

## USB PD Source Controller with 32-bit MCU

### Hynetek Semiconductor Co., Ltd.

# HUSB362

#### **FEATURES**

- USB Type-C PD Source with PPS Supported
  - Compliant with USB Type-C Specification Reversion 2.1
  - Compliant with USB PD Specification Reversion 3.1
  - Compliance certification, TID:9329;
  - EPR certification, TID:9692;
- 28 V EPR FPDO and EPR AVS Supported
- Integrated VCONN Power for eMarker Detection
- Integrated N-MOSFET drive with soft start
- Multiple DPDM Charging Protocols Implemented
  - BC1.2 DCP and Divider 3
    - QC2.0, QC3.0, QC4+, AFC, FCP
- Up to 35 V Maximum Voltage Rating at USB Type-C Connector Pins
- Programmable Constant Voltage and Constant Current Control
- Fault Protections including Over-Voltage Protection, Over-current Protection, Short Circuitry Protection, Over-temperature Protection, Under-voltage Protection, CC Over-Voltage Protection, DPDM Over-Voltage Protection, Thermal Shut Down.

#### TYPICAL APPLICATION CIRCUIT

- 32-bit MCU with 32 kB MTP Memory
- Sleep Mode Supported
- ±7 kV HBM ESD Rating for all of Type-C Connector Pins

#### **APPLICATIONS**

Travel Adaptor Car Charger

#### **GENERAL DESCRIPTION**

HUSB362 is designed for a USB Type-C PD Source product. It can support up to multiple PDOs with programmable voltage and current for different applications, such as PPS PDOs, EPR PDOs. All of PDOs are fully compliant with USB PD 3.1 Specification Rev.1.8.

Besides, HUSB362 implements DPDM charging protocols. Both D+ and D- pins can be configured to support QC2.0, QC3.0, QC4+, AFC, FCP and divider 3 mode which provide excellent compatibility for the legacy devices.

It integrates an GATE driver to enable the VBUS from VIN to protect the devices connected with Type-C connector.

The high voltage tolerance and protections at CC1, CC2, D+ and D- pins provide more reliability for the system.

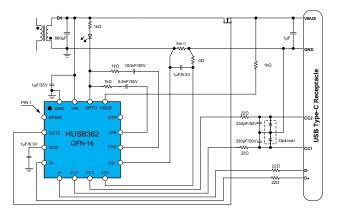


Figure 1. Typical Application Circuit