


# PRODUCT / PROCESS CHANGE NOTIFICATION

## 1. PCN basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCN No.	MDG/23/14116	
1.3 Title of PCN	ASE Korea - STM32WB Bluetooth® low energy Modules - Murata inductance component replacement on listed products	
1.4 Product Category	BLUENRG-M0A BLUENRG-M0L BLUENRG-M2SA SPBTLE-RF0TR SPBTLE-RFTR	
1.5 Issue date	2023-08-17	

## 2. PCN Team

2.1 Contact supplier	
2.1.1 Name	ROBERTSON HEATHER
2.1.2 Phone	+1 8475853058
2.1.3 Email	heather.robertson@st.com
2.2 Change responsibility	
2.2.1 Product Manager	Ricardo Antonio DE SA EARP
2.1.2 Marketing Manager	Veronique BARLATIER
2.1.3 Quality Manager	Pascal NARCHE

## 3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Materials	(Not Defined)	ASE Korea

## 4. Description of change

	Old	New
4.1 Description	Current Bill of material components - inductor LQP15MN1N5W02D from supplier Murata - inductor LQP15MN3N0W02D from supplier Murata are planned to be End Of Life and must be replaced with equivalent components	New Bill of material components - Inductor LQG15HS1N5B02D by supplier Murata - Inductor LQG15HS3N0B02D by supplier Murata are new replacement components
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	No impact on function, color of the inductance is changing from blue to yellow	

## 5. Reason / motivation for change

5.1 Motivation	MURATA component reference LQP15MN1N5W02D & LQP15MN3N0W02D will be end of life due to Product Termination on LQP15MN series at MURATA side. - LQG15HS series has been proposed as an alternative material by MURATA.
5.2 Customer Benefit	SERVICE CONTINUITY

## 6. Marking of parts / traceability of change

6.1 Description	traceability ensured by ST internal tools
-----------------	---

## 7. Timing / schedule

7.1 Date of qualification results	2023-08-15
7.2 Intended start of delivery	2023-09-05
7.3 Qualification sample available?	Upon Request

## 8. Qualification / Validation

8.1 Description	14116 PCN14116 - Qualification Plan.pdf
-----------------	---

8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2023-08-17
--	----------------------------	------------	------------

9. Attachments (additional documentations)
14116 Public product.pdf 14116 PCN14116 - Qualification Plan.pdf 14116 PCN14116 _Additional information.pdf

10. Affected parts		
10. 1 Current		10.2 New (if applicable)
10.1.1 Customer Part No	10.1.2 Supplier Part No	10.1.2 Supplier Part No
	BLUENRG-M0A	
	BLUENRG-M0L	
	BLUENRG-M2SA	
	SPBTLE-RF0TR	
	SPBTLE-RFTR	

## **IMPORTANT NOTICE – PLEASE READ CAREFULLY**

Subject to any contractual arrangement in force with you or to any industry standard implemented by us, STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2022 STMicroelectronics – All rights reserved



life.augmented

**PCN14116**

**ASE Korea - STM32WB Bluetooth® low  
energy Modules - Murata inductance  
component replacement on listed  
products**

## **Qualification Plan**

July 26<sup>th</sup>, 2023

MDG GPM Quality & Reliability

## Finished good codes for the modules

:

CP	Before Finished Good (FG)-	After New Finished Good (FG)
BLUENRG-M0A	BLUENRG-M0A/	NRG-M0A\$K1
BLUENRG-M0L	BLUENRG-M0L/	NRG-M0L\$K1
BLUENRG-M2SA	BLUENRG-M2SA/	NRG-M2SA\$K1
SPBTLE-RF0TR	SPBTLE-RF0TR/	TLE-RF0TR\$K1
SPBTLE-RFTR	SPBTLE-RF/	TLE-RF\$K1

# Tests related to RF performances

Reliability Trial & Standards		Test Conditions	Pass Criteria	Unit per Lot	Lot qty	More critical constraints for components
FCC	47 CFR Part 15.247 / RSS-247 Issue 2 / ANSI C63.10-2013	Worst-Case operation mode for Radiated Spurious Emissions	1 passes	1		Max output power
Antenna efficiency	NA	Total Radiated Power	1 passes	1		NA
RF-PHY	BLE RF-PHY	RF-PHY Test Specifications	3 pass	3		NA
ICC_TX test	ICC_TX test	DC current consumption in TX	3 pass	3		Max output power

## IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics International NV and its affiliates (“ST”) reserve the right to make changes corrections, enhancements, modifications, and improvements to ST products and/or to this document any time without notice.

This document is provided solely for the purpose of obtaining general information relating to an ST product. Accordingly, you hereby agree to make use of this document solely for the purpose of obtaining general information relating to the ST product. You further acknowledge and agree that this document may not be used in or in connection with any legal or administrative proceeding in any court, arbitration, agency, commission or other tribunal or in connection with any action, cause of action, litigation, claim, allegation, demand or dispute of any kind. You further acknowledge and agree that this document shall not be construed as an admission, acknowledgement or evidence of any kind, including, without limitation, as to the liability, fault or responsibility whatsoever of ST or any of its affiliates, or as to the accuracy or validity of the information contained herein, or concerning any alleged product issue, failure, or defect. ST does not promise that this document is accurate or error free and specifically disclaims all warranties, express or implied, as to the accuracy of the information contained herein. Accordingly, you agree that in no event will ST or its affiliates be liable to you for any direct, indirect, consequential, exemplary, incidental, punitive, or other damages, including lost profits, arising from or relating to your reliance upon or use of this document.

Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement, including, without limitation, the warranty provisions thereunder.

In that respect please note that ST products are not designed for use in some specific applications or environments described in above mentioned terms and conditions.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

Information furnished is believed to be accurate and reliable. However, ST assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously in any prior version of this document.

**ASE Korea - STM32WB Bluetooth® low energy Modules - Murata  
inductance component replacement on listed products**

**MDG – General Purpose Microcontrollers Division (GPM)**

**What are the changes?**

LQP15MN1N5W02D (X1) & LQP15MN3N0W02D (X2) inductors used in the listed modules are planned to be EOL by MURATA and must be replaced by new parts LQG15HS1N5B02D & LQG15HS3N0B02D as suggested by MURATA (see table below)

A difference will be noticeable as X1 and X2 inductors color is different.


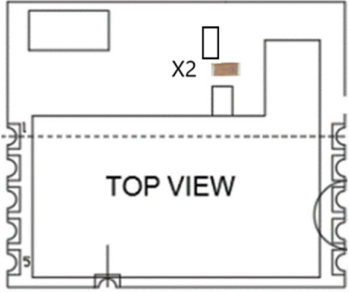
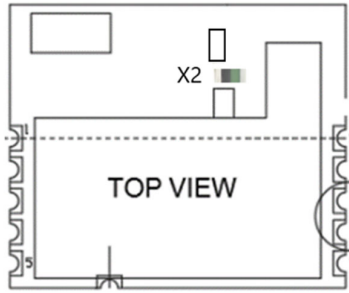

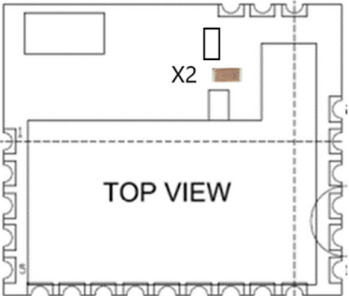
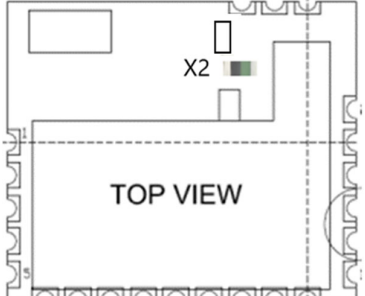

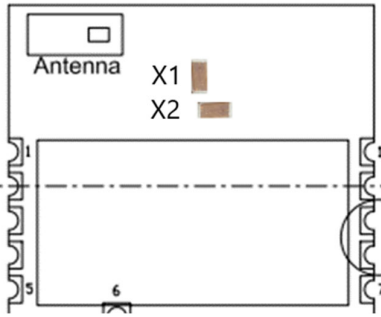
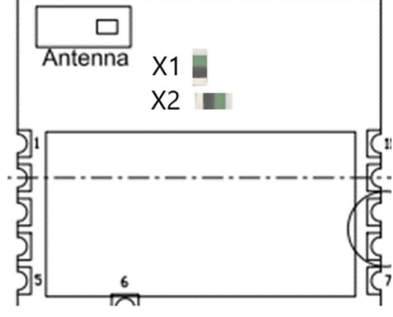
No change in the module functionalities.

Changes described in table below:

Bill Of Material part number	Existing Murata inductor Before	New Murata inductor After
X1	LQP15MN1N5W02D 	LQG15HS1N5B02D 
X2	LQP15MN3N0W02D 	LQG15HS3N0B02D 



### How can the change be seen?

Module	Existing Mechanical layout Before	New Mechanical layout After
BLUENRG-M0A BLUENRG-M0L 		
BLUENRG-M2SA 		
SPBTLE-RF0TR SPBTLE-RFTR 		

### Finished good codes before and after the PCN:

CP	Before Finished Good (FG)-	After New Finished Good (FG)
BLUENRG-M0A	BLUENRG-M0A/	NRG-M0A\$K1
BLUENRG-M0L	BLUENRG-M0L/	NRG-M0L\$K1
BLUENRG-M2SA	BLUENRG-M2SA/	NRG-M2SA\$K1
SPBTLE-RF0TR	SPBTLE-RF0TR/	TLE-RF0TR\$K1
SPBTLE-RFTR	SPBTLE-RF/	TLE-RF\$K1



life.augmented

## How to order samples?

For all samples request linked to this PCN, please:

- place a **Non-standard** sample order (choose Sample Non Std Type from pull down menu)
- insert the PCN number "**14116**" into the NPO Electronic Sheet/**Regional Sheet**
- request sample(s) through Notice tool, indicating a single Commercial Product for each request

Partial Ship: 01 Price Pol: 05 Status: 01 Canc: ☐

%: 0 Sample Type: Sample Non Std Type

Closing Type: Sample Std Type  
Sample Non Std Type  
Sample Non Std w Spl Tests

Lab Sheet:

SO | NPO Sample

Header

SO Nr: 8018502433 Customer: 99770200 01 ST-TOKYO SO Type: 30 Sample Order Cost Center: JT3129 SAMPLES /SALES J

PO Nr: Carrier Code: 0001 Price Policy: 05 Currency: 02 U.S. DOLLAR Req Name:

Notes: Status: 01 All items pending, n Issuing Date: 25-JUN-2018 Ord Val: 0.0000 Sample Req Date: 25-Jun-2018

Sch I Nr	PO I. Nr.	Finished Good	Comm Qty	Open Qty	Plant Open Qty	Reqd Qty	Unit Price	RD	CD	EDD	St
1.1.10	000001	STM32F429NIH6	30	30	30	30	0.0000	25-Jun-18	01-Mar-59	01-Mar-59	01

Final Cust: PO Item: 000001 Comm Prod: STM32F429NIH6 Qty: 30 RD: 25-Jun-18 Unit Price: 0.0000 Final Cust: 8800367006 SANSHIN/NPC

Cust Part Nr: Finished Good: Partial Ship: 01 Price Pol: 05 Status: 01 Canc: ☐

Notes: TAM K Pieces: 0 Our Share: 0 Sample Type: Sample Non Std Type

Project Name: Closing Date: Closing Type:

Regional Sheet: Lab Sheet:

PCN 14116

## IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics International NV and its affiliates (“ST”) reserve the right to make changes corrections, enhancements, modifications, and improvements to ST products and/or to this document any time without notice. This document is provided solely for the purpose of obtaining general information relating to an ST product. Accordingly, you hereby agree to make use of this document solely for the purpose of obtaining general information relating to the ST product. You further acknowledge and agree that this document may not be used in or in connection with any legal or administrative proceeding in any court, arbitration, agency, commission or other tribunal or in connection with any action, cause of action, litigation, claim, allegation, demand or dispute of any kind. You further acknowledge and agree that this document shall not be construed as an admission, acknowledgement or evidence of any kind, including, without limitation, as to the liability, fault or responsibility whatsoever of ST or any of its affiliates, or as to the accuracy or validity of the information contained herein, or concerning any alleged product issue, failure, or defect. ST does not promise that this document is accurate or error free and specifically disclaims all warranties, express or implied, as to the accuracy of the information contained herein. Accordingly, you agree that in no event will ST or its affiliates be liable to you for any direct, indirect, consequential, exemplary, incidental, punitive, or other damages, including lost profits, arising from or relating to your reliance upon or use of this document.

Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement, including, without limitation, the warranty provisions thereunder.

In that respect please note that ST products are not designed for use in some specific applications or environments described in above mentioned terms and conditions.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

Information furnished is believed to be accurate and reliable. However, ST assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license, express or implied, to any intellectual property right is granted by ST herein. Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously in any prior version of this document.



## Public Products List

Public Products are off the shelf products. They are not dedicated to specific customers, they are available through ST Sales team, or Distributors, and visible on ST.com

**PCN Title :** ASE Korea - STM32WB Bluetooth® low energy Modules - Murata inductance component replacement on listed products

**PCN Reference :** MDG/23/14116

**Subject :** Public Products List

Dear Customer,

Please find below the Standard Public Products List impacted by the change.

BLUENRG-M0A	BLUENRG-M0L	BLUENRG-M2SA
-------------	-------------	--------------

**IMPORTANT NOTICE – PLEASE READ CAREFULLY**

Subject to any contractual arrangement in force with you or to any industry standard implemented by us, STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2022 STMicroelectronics – All rights reserved