

# EZ-BLE™ ARDUINO EVALUATION BOARD

## CYBLE-416045-EVAL



The EZ-BLE Arduino evaluation board (CYBLE-416045-EVAL) enables you to evaluate and develop applications on the CYBLE-416045-02 EZ-BLE Creator module. CYBLE-416045-EVAL can be used as a standalone evaluation kit or can be combined with Arduino compatible shields.

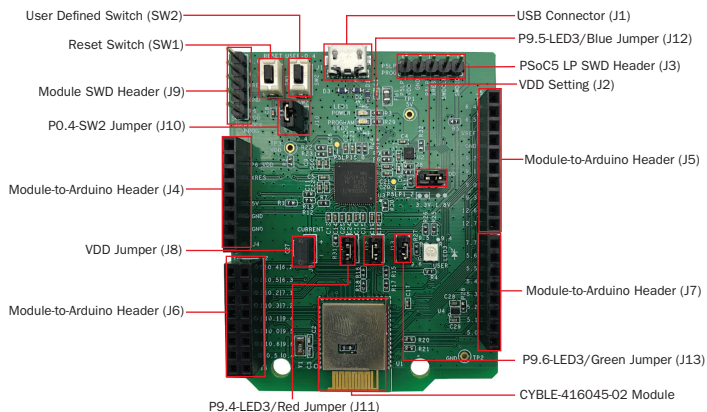
The CYBLE-416045-02 is a fully integrated, fully certified, 14.0 mm x 18.5 mm x 2.00 mm, programmable, Bluetooth® Smart module designed to reduce your time-to-market.

For more information, visit:

[www.cypress.com/bluetooth\\_modules](http://www.cypress.com/bluetooth_modules) - EZ-BLE/EZ-BT™ Module home page

[www.cypress.com/EZ-Serial](http://www.cypress.com/EZ-Serial) - EZ-Serial Firmware Platform

[www.cypress.com/Creator](http://www.cypress.com/Creator) - PSoc Creator™ IDE



**Figure 1: CYBLE-416045-EVAL Top View**

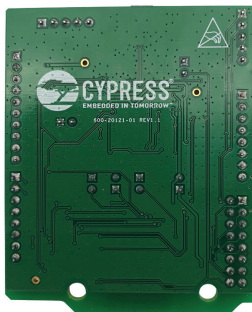
To use the CYBLE-416045-EVAL:

- 1) Configure the evaluation board headers and switches to the desired settings
- 2) Connect the evaluation board to a PC via a USB cable
- 3) Open the Creator IDE and create a project using the CYBLE-416045-02 MPN and program and debug using PSoc Creator

The Arduino compatible headers (J4, J5, J6, and J7) are optional connections, which provide additional I/O connections to the module and allow for other Arduino shields to be used during development.

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**Figure 2: CYBLE-416045-EVAL Bottom View**

SW1: Reset switch routed to the XRES connection on the module.

SW2: User-defined switch routed to the P0.4 connection on the module via J10.

J1: Micro-USB connector.

J2: Configures the VDD voltage input to the module as shown in the below table:

J2 Jumper Configuration	VDD Voltage Level
Short	3.3 V
Open	1.8 V

J3: PSoC5 LP SWD Program/Debug Interface.

J4/J5/J6/J7: Arduino-compatible headers used with an Arduino compatible shield.

J8: Module power supply current measurement header.

J9: CYBLE-416045-02 SWD Program/Debug Interface.

J10: Connects or disconnects P0.4 pad of CYBLE-416045-02 to SW2.

J11/12/13: Connects the P9.4, P9.5, and P9.6 pads to LED3 Red, Blue, and Green respectively.

The EZ-BLE CYBLE-416045-02 module is qualified for the Bluetooth 5.0 specification and is certified for the 2.4 GHz unlicensed frequency range in USA (FCC), Canada (ISED), Europe (CE), and Japan (MIC).

Visit [www.cypress.com/support](http://www.cypress.com/support) for technical support.