

BLEDIX001 WLCSP Version
Class II Permissive Change Request

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1 Acronyms, Glossary, Conventions

Table 1-1 introduces the acronyms used inside the document:

Acronym	Meaning
BLE	Bluetooth Low Energy
QFN	Quad Flat No-Lead (package)
WLCSP	Wafer Level Chip Scale Packaging

Table 1-1

Table 1-2 introduces the Glossary of terms used inside the document:

Term	Meaning

Table 1-2

Table 1-3 introduces the conventions list adopted by the document:

Convention	Meaning

Table 1-3

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2 Bibliography and Reference Documents

Table 2-1 shows the list of books, articles and documents cited within the document and the correlation with the code used for their citation:

Citation Data	Code
Notification 202109-001: "Notification: Class II Permissive Change for PCB and Part Modification and PAG C2PCPX".	[1]

Table 2-1



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3 Document Subject

According to [1] indications, the document presents the conditions compliance to request a Class II Permissive Change related to product identified by FCCID ZG5BLEDIX001 and IC ID 9741A-BLEDIX001 related to the version of the product characterized by the same core chip but with a different electronic package (WLCSP instead of the original QFN).

4 Class II Permissive Change Conditions

The Table 4-1 provides the arguments for compliance to the Class II Permissive Change conditions:

Class II Permissive Change Condition	Arguments
1) The requirements of § 2.1043 are fulfilled, i.e., the device's block functions for the fundamental frequency, primary modulator circuit, maximum power, or field strength ratings shall remain unchanged.	The new version of the product is based on the same RF chip and the same RF analog and digital circuits. The only difference is the package of the RF chip. The chip hosts exactly the firmware of the original product.
2) Transmitter PCB layout and parts changes are only permitted if there is no change in identifying a device's form, functional specification, as initially granted or previously approved under a Class II permissive change.	No change has been made related to mechanical product form factor or electro-mechanical interfaces. No change has been made related to the antenna and its position. The product appears and behaves as the original one. The old integration notes are valid for the new product and no new integration note has been added.
3) PCB changes are limited to non-substantive modifications layout changes to the same size physical circuit board previously granted.	The only PCB changes are related to the replacing of the original BLE chip with the one with the new package. Stack up has been changed to adapt to the requirements of the new package but all the analog and RF parts are unchanged. The circuit of the new product has the same size of the old one. Shield, antenna and antenna matching circuit are unchanged. All the electrical and mechanical interfaces are unchanged.
4) C2PCPX is not permitted to add, remove, augment, or change capabilities, such as transmitters, increased bandwidth, additional rule parts, bands, etc.	No new feature has been added. All the RF specifications are unchanged. The firmware is unchanged.
5) In the PAG submission for item C2PCPX, the applicant shall provide complete information on testing demonstrating that the proposed changes for fundamental emissions are unchanged within the normal, acceptable tolerances and out-of-band; emissions do not exceed the appropriate limits.	Tests have been carried out to prove it. All the tests will be provided.
6) The modified device shall not be marketed under the existing grant of certification before confirmation that the C2PCPX PAG is approved and granted.	The modified devices have not been marketed under the existing grant of certification before confirmation that the C2PCPX PAG is approved and granted.
7) Software Defined Radio (SDR) grants that use the C2PCPX procedure are not permitted to make subsequent Class III permissive changes.	The device is not a SDR.



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Class II Permissive Change Condition	Arguments
8) The C2PCPX PAG procedure has no impact on the provisions of V) of this publication for non-SDR software-only changes;	No software changes have been made.
9) Class I permissive changes are not permitted under this C2PCPX procedure	This is a request for Class II permissive change, supported by test results.

Table 4-1