KIT_PSC3_PFC1 PSOC™ Control C3 Low Voltage PFC Development Expansion Kit release notes

About this document

Scope and purpose

Thank you for your interest in the KIT_PSC3_PFC1 PSOC™ Control C3 Low Voltage PFC Development Expansion Kit. This document lists the kit contents, installation requirements, and kit documentation.

Intended audience

This document is intended for the KIT_PSC3_PFC1 PSOC™ Control C3 Low Voltage PFC Development Expansion Kit users. This board is intended to be used under laboratory conditions.

Table of contents

About this document . . . 1
Table of contents . . . 2
1 Release contents . . . 3
1.1 Kit contents . . . 3
2 Tool information . . . 4
2.1 Software and tools . . . 4
2.2 Firmware and kit collateral . . . 4
2.3 Installation . . . 4
2.4 Kit revision . . . 4
2.5 Limitations and known issues . . . 4
2.6 Documentation . . . 4
2.7 Technical support . . . 5
2.8 Additional information . . . 5
Trademarks . . . 6
Disclaimer . . . 7

1 Release contents

1.1 Kit contents

The KIT_PSC3_PFC1 PSOC™ Control C3 Low Voltage PFC Development Expansion Kit includes the following components:

- PFC Evaluation Board
- AC-AC power adapter

Table 1 AC-AC adapter usage information

		• The AC-AC power adapter is provided with a **selector switch**, by default, the position is set to “0” or disconnected. Adjust the position to the correct AC supply voltage, according to the location you are working (either 110 V or 230 V is applicable) • Selecting the wrong range would result in a permanent damage which will make the transformer not usable anymore **Warning:** Do not use non-galvanic isolated supply sources, using a non-isolated AC input can cause injury to the user or permanent damage to the evaluation board.

***Note**: The AC-AC adapter is terminated with a Europlug Type-C. To accommodate your plug standard, it is suggested that you acquire a universal adapter for a compatible connection.*

2 Tool information

For information related to the tool, see the KIT_PSC3_PFC1 PSOC™ Control C3 Low Voltage PFC Development Expansion Board Kit webpage.

2.1 Software and tools

To utilize the code examples in this kit, ModusToolbox™ version 3.5 or later is required. It is available on the ModusToolbox™ software webpage. For more details, see the kit user guide.

Install J-Link software version v7.96d or later, along with the USB driver for the selected J-Link device.

2.2 Firmware and kit collateral

The webpage contains both documents and hardware files. Additionally, the code examples are available in the Infineon GitHub repository.

The firmware reference manual is included as part of the middleware documentation provided along with the code example. Further details about the power conversion libraries and user guide for the Power Suite GUI can be found on the corresponding webpage.

2.3 Installation

The kit user guide, available on the webpage, provides all the necessary software installation instructions. For more information, see the KIT_PSC3_PFC1 PSOC™ Control C3 Low Voltage PFC Development Expansion Board Kit webpage.

2.4 Kit revision

This is the initial revision (Rev. **) of the KIT_PSC3_PFC1 PSOC™ Control C3 Low Voltage PFC Development Expansion Board Kit.

2.5 Limitations and known issues

- To ensure user safety, it is strongly recommended to use the provided AC-AC power adapter as the isolated AC input for the PFC board. If an alternative AC input source is used, it must also be isolated. Using a non-isolated AC input can cause harm to the user or permanent damage to the evaluation board
- Before turning ON or OFF the active PFC operation, ensure that the PFC is at NO load or light load to avoid large passive rectification pulses, which can damage the evaluation board
- To prevent false triggering of hardware faults, the grid overcurrent detection (OCD) threshold for the PFC1 kit is set to 20A (10A per phase). Faults below this threshold shall be handled by the firmware. For a lower OCD threshold, users can adjust the resistance R223 on the bottom of the board as needed, referring to the MCRA1101 datasheet for the correct procedure. Note that the sensor's OCD, once triggered, latches and requires a reset procedure initiated by the firmware. Hardware design already includes the necessary circuit. Please consider to set the OCD_RESET pin to open drain and initialize it to high level.

2.6 Documentation

The following kit documents are available on the kit webpage:

- KIT_PSC3_PFC1 Low Voltage PFC Development Expansion Board Kit user guide
- KIT_PSC3_PFC1 Low Voltage PFC Development Expansion Board Kit quick start guide
- KIT_PSC3_PFC1 Low Voltage PFC Development Expansion Board Kit release notes

2.7 Technical support

For assistance or product-related queries, contact Infineon Support or post your queries on the Infineon Developer Community platform.

2.8 Additional information

- For more information about the PSOC™ Control C3M5 MCU and it's associated documentation, software, see the PSOC™ Control C3M5 webpage.
- To know more about the functionality and releases of ModusToolbox™, see the ModusToolbox™ software webpage.
- For a list of trainings on ModusToolbox™, see ModusToolbox™ software training.

Trademarks

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth® SIG, Inc., and any use of such marks by Infineon is under license.

Trademarks

All referenced product or service names and trademarks are the property of their respective owners.

Edition 2026-03-05

Published by

Infineon Technologies AG

81726 Munich, Germany

© 2026 Infineon Technologies AG

All Rights Reserved.

Do you have a question about any aspect of this document?

Email: erratum@infineon.com

Document reference
IFX-ikl1770287859446

Important notice

The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics ("Beschaffenheitsgarantie").

With respect to any examples, hints or any typical values stated herein and/or any information regarding the application of the product, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.

In addition, any information given in this document is subject to customer's compliance with its obligations stated in this document and any applicable legal requirements, norms and standards concerning customer's products and any use of the product of Infineon Technologies in customer's applications.

The data contained in this document is exclusively intended for technically trained staff. It is the responsibility of customer's technical departments to evaluate the suitability of the product for the intended application and the completeness of the product information given in this document with respect to such application.

Warnings

Due to technical requirements products may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by Infineon Technologies in a written document signed by authorized representatives of Infineon Technologies, Infineon Technologies' products may not be used in any applications where a failure of the product or any consequences of the use thereof can reasonably be expected to result in personal injury.