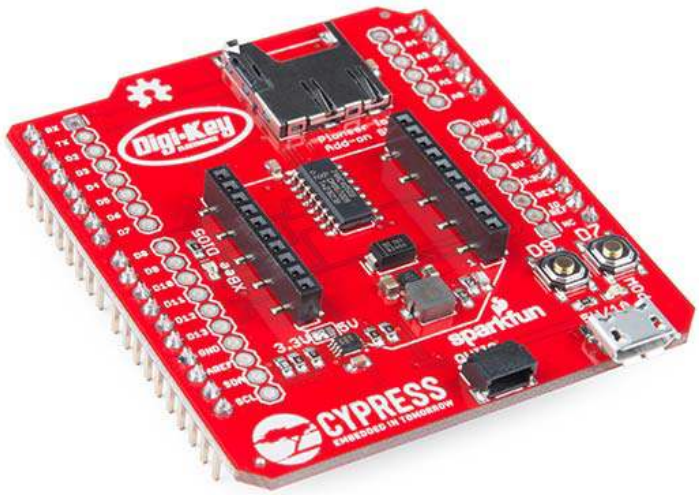

Pioneer IoT Add-On Shield

DEV-14531 RoHS Open Source Hardware

The Pioneer IoT Add-On Shield is a unique board designed to add more functionality to the PSoC 6 from Cypress while remaining useful and practical for plenty of other Internet of Things applications. Each Add-On Shield is a pretty simple board with an equally simple layout that provides XBee, Qwiic and microSD functionality not only to the PSoC 6 but also to any board with an Arduino R3 shield format. On top of designing this board with a reliable IoT performance, we have written a guide that will show you how to communicate with a Raspberry Pi via Bluetooth® and WiFi, as well as how to communicate between a PSoC 4 BLE Pioneer Board and the PSoC 6 Pioneer Board via Bluetooth Low Energy.

In addition to the microSD card slot, XBee headers and Qwiic connector, the Pioneer IoT Add-On Shield is equipped with a micro-B USB connector. This connector provides 5V to the 3.3V regulator for the XBee module, overriding the 5V coming from the Arduino header and allowing high-power XBee modules to function properly. This is all thanks to the 3.3V regulator, level shift buffer, I²C level shift circuitry and a voltage supply selection jumper — all found on the shield!

If you aren't familiar with it, the PSoC 6 Pioneer Board is the development tool associated with this processor line, sporting an onboard debugger, Arduino-compatible headers, CapSense widgets and more — all tied to a PSoC 6 processor. The processor is a dual-core device, with a Cortex-M0+ low-power processor and a Cortex-M4 high-power processor tied together via shared peripherals and memory space.

FEATURES

- Arduino R3 Shield Layout
- XBee Header
- MicroSD Card Slot
- Qwiic Connector
- Micro-B USB Power Connector
- 3.3V Regulator
- Level Shift Buffer
- I²C Level Shift Circuitry
- Voltage Supply Selection Jumper