

infineon C3M5 Complete System Motor Control Evaluation Kit Owner's Manual

Home » infineon w infineon C3M5 Complete System Motor Control Evaluation Kit Owner's Manual



Contents

- 1 Infineon C3M5 Complete System Motor Control Evaluation
- 2 About this document
- 3 Kit contents
- 4 Limitations and known issues
- 5 Documents / Resources
 - **5.1 References**



Infineon C3M5 Complete System Motor Control Evaluation Kit



About this document

Scope and purpose

Thank you for your interest in the PSOC™ Control C3M5 Complete System Motor Control Evaluation Kit. This document lists the kit contents, installation requirements, kit documentation, limitations and known issues.

Intended audience

This document is intended for KIT_PSC3M5_MC1 PSOC™ Control C3M5 Complete System Motor Control Evaluation Kit users. This board is intended to be used under laboratory conditions.

Kit contents

The KIT_PSC3M5_MC1 PSOC™ Control C3M5 Complete System Motor Control Evaluation kit box includes the following components:

- 1. KIT_PSC3M5_CC2 Motor Control card
- 2. Drive adapter card
- 3. KITMOTORDC250W24VTOBO1 power board
- 4. USB Type-A to USB Type-C cable
- 5. Nanotec DB42S03 or DB42M03 24V BLDC motor
- 6. 24 V/1 A AC-DC adapter
- 7. Quick start guide

Kit information

For information related to the kit, see the KIT_PSC3M5_MC1 PSOC™ Control C3M5 Complete System Motor. Control Evaluation Kit webpage.

Software and tools

- To utilize the code examples in this kit, ModusToolbox™ version 3.2 or later is required. This 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.

Code examples and collaterals

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

Installation

The kit guide, available on the webpage, provides all the necessary software installation instructions. For more information, see the KIT_PSC3M5_MC1 PSOC™ Control C3M5 Complete System Motor Control Evaluation Kit webpage.

Kit revision

This is the initial revision (Rev. **) of the KIT_PSC3M5_MC1 PSOC™ Control C3M5 Complete System Motor Control Evaluation Kit.

Limitations and known issues

The limitations and known issues in this revision (Rev **) of the KIT PSC3M5 MC1 PSOC™ Control C3M5The

Complete System Motor Control Evaluation Kit is as follows:

- After programming/flashing the control card MCU using the ModusToolbox[™] Motor Suite GUI, the MCU needs
 to be reset by pressing the reset button (SW1)
- 2. The control card is configured to operate with 5 V analog reference and digital logic power boards. However, to ensure compatibility with 3.3 V analog reference and digital logic power boards.

The following components must be removed.

- For motor 1: R105, R117, R118, R119 R37 and R39
- For motor 2: R123, R124, R125, R136, R34 and R36
- For PFC/motor 3: R137, R138, R139 and R147

Note that the control card's SPI and I2C interfaces are only compatible with 3.3 V logic smart gate drive power boards

Documentation

The following documents are available on the kit webpage:

- KIT_PSC3M5_MC1 PSOC™ Control C3M5 Complete System Motor Control Evaluation Kit user guide
- KIT_PSC3M5_MC1 PSOC™ Control C3M5 Complete System Motor Control Evaluation Kit quick start guide
- KIT PSC3M5 MC1 PSOC™ Control C3M5 Complete System Motor Control Evaluation Kit release notes

Technical support

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

Additional information

- For more information on the PSOC™ Control C3 MCU, including associated documentation, and software, see PSOC™ Control C3 webpage
- To know more about the functionality and releases of ModusToolbox[™], see the ModusToolbox[™] software webpage.e
- For a list of trainings on ModusToolbox™, see ModusToolbox™ software training.ng

Trademarks

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

Edition 2024-12-10 Published by Infineon Technologies AG 81726 Munich, Germany 2024 Infineon Technologies AG All Rights Reserved.

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

Email: erratum@infineon.com

Document reference IFX-oqw1720604525560

Important notice

The information given in this document shall in no event be regarded as a guarantee of conditions r characteristics ("Beschaffenheitsgarantie" Concerningngo any examples, hints or any typical values stated herein and/or any information regarding the application of the product, Infineon Technologies hereby disclaims any warranties and liabiliti 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 the 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 concerning such application.

Warnings

Due to technical requirements, products may contain dangerous substances. In case of any 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.

Documents / Resources



infineon C3M5 Complete System Motor Control Evaluation Kit [pdf] Owner's Manual KIT_PSC3M5_MC1, C3M5 Complete System Motor Control Evaluation Kit, C3M5, Complete System Motor Control Evaluation Kit, System Motor Control Evaluation Kit, Motor Control Evaluation Kit, Control Evaluation Kit, Kit

Marine Committee of the Committee of the

References

- O GitHub Infineon/training-modustoolbox
- <u>PSOC™ Control Arm® Cortex®-M33 MCU | The Next Generation of Microcontrollers for Motor Control and Power Conversion Infineon Technologies</u>
- Support: Live Chat Online, Tech Support & FAQ Infineon Technologies
- "Infineon Developer Community & Support Forum
- GitHub Infineon/Code-Examples-for-ModusToolbox-Software: This ReadMe links to all available code examples for ModusToolbox software.
- <u>Semiconductor & System Solutions Infineon Technologies</u>
- <u>KIT_PSC3M5_MC1 | PSOC™ Control C3M5 Complete System Motor Control Kit Infineon Technologies</u>
- User Manual

Manuals+, Privacy Policy

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.