

iMOTION™ Solution Designer Pack

Release Notes

Product name	iMOTION_SD_V5.04.03.sdpack
Release Version	V5.04.03
Type of Release	Release
Name of the supplier	Infineon Technologies
Mode of Release	iMOTION™ Solution Designer Package
Date of Release	2025-05-12
Previous Versions	V5.04.02

About this document

Scope and purpose

This document details the release contents, all known issues in the release, and the changes from the last release, together with information on tools, compiler options, and support packages.

Intended audience

This document is intended for anyone using the iMOTION™ Solution Designer software.

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Release contents

1 Release contents

This chapter lists the artifacts, the items of the test package and the test environment. It also presents the changes in the current versions, the limitations and deviations as well as known issues.

1.1 Release overview

The iMOTION_SD V5.04.03 package consists of software components includes board specification to provides complete software solution for iMOTION™ products, addressing sensor and senor-less based Field Oriented control of 3-phase Permanent Magnet Synchronous motor control. This software package is primarily targeted for end application of industrial. Consume drives, pumps and compressors.

1.2 Released items

This release iMOTION_SD_V5.04.03 package consists of the following artifacts

Artifacts		Description
Configuration Wizard	iMOTION™ Motor Control Solution	Application configuration wizard includes device selection, control related parameters, motor/sensor/type, board and load configuration
	MCEOS	MCE Operating system, communication interface GPIO and ADC configuration
	APP_SYSTEMCONTROL	MCE System components configuration
	APP_MOTOR0	MCE Motor low level configuration (function block)
	APP_PFC	MCE PFC low level configuration (function block)
Dash Board	RunTime monitoring and Debug	Debug interface to read and write MCE parameters and variables
MCE Firmware	Encrypted binary file (*.ldf)	Encrypted binary files for all supported devices. (Firmware Version: V5.04.01.6.1913)
	Release Note	Firmware release note for all supported devices
Catalogues	Motor	Motor data space
	Board	Board data space consists of iMOTION™ MADK/EVAL board
	Load	Load data space consists of different load configuration (compressor, fan etc.)
License Agreement	License Agreement	iMOTION™ Software license agreement

1.3 Test Environment

The SD package was tested, using the following environment/setup.

- Control /Power Board: iMOTION2Go or relevant EVAL/MADK board
- Platform: Window 10 (64 bit)
- iMOTION™ Solution Designer V1.3.3.

Release contents

1.4 Changes and Enhancements

The following items have been changed in release V5.04.03. Please refer to the [revision history](#) for previous versions.

- MCE firmware has been updated. Please refer MCE firmware release note for more details.

1.5 Limitations and Deviations

This section lists features that are missing or were incomplete implemented in the current release, but may be provided in future release

Module	Change Description
MCE Firmware	<ul style="list-style-type: none">▪ Refer device specific MCE firmware release note for MCE changes

1.6 Known Issues

- Programming Blank device is not working reliable. Power cycling of target is required before connect from programmer
- If target board is disconnected while programming, programmer shows success message

Supported Tools and Devices

2 Supported Tools and Devices

These following items are compatible with the current release

2.1 Tools

Tool	Description
iMOTION™ Solution Designer (1.3.3. or above)	Solution Designer is a development environment for iMOTION™ application software development

2.2 Supported Devices

The current release supports following iMOTION™ products

Series	Device
IMC100 Series	<ul style="list-style-type: none">▪ IMC099T-T038▪ IMC101T-T038, IMC101T-Q048, IMC101T-F048, IMC101T-F064▪ IMC102T-F048, IMC102T-F064
IMC300 Series	<ul style="list-style-type: none">▪ IMC301T-F048, IMC301T-F064▪ IMC302T-F048, IMC302T-F064
IMD110 Series	<ul style="list-style-type: none">▪ IMD111T-F040▪ IMD112T-F040
IMM100 Series	<ul style="list-style-type: none">▪ IMM101T-015M, IMM101T-046M, IMM101T-056M▪ IMM102T-015M, IMM102T-046M, IMM102T-056M
IMI100 Series	<ul style="list-style-type: none">▪ IMI111T-026H, IMI111T-046H

Revision History

3 Revision History

This chapter lists the changes and enhancements of the previous releases.

3.1 Revision V5.04.02

- MCE firmware has been updated. Please refer MCE firmware release note for more details.

3.2 Revision V5.04.01

- MCE firmware has been updated. Please refer MCE firmware release note for more details.
- Fix: NTC voltage threshold for over temp fault calculation

3.3 Revision V5.03.07

- MCE firmware has been updated. Please refer MCE firmware release note for more details.
- Validation check has been added for motor stator inductance (Lq and Ld) input values, Lq value should be greater than or equal to Ld.
- While selecting Catalog files, appropriate messages has been added.
- Resolution of motor current shunt input wizard has been increased.

New board specifications have been added in the board catalog database.

3.4 Revision V5.02.16

- MCE firmware has been updated. Please refer MCE firmware release note for more details.
- Dashboard tuning cases has been modified, dashboard could update Configuration wizard and synchronize from Configuration wizard.
- New board specifications have been added in the board catalog database.
- PFC protection enable/disable configuration has been added in Configuration Wizard.
- Motor current loop regulator Kp and Ki values can be changed manually from Configuration Wizard.
- Solution Designer interface can be disabled from Configuration Wizard.
- Fixed “AngDel” parameter update issue while importing a parameter set into configuration wizard.

3.5 Revision V5.01.18

- MCE firmware has been updated, please refer MCE firmware release note for more details.
- New bitfield {BGtask_Monitoring_EN} has been added in “MCEOS.SysTaskConfig” parameter to support enable/disable controller reset functionality when any of background tasks are not executed for more than 60s.

3.6 Revision V5.01.17

Initial Features

- Config Wizard: Motor control, PFC and system wizard configuration has been added
- Dash Board: Motor control and PFC run time monitoring window has been added
- MCE Firmware: Refer MCE Firmware release note
- Catalog: Added motor, load and MADK/EVAL board data

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