PERICOM®

PI3USB9281A
USB 2.0 Port Protection with Charger Detection
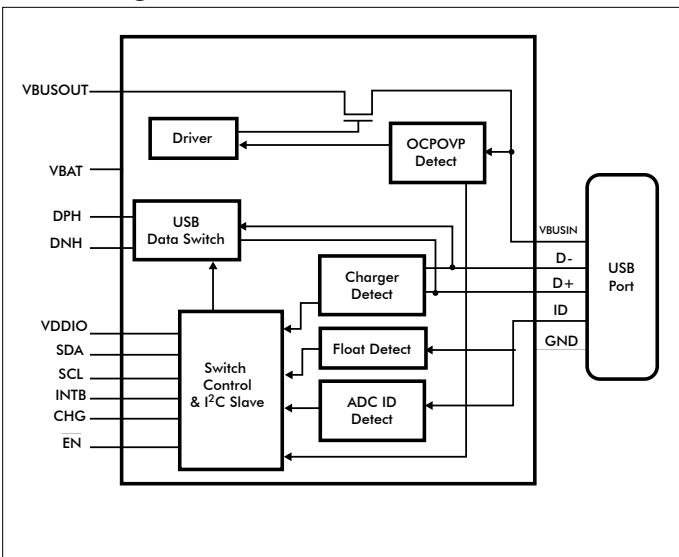
Description

PI3USB9281A provides external detection for any USB-device. The part can detect various chargers available in the market, MHL accessories, OTG accessories, and car-chargers per the CEA936 spec. It also integrates a power switch with over-voltage and over-current protections. The V_{BUSIN} input pin can tolerate voltages up to 28V, which is important for USB3.0-Power Delivery enabled ports. The new USB-3.0-Power Delivery specification supports voltages up to 20V.

The PI3USB9281A can operate over a temperature range of -40 to +85°C. Typical applications involve portable & consumer applications, such as tablet, smart phones, digital cameras, and notebooks with integrated Li-ion batteries that charge via USB connectors.

Applications
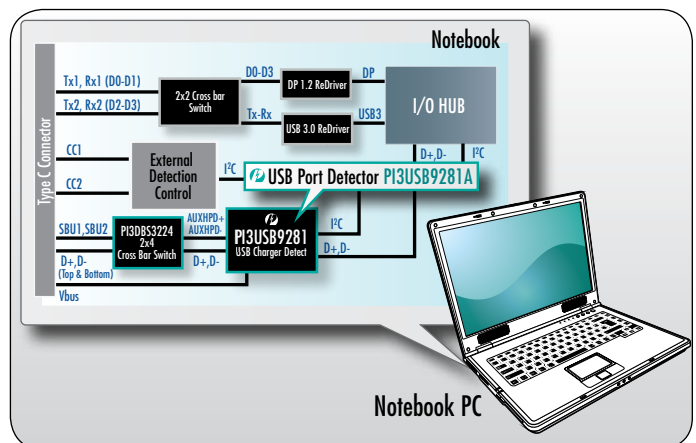
➔ Personal Media Players
➔ Mobile Phones
➔ Tablet

Features

➔ USB-device charger detector
➔ Can tolerate USB3.0-PD with VBUS = 20V
➔ USB Charging-type detection
➔ Battery Charging 1.2 (BC1.2) – DCP
➔ Battery Charging 1.2 (BC1.2) – CDP
➔ Battery Charging 1.2 (BC1.2) – SDP
➔ Apple 1A, 2A, & 2.4A dedicated chargers
➔ Samsung-Fast chargers
➔ YD/T-1951 dedicated chargers
➔ CEA-936 Carkit#1 and #2 chargers
➔ Integrated Power FET
➔ VBUS Tolerance up to 28V
➔ 1.7A Over-Current Protection (OCP)
➔ VBUS Over-Voltage Protection (OVP)
➔ Non-charging Accessory Detection
➔ USB On-The-Go (OTG) detection
➔ Mobile HDMI Link (MHL) device detection
➔ Wide Supply Voltage Range 3V to 5.5V
➔ I²C Programmability
➔ Small Package: CSP 1.5x2.0-15L

Block Diagram

Application Diagram

Mouser Electronics

Authorized Distributor

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