 1:1 mode
  - ✓ Reverse 1:4 mode
  - ✓ Reverse 1:2 mode
  - ✓ Reverse 1:1 mode
- Protection
  - ✓ VOUT\_OVP
  - ✓ VBUS\_OVP
  - ✓ PMID2OUT\_OVP
  - ✓ PMID2OUT\_UVP
  - ✓ IBUS\_OCP
  - ✓ IBUS\_UCP\_FALL
  - ✓ IBAT\_OCP
  - ✓ VBAT\_OVP
- 9-channel 12-bit ADC
  - ✓ VUSB, VWPC, VBUS, IBUS, VOUT, VBAT, IBAT, TSBA, T, TDIE