

# MCXW236xUIK

## Mask set Errata

Rev. 1.1 — 18 August 2025

Errata

## 1 Product identification

This report applies to MCX W23 for these products:

- MCXW236BIUK
- MCXW236AIUK
- MCXW235BIUK
- MCXW235AIUK
- MCXW235BIHN
- MCXW235AIHN

## 2 Errata overview

[Table 1](#) gives an overview of the known functional problems on MCX W23xx samples.

**Table 1. Functional problems table**

Table 1.

Reference	Short description	Applicable to	Fixed from
NA	NA		

On MCX W23 samples, there are some known limitations as listed in [Table 2](#).

**Table 2. Errata notes table**

Table 2.

Reference	Short description	Applicable to	Fixed from
<a href="#">Section 4.1</a>	Tx modulation performance	A4 silicon in WLCSP package MCXW236BIUKA, MCXW236 AIUKA, MCXW235BIUKA, and MCXW235AIUKA	No fix
<a href="#">Section 4.2</a>	Flash memory size	Lower flash memory silicon All MCXW235 devices MCXW235BIHNA, MCXW235BIUKA, MCXW235AIHNA, and MCXW235 AIUKA	No fix

## 3 Functional problems detail

Not applicable



## 4 Errata notes detail

### 4.1 Radio Errata: Tx modulation performance limited on 2 channels for higher power

#### 4.1.1 Description

This errata item applies to WLCSP package silicon MCXW236BIUKA, MCXW236AIUKA, MCXW235BIUKA, and MCXW235AIUKA. The Tx modulation specification as per Bluetooth SIG RFPHY Test Specification (RFPHY.TS) with subsection related to LE coded mode PFPHY/TRM/BV – 13-C is meant to check interoperability between different devices.

This is especially critical for the advertising channels and the BLE compliance test channels, i.e. channels 0 (2402 MHz), 12 (2426 MHz), 19 (2440 MHz) and 39 (2480 MHz).

Potentially violated Tx modulation specification

- Bluetooth SIG RFPHY Test Specification (RFPHY.TS)
- RFPHY/TRM/BV-13-C [Modulation Characteristics, LE Coded (S=8)]

Tx modulation performance may be potentially violated on 2 data channels, namely channel 15 (2432 MHz) and channel 31 (2464 MHz) for WLCSP packaged devices in Bluetooth Low Energy (BLE) Long Range PHY modes for high Tx power outputs. To minimize this violation, the power output on these 2 channels is reduced to max 2dbm by default settings in the firmware of the device. Tx modulation performance can be marginal on these 2 channels and is not guaranteed over the entire output power range.

All other channels including channels 0 (2402 MHz), 12 (2426 MHz), 19 (2440 MHz) and 39 (2480 MHz) are guaranteed by design.

#### 4.1.2 Work-around

Customers can use manual BLE channel delisting and the LE channel classification feature to remove channels 15 and 31 from the channel map. Customers can override the power settings via application SW on devices that do not show this limitation. Please refer to [Application Note] for more details.

No silicon revisions fix is planned.

### 4.2 Flash memory size

#### 4.2.1 Description

This errata item applies to lower flash memory silicon MCXW235BIHNA, MCXW235BIUKA, MCXW235AIHNA, and MCXW235AIUKA. Flash memory size for MCX235x has been updated from 640 kB to 512 kB. Then the register Device ID - FLASH\_SIZE (4bits) value is 0x0100. However some samples reporting value 0x0101 may also be set at 512 kB.

#### 4.2.2 Work-around

Whatever is reported reading the register register Device ID - FLASH\_SIZE (4 bits) value 0x0100 or 0x0101, the flash size has to be considered as 512 kB.

Also from August 2025, Device ID - FLASH\_SIZE value has been updated from 0x0101 to 0x0100 reflecting the change from 640 kB to 512 kB.

5 References

Table 3.

Abbreviation	Description
[Application Note]	<a href="#">Wireless Connectivity MCXW23_Transmitter_MaxOutputPower_Override</a>

Ultra-low Power, small footprint BLE solution with integrated flash and security for IoT

6 Revision history

Table 4. Revision history

Document ID	Release date	Description
ES_MCXW236XIUKv.1.0	30 June 2025	<ul style="list-style-type: none"><li>Initial version</li></ul>
ES_MCXW236XIUKv.1.1	18 Aug 2025	<ul style="list-style-type: none"><li>Corrected numbering from MCXW236xUIK to MCXW236xIUK</li><li>Updated <a href="#">Table 2</a></li><li>Updated <a href="#">Section 4.1.1</a></li><li>Updated <a href="#">Section 1</a></li><li>Added <a href="#">Section 4.2</a></li></ul>

## 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 <https://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 document 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.

**HTML publications** — An HTML version, if available, of this document is provided as a courtesy. Definitive information is contained in the applicable document in PDF format. If there is a discrepancy between the HTML document and the PDF document, the PDF document has priority.

**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](mailto:PSIRT@nxp.com)) that manages the investigation, reporting, and solution release to security vulnerabilities of NXP products.

**NXP B.V.** — NXP B.V. is not an operating company and it does not distribute or sell 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.

Contents

1 Product identification ..... 1

2 Errata overview ..... 1

3 Functional problems detail ..... 1

4 Errata notes detail ..... 2

4.1 Radio Errata: Tx modulation performance  
limited on 2 channels for higher power ..... 2

4.1.1 Description ..... 2

4.1.2 Work-around ..... 2

4.2 Flash memory size ..... 2

4.2.1 Description ..... 2

4.2.2 Work-around ..... 2

5 References ..... 3

6 Revision history ..... 4

Legal information ..... 5

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