MCX W23

Mask set Errata

Rev. 1.2 — 12 December 2025 Errata

1 Product identification

This report applies to MCX W23 for these products:

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

2 Errata overview

Linktext-Table_ gives an overview of the known functional problems on MCX W23xx samples.

Table 1. Functional problems table

Reference	Short de scription	Applicable to	Fixed from
NA	NA		

On MCX W23 samples, there are some known limitations as listed in Linktext-Table_.

Table 2. Errata notes table

Reference	Short description	Applicable to	Fixed from
Section 4.1	Tx modulation performance	silicon in WLCSP package MCXW236BIUK, MCXW236AIUK, MCXW235BIUK, and MCXW235 AIUK	No fix
Section 4.2	Flash memory size	Lower flash memory silicon All MCXW235 devices MCXW235BIHN,MCXW235BIUK, MCXW235AIHN, and MCXW235 AIUK	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 MCXW236BIUK, MCXW236AIUK, MCXW235BIUK, and MCXW235AIUK. 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 MCXW235BIHN, MCXW235BIUK, MCXW235AIHN, and MCXW235AIUK. 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 0x101, the flash size has to be considered as 512 kB.

Also from August 2025, Device ID - FLASH_SIZE value has been updated from 0x101 to 0x100 reflecting the change from 640 kB to 512 kB.

5 References

Table 3. References

Abbreviation	Description
[Community article]	Wireless Connectivity MCXW23_Transmitter_MaxOutputPower_Override

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_MCXW23v.1.2	12 December 2025	• Updated Document title and Document ID • Updated Section 5
ES_MCXW236XIUKv.1.1	18 Aug 2025	• Corrected numbering from MCXW236xUIK to MCXW236xIUK • Updated Table 2 • Updated Section 4.1.1 • Updated Section 1 • Added Section 4.2
ES_MCXW236XIUKv.1.0	30 June 2025	• Initial version

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