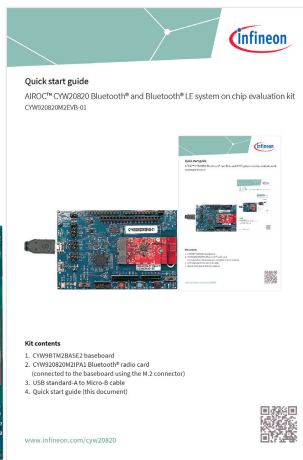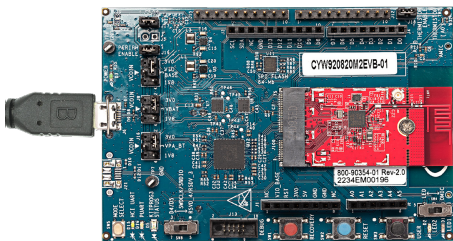# Quick start guide

AIROC™ CYW20820 Bluetooth® and Bluetooth® LE system on chip evaluation kit
CYW920820M2EVB-01

Kit contents

1. CYW9BTM2BASE2 baseboard
2. CYW920820M2IPA1 Bluetooth® radio card
   (connected to the baseboard using the M.2 connector)
3. USB standard-A to Micro-B cable
4. Quick start guide (this document)

Before you start

1. Download and install ModusToolbox™ software v2.4 (or later) with the Bluetooth® SDK at https://www.infineon.com/modustoolbox.

2. Scan the QR code to download and install the LightBlue App.

3. Connect a USB cable between the PC and CYW920820M2EVB-01 (J6) to power the kit.

Download the code example

1. In Eclipse IDE for ModusToolbox™, select **File** > **New** > **ModusToolbox™ application**. This launches the Project Creator.

2. In the Project Creator, click **AIROC™ Bluetooth® BSPs**.

3. Select the 'CYW920820M2EVB-01' kit and click **Next**.

4. Select the 'LE Find Me' code example, and then click **Create**.
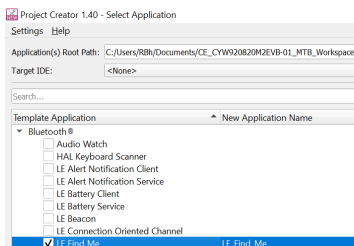
   Note: The kit is pre-programmed with the 'LE Find Me' code example so you do not need to program the kit to try it.

   For more information, see the ModusToolbox™software user guide at https://www.infineon.com/modustoolbox.
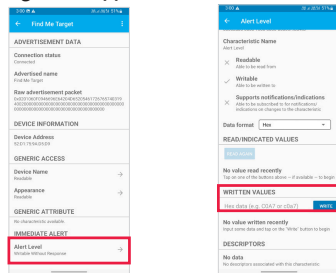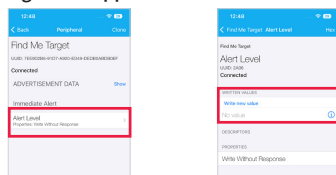
Run the LightBlue mobile application

1. Turn ON Bluetooth® on your Android or iOS device.

2. Launch the LightBlue mobile app.

3. Press the reset switch on the board to start sending advertisements.

4. Swipe down on the LightBlue app home screen to start scanning for LE Peripheral devices.

5. Your device ("Find me Target") appears on the home screen. Tap Connect to establish a Bluetooth® LE connection with the device.

6. Observe the changes in the yellow LED (LED1) before and after establishing the connection.

7. Select the 'Alert Level' service and provide the alert value '0' for No Alert, '1' for Mid Alert, and any other value for High Alert.

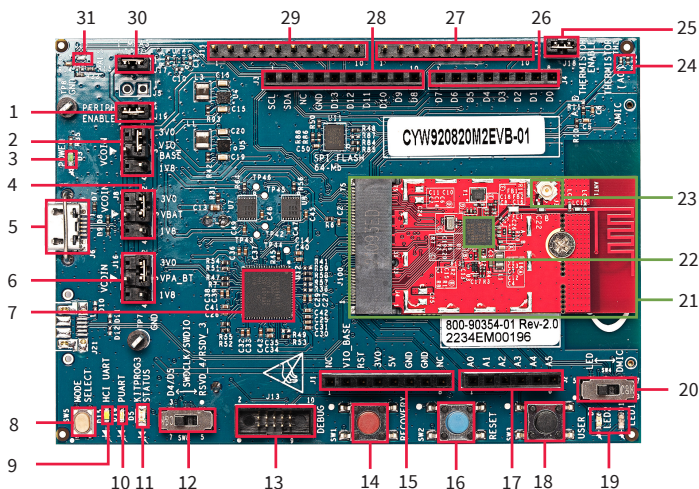8. Observe that the state of the red LED (LED2) changes based on the alert level.

Download the LightBlue app

Android

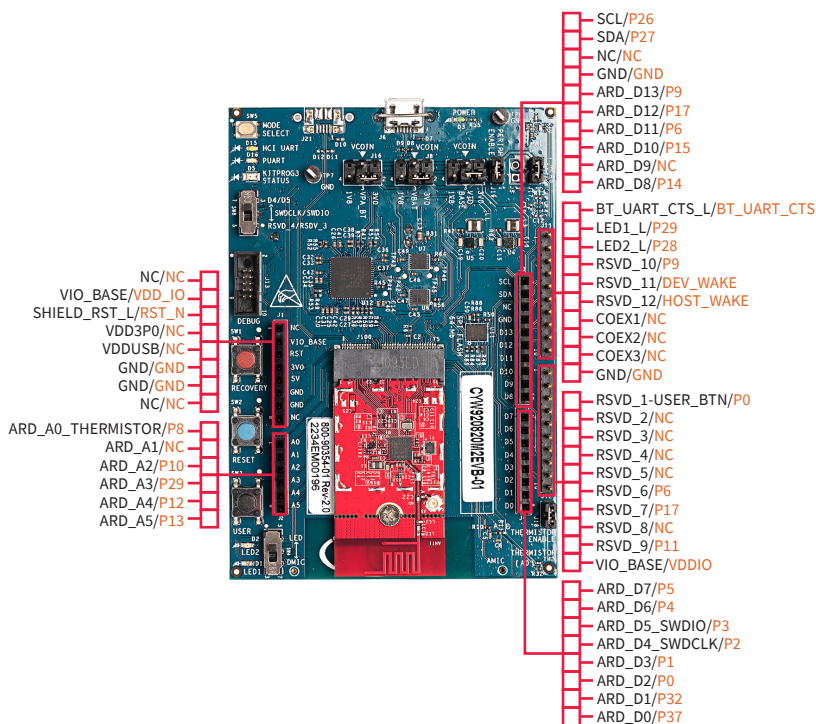

iOS

Selecting the code example in Eclipse IDE for ModusToolbox™

LightBlue app on Android

LightBlue app on iOS

AIROC™ CYW920820M2EVB-01 evaluation kit details

1. Peripheral enable jumper (J19)
2. VDDIO select jumper (J7)
3. Baseboard power status LED (D3)
4. VBAT select jumper (J8)
5. USB connector for programming/ USB-UART (J6)
6. VPA select jumper (J16)
7. KitProg3 based on PSoC™ 5LP MCU (U12)
8. KitProg3 mode select (SW5)
9. HCI UART status LED (D15)
10. PUART status LED (D16)
11. KitProg3 status LED (D5)
12. Debug interface select jumper (SW8)
13. Debug header (J13)
14. Recovery button (SW1)
15. Header compatible with Arduino (J1)
16. Reset button (SW2)
17. Header compatible with Arduino (J2)
18. User button (SW3)
19. User LEDs (LED1, LED2)
20. User LED/DMIC switch (SW4)
21. CYW920820M2IPA1 Bluetooth® M.2 radio card
22. AIROC™ CYW20820 Bluetooth® and Bluetooth® LE system on chip (CYW920820M2IPA1.U1A)
23. External antenna connector (CYW920820M2IPA1.J1)
24. Thermistor (TH2)
25. Thermistor enable jumper (J18)
26. Header compatible with Arduino (J4)
27. Bluetooth® I/O header (J12)
28. Header compatible with Arduino (J3)
29. Bluetooth® I/O header (J11)
30. VDDIO current measurement jumper (J17)
31. Ambient light sensor (U10)

AIROC™ CYW920820M2EVB-01 evaluation kit pinout details

SCL/P26
SDA/P27
NC/NC
GND/GND
ARD_D13/P9
ARD_D12/P17
ARD_D11/P6
ARD_D10/P15
ARD_D9/NC
ARD_D8/P14

BT_UART_CTS_L/BT_UART_CTS
LED1_L/P29
LED2_L/P28
RSVD_10/P9
RSVD_11/DEV_WAKE
RSVD_12/HOST_WAKE
COEX1/NC
COEX2/NC
COEX3/NC
GND/GND

RSVD_1-USER_BTN/P0
RSVD_2/NC
RSVD_3/NC
RSVD_4/NC
RSVD_5/NC
RSVD_6/P6
RSVD_7/P17
RSVD_8/NC
RSVD_9/P11
VIO_BASE/VDDIO

ARD_D7/P5
ARD_D6/P4
ARD_D5_SWDIO/P3
ARD_D4_SWDCLK/P2
ARD_D3/P1
ARD_D2/P0
ARD_D1/P32
ARD_D0/P37

NC/NC
VIO_BASE/VDD_IO
SHIELD_RST_L/RST_N
VDD3P0/NC
VDDUSB/NC
GND/GND
GND/GND
NC/NC

ARD_A0_THERMISTOR/P8
ARD_A1/NC
ARD_A2/P10
ARD_A3/P29
ARD_A4/P12
ARD_A5/P13

Legend ■ Baseboard I/Os ■ CYW20820 I/Os