

## 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
2.2.2 Marketing Manager	Veronique BARLATIER
2.2.3 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
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### 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
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<b>8.2 Qualification report and qualification results</b>	Available (see attachment)	<b>Issue Date</b>	2023-08-17
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<b>9. Attachments (additional documentations)</b>	
14116 Public product.pdf	
14116 PCN14116 - Qualification Plan.pdf	
14116 PCN14116 _Additional information.pdf	

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

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**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)
<b>BLUENRG-M0A</b>	BLUENRG-M0A/	NRG-M0A\$K1
<b>BLUENRG-M0L</b>	BLUENRG-M0L/	NRG-M0L\$K1
<b>BLUENRG-M2SA</b>	BLUENRG-M2SA/	NRG-M2SA\$K1
<b>SPBTLE-RF0TR</b>	SPBTLE-RF0TR/	TLE-RF0TR\$K1
<b>SPBTLE-RFTR</b>	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

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**PRODUCT/PROCESS  
CHANGE NOTIFICATION  
PCN14116 – Additional information**

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

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

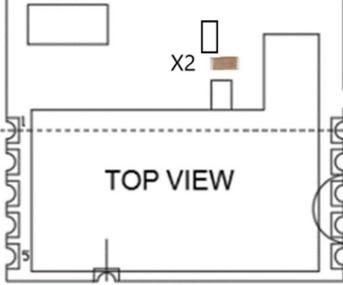
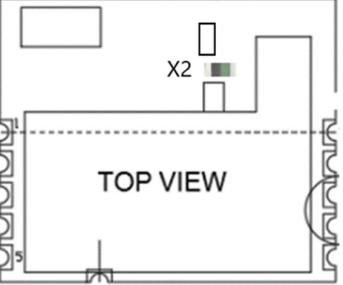
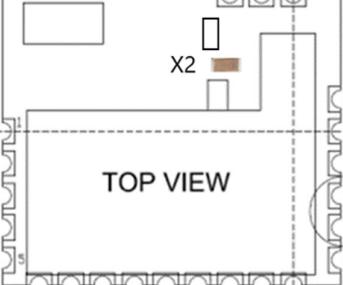
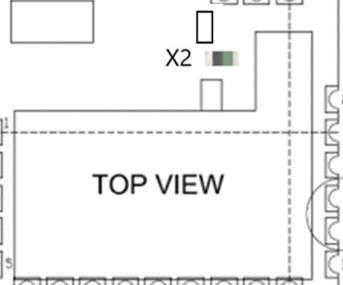
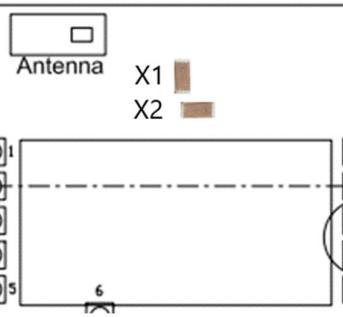
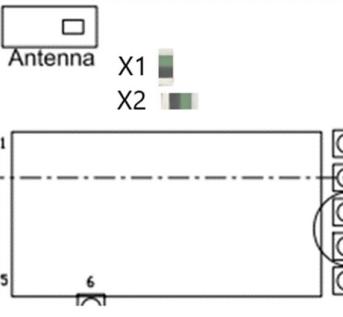
**What are the changes?**

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?**

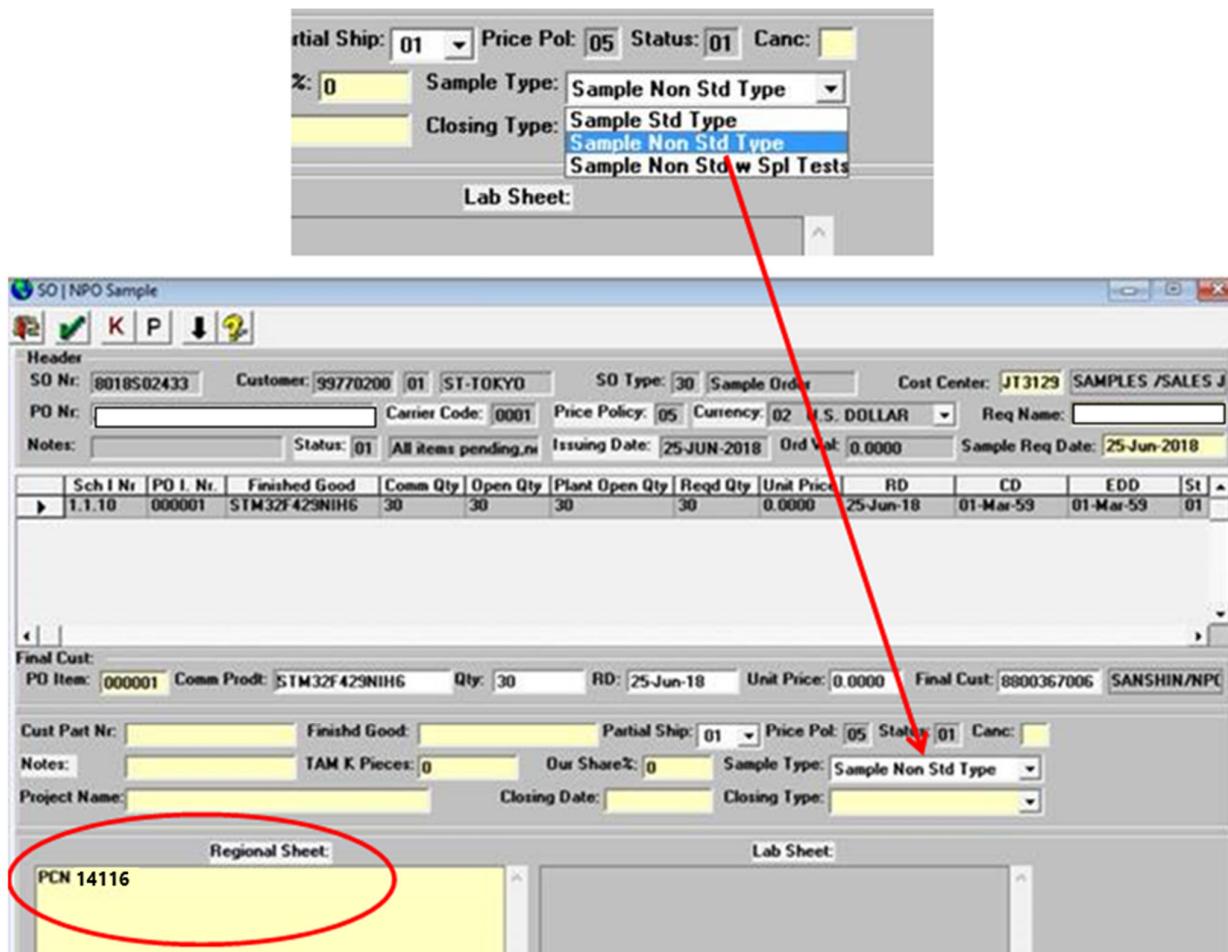
Module	Existing Mechanical layout Before	New Mechanical layout After
BLUENRG-M0A BLUENRG-M0L 	 TOP VIEW	 TOP VIEW
BLUENRG-M2SA 	 TOP VIEW	 TOP VIEW
SPBTLE-RF0TR SPBTLE-RFTR 	 Antenna X1 X2 6	 Antenna X1 X2 6 7

**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

## 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



SO | NPO Sample

Header

SO Nr: 8018S02433 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, ne 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: 8900367006 SANSHIN/NPC

Cust Part Nr: Finishd 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



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**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
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