PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data	
1.1 Company	STMicroelectronics International N.V
1.2 PCN No.	MDG/23/14327
1.3 Title of PCN	STM32H562xGx & STM32H563xGx - FLASH memory configuration fixed on 1MB listed products
1.4 Product Category	STM32H562xGx, STM32H563xGx
1.5 Issue date	2023-12-06

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
General (Test Program)	Pattern modification : test pattern without reliability impact not supplied or agreed by customer	ST Crolles 300 (France)

4. Description of change		
	Old	New
4.1 Description	STM32H562xG / STM32H563xG - (Die484 - cut1.3 revision X) products shows regression with 1MByte flash memory only a. Incorrect flash memory configuration on early STM32H562xG and STM32H563xG devices b. Bootloader (BL) V14.4 EEPROM sector erase is not working - Limitation is described in AN2606. c. System FLASH Security Package (SFSP) V2.5.0 - has limitations.	STM32H562xG / STM32H563xG - (Die484 - cut1.3 revision X) product with 1MByte flash memory is fixed as below: a. Incorrect flash memory configuration on early STM32H562xG and STM32H563xG devices is fixed - refer to ES0565 Rev4 Nov2023. b. Bootloader (BL) V14.5 EEPROM sector erase is fixed- refer to latest AN2606. c. System FLASH Security Package (SFSP) V2.6.0 limitation is now fixed - refer to AN6014 Rev1 - October 2023.
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	Functionality enhancement	

5. Reason / motivation for change	
5.1 Motivation	Improvements was implemented to increase robustness, performances and quality of our products.
5.2 Customer Benefit	SERVICE IMPROVEMENT

6. Marking of parts / traceability of change	
6.1 Description	Traceability ensured by ST internal tools. Customer can detect the change by reading the new version of SFSP version 2.6.0 and new BL version 14.5 as indicated in additional document.

7. Timing / schedule	
7.1 Date of qualification results	2023-10-24
7.2 Intended start of delivery	2023-11-22
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation			
8.1 Description	14327 PCI14327_Sanity Check.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	**Issue Date**	2023-12-06

9. Attachments (additional documentations)
14327 Public product.pdf 14327 PCI14327_Sanity Check.pdf 14327 PCN14327_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**
	STM32H562RGT6	

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

PRODUCT/PROCESS CHANGE INFORMATION PCI14327 – Sanity check

STM32H562xG & STM32H563xG - FLASH memory configuration fixed on 1MB listed products.

MDG – General Purpose Microcontrollers Division (GPM)

Material under test

The number of units being tested in table below.

Samples configs and shipment	***GNB***	***Le Mans***	***Tunis***
*STM32H563Z**G**T6 1MB - LQ144* ***No Crypto***	***2 samples***	***2 samples***	***2 samples***
*STM32H563Z**I**T6 2MB - LQ144* ***No Crypto***	***2 samples***	***2 samples***	***2 samples***

BL(v14.5)/SFSP(v2.6.0) versions tested on above samples

- Debug Authentication tested on sales type 1M - passed/ OK
- Erase EEPROM sectors by BL tested on sales type 1M passed/ OK

Conclusion:
All verification tests on BL (BootLoader) and SFSP (Scalable Firmware Support Package) on newly programmed parts are successful.

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.

© 2023 STMicroelectronics - All rights reserved

life.augmented

PRODUCT/PROCESS CHANGE NOTIFICATION PCN14327 – Additional Information

STM32H562xGx & STM32H563xGx - FLASH memory configuration fixed on 1MB listed products.

MDG – General Purpose Microcontrollers Division (GPM)

What are the changes?

1-Mbyte part numbers (STM32H562xG and STM32H563xG with a date code earlier than week 35 2023) are not correctly configured to support the two 512-Kbyte flash memory banks. Instead, the flash memory configuration is set to 2 Mbytes (two 1-Mbyte banks). The incorrect configuration can be identified by reading the bootloader version (at address 0x0BF9 FAFE): it returns the value 0xE4 (2-Mbyte configuration), while it is 0xE5 for the correctly configured part numbers
Bootloader (BL) and System FLASH Security Package (SFSP) have changed due to Debug Authentication (DA) issue on 1MB products.

Documents to refer to are listed below:

- Incorrect flash memory configuration on early STM32H562xG and STM32H563xG devices is fixed – Refer to **ES0565 Rev4 Nov2023**.
- Bootloader (BL) V14.5 EEPROM sector erase is fixed. Refer to latest **AN2606**.
- System FLASH Security Package (SFSP) V2.6.0 limitation is now fixed. Refer to **AN6014 Rev1 - October 2023**.

Only a few Finished Goods (FG) have been codified with wrong settings (see table below).

- The customer can detect the change by reading the new version of SFSP version 2.6.0 (0x02060000) from address “0x0BF960CC” and new BL version 14.5 (0xE5) from address ‘0x0BF9FAFE”

Table describing the changes:

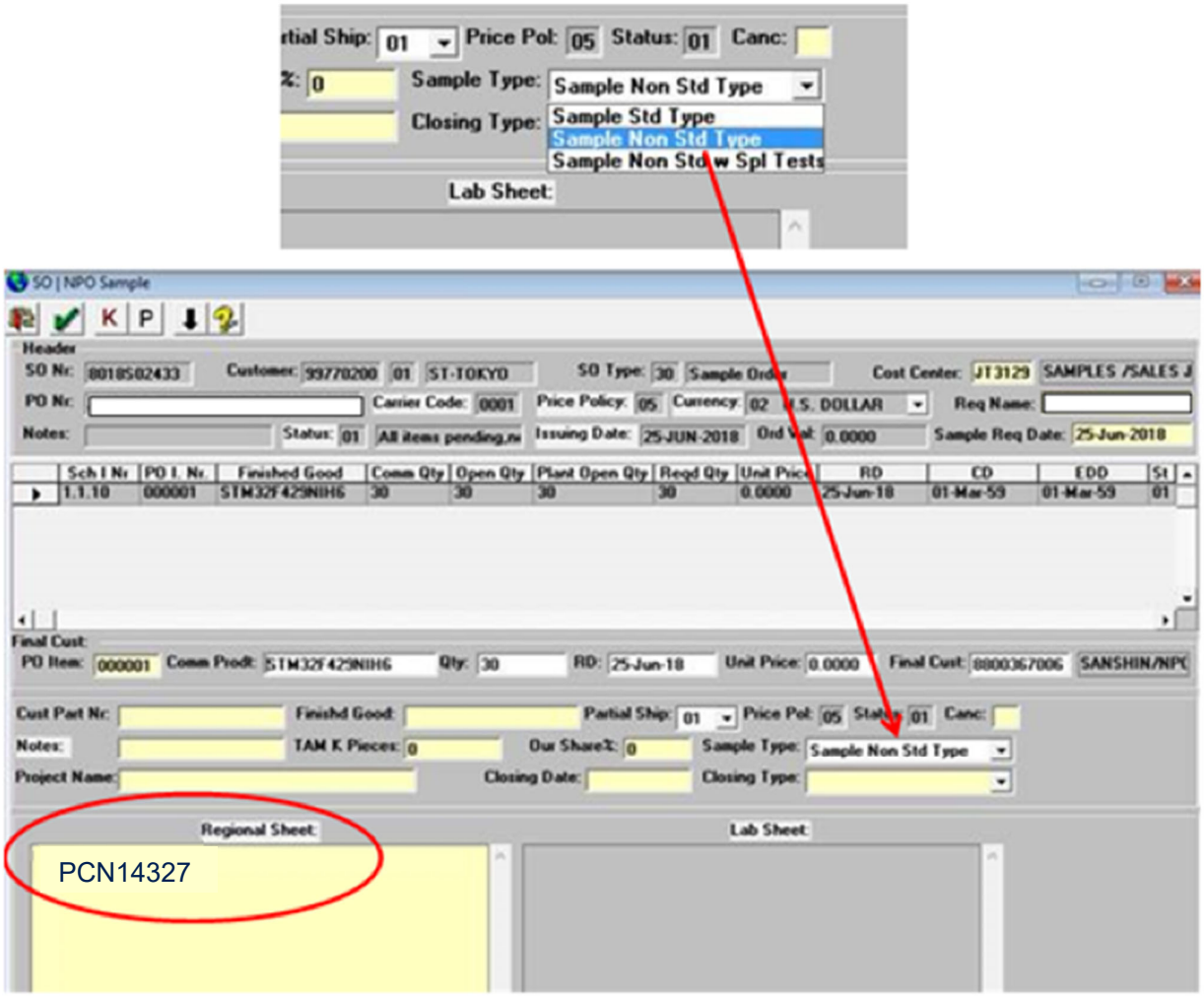
		Current condition	New condition
Package	Commercial Product	Old Finished Good (FG) (BL) V14.4/ (SFSP) V2.5.0	New Finished Good (FG) (BL) V14.5/ (SFSP) V2.6.0
UFBGA 7X7 169L	**STM32H562AGI6**	32H562AGI6$24	32H562AGI6**K**$24
LQFP 64 10x10	**STM32H562RGT6**	32H562RGT6$74	32H562RGT6**K**$74
	STM32H562RGT6TR	32H562RGT6TR$74	32H562RGT6TR**K**$74
	STM32H563RGT6	32H563RGT6$74	32H563RGT6**K**$74
LQFP 100 14x14	**STM32H562VGT6**	32H562VGT6$E4	32H562VGT6**K**$E4
	STM32H563VGT6	32H563VGT6$E4	32H563VGT6**K**$E4

No marking change on top of the package.

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 "**PCN14327**" into the NPO Electronic Sheet/**Regional Sheet**
- request sample(s) through Notice tool, indicating a single Commercial Product for each request



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.

© 2023 STMicroelectronics - All rights reserved

Public Products List

Publict 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 : STM32H562xGx & STM32H563xGx - FLASH memory configuration fixed on 1MB listed products

PCN Reference : MDG/23/14327

Subject : Public Products List

Dear Customer,

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

STM32H562RGT6	STM32H562RGT6TR	STM32H563RGT6
STM32H563VGT6	STM32H562VGT6	STM32H562AGI6

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