

Qwiic USB-C Power Delivery Board

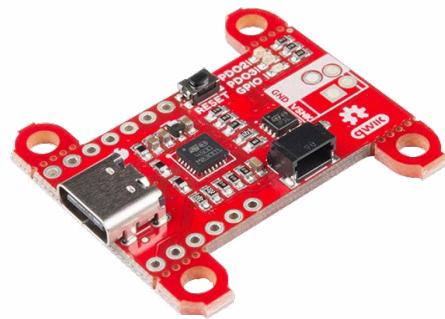
Product Overview

11-17-2021

For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

SparkFun Qwiic USB-C Power Delivery Board achieves higher power adapter voltages, typically 5-20V with up to 100W of power. This board uses a standalone controller to negotiate with the power adapters and have them switch to a higher voltage than the typical 5V. The Power Delivery Board uses the same power adapter for different projects eliminating the need for multiple power adapters to provide different output voltages.



The Power Delivery Board is also part of SparkFun's Qwiic connect system, which is an ecosystem of I²C sensors, actuators, shields, and cables that make prototyping faster and less prone to error. All Qwiic-enabled boards use a common 1mm pitch, 4-pin JST connector. The Power Delivery Board takes advantage of the power delivery standard with the use of a standalone controller from STMicroelectronics, the STUSB4500. The STUSB4500 is a USB power delivery controller that addresses sink devices. PDO profiles are configured in an integrated non-volatile memory. The controller does all the power negotiations and provides an easy way to configure over I²C.

An I²C bus is needed to configure the Qwiic USB-C Power Delivery Board. The Qwiic system makes it easy to connect the Power Delivery board to a microcontroller. Connection to the I²C bus via the plated through holes for SDA and SCL is possible depending on the application.

Features

- Input and output voltage range of 5-20V
- Output current up to 5A
- Three configurable power delivery profiles
- Auto-run Type-C™ and USB PD sink controller
- Certified USB Type-C™ rev 1.2 and USB PD rev 2.0 (TID #1000133)
- Integrated VBUS voltage monitoring
- Integrated VBUS switch gate drivers (PMOS)

Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/sparkfun/sparkfun-qwiic-usb-c-power-delivery-board/>