



# High Efficiency 8-A Switched Capacitor Direct Charger with SCP/UFCS PHY Integrated

## 1 Descriptions

SC8546 is a high efficiency battery charging solution using a switched cap architecture. The switched cap architecture and the integrated FETs are optimized to enable a 50% cycle, allowing the cable current to be half the current delivered to the battery, reducing the losses over the charging cable as well as limiting the temperature rise in the application.

SC8546 adopts 36pin CSP 2.765mm X 2.695mm package.

## 2 Applications

- Smartphones
- Tablet PCs

## 3 Device Information

Part Number	Package	Body Size
SC8546CFFR	CSP36	2.765mm x 2.695mm

## 4 Features

- 10-way system protection
  - ✓ VAC\_OVP
  - ✓ IBAT/VBAT regulation
  - ✓ VDROP\_OVP
  - ✓ VBUS\_OVP
  - ✓ IBUS\_OCP
  - ✓ IBUS\_UCP
  - ✓ VOUT\_OVP
  - ✓ VBAT\_OVP
  - ✓ IBAT\_OCP
  - ✓ TSHUT
- 6-way charge-pump protection
  - ✓ VBUS\_ERROR\_HI protection before switch
  - ✓ VBUS\_ERROR\_LO protection before switch
  - ✓ FLY cap short/open detection before switch
  - ✓ BST cap short/open detection before switch
  - ✓ PMID2OUT\_OVP during switch
  - ✓ PMID2OUT\_UVP during switch
- 7-channel 12-bit ADC
  - ✓ VAC,VBUS,IBUS,VOUT,VBAT,IBAT,TDIE