



## SC2150A PROGRAMABLE USB TYPE-C PD PHY

### 1 Descriptions

SC2150A is a PD PHY IC that complies with the latest Type-C and PD 3.0 standards. It targets for the smart phones, tablets and other fast charge devices applications.

SC2150A integrates USB PD physical layer, consisting of both transmitter and receiver that communicate BMC-encoded data over the CC channel based on the PD 3.0 standard. SC2150A can be configured as DFP, UFP and DRP based on application. It supports current mode advertisement and detection, cable orientation detection, active cable detection and VCONN supply through CC pins. An external micro controller acting as USB Type-C Port Manager (TCPM), communicate with the SC2150A through I2C interface.

SC2150A supports wide range of VBUS and has low power consumption. It is available in 1.235mmx1.235mm, 9-ball WLCSP package

### 2 Applications

- Smartphones
- Tablet PCs

### 3 Features

- Support Type-C
  - Source, Sink or DRP configuration
  - Current mode advertisement and detection
  - Cable plug orientation detection
  - Active cable detection
  - VCONN switch for active cable
- Support PD 3.0 specifications
- USB PD PHY with I2C interface
- VCONN over current protection
- Dead battery Rd support
- VBUS detection
- 1mA operation current in active mode
- 50µA operation current in sleep mode
- 26V tolerance for CC1 and CC2

### 4 Device Information

Part Number	Package	Body Size
SC2150ACFFR	WLCSP9	1.235mm x 1.235mm