# **IMXIUG**

# Installation Guide for Config Tools for i.MX

Rev. 2 — 30 June 2022 User Guide

### 1 Introduction

**Config Tools for i.MX** is a software tool that helps guide users from first evaluation to production software development. This document describes how to install the Config Tools for i.MX software.

Config Tools for i.MX is available offline (local) installed on the host machine for pin routing configuration, validation and code generation, including pin functional/electrical properties, power rails, and run-time functions.

#### Contents

1	Introduction	.1
2	Minimum System Requirements	1
3	Supported Processors	.2
4	Limitations	2
5	Installation	2
6	Revision history1	5
Legal	information1	6

Config Tools for i.MX is intended for general use and aims to help hardware designers, software engineers, embedded engineers, and field application engineers (FAEs) and consists of several tools.

The Pins tool main features are:

- · Graphical views to create and change pins configuration
- · Creation of C source code and Device Tree snippet (DTS) for device initialization
- · Package with all pins and routable peripherals
- · Registers with initialization values

The **DDR** tool main features are:

- · Graphical view to display and change basic DDR attributes, such as memory type, frequency or number of channels
- · Graphical view to test and validate the DDR settings

NOTE

If the MacOS is set to Traditional Chinese, Config Tools for i.MX starts in English and not Chinese. This is intended.

# 2 Minimum System Requirements

The following lists the minimum system requirements to install and run the software:

- · One of the following graphical operating systems:
  - Microsoft® Windows® 10 (64-bit)
  - Ubuntu 22.04 LTS

NOTE

Linux-hosted variants of tools are distributed on Linux as 64-bit binaries, which may not work on 32-bit systems.

- Supported desktop environments: GNOME
- Mac OS X (12.x )
- 4 GB RAM
- Display with resolution 1024 x 768
- · Internet connection for dynamic download from processor database



2 / 18

# 3 Supported Processors

Config Tools for i.MX is installed with limited processor data and device support. You can download additional supported devices later.

NOTE	
Internet connection is required to install data for supported processors	3.

## 4 Limitations

Refer to the Release Notes to see the limitations.

#### 5 Installation

An 'Offline' installer is available for Config Tools for i.MX.

This installer file includes all the files required during the setup and does not need an internet connection for installation to complete. You can use this method for slow network connections or for installing the software on multiple machines.

The missing device information files are downloaded from the internet when loading a configuration into the tool.

## 5.1 Installing on Windows

A setup binary is available for Microsoft Windows:

• 64-bit version: Contains "x64" in the installer executable name.

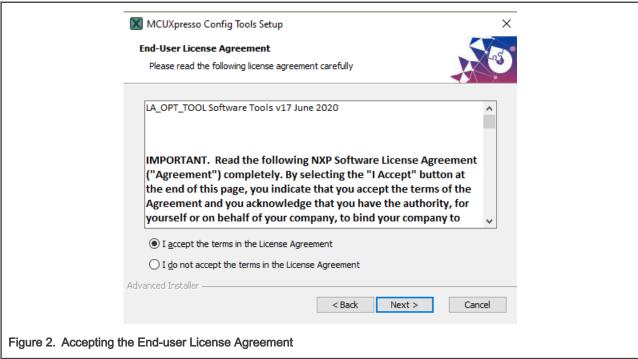
Running a non-matching executable for a given host system, for example 64-bit setup on a 32-bit system, will give an error message dialog.

To install Config Tools for i.MX as a desktop application on a local host:

- 1. Run the Config\_Tools\_for\_i.MX\_<version>\_<architecture>.exe.
  - The Config Tools for i.MX Setup wizard will initiate.
- 2. Select the language in which you want to run the installer.

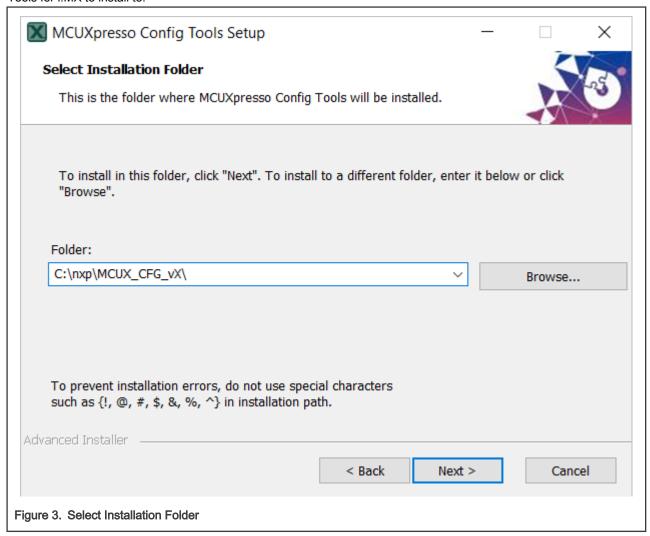


- 3. Click Next.
- 4. On the next page, click Next.
- 5. On the End-User License Agreement page of the wizard, select I accept the terms of the License Agreement.

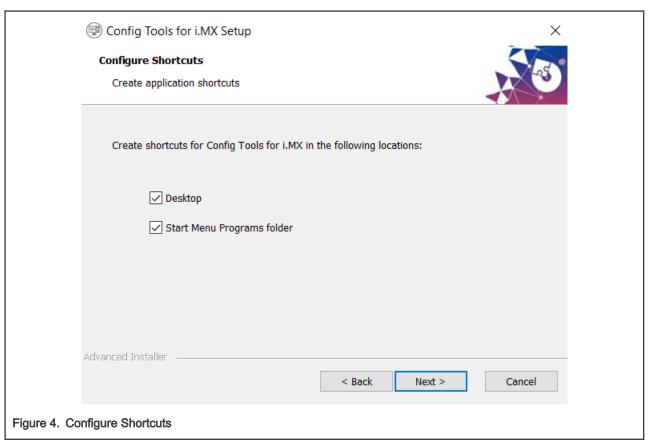


6. Click Next.

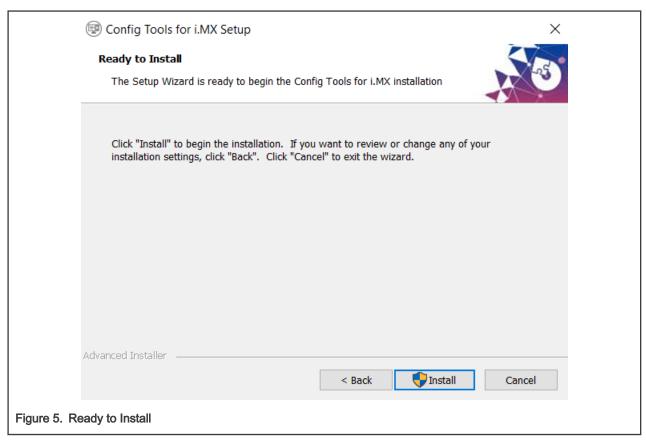
7. On the **Select Installation Folder** page of the wizard, select **Browse** and navigate to a destination folder you want the Config Tools for i.MX to install to.



- 8. Click Next.
- 9. On the Configure Shortcuts page of the wizard, select shortcuts you want to be created for Config Tools for i.MX.



- 10. Click Next.
- 11. On the Ready to Install page of the wizard, select Install.

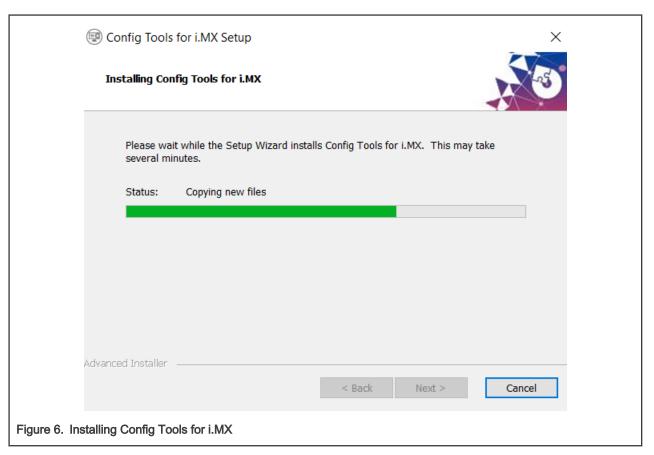


The setup will begin the installation.

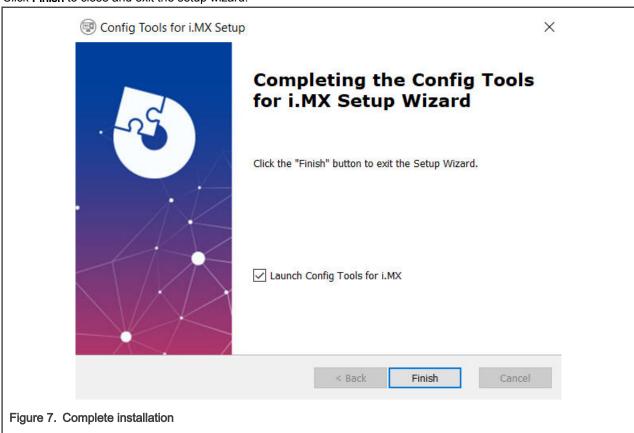
NOTE

If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.

The installer prompts you when the installation completes.



12. Click Finish to close and exit the setup wizard.



13. To start using the Config Tools for i.MX, run the tool from the shortcut on desktop or from the **Start** menu. You can also navigate to the product installation folder>\bin\ folder and launch the tools.exe or launch the shortcut in the product installation folder>.

## 5.2 Installing on Mac

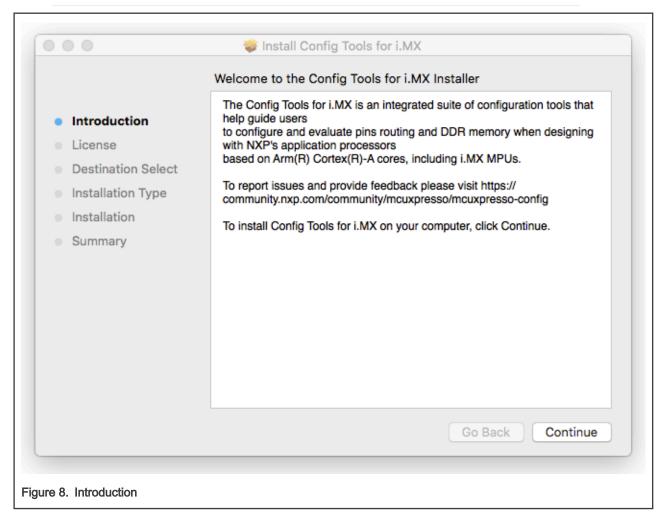
To install Config Tools for i.MX as a desktop application on a local host, do the following:

1. Double-click the Config Tools for i.MX <version> <architecture>.pkg to start the Install Config Tools for i.MX setup

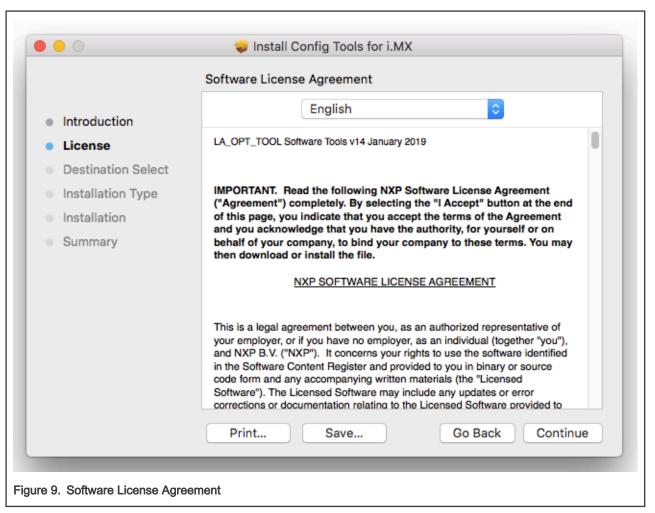
NOTE

When you try to open the MacOS installer you may receive and error. To avoid it, manually select the option Mac

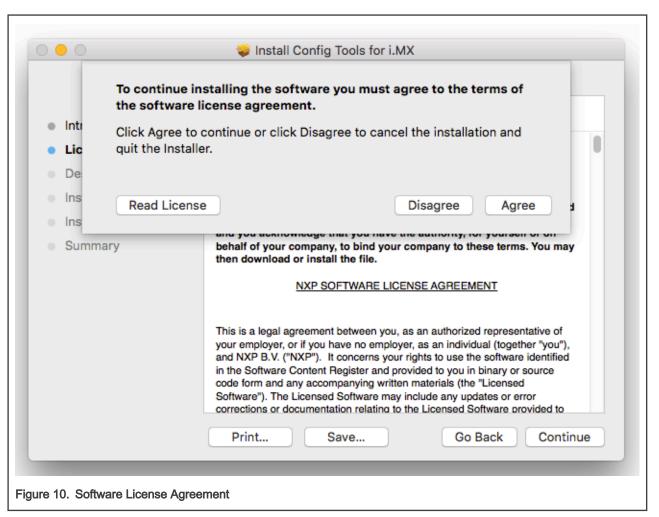
App Store and identified developers in the Security & Privacy menu.



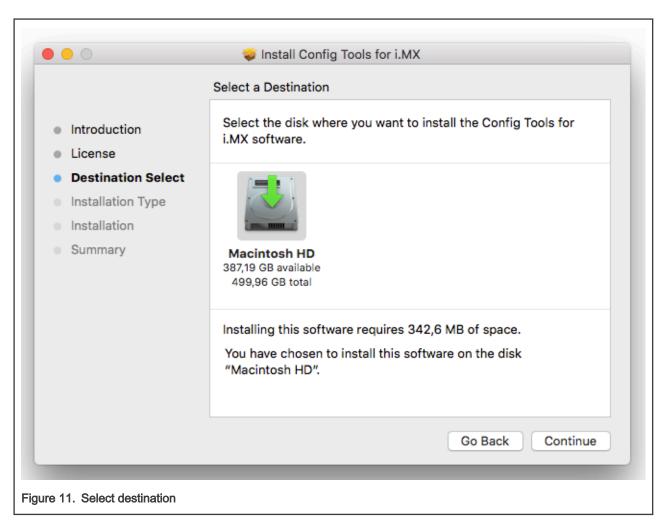
- 2. On the Introduction page, click Continue.
- 3. On the Software License Agreement page, click Continue.



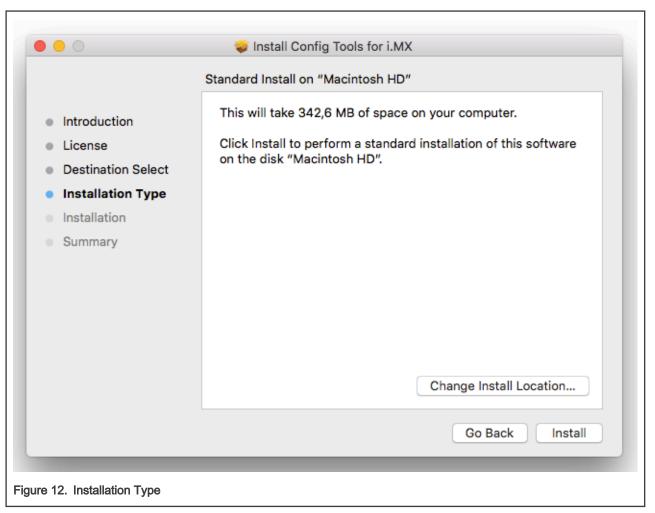
4. Confirm that you have read and agreed to the terms of the Software License Agreement by clicking Agree.



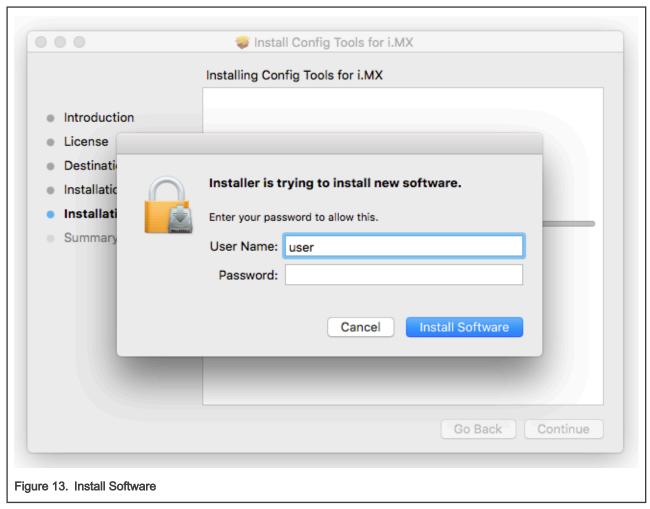
5. On the **Destination Select** page, click the green arrow to select the installation folder.



- 6. Click Continue.
- 7. On the Installation Type page, click Install.



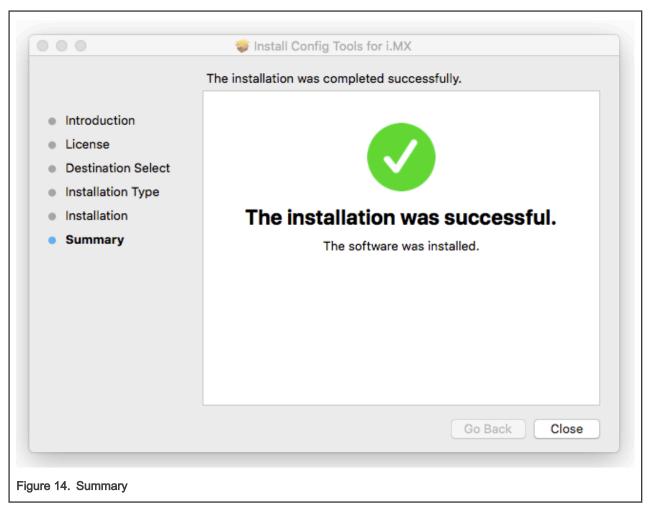
- 8. Type in your login credentials to continue with the installation.
- 9. Click Install Software.



### 10. Click Continue.

Unless errors are reported, the **Summary** page will confirm that the installation was completed successfully.

14 / 18



11. Click Close to exit the installation wizard.

# 5.3 Installing on Linux

## 5.3.1 Installation Prerequisites

There are two possible methods to satisfy installation prerequisites:

#### Method 1:

- 1. Open the terminal.
- 2. Execute the commands:

```
sudo apt-get update
sudo apt-get upgrade
sudo apt-get install -f
sudo dpkg --configure -a
```

#### Method 2:

Install directly from terminal/command-line, described in Installing with Debian package manager (DEB).

### 5.3.2 Installing Using Command Line

To install Config Tools for i.MX on a Linux system, use the following package files: .

• .DEB.BIN — Use config-tools-for-imx-<version>\_<architecture>.deb.bin to install software tools on systems that use the Debian package manager, such as Ubuntu.

#### 5.3.2.1 Installing Using Debian Package Manager (.DEB.BIN)

To install the tools on Debian-like systems, including Ubuntu, use the .DEB.BIN package file:

This installs the tools to the default location (/opt/nxp/<default\_path>).

### 5.3.3 Uninstalling Using Command Line

To uninstall the tools on a Linux system, use the following package files:

• .DEB.BIN — Use .DEB.BIN to install software tools on systems that use the Debian package manager. For example, Ubuntu.

#### 5.3.3.1 Uninstalling Using Debian Package Manager (.DEB.BIN)

To uninstall the Config Tools for i.MX on Debian-like systems, including Ubuntu, use the .DEB.BIN package file:

```
$ sudo dpkg -r <package-name>
(Reading database ... ... files and directories currently installed .)
Removing <name> (<version>)
Processing triggers for ...
Rebuilding /usr/share/applications/bamf-2.index...
```

# 6 Revision history

Table 1. Revision history

Revision number	Date	Substantive changes
0	23 June 2021	Initial release
1	22 December 2021	Screenshots are updated
2	30 June 2022	Updated for v.12

# Legal information

#### **Definitions**

**Draft** — A draft status on a document indicates that the content is still under internal review and subject to formal approval, which may result in modifications or additions. NXP Semiconductors does not give any representations or warranties as to the accuracy or completeness of information included in a draft version of a document and shall have no liability for the consequences of use of such information.

#### **Disclaimers**

Limited warranty and liability — Information in this document is believed to be accurate and reliable. However, NXP Semiconductors does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information. NXP Semiconductors takes no responsibility for the content in this document if provided by an information source outside of NXP Semiconductors.

In no event shall NXP Semiconductors be liable for any indirect, incidental, punitive, special or consequential damages (including - without limitation - lost profits, lost savings, business interruption, costs related to the removal or replacement of any products or rework charges) whether or not such damages are based on tort (including negligence), warranty, breach of contract or any other legal theory.

Notwithstanding any damages that customer might incur for any reason whatsoever, NXP Semiconductors' aggregate and cumulative liability towards customer for the products described herein shall be limited in accordance with the Terms and conditions of commercial sale of NXP Semiconductors.

Right to make changes — NXP Semiconductors reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.

Suitability for use — NXP Semiconductors products are not designed, authorized or warranted to be suitable for use in life support, life-critical or safety-critical systems or equipment, nor in applications where failure or malfunction of an NXP Semiconductors product can reasonably be expected to result in personal injury, death or severe property or environmental damage. NXP Semiconductors and its suppliers accept no liability for inclusion and/or use of NXP Semiconductors products in such equipment or applications and therefore such inclusion and/or use is at the customer's own risk.

**Applications** — Applications that are described herein for any of these products are for illustrative purposes only. NXP Semiconductors makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.

Customers are responsible for the design and operation of their applications and products using NXP Semiconductors products, and NXP Semiconductors accepts no liability for any assistance with applications or customer product design. It is customer's sole responsibility to determine whether the NXP Semiconductors product is suitable and fit for the customer's applications and products planned, as well as for the planned application and use of customer's third party customer(s). Customers should provide appropriate design and operating safeguards to minimize the risks associated with their applications and products.

NXP Semiconductors does not accept any liability related to any default, damage, costs or problem which is based on any weakness or default in the customer's applications or products, or the application or use by customer's third party customer(s). Customer is responsible for doing all necessary testing for the customer's applications and products using NXP Semiconductors products in order to avoid a default of the applications and the products or of the application or use by customer's third party customer(s). NXP does not accept any liability in this respect.

Terms and conditions of commercial sale — NXP Semiconductors products are sold subject to the general terms and conditions of commercial sale, as published at http://www.nxp.com/profile/terms, unless otherwise agreed in a valid written individual agreement. In case an individual agreement is concluded only the terms and conditions of the respective agreement shall apply. NXP Semiconductors hereby expressly objects to applying the customer's general terms and conditions with regard to the purchase of NXP Semiconductors products by customer.

**Export control** — This document as well as the item(s) described herein may be subject to export control regulations. Export might require a prior authorization from competent authorities.

Suitability for use in non-automotive qualified products — Unless this data sheet expressly states that this specific NXP Semiconductors product is automotive qualified, the product is not suitable for automotive use. It is neither qualified nor tested in accordance with automotive testing or application requirements. NXP Semiconductors accepts no liability for inclusion and/or use of non-automotive qualified products in automotive equipment or applications.

In the event that customer uses the product for design-in and use in automotive applications to automotive specifications and standards, customer (a) shall use the product without NXP Semiconductors' warranty of the product for such automotive applications, use and specifications, and (b) whenever customer uses the product for automotive applications beyond NXP Semiconductors' specifications such use shall be solely at customer's own risk, and (c) customer fully indemnifies NXP Semiconductors for any liability, damages or failed product claims resulting from customer design and use of the product for automotive applications beyond NXP Semiconductors' standard warranty and NXP Semiconductors' product specifications.

User Guide 16 / 18

Evaluation products — This product is provided on an "as is" and "with all faults" basis for evaluation purposes only. NXP Semiconductors, its affiliates and their suppliers expressly disclaim all warranties, whether express, implied or statutory, including but not limited to the implied warranties of non-infringement, merchantability and fitness for a particular purpose. The entire risk as to the quality, or arising out of the use or performance, of this product remains with customer.

In no event shall NXP Semiconductors, its affiliates or their suppliers be liable to customer for any special, indirect, consequential, punitive or incidental damages (including without limitation damages for loss of business, business interruption, loss of use, loss of data or information, and the like) arising out the use of or inability to use the product, whether or not based on tort (including negligence), strict liability, breach of contract, breach of warranty or any other theory, even if advised of the possibility of such damages.

Notwithstanding any damages that customer might incur for any reason whatsoever (including without limitation, all damages referenced above and all direct or general damages), the entire liability of NXP Semiconductors, its affiliates and their suppliers and customer's exclusive remedy for all of the foregoing shall be limited to actual damages incurred by customer based on reasonable reliance up to the greater of the amount actually paid by customer for the product or five dollars (US\$5.00). The foregoing limitations, exclusions and disclaimers shall apply to the maximum extent permitted by applicable law, even if any remedy fails of its essential purpose.

**Translations** — A non-English (translated) version of a document, including the legal information in that document, is for reference only. The English version shall prevail in case of any discrepancy between the translated and English versions.

Security — Customer understands that all NXP products may be subject to unidentified vulnerabilities or may support established security standards or specifications with known limitations. Customer is responsible for the design and operation of its applications and products throughout their lifecycles to reduce the effect of these vulnerabilities on customer's applications and products. Customer's responsibility also extends to other open and/or proprietary technologies supported by NXP products for use in customer's applications. NXP accepts no liability for any vulnerability. Customer should regularly check security updates from NXP and follow up appropriately.

Customer shall select products with security features that best meet rules, regulations, and standards of the intended application and make the ultimate design decisions regarding its products and is solely responsible for compliance with all legal, regulatory, and security related requirements concerning its products, regardless of any information or support that may be provided by NXP.

NXP has a Product Security Incident Response Team (PSIRT) (reachable at PSIRT@nxp.com) that manages the investigation, reporting, and solution release to security vulnerabilities of NXP products.

#### **Trademarks**

Notice: All referenced brands, product names, service names, and trademarks are the property of their respective owners.

NXP — wordmark and logo are trademarks of NXP B.V.

AMBA, Arm, Arm7, Arm7TDMI, Arm9, Arm11, Artisan, big.LITTLE, Cordio, CoreLink, CoreSight, Cortex, DesignStart, DynamlQ, Jazelle, Keil, Mali, Mbed, Mbed Enabled, NEON, POP, RealView, SecurCore, Socrates, Thumb, TrustZone, ULINK, ULINK2, ULINK-ME, ULINK-PLUS, ULINKpro, μVision,

**Versatile** — are trademarks or registered trademarks of Arm Limited (or its subsidiaries) in the US and/or elsewhere. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved.

Airfast — is a trademark of NXP B.V.

**Bluetooth** — the Bluetooth wordmark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by NXP Semiconductors is under license.

Cadence — the Cadence logo, and the other Cadence marks found at www.cadence.com/go/trademarks are trademarks or registered trademarks of Cadence Design Systems, Inc. All rights reserved worldwide.

CodeWarrior — is a trademark of NXP B.V.

ColdFire — is a trademark of NXP B.V.

ColdFire+ - is a trademark of NXP B.V.

EdgeLock — is a trademark of NXP B.V.

EdgeScale — is a trademark of NXP B.V.

EdgeVerse — is a trademark of NXP B.V.

eIQ — is a trademark of NXP B.V.

FeliCa — is a trademark of Sony Corporation.

Freescale — is a trademark of NXP B.V.

HITAG — is a trademark of NXP B.V.

ICODE and I-CODE — are trademarks of NXP B.V.

Immersiv3D — is a trademark of NXP B.V.

I2C-bus - logo is a trademark of NXP B.V.

Kinetis — is a trademark of NXP B.V.

**Layerscape** — is a trademark of NXP B.V.

Mantis — is a trademark of NXP B.V.

 $\label{eq:MIFARE} \textbf{MIFARE} -- \text{is a trademark of NXP B.V.}$ 

NTAG — is a trademark of NXP B.V.

Processor Expert — is a trademark of NXP B.V.

QorlQ — is a trademark of NXP B.V.

SafeAssure — is a trademark of NXP B.V.

SafeAssure — logo is a trademark of NXP B.V.

**Synopsys** — Portions Copyright © 2021 Synopsys, Inc. Used with permission. All rights reserved.

Tower — is a trademark of NXP B.V.

**UCODE** — is a trademark of NXP B.V.

VortiQa — is a trademark of NXP B.V.



Please be aware that important notices concerning this document and the product(s) described herein, have been included in section 'Legal information'.

© NXP B.V. 2016-2021.

All rights reserved.

For more information, please visit: http://www.nxp.com
For sales office addresses, please send an email to: salesaddresses@nxp.com

Date of release: 30 June 2022 Document identifier: IMXIUG