

# PSoC® 6 BLE PIONEER KIT



## Kit Contents:

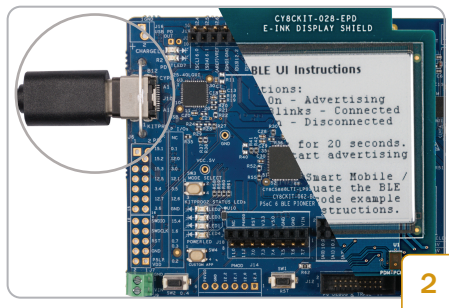
- 1 PSoC® 6 BLE Pioneer Board
- 2 CY8CKIT-028-EPD E-INK Display Shield
- 3 CY5677 CySmart™ BLE 4.2 USB Dongle
- 4 USB Type-A to Type-C cable
- 5 Four jumper wires (4 inches each)
- 6 Two proximity sensor wires (5 inches each)
- 7 Quick Start Guide (this document)



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

**CySmart™**  
Cypress Semiconductor Inc.

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



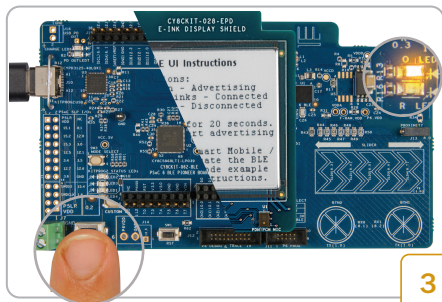
- Power the board by connecting it to your PC using the provided USB cable through USB connector (J10)
- The E-INK display will now refresh and show the instructions to evaluate the pre-programmed code example: CE220167 - PSoC 6 BLE with User Interface

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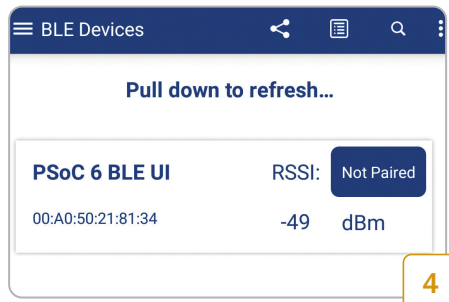
- Install the CySmart mobile application on your iOS or Android device from App Store<sup>SM</sup> or Google Play<sup>TM</sup> store respectively

# PSoC® 6 BLE PIONEER KIT



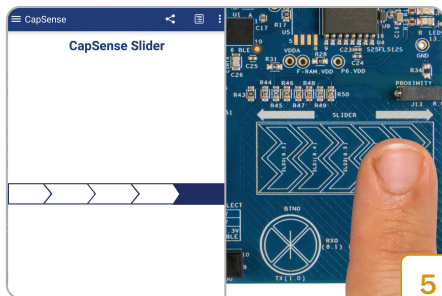
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- After power up, BLE will advertise for 20 seconds. The orange LED (LED8) remains on during this period to indicate the BLE advertising state
- If the BLE advertisement has timed out (LED8 is off), press SW2 to restart advertisement



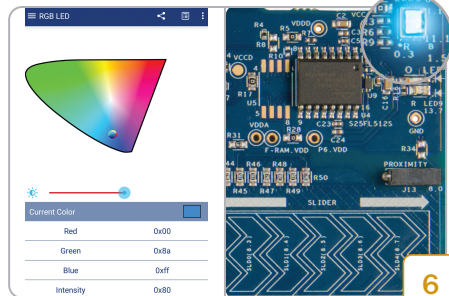
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- Turn on Bluetooth on your mobile device and then open the CySmart application
- CySmart will list the “PSoC 6 BLE UI” Peripheral. Connect to the “PSoC 6 BLE UI” Peripheral
- A successful connection is indicated by orange LED (LED8) continuously blinking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



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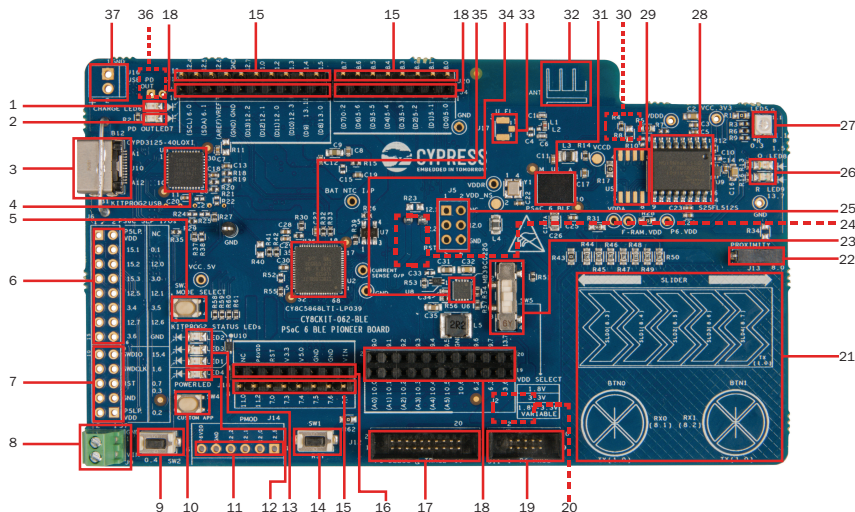
- When connected, the CySmart mobile application will list the services supported by the Peripheral. Scroll and select the CapSense Slider service
- Swipe your finger on the CapSense slider on the board and see a similar response on the CapSense Slider page in the CySmart application



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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

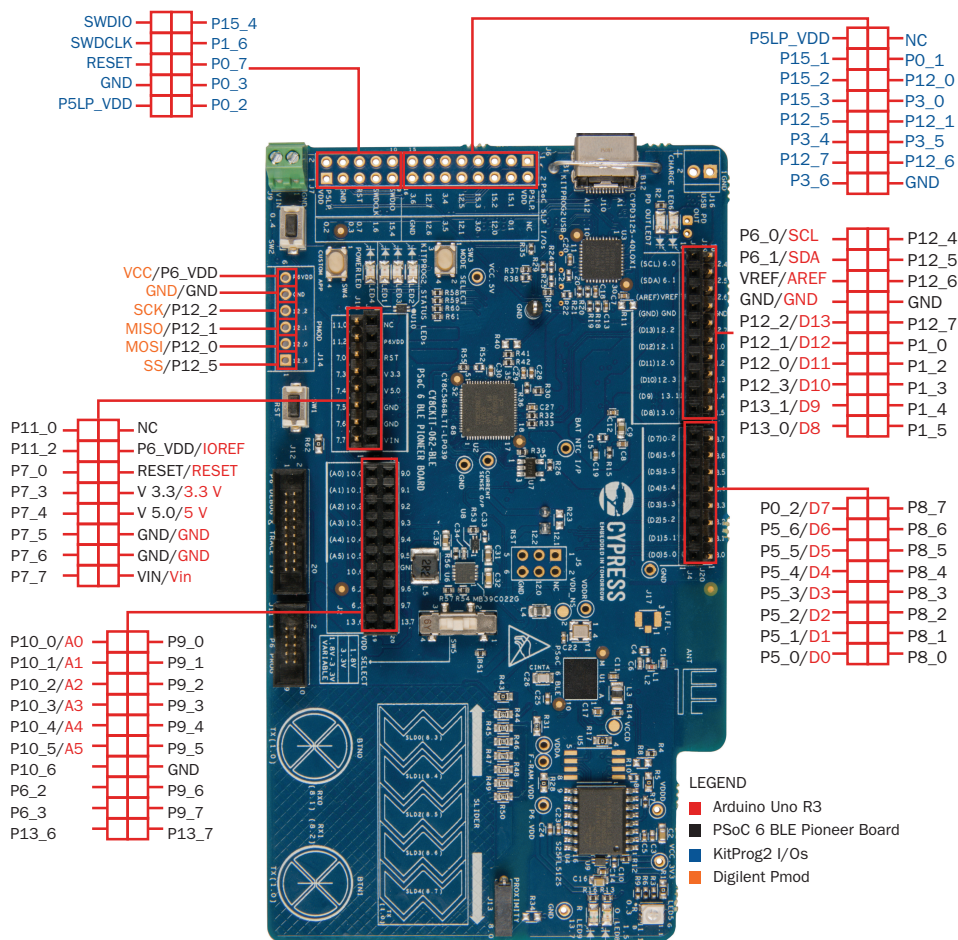
## PSoC 6 BLE Pioneer Board Details



1. Battery charging indicator (LED6)
2. USB PD output voltage availability indicator (LED7)
3. KitProg2 USB connector (J10)
4. Cypress EZ-PD™ CCG3 Type-C Port Controller with PD (CYPD3125-40LQXI, U3)
5. KitProg2 programming mode selection button (SW3)
6. KitProg2 I/O header (J16)<sup>1</sup>
7. KitProg2 programming/custom application header (J7)<sup>1</sup>
8. External power supply connector (J9)
9. PSoC 6 BLE user button (SW2)
10. KitProg2 application selection button (SW4)
11. Digilent® Pmod™ compatible I/O header (J14)<sup>1</sup>
12. Power LED (LED4)
13. KitProg2 status LEDs (LED1, LED2, and LED3)
14. PSoC 6 BLE reset button (SW1)
15. PSoC 6 BLE I/O header (J18, J19 and J20)
16. Arduino™ Uno R3 compatible power header (J1)
17. PSoC 6 BLE debug and trace header (J12)
18. Arduino™ Uno R3 compatible PSoC 6 BLE I/O header (J2, J3 and J4)
19. PSoC 6 BLE program and debug header (J11)
20. KitProg2 programming target selection switch (SW6)<sup>2</sup>
21. CapSense slider and buttons
22. CapSense proximity header (J13)
23. PSoC 6 BLE VDD selection switch (SW5)
24. PSoC 6 BLE power monitoring jumper (J8)<sup>2</sup>
25. Arduino™ Uno R3 compatible ICSP header (J5)<sup>1</sup>
26. PSoC 6 BLE user LEDs (LED8 and LED9)
27. RGB LED (LED5)
28. Cypress 512-Mbit serial NOR flash memory (S25FL512S, U4)
29. Cypress serial Ferroelectric RAM (U5)<sup>1</sup>
30. Vbackup and PMIC control selection switch (SW7)
31. Cypress PSoC 6 BLE (CY8C6347BZ1-BLD53, U1)
32. BLE antenna
33. U.FL connector for external antenna (J17)<sup>1</sup>
34. Cypress main voltage regulator (MB39C022G, U6)
35. KitProg2 (PSoC 5LP) programmer and debugger (CY8C5868LTI-LP039, U2)
36. Battery connector (J15)<sup>1,2</sup>
37. USB PD output voltage (9V/12V) connector (J16)<sup>1</sup>

<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)