

# PSoC® 6 BLE PIONEER KIT



## Kit Contents:

- 1 PSoC® 6 BLE Pioneer Board
- 2 CY8CKIT-028-EPD E-INK Display Shield
- 3 CY5677 CySmart™ BLE 4.2 USB Dongle
- 4 USB Type-A to Type-C cable
- 5 Four jumper wires (4 inches each)
- 6 Two proximity sensor wires (5 inches each)
- 7 Quick Start Guide (this document)



[www.cypress.com/CY8CKIT-062-BLE](http://www.cypress.com/CY8CKIT-062-BLE)

**CySmart™**  
Cypress Semiconductor Inc.

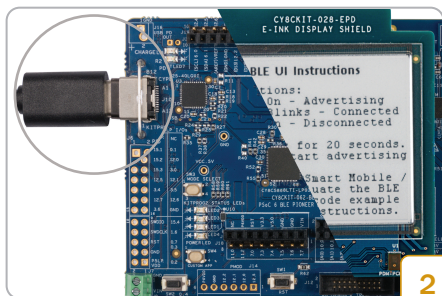
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Tools Similar

CySmart™ is a Bluetooth® Low Energy utility developed by Cypress Semiconductor.

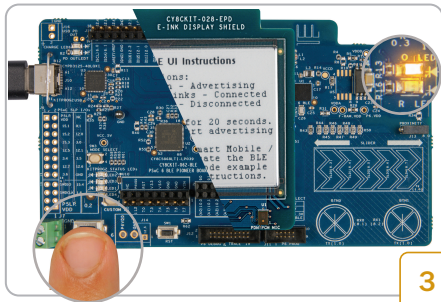
**1**



- Power the board by connecting it to your PC using the provided USB cable through USB connector (J10)
- The E-INK display will now refresh and show the instructions to evaluate the pre-programmed code example: CE220167 - PSoc 6 BLE with User Interface

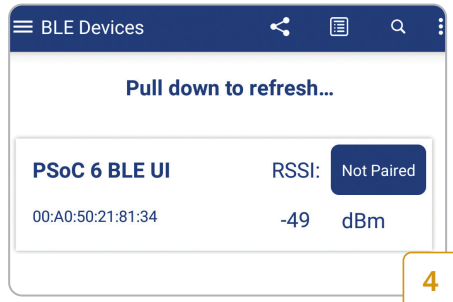
- Install the CySmart mobile application on your iOS or Android device from App Store<sup>SM</sup> or Google Play<sup>TM</sup> store respectively

# PSoC® 6 BLE PIONEER KIT



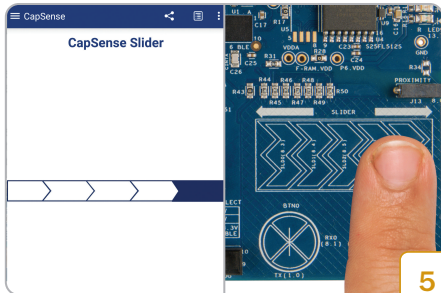
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- After power up, BLE will advertise for 20 seconds. The orange LED (LED8) remains on during this period to indicate the BLE advertising state
- If the BLE advertisement has timed out (LED8 is off), press SW2 to restart advertisement



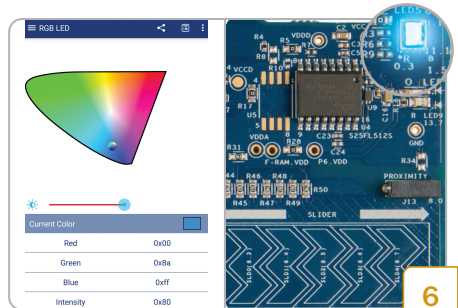
4

- Turn on Bluetooth on your mobile device and then open the CySmart application
- CySmart will list the “PSoC 6 BLE UI” Peripheral. Connect to the “PSoC 6 BLE UI” Peripheral
- A successful connection is indicated by orange LED (LED8) continuously blinking at half second intervals



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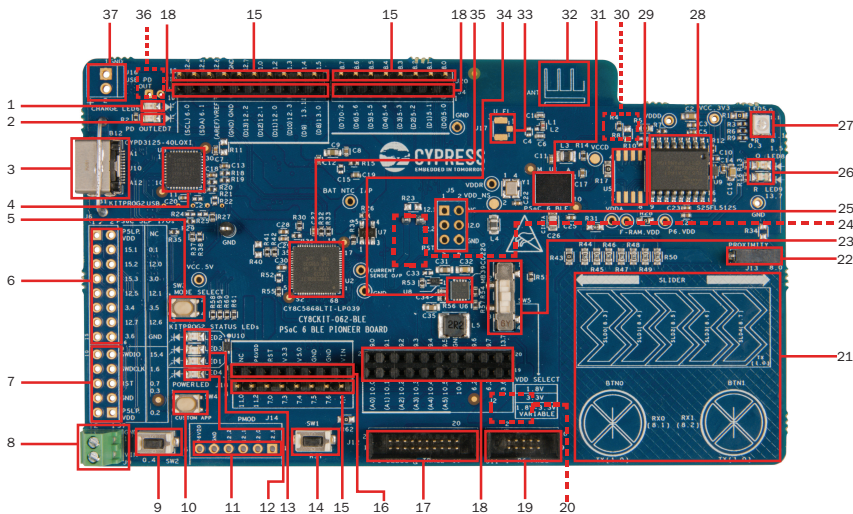
- When connected, the CySmart mobile application will list the services supported by the Peripheral. Scroll and select the CapSense Slider service
- Swipe your finger on the CapSense slider on the board and see a similar response on the CapSense Slider page in the CySmart application



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- Press the back button to return to the service selection page. Scroll and select the RGB LED service
- On the RGB LED service page, select a color on the color gamut to see a similar color response from the on-board RGB LED (LED5)
- For instructions to evaluate the additional features of this example, install the PSoC 6 BLE Pioneer Kit software and refer to the code example: CE220167 - PSoC 6 BLE with User Interface

PSoC 6 BLE Pioneer Board Details

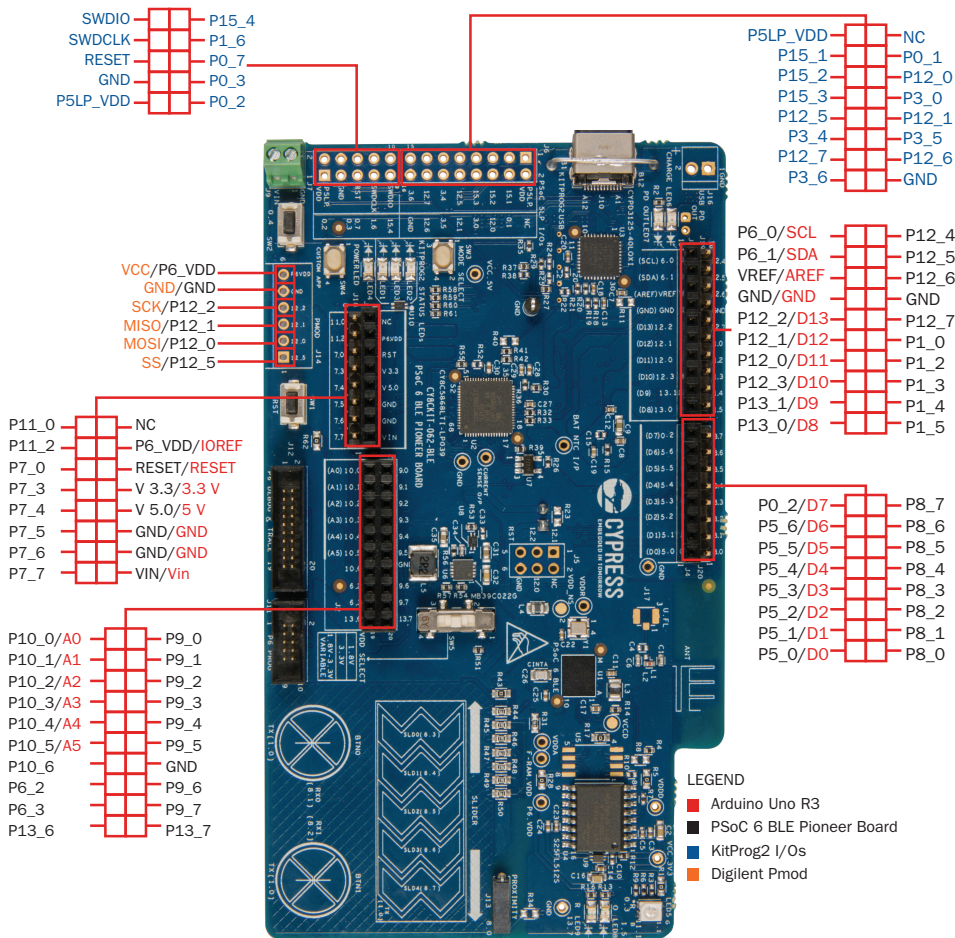


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| <ol style="list-style-type: none"> <li>1. Battery charging indicator (LED6)</li> <li>2. USB PD output voltage availability indicator (LED7)</li> <li>3. KitProg2 USB connector (J10)</li> <li>4. Cypress EZ-PD™ CCG3 Type-C Port Controller with PD (CYPD3125-40LQXI, U3)</li> <li>5. KitProg2 programming mode selection button (SW3)</li> <li>6. KitProg2 I/O header (J6)<sup>1</sup></li> <li>7. KitProg2 programming/custom application header (J7)<sup>1</sup></li> <li>8. External power supply connector (J9)</li> <li>9. PSoc 6 BLE user button (SW2)</li> <li>10. KitProg2 application selection button (SW4)</li> <li>11. Digilent<sup>®</sup> Pmod™ compatible I/O header (J14)<sup>1</sup></li> <li>12. Power LED (LED4)</li> <li>13. KitProg2 status LEDs (LED1, LED2, and LED3)</li> <li>14. PSoc 6 BLE reset button (SW1)</li> <li>15. PSoc 6 BLE I/O header (J18, J19 and J20)</li> <li>16. Arduino™ Uno R3 compatible power header (J1)</li> <li>17. PSoc 6 BLE debug and trace header (J12)</li> <li>18. Arduino™ Uno R3 compatible PSoc 6 BLE I/O header (J2, J3 and J4)</li> <li>19. PSoc 6 BLE program and debug header (J11)</li> </ol> | <ol style="list-style-type: none"> <li>20. KitProg2 programming target selection switch (SW6)<sup>2</sup></li> <li>21. CapSense slider and buttons</li> <li>22. CapSense proximity header (J13)</li> <li>23. PSoc 6 BLE VDD selection switch (SW5)</li> <li>24. PSoc 6 BLE power monitoring jumper (J8)<sup>2</sup></li> <li>25. Arduino™ Uno R3 compatible ICSP header (J5)<sup>1</sup></li> <li>26. PSoc 6 BLE user LEDs (LED8 and LED9)</li> <li>27. RGB LED (LED5)</li> <li>28. Cypress 512-Mbit serial NOR flash memory (S25FL512S, U4)</li> <li>29. Cypress serial Ferroelectric RAM (U5)<sup>1</sup></li> <li>30. Vbackup and PMIC control selection switch (SW7)</li> <li>31. Cypress PSoc 6 BLE (CY8C6347BZ1-BLD53, U1)</li> <li>32. BLE antenna</li> <li>33. U-FL connector for external antenna (J17)<sup>1</sup></li> <li>34. Cypress main voltage regulator (MB39C022G, U6)</li> <li>35. KitProg2 (PSoc 5LP) programmer and debugger (CY8C5868LTI-LP039, U2)</li> <li>36. Battery connector (J15)<sup>1,2</sup></li> <li>37. USB PD output voltage (9V/12V) connector (J16)<sup>1</sup></li> </ol> |
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<sup>1</sup>Footprints only, not populated on the board

<sup>2</sup>Components at the bottom side of the board

## PSoC 6 BLE Pioneer Board Pinout Details



For the latest information about this kit, visit [www.cypress.com/CY8CKIT-062-BLE](http://www.cypress.com/CY8CKIT-062-BLE)