



CX2982AC/USB A and USB C Port Controller With Integrated MOSFETS

FEATURES

- USB type-C 2.1 and USB PD3.1 compliant
 - Support 5 V, 9 V, 12 V FPDOs
 - Support 2 programmable APDOs
- Support BC1.2 DCP and HVDCP protocols
 - BC 1.2 DCP mode
 - Apple 5V 2.4A mode
 - QC2.0/3.0/QC3.0+ class A
 - AFC, FCP and LVSCP/HVSCP
 - PE 1.1+
- Chip-Link to extend 4-port application
- Integrated low R_{dson} N-MOSFETs for USB A and USB C Port
- As low as 5 mA light load detection
- Support constant voltage loop(CV) and constant current loop(CC) operation
- Multiple cable compensation options
- Integrated OVP, UVP, UVLO, OCP, FOCP, CC/DPDM OVP, TSD and OTP protections
- QFN-32L (4 mm x 4 mm) package
- ±2 kV HBM ESD rating for USB IO pins

APPLICATIONS

- Adaptor
- Car charger

GENERAL DESCRIPTION

The CX2982AC is a high performance, high integration USB Type-C and USB Type-A Port controller. It integrates two ultra-low conduction resistance N-channel MOSFET. When there is only one port attached, the fast charging protocols, USB PD or HVDCP, are enabled, it is only 5 V output when both ports are attached simultaneously.

The CX2982AC is a USB PD3.1 controller which supporting 3 FPDOs and 2 APDOs with programmable current and voltage. Besides, the CX2982AC also supports BC1.2 DCP, Apple 2.4A, QC2.0/3.0/QC3+, AFC, FCP and SCP, PE1.1+ protocols.

The CX2982AC integrates Chip-Link technology, which can be applied in a 4-port application.

The CX2982AC integrates all of required protections such as Over Voltage Protection (OVP), Under Voltage Protection (UVP), Under Voltage Lockout (UVLO), Over Current Protection (OCP), Fast Over Current Protection (FOCP), CC or DPDM Over Voltage Protection (Port OVP) and Thermal Shut Down (TSD).

It is available in QFN-32L (4 mm x 4 mm) package.

TYPICAL APPLICATION CIRCUIT

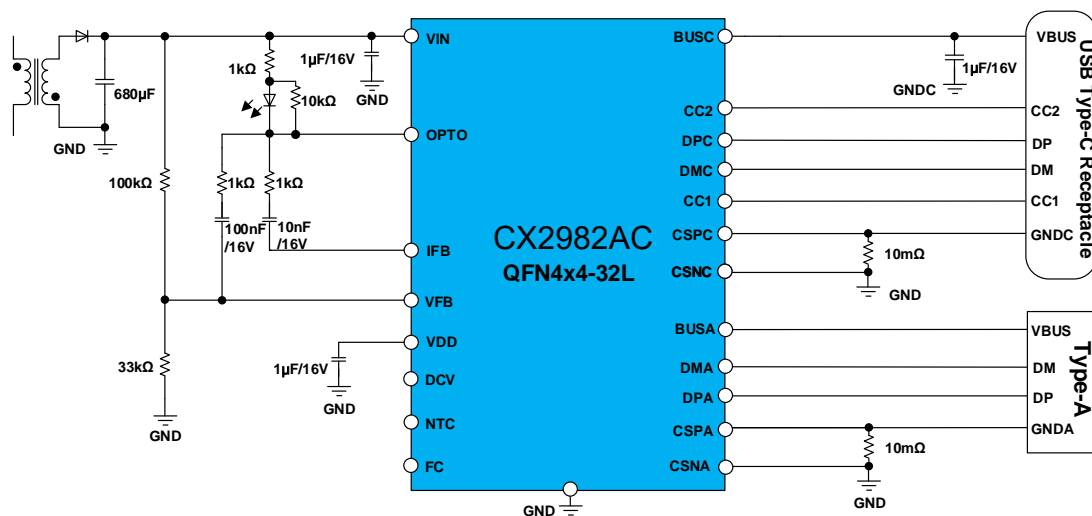


Figure 1. Typical Application Circuit