

Single Cell High Efficiency 8-A Switched Capacitor Direct Charger

1 Descriptions

SC8551A is a 97% efficiency, 8-A 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.

SC8551A adopts 56pin CSP 2.995mm X 3.255mm package.

2 Applications

- Smartphones
- Tablet PCs

3 Device Information

Part Number	Package	Body Size
SC8551ACFFR	CSP56	2.995mm x 3.255mm x 0.574mm

4 Features

- 10-way system protection
 - ✓ VAC_OVP
 - ✓ IBUS/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
 - ✓ CFLY short/open detection before switch
 - ✓ CDRV 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