



BD93F10MWV (QFN), BD93E11GWL (CSP)

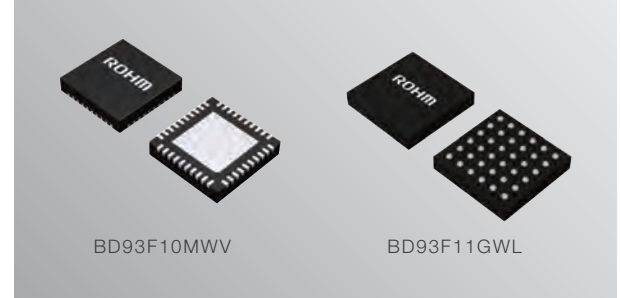
# Autonomous USB-Type C Power Delivery Controller for Sink Applications

## GENERAL DESCRIPTION

These ICs are members of Rohm's proven full feature USB Type-C Power Delivery (PD) controller portfolio. They provide for quick and easy design and implementation of USB Type-C PD for sink applications (UFP). Supporting the full suite of UFP features, they are verified as compliant, and do not need an external MCU. They handle all functions required by UFP, including dead battery, plug-in, and detach detection. The devices provide control of the required power path NMOS FETs which provide power isolation and reverse current protection. The voltage range and sink power settings are selectable by GPIOs.

## FEATURES

- **Firmware free** solution for Fast, Low-risk USB Type-C power sink designs
- Supporting the entire range of power levels defined by the USB-PD specification
- 28V VBUS withstand **eliminates need for additional protection devices**
- 28V CC withstand (BD93F10MWV) eliminates need for additional protection devices
- **Built-in Protection** Functions: VBUS OVP, VBUS OCP, CC SCP, internal and externally monitored TSD
- **QFN & CSP package options** for low-cost and high-density board designs
- UFP Features supported: Type-C Current Detection, VBUS Monitoring, SW Driver, OVP, Dead Battery, Plug In Detection
- EVK designed for simple integration testing in your product



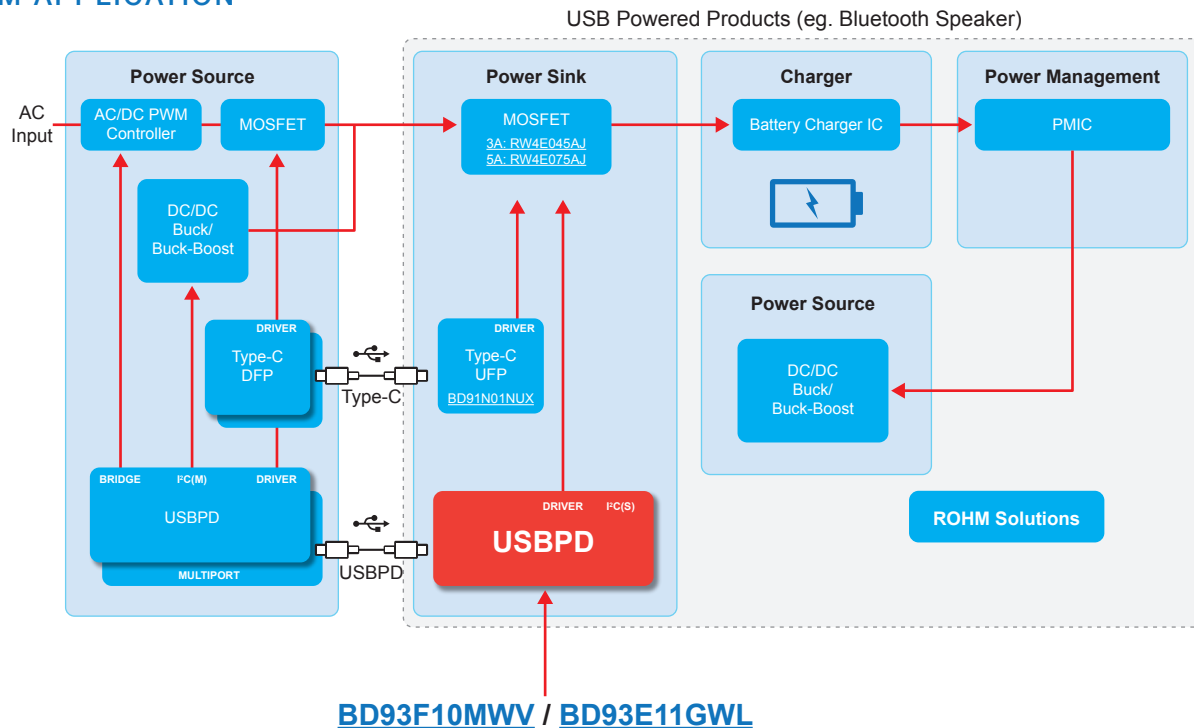
## PACKAGE OPTIONS

BD93E11GWL: 36-pin CSP, 2.63mm x 2.63mm x 0.57mm  
 BD93F10MWV: QFN40, 5mm x 5mm 1.0mm

## APPLICATIONS

- Any electronic product that requires USB Type-C Power Delivery charging as a Power Sink
- Smart/portable speakers
- Drones
- External storage
- Portable point of sale devices

## SYSTEM APPLICATION

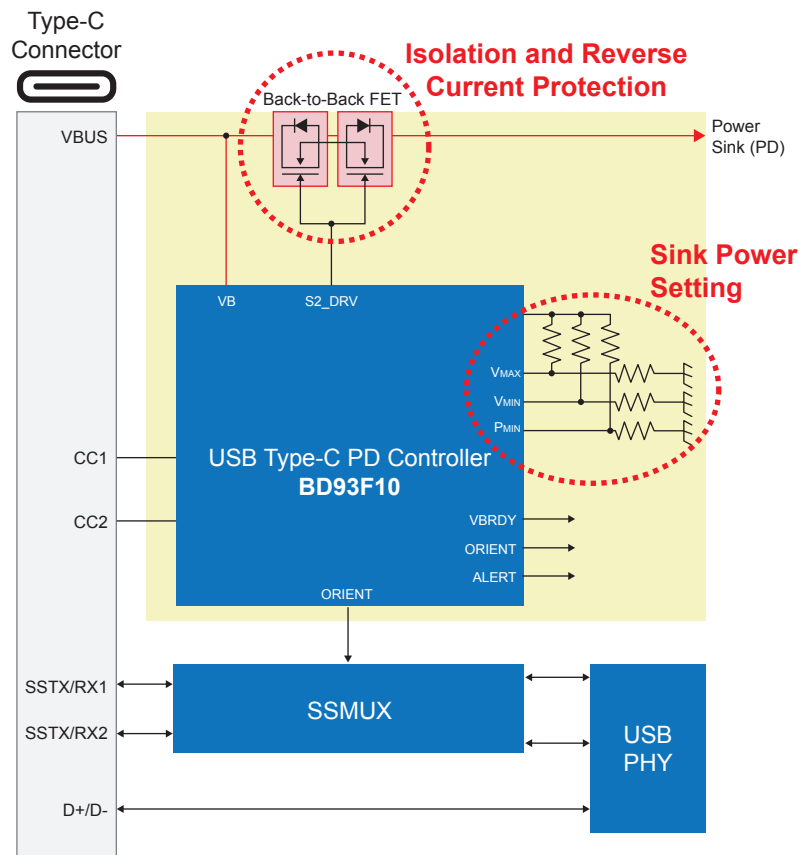




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## SYSTEM BLOCK DIAGRAM



Evaluation Kit Available contact ROHM for more information