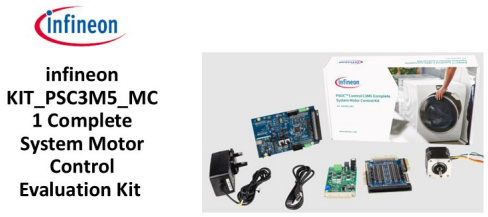

infineon KIT_PSC3M5_MC1 Complete System Motor Control Evaluation Kit Installation Guide

Contents

infineon KIT_PSC3M5_MC1 Complete System Motor Control Evaluation Kit

KIT_PSC3M5_MC1 PSOC™ Control C3M5 Complete System Motor Control Evaluation Kit release notes

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.

Release contents

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 C3M5 Complete System Motor Control Evaluation Kit are as follows:

1. 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
3. 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

- For a list of trainings on ModusToolbox™, see ModusToolbox™ software training

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

- 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 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 the customer’s compliance with the obligations stated in this document and any applicable legal requirements, norms and standards concerning the customer’s products and any use of the product of Infineon Technologies in the 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 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.

FAQ

- **Q: Who is the intended audience for this product?**
  A: The intended audience for the KIT_PSC3M5_MC1 PSOCTM Control C3M5 Complete System Motor Control Evaluation Kit is users interested in motor control under laboratory conditions.
- **Q: What should I do before using the kit?**
  A: Before using the kit, make sure to read the installation requirements and documentation provided in the kit

contents to ensure proper setup and operation.

Q: Where can I find technical support for this product?

A: Technical support contact information is available in the documentation provided with the kit. For further assistance, please refer to the technical support section.

Documents / Resources

	infineon KIT_PSC3M5_MC1 Complete System Motor Control Evaluation Kit [pdf] Installation Guide KIT_PSC3M5_MC1, KIT_PSC3M5_MC1 Complete System Motor Control Evaluation Kit, KIT_PSC3M5_MC1, Complete System Motor Control Evaluation Kit, System Motor Control Evaluation Kit, Motor Control Evaluation Kit, Control Evaluation Kit, Evaluation Kit

References

- GitHub - Infineon/training-modustoolbox
- PSOC™ Control Arm® Cortex®-M33 MCU | The Next Generation of Microcontrollers for Motor Control and Power Conversion - Infineon Technologies
- Support: Live Chat Online, Tech Support & FAQ - Infineon Technologies
- Infineon Developer Community & Support Forum
- Semiconductor & System Solutions - Infineon Technologies
- User Manual