USB Type-C Controller with 2:1 MUX High-Speed Switch, OVP for CC1/2 and D+/D- Pins and a 500 mA Boost Converter

The SM5513 is a highly integrated Interface IC that features Type-C controller for Sink mode, Source mode, DRP mode, Dead battery and Accessory Detection, 2:1 MUX High-Speed switch up to 400Mbps, 22V withstanding voltage for CC1, CC2, DM_CON and DP_CON pins with programmable OCP on VCONN and a 500mA boost converter for VCONN or general purposes. The device integrates a very low R_{DS_ON} resistance for VCONN application to provide a supply voltage as minimally as possible.

The SM5513 is available in a 2.1mm x 2.1mm, 25-Bump WLCSP package.

Features

- Type-C for Sink, Source and DRP modes, Dead Battery and Accessory Detection Support
- 22V Withstanding Voltage for D+/D- and CC1/2 Pins with OVP
- 0.5Ω Bypass Switch for VCONN with programmable OCP threshold
- 500mA Boost Converter with programmable output from 4.5V to 5.2V in 100mV steps
- 2:1 MUX High-Speed up to 400Mbps
- Full-Speed I^2C Interface up to 400kHz
- 25-Bump, 2.1mm x 2.1mm WLCSP Package

Applications

- Mobile and Smart Phones
- Tablets
- Portable Devices

Ordering Information

Part	Temp. Range	Pb-Free	Package
SM5513	-40°C to +85°C	Yes	25-Bump WLCSP 0.4mm pitch

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