nRF7002

Revision 1

Errata

v1.4

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Contents

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1 nRF7002 Revision 1 Errata

This Errata document contains anomalies and configurations for the nRF7002 chip, Revision 1 (QFAA-B00).

2 Revision history

See the following list for an overview of changes from previous versions of this document.

Version	Date	Change
nRF7002 Revision 1 v1.4	05.12.2023	• Added: No. 8. "TX output power deviates from specified value" • Removed: No. 5. "Production trim values are not in use" • Removed: No. 6. "Production trim values are incorrect"
nRF7002 Revision 1 v1.3	05.07.2023	• Added: No. 6. "Production trim values are incorrect"
nRF7002 Revision 1 v1.2	14.04.2023	• Added: No. 5. "Production trim values are not in use"
nRF7002 Revision 1 v1.1	22.03.2023	• Added: No. 4. "QFN package dimension L is incorrect"
nRF7002 Revision 1 v1.0	02.03.2023	• Added: No. 1. "Reduced sensitivity in parts of the 2.4 GHz band"

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3 New and inherited anomalies

The following anomalies are present in Revision 1 of the nRF7002 chip.

ID	Module	Description	New in Revision 1
1	RADIO	Reduced sensitivity in parts of the 2.4 GHz band	X
4	Mechanical specification	QFN package dimension L is incorrect	X
8	RADIO	TX output power deviates from specified value	X

Table 1: New and inherited anomalies

3.1 [1] RADIO: Reduced sensitivity in parts of the 2.4 GHz band

This anomaly applies to Revision 1, build codes QFAA-B00.

Symptoms

Sensitivity is reduced on channels 5, 6, 7, 8, and 13 by 0.5-3.5 dB depending on modulation type and frame format.

Conditions

The device is receiving in channel 5, 6, 7, 8, or 13.

Consequences

Operating range is reduced for a given modulation type and frame format.

Workaround

None.

3.2 [4] Mechanical specification: QFN package dimension L is incorrect

This anomaly applies to Revision 1, build codes QFAA-B00.

Symptoms

In nRF7002 Product Specification v1.0 table Package dimensions in millimeters, the L dimension is incorrect.

Conditions

Always.

Consequences

The PCB is designed incorrectly which can lead to weaker solder joints between the package and PCB.

Workaround

Use 0.4 mm for the L dimension.

3.3 [8] RADIO: TX output power deviates from specified value

This anomaly applies to Revision 1, build codes QFAA-B00.

Symptoms

TX output power deviates from the value specified in the nRF7002 Product Specification.

Conditions

The device is operational in TX mode in 2.4 GHz or 5 GHz band.

Consequences

- For trace codes earlier than 2333xx (year 2023, week 33) with or without a black R sticker on the reel, vacuum bag, and inner box label and nRF Connect SDK version earlier than 2.5.0, the TX output power can vary by up to ±3 dB. The device might operate outside the specified TX EVM limits.
- For trace codes earlier than 2333xx (year 2023, week 33) without a black R sticker on the reel, vacuum bag, and inner box label and nRF Connect SDK version 2.5.0 or later, the TX output power can be up to 3 dB lower than specified.
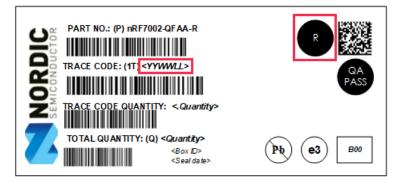

Figure 1: Trace code and black R sticker on nRF7002 label

Workaround

Apply one of the following workarounds:

- Use devices with trace codes earlier than 2333xx (year 2023, week 33) with a black R sticker on the reel, vacuum bag, and inner box label and nRF Connect SDK version 2.5.0 or later.
- Use devices with trace codes 2333xx (year 2023, week 33) or later and nRF Connect SDK version 2.5.0 or later.