CYW920829B0M2P4XXI100-EVK Module Evaluation Kit release notes

About this document

Scope and purpose

Thank you for your interest in the CYW920829B0M2P4XXI100-EVK Module Evaluation Kit. This document lists kit contents, installation requirements, kit documentation, and limitations.

CYW920829B0M2P4XXI100-EVK is available in two variants of antenna options:

- Trace antenna module EVK (CYW920829B0M2P4TAI100-EVK)
- External RF pad module EVK (CYW920829B0M2P4EPI100-EVK)

Intended audience

This document is intended for anyone who uses the CYW920829B0M2P4XXI100-EVK Module Evaluation Kit.

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1 Release contents

1.1 Kit contents

The CYW920829B0M2P4XXI100-EVK Evaluation Kit box includes the following:

- CYW920829B0M2P4TAI100-EVK (Trace antenna module EVK)
- USB 2.0 Type-A to Micro-B cable
- Six jumper wires (five inches each)
- Quick start guide

The CYW920829B0M2P4EPI100-EVK Evaluation Kit box includes the following:

- CYW920829B0M2P4EPI100-EVK (External RF pad module EVK)
- USB 2.0 Type-A to Micro-B cable
- Six jumper wires (five inches each)
- Quick start guide

2 Tool information

2.1 Software and tools

Code examples for this kit require ModusToolbox™ software 3.0 or later. This is available on the ModusToolbox™ software webpage. Refer to the kit guide for details.

KitProg3 firmware v2.40 or later is required to program the AIROC™ CYW20829 Bluetooth® LE SoC device on the kit. The ModusToolbox™ installer automatically installs KitProg3 drivers.

2.2 Code examples and kit collateral

The kit webpages of CYW920829B0M2P4TAI100-EVK and CYW920829B0M2P4EPI100-EVK include the documents and hardware files. The code examples are available on the Infineon GitHub repository.

2.3 Installation

All required software installation instructions are provided in the kit guide, which is available on the CYW920829B0M2P4TAI100-EVK and CYW920829B0M2P4EPI100-EVK kit webpages.

2.4 Kit revision

This is the initial revision (Rev. **).

2.5 Limitations

1. The SWD and SPI (MOSI, MISO) interfaces share the same GPIOs and must use one interface at a time. See the kit guide for more information on enabling the SPI option.
   - Workaround: None
2. The SPI (CS, CLK), User Button2, and USER LED1 share the same GPIOs, when you install the R105 to use SPI_CLK, the USER LED1 will be glowing based on SPI CLK speed as R90 is loaded by default.
   - Workaround: This can be isolated with tripad resistors.
     - Default P1.0 is connected to USER_BTN2 via R87; remove it and install R104 to use SPI_CS
     - Default P1.1 is connected to USER_LED1 via R90; remove it and install R105 to use SPI_CLK
3. SCB1 UART is not connected via KitProg3 if you need to use SCB1 UART.
   - Workaround: Connect the UART lines from Arduino-compatible shield pins D4 and D5 to MiniProg4 or FTDI.
4. SCB2 I2C (P5.0, P5.1) pins are not connected to resistor pull-ups.
   - Resistor pull-ups are not given, as the same pins are used for CANFD by default.
   - Workaround: Follow any one of the methods to make SCB2 work as a master.
     - You can use the SCB0 I2C pins (P4.0, P4.1) as master and loop back the SCB2 I2C pins (P5.0, P5.1)
     - HAL: Connect external pull-up resistors
     - PDL: Enable the SCB from the device configurator and change the pin drive mode from **open drain, drives low, input buffer on** to **resistive pull-up, input buffer on**
5. The Rev. ** version of the kit contains the engineering sample (ES) parts of the AIROC™ CYW20829 Bluetooth® LE SoC. The production parts will be available in the next revision of the kit.
   - Workaround: None

Tool information

6. a. When device is in DS-RAM mode the following pins are utilized for SWD operation:
    - P1_0_CPUSS_SWJ_SWO_TDO
    - P1_1_CPUSS_SWJ_SWDOE_TDI
    - P1_2_CPUSS_SWJ_SWDIO_TMS
    - P1_3_CPUSS_CLK_SWJ_SWCLK_TCLK

   – Workaround: To utilize these pins, disable the debug mode before the device enters the DS-RAM mode by using the `Cy_Syslib_SetWarmBootEntryPoint( )` API. To disable the debug mode in DS-RAM, the second parameter in the API must be set to **false**.

   b. If the debug mode is disabled, the evaluation kit cannot be programmed.

   – Workaround: To reprogram the device, use the `make erase` command on modus shell.
7. VBAT, VDDIO, and VDDPA pins of CYW20829 silicon is shorted together in the module, and hence the user cannot measure the individual current consumption of these power rails. Complete power consumption of module can only be measured using the VBAT power selection jumper J9. Other power measurement jumpers JJ10, J12, and J17 can be kept as default.

   – Workaround: None

2.6 Documentation

The following kit documents are available on the kit webpages:

EVK1: CYW920829B0M2P4TAI100-EVK (Trace antenna module EVK)

- CYW920829B0M2P4TAI100-EVK Evaluation Kit guide
- CYW920829B0M2P4TAI100-EVK Evaluation Kit quick start guide
- CYW920829B0M2P4TAI100-EVK Evaluation Kit release notes

EVK2: CYW920829B0M2P4EPI100-EVK (External pad module EVK)

- CYW920829B0M2P4EPI100-EVK Evaluation Kit guide
- CYW920829B0M2P4EPI100-EVK Evaluation Kit quick start guide
- CYW920829B0M2P4EPI100-EVK Evaluation Kit release notes

2.7 Technical support

For assistance, go to Infineon support. Visit the Infineon developer community to post your questions.

2.8 Additional information

- For more information about the AIROC™CYW20829 Bluetooth® LE SoC, associated documentation and software, see the CYW20829 webpage.
- For more information about ModusToolbox™ software functionality and releases, see the ModusToolbox™ software webpage.
- For a list of trainings on ModusToolbox™ software, see the ModusToolbox™ Software Training GitHub page.

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Edition 2024-01-24

Published by

Infineon Technologies AG

81726 Munich, Germany

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Document reference

002-39343 Rev. **

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