PSoC® 64 Standard Secure - AWS Wi-Fi BT Pioneer Kit (CY8CKIT-064S0S2-4343W)

The PSoC® 64 Standard Secure - AWS Wi-Fi BT Pioneer Kit (CY8CKIT-064S0S2-4343W) is a low-cost hardware platform that enables you to easily design and debug your IoT application with PSoC 64 Standard Secure - AWS MCU and Amazon's AWS IoT Core and associated web services.

Featuring the PSoC 64 Standard Secure - AWS MCU

The PSoC 64 Standard Secure - AWS Wi-Fi BT Pioneer Kit features the PSoC 64 Standard Secure - AWS MCU (CYS0644ABZI-S2D44):

- 150-MHz Arm® Cortex®-M4 (non-secure processing environment)
- 100-MHz Arm Cortex-M0+ (pre-configured with a root-of-trust and secure processing environment running Trusted Firmware-M)
- 2MB of Flash, 1MB of SRAM
- Secure Digital Host Controller (SDHC) supporting SD/SDIO/eMMC interfaces
- Programmable analog blocks and programmable digital blocks
- Full-Speed USB
- Serial memory interface
- Industry-leading capacitive-sensing with CapSense®
- PDM-PCM digital microphone interface

Murata Type 1DX Module (CYW4343W Wi-Fi + BT Combo Chip)

This kit features the Murata Type 1DX module that provides IEEE 802.11b/g/n-compliant Wi-Fi with integrated Bluetooth 5.1, best-in-class power consumption, and enables small form factors for IoT devices.

Excelon™ Ultra Ferroelectric RAM (F-RAM)

This kit includes a Cypress Excelon Ultra 4Mbit, 108-MHz (limited to 80-MHz on this kit) Quad SPI nonvolatile F-RAM (CY15B104QSN) in an 8-pin SOIC package, that facilitates instant, local and energy-efficient data-logging at write speeds that are as fast as parallel battery-backed solutions and provides virtually unlimited read/write cycle endurance.

Industry-Leading CapSense

This kit comes with capacitive sensing interfaces including 2 buttons and a 5-segment slider. Using the 4th generation CapSense provided in the PSoC 64 Line, self- and mutual-capacitive-sensing systems can be evaluated with this kit.

Supported Software:

PSoC 64 Standard Secure - AWS MCU has been FreeRTOS qualified. FreeRTOS is a real-time operating system (RTOS) that includes a kernel and a growing set of libraries for connectivity, security, and firmware over-the-air (FOTA) updates. FreeRTOS supports both a CMake build flow as well as a Make build flow with the ModusToolbox® software environment. To get started with this kit using FreeRTOS, please refer to the Getting Started Guide.

Percepio DevAlert

Percepio DevAlert is a new cloud service for IoT product organizations that provides awareness of firmware problems in deployed devices and enables a DevOps-like development process for embedded developers. When a firmware issue is detected, DevAlert notifies the developers within seconds and provides diagnostic information about the issue, including a trace for Percepio Tracealyzer. The trace shows you what was going on in your code when the error occurred, making it far easier to understand the problem, fix it and deploy updated software to affected devices. For more information on DevAlert and to request a free evaluation of the product, please visit the Percepio DevAlert website.

Kit Contents:

- PSoC 64 Standard Secure - AWS Pioneer Board
- USB Type-A to Micro-B cable

- Four jumper wires (four inches each)
- Two jumper wires (five inches each)
- Quick Start Guide