Qualcomm Technologies International, Ltd.

QCC711 Bluetooth Low Energy

Device Revision Guide

80-WL711-4 Rev. AB

September 21, 2023

For additional information or to submit technical questions, go to: https://createpoint.qti.qualcomm.com

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Revision history

Revision	Date	Description
AA	July 2023	Initial release.
AB	September 2023	Update for QCC711 (v2.1) to Sections 2.1, 2.2, and 3.1.

Contents

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Tables

1 Introduction to QCC711

This document is intended for new product developers involved in designing, testing, or evaluating products or terminals that include the QCC711 device. It comprises the following chapters:

- Device Identification (Chapter 2)
  - Device marking
  - Hardware revision number
  - Device identification for each sample type
  - Sample testing: Engineering sample (ES) and Commercial sample (CS)
  - Identification of compatible software releases
- Known issues (Chapter 3)
  - Issue description
  - Impact on system performance
  - Possible workaround (what design should do to minimize the impact of the issue)

These chapters include information on the prior revisions of the QCC711 device and the relevant samples for traceability purposes.

The technical details of the QCC711 device are covered in the documents and listed in the table as follows:

Table 1-1 QCC711 technical documentation

Document number	Title
80-WL711-41	*QCC711 Bluetooth Low Energy Reference Schematic*
80-WL711-1	*QCC711 Bluetooth Low Energy Data Sheet*
80-WL711-5	*QCC711 Bluetooth Low Energy Hardware Design Guide*
80-WL710-143	*QCC71x QFN 48-lead 5.6 x 5.6 mm Package Specification*

Released QCC711 documents are available at https://www.qualcomm.com.

2 Device identification

The QCC711 device can be identified by the markings on its top surface and by the contents of an identification register. The identification techniques are described in sections 2.1, 2.2, and 2.3.

2.1 Chip marking

Chip marking identifies lot-specific information about QCC711 QFN.

Table 2-1 QCC711 part numbers

Order number	Package top code text	QCC711 sample type	Date	Status
QCC-711-1-MQFN48C-TR-03-1	QUALCOMM QCC711 103 <manufacturing_code>	CS v2.1	Production material Shipping from September 2023	Available
QCC-711-1-MQFN48C-TR-02-1	QUALCOMM QCC711 102 <manufacturing_code>	CS v2.0	Production material Shipping from July 2023	Available

NOTE: The <manufacturing_code> is defined as a variable which includes date information.

Figure 2-1 shows the product markings for the QCC-711-1-MQFN48C-TR-02-1 and QCC-711-1-MQFN48C-TR-03-1 in a 48-lead 5.6 mm x 5.6 mm x 0.85 mm QFN package.

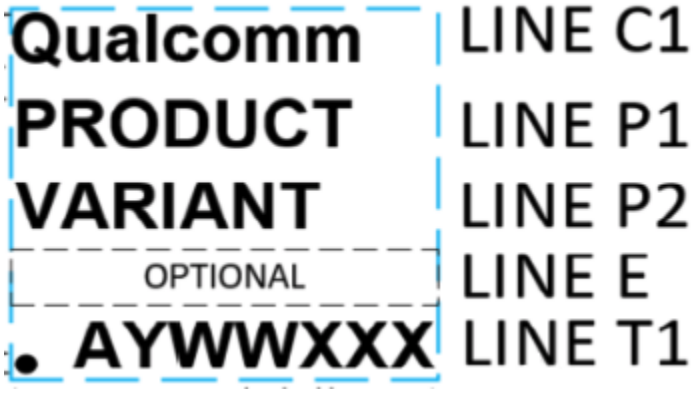

Figure 2-1 QCC711 QFN chip marking

NOTE: Figure 2-1 is not to scale. The marking font and image are for illustration purposes only.

The circle location mark identifies lead 1.

Table 2-2 QCC711 QFN chip marking content

Line	Description	Definition
1	Qualcomm text	-
2	Product name	QCC711
3	Variant information	102 (v.2.0) 103 (v2.1)
OPTIONAL	Space for optional trace information; can be one or more lines	-
4	Manufacturing trace code	AYWWXXX ▪ A: Assembly site code ▪ Y: Year ▪ WW: Work week ▪ XXX: Lot serial number

2.2 Device identification for each sample type

This section provides information on identifying each sample type.

Table 2-3 QCC711 part number specific information

QCC711 sample type	Year/work week YWW	Product configuration and revision code (PRR)	Comments
CS v2.0	-	1-02	Commercial sample.
CS v2.1	-	1-03	Commercial sample.

2.2.1 Engineering sample (ES)

These devices have undergone limited testing and sometimes have significant feature limitations. These are suitable to assist with PCB development, conduct board-level electrical evaluation tests, and explore manufacturing considerations. Engineering samples must not be used for product-level qualification.

2.2.2 Commercial sample (CS)

These devices have undergone full production-level testing and meet the specifications and features described in the device specification, except as otherwise noted in this document. They have passed device-level qualification. Commercial samples are suitable to be used for performance testing as well as product-level production and qualification.

2.3 Compatible software releases

For information regarding compatible software releases with the QCC710 samples, contact Qualcomm customer-support engineering at https://createpoint.qti.qualcomm.com.

3 Known issues

3.1 Summary of known issues

All known issues for each revision of the QCC711 device are summarized in Table 3-1. The text within the 'Issue' column provides links to the sections of this document that explain the issues, regardless of the sample type(s) on which they occur.

NOTE: An X in any of the other columns indicates that the issue occurs on the corresponding sample type. Absence of an X indicates that the issue does not apply to the corresponding sample type.

Table 3-1 Known issues: all sample types and revisions

No.	Issue	QCC711 CS v2.0	QCC711 CS v2.1
Issue 1	Occasional chip lock	X	-

3.2 Description, impact, and workaround of issue

Issue 1: Occasional chip lock

Description	Occasional chip lockup during power state transitions.
Impacted version	QCC-711-1-MQFN48C-TR-02-1
Impact	Chip may lock during power state transition.
Workaround	Asynchronous wake events are not supported and wake up from Sleep state using an interrupt on a PIO is not supported.