



Release Notes

CY8CKIT-042-BLE Bluetooth® Low Energy Pioneer Kit

Release Date: May 12, 2017

Thank you for your interest in the CY8CKIT-042-BLE Bluetooth® Low Energy (BLE) Pioneer Kit. This document lists kit contents, installation requirements, limitations, and known issues with the kit.

Kit Content

The CY8CKIT-042-BLE Bluetooth Low Energy Pioneer Kit includes the following:

- BLE Pioneer baseboard preloaded with CY8CKIT-142 PSoC® 4 BLE Module
- CY5671 PRoC™ BLE Module
- CY5670 CySmart™ USB Dongle (BLE Dongle)
- Quick Start Guide
- USB Standard-A to Mini-B cable
- Four jumper wires (4 inch) and two proximity sensor wires (5 inch)
- Coin cell (3-V CR2032)

Installation

Installation instructions are provided in the CY8CKIT-042-BLE Bluetooth Low Energy Pioneer Kit User Guide, available at www.cypress.com/CY8CKIT-042-BLE.

Kit Installer Revision

This is revision *E of the CY8CKIT-042-BLE Bluetooth Low Energy Pioneer Kit installer. This revision includes PSoC Creator 3.3 Service Pack 1, which adds support for Bluetooth 4.2-capable devices.

This revision also adds the Eddystone™ Beacon example project to the installer.

The kit supports the following BLE modules:

- CY5671 PRoC BLE Module
- CY5674 PRoC BLE SMA Module
- CY5676 PRoC BLE 256KB Module
- CY5676A PRoC BLE 256KB Module
- CY8CKIT-141 PSoC 4 BLE SMA Module
- CY8CKIT-142 PSoC 4 BLE Module
- CY8CKIT-143 PSoC 4 BLE 256KB Module
- CY8CKIT-143A PSoC 4 BLE 256KB Module

The following USB dongles are supported:

- CY5670 CySmart USB Dongle (BLE Dongle)
- CY5677 CySmart BLE 4.2 USB Dongle (BLE Dongle)

For more information on the BLE Modules and BLE Dongle, refer to the “BLE Modules and BLE Dongles Compatible with the BLE Pioneer Kit” section in the Appendix of the BLE Pioneer Kit Guide.



Limitations and Known Issues

PSoC Creator 3.3 SP1 packages the BLE Component 3.0, which is a prototype version and is intended to be used for Bluetooth 4.2-capable devices only.

The following are limitations and issues that are known in this revision of the BLE Pioneer Kit. These will be resolved in future revisions of the kit.

- When the kit is not in use, remove the coin cell. The protection circuit in the development kit has a leakage current of ~300 μ A. To evaluate battery life, solder R7 (zero-ohm resistor) to bypass the protection circuit. This change will reduce leakage current but will compromise the protection circuit when an external supply is used.
- The CY5670 CySmart USB Dongle, CY8CKIT-142 PSoC 4 BLE Module, and CY5671 PRoC BLE Module (available in kits with date-code 1443~1501) are preprogrammed with a prerelease version of firmware. Both the BLE dongle and modules need to be updated with a newer version of firmware. Refer to the “Programming and Debugging BLE Device” section in the kit’s user guide for firmware programming instructions.
- The onboard RGB LED requires a supply voltage of 3.3 V or greater to function correctly. Using this kit with a coin cell (3 V) will affect the RGB LED operation.
- The onboard F-RAM™ (FM24V10-G) requires a 3-V CR2032 coin cell or DC voltage in the range of 2.0 V–3.6 V to function correctly. If the BLE Pioneer Kit voltage is set to 5 V or 1.9 V, then F-RAM will not be functional.
- For limitations and known issues with the PSoC 4 BLE silicon, see the [PSoC 4 BLE datasheet](#).
- For limitations and known issues with the PRoC BLE silicon, see the [PRoC BLE datasheet](#).
- For limitations and known issues with PSoC Creator™, see the [PSoC Creator 3.3 release notes](#).
- For limitations and known issues with the CySmart Central Emulation Tool, see the [CySmart Central Emulation Tool release notes](#).

Documentation

The kit documents are located in the `Documentation` folder in the installation directory. The default location for the kit documents is:

```
<Install_Directory>\CY8CKIT-042-BLE Kit\<version>\Documentation
```

Documents include:

- *CY8CKIT-042-BLE_Kit_Guide.pdf*
- *CY8CKIT-042-BLE_Quick_Start_Guide.pdf*
- *CY8CKIT-042-BLE_Release_Notes.pdf*

After opening PSoC Creator, view the documentation in **Help > Documentation**.

The default location for PSoC Creator documents is:

```
<Install_Directory>\PSoC Creator\<version>\PSoC Creator\Documentation
```

The default location for PSoC Programmer documents is:

```
<Install_Directory>\Programmer\Documents
```



Technical Support

For assistance, go to www.cypress.com/support or contact our customer support at +1 (800) 541-4736 Ext. 2 (in the USA), or +1 (408) 943-2600 Ext. 2 (International).

Additional Information

- For more information on the CySmart Central Emulation Tool and supported hardware, visit www.cypress.com/cysmart
- For more information about PSoC Creator functionality and releases, visit the PSoC Creator web page: www.cypress.com/psoccreator
- For more information about PSoC Programmer and supported hardware, visit the PSoC Programmer web page: www.cypress.com/psocprogrammer
- For a list of trainings on PSoC Creator, visit www.cypress.com/go/creatorstart/creatortraining



Cypress Semiconductor
198 Champion Ct.
San Jose, CA 95134-1709 USA
www.cypress.com

© Cypress Semiconductor Corporation, 2014-2017. This document is the property of Cypress Semiconductor Corporation and its subsidiaries, including Spansion LLC ("Cypress"). This document, including any software or firmware included or referenced in this document ("Software"), is owned by Cypress under the intellectual property laws and treaties of the United States and other countries worldwide. Cypress reserves all rights under such laws and treaties and does not, except as specifically stated in this paragraph, grant any license under its patents, copyrights, trademarks, or other intellectual property rights. If the Software is not accompanied by a license agreement and you do not otherwise have a written agreement with Cypress governing the use of the Software, then Cypress hereby grants you a personal, non-exclusive, nontransferable license (without the right to sublicense) (1) under its copyright rights in the Software (a) for Software provided in source code form, to modify and reproduce the Software solely for use with Cypress hardware products, only internally within your organization, and (b) to distribute the Software in binary code form externally to end users (either directly or indirectly through resellers and distributors), solely for use on Cypress hardware product units, and (2) under those claims of Cypress's patents that are infringed by the Software (as provided by Cypress, unmodified) to make, use, distribute, and import the Software solely for use with Cypress hardware products. Any other use, reproduction, modification, translation, or compilation of the Software is prohibited.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, CYPRESS MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THIS DOCUMENT OR ANY SOFTWARE OR ACCOMPANYING HARDWARE, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. To the extent permitted by applicable law, Cypress reserves the right to make changes to this document without further notice. Cypress does not assume any liability arising out of the application or use of any product or circuit described in this document. Any information provided in this document, including any sample design information or programming code, is provided only for reference purposes. It is the responsibility of the user of this document to properly design, program, and test the functionality and safety of any application made of this information and any resulting product. Cypress products are not designed, intended, or authorized for use as critical components in systems designed or intended for the operation of weapons, weapons systems, nuclear installations, life-support devices or systems, other medical devices or systems (including resuscitation equipment and surgical implants), pollution control or hazardous substances management, or other uses where the failure of the device or system could cause personal injury, death, or property damage ("Unintended Uses"). A critical component is any component of a device or system whose failure to perform can be reasonably expected to cause the failure of the device or system, or to affect its safety or effectiveness. Cypress is not liable, in whole or in part, and you shall and hereby do release Cypress from any claim, damage, or other liability arising from or related to all Unintended Uses of Cypress products. You shall indemnify and hold Cypress harmless from and against all claims, costs, damages, and other liabilities, including claims for personal injury or death, arising from or related to any Unintended Uses of Cypress products.

Cypress, the Cypress logo, Spansion, the Spansion logo, and combinations thereof, WICED, PSoC, CapSense, EZ-USB, F-RAM, and Traveo are trademarks or registered trademarks of Cypress in the United States and other countries. For a more complete list of Cypress trademarks, visit cypress.com. Other names and brands may be claimed as property of their respective owners.