PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data	
1.1 Company	STMicroelectronics International N.V
1.2 PCN No.	MICROCONTROLLERS/24/14864
1.3 Title of PCN	ST Crolles (France) additional source for STM32G05x/7X/8x and STM32G0Bx/Cx products in 90nm technology.
1.4 Product Category	STM32G05x, STM32G07X, STM32G08x, STM32G0Bx, STM32G0Cx
1.5 Issue date	2024-07-15

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
Transfer	Line transfer for a full process or process brick (process step, control plan, recipes) from one site to another site: Wafer fabrication (SOP 2617)	ST CROLLES (France)

4. Description of change		
	Old	New
4.1 Description	Front-end sources for die 460 cut2.1 / die 467 cut 1.1 - TSMC (Taiwan) FAB14	Front-end sources for die 460 cut2.1 / die 467 Cut 1.1 - TSMC (Taiwan) FAB14 - Crolles 300 (France) additional source
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	no change	

5. Reason / motivation for change	
5.1 Motivation	Due to the success on the market of STM32 devices, ST Microcontrollers Division decided to qualify an additional front-end site to maintain state of the art service level to our customers thanks to extra capacity.
5.2 Customer Benefit	SERVICE IMPROVEMENT

6. Marking of parts / traceability of change	
6.1 Description	Change is visible through diffusion traceability plant, in the marking: - “VQ” for ST Crolles CR300 (France) - “9R” for TSMC Fab14 (Taiwan) Please refer to PCN 14864 – Additional information attached document.

7. Timing / schedule	
7.1 Date of qualification results	2024-09-13
7.2 Intended start of delivery	2024-09-13
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation	
8.1 Description	14864 PCN14864 _RER2404_ STM32G05x7X8x_STM32G0BxCx_460_467_Reliability Evaluation Plan.pdf

8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2024-07-15

9. Attachments (additional documentations)
14864 Public product.pdf 14864 PCN14864 _RER2404_ STM32G05x7X8x_STM32G0BxCx_460_467_Reliability Evaluation Plan.pdf 14864 PCN14864_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
	STM32G070CBT6	
	STM32G070CBT6TR	
	STM32G070KBT6	
	STM32G070RBT6	
	STM32G071C8T3	
	STM32G071C8T6	
	STM32G071C8U3	
	STM32G071C8U6TR	
	STM32G071C8U7	
	STM32G071C8U7TR	
	STM32G071CBT3	
	STM32G071CBT6	
	STM32G071CBT6TR	
	STM32G071CBU3	
	STM32G071CBU6	
	STM32G071CBU6TR	
	STM32G071CBU7TR	
	STM32G071EBY6TR	
	STM32G071G8U6	
	STM32G071G8U6N	
	STM32G071G8U6TR	
	STM32G071GBU3	
	STM32G071GBU6	
	STM32G071GBU6N	
	STM32G071GBU6TR	
	STM32G071GBU7	
	STM32G071K8T3	
	STM32G071K8U6	
	STM32G071KBT3	
	STM32G071KBT6	
	STM32G071KBT6N	
	STM32G071KBU3	
	STM32G071KBU6	
	STM32G071KBU6N	
	STM32G071KBU6TR	
	STM32G071KBU7	
	STM32G071R8T6	
	STM32G071RBI6	
	STM32G071RBT6	
	STM32G071RBT7	
	STM32G081CBT6	

	STM32G081CBU6	
	STM32G081GBU6	
	STM32G081KBT6	
	STM32G081KBU6	
	STM32G081RBT6	
	STM32G0B0CET6	
	STM32G0B0CET6TR	
	STM32G0B0KET6	
	STM32G0B0RET6	
	STM32G0B0VET6	
	STM32G0B1CBT3	
	STM32G0B1CBT6	
	STM32G0B1CBT6N	
	STM32G0B1CBU3	
	STM32G0B1CBU6	
	STM32G0B1CCT6	
	STM32G0B1CCT6TR	
	STM32G0B1CCU6	
	STM32G0B1CET6	
	STM32G0B1CET6N	
	STM32G0B1CEU6	
	STM32G0B1CEU6N	
	STM32G0B1KBT3	
	STM32G0B1KBT6N	
	STM32G0B1KBU3N	
	STM32G0B1KBU6	
	STM32G0B1KBU6N	
	STM32G0B1KCT6	
	STM32G0B1KCT6N	
	STM32G0B1KCU6	
	STM32G0B1KCU7	
	STM32G0B1KET6	
	STM32G0B1KET6N	
	STM32G0B1KEU6	
	STM32G0B1KEU6N	
	STM32G0B1MBT6	
	STM32G0B1MCT6	
	STM32G0B1MET6	
	STM32G0B1NEY6TR	
	STM32G0B1RBI6N	
	STM32G0B1RBT6N	
	STM32G0B1RCI6N	
	STM32G0B1RCT6	
	STM32G0B1REI6N	
	STM32G0B1RET6	
	STM32G0B1RET6N	
	STM32G0B1VEI6	
	STM32G0B1VET6	
	STM32G0C1CET6	
	STM32G0C1CEU6	
	STM32G0C1KCT6N	

	STM32G0C1KCU6	
	STM32G0C1KET6	
	STM32G0C1KET6N	
	STM32G0C1KEU6	
	STM32G0C1MET6	
	STM32G0C1RCT3	
	STM32G0C1RCT6	
	STM32G0C1RET6	
	STM32G0C1VCT6	
	STM32G0C1VET6	

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PCN 14864
RER2404 - ST Crolles (France) additional source for STM32G05x/7X/8x and STM32G0Bx/Cx products in 90nm technology.

Reliability Evaluation Plan

July 2024

GPM Quality & Reliability Department

460 die reliability trials

Reliability Trial & Standard&		Test Conditions	Pass Criteria	Lot Strategy (diffusion)	Units per lot
ESD HBM	ANSI/ESDA JEDEC JS-001	1500 Ohms, 100pF 2kV (Class 2)	A0R1	1 lot	3
ESD CDM	ANSI/ESDA/ JEDEC JS-002	500V	A0R1	1 lot	3
LU	JESD78	130°C	A0R1	1 lot	3
EDR	JESD22-A117	125°C 10k Cycling + 150°C Bake 1500h	A0R1	1 lot	77
EDR	JESD22-A117	25°C 10k Cycling + 150°C Bake 168h	A0R1	1 lot	77
EDR	JESD22-A117	-40°C 10k Cycling + 150°C Bake 168h	A0R1	1 lot	77
HTOL	JESD22-A108	125°C 3.6V / 1200h	A0R1	1 lot	77
ELFR	JESD22-A108 JESD74	Ta = 125°C / 48h	300 ppm	1 lot	500

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467 die reliability trials

Reliability Trial & Standard&		Test Conditions	Pass Criteria	Lot Strategy (diffusion)	Units per lot
ESD HBM	ANSI/ESDA JEDEC JS-001	1500 Ohms, 100pF 2kV (Class 2)	A0R1	1 lot	3
ESD CDM	ANSI/ESDA/ JEDEC JS-002	250V	A0R1	1 lot	3
LU	JESD78	130°C	A0R1	1 lot	3
EDR	JESD22-A117	125°C 10k Cycling + 150°C Bake 1500h	A0R1	1 lot	77
EDR	JESD22-A117	25°C 10k Cycling + 150°C Bake 168h	A0R1	1 lot	77
EDR	JESD22-A117	-40°C 10k Cycling + 150°C Bake 168h	A0R1	1 lot	77
HTOL	JESD22-A108	125°C 3.6V / 1200h	A0R1	1 lot	77
ELFR	JESD22-A108 JESD74	Ta = 125°C / 48h	300 ppm	1 lot	500

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PRODUCT/PROCESS CHANGE NOTIFICATION
PCN14864 – Additional Information

ST Crolles (France) additional source for STM32G05x/7X/8x and STM32G0Bx/Cx products in 90nm technology.

MDRF – General Purpose Microcontrollers Division (GPM)

What are the changes?

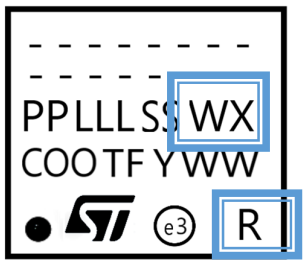
- Fab 14 TSMC (Taiwan) diffusing 90nm used for STM32G05x/7X/8x and STM32G0Bx/Cx products will be transferred to internal ST diffusion FAB CROLLES 300 (France).
- The design database remains the same. No change in the silicon Dice 460 cut2.1 or 467 cut1.1 version.

How can the change be seen?

- **R - Die Revision changes**
  - Die 460 from **Y** (TSMC FAB14) to **1** (ST Crolles 300)
  - Die 467 from **Z** (TSMC FAB14) to **1** (ST Crolles 300)
- **WX - Diffusion traceability plant code** transferred from **9R** (TSMC FAB14) to **VQ** (ST Crolles 300)

	Current condition	New condition
Front-End Diffusion site	TSMC (Taiwan)	ST Crolles 300 (France)
STM32G05x/7X/8x Die revision Marking **R**	Die 460 Cut 2.1	
	"Y"	"1"
STM32G0Bx/Cx Die revision Marking **R**	Die 467 Cut 1.1	
	"Z"	"1"
Diffusion traceability plant code **WX**	"9R"	"VQ"

Example on package UFQFPN 7X7X0.55 48L as below:

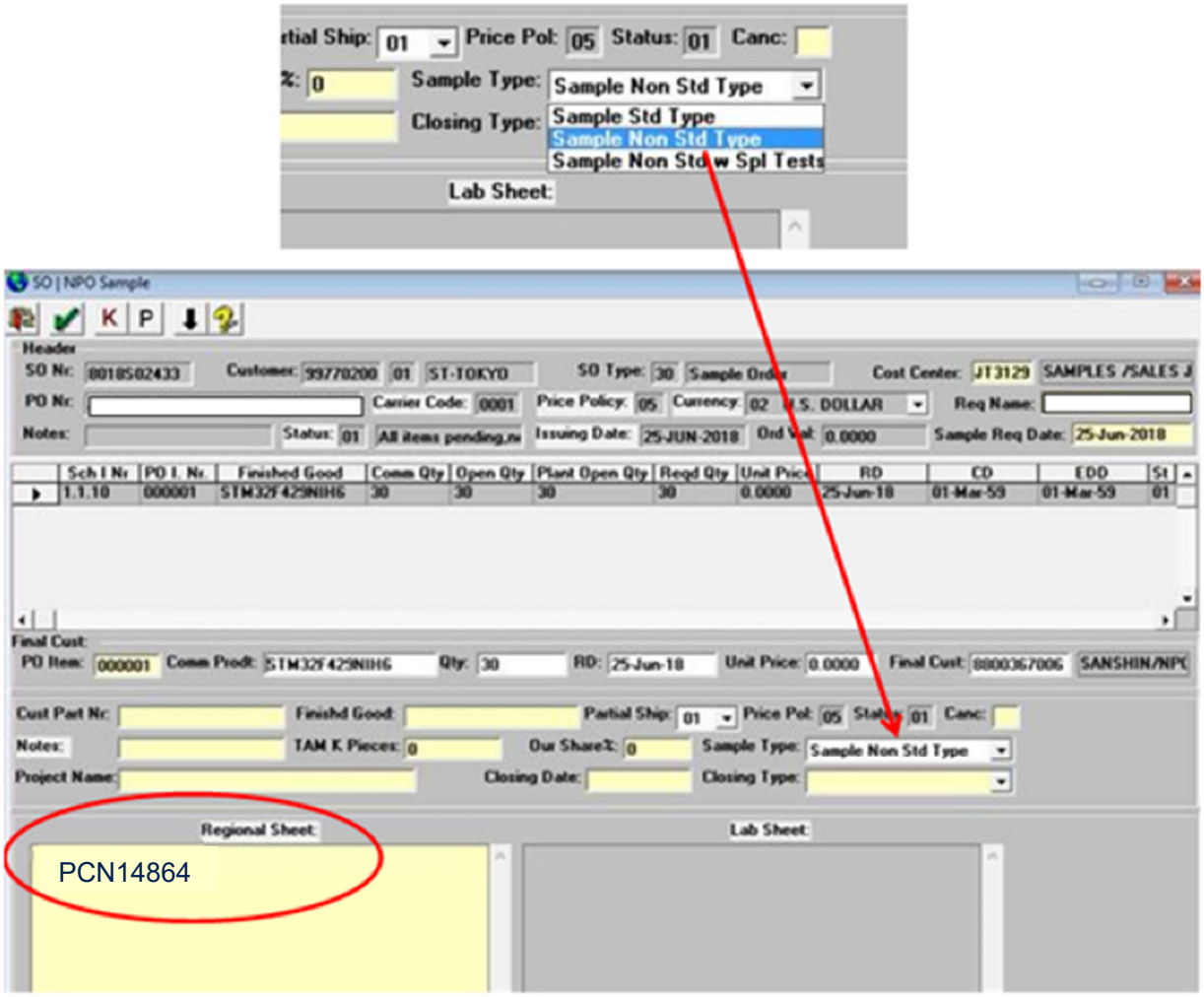


Please refer to Technical Note TN1433 for package marking details.

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 "**PCN14864**" into the NPO Electronic Sheet/**Regional Sheet**
- request sample(s) through Notice tool, indicating a single Commercial Product for each request



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Public Products List

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PCN Title : ST Crolles (France) additional source for STM32G05x/7X/8x and STM32G0Bx/Cx products in 90nm technology.
PCN Reference : MICROCONTROLLERS/24/14864

Subject : Public Products List

Dear Customer,

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

STM32G0B0CET6TR	STM32G071R8T6	STM32G071RBT7TR
STM32G071GBU7TR	STM32G070RBT6	STM32G081RBT6
STM32G0C1VCT6	STM32G071CBU3	STM32G071KBT6N
STM32G0B1CCU3	STM32G071C8U6TR	STM32G070CBT6TR
STM32G071EBY6TR	STM32G081KBU6	STM32G081CBT6TR
STM32G070KBT6TR	STM32G071KBU3	STM32G0B1CET6N
STM32G0C1RCT6	STM32G0B1KEU7	STM32G071C8U7TR
STM32G071KBT6	STM32G071KBU6	STM32G0B1CCU3TR
STM32G071KBT3	STM32G071RBT6	STM32G0B1KCU6N
STM32G0B1VBT6	STM32G0B1CBU7	STM32G0B0CET6
STM32G071G8U6N	STM32G0B1RBT6	STM32G071GBU6TR
STM32G0B1CCU6NTR	STM32G071CBT6TR	STM32G0B1KBU3N
STM32G071C8T6	STM32G0B1CBU6	STM32G071C8U7
STM32G0B1KBT6N	STM32G0B0RET6TR	STM32G071KBU7
STM32G071CBU6TR	STM32G070CBT6	STM32G081RBT6TR
STM32G0B1RET6N	STM32G0B1KET6	STM32G0B0RET6
STM32G0B1CBT6	STM32G071CBT3	STM32G071CBU3TR
STM32G071CBT6	STM32G0C1KEU6	STM32G0B1CBU6N
STM32G0B1RET6	STM32G0B1KEU6N	STM32G0B1RBT3TR
STM32G0C1RCT3	STM32G0B1RCT6TR	STM32G071GBU7
STM32G0C1KET6	STM32G0C1KET6N	STM32G0C1CCU6
STM32G070KBT6	STM32G0B1KBU3NTR	STM32G0B1CCU7TR
STM32G081EBY3TR	STM32G0B1KEU7TR	STM32G071C8T6TR
STM32G0B1REI6N	STM32G071C8U3TR	STM32G0B1KEU6
STM32G071C8T3	STM32G071GBU3TR	STM32G0B1CCT7TR
STM32G0B1VCI6	STM32G0B0VET6TR	STM32G081RBI6
STM32G0C1CEU6	STM32G071KBU6TR	STM32G071CBT7TR
STM32G0B1CCU7	STM32G0B1CBU6TR	STM32G0B1CCT7
STM32G071K8T3TR	STM32G071KBU6N	STM32G0B1KBT3TR
STM32G071RBI6	STM32G071KBU7TR	STM32G0B1CCU6TR
STM32G071KBT6TR	STM32G071GBU6	STM32G0B0VET6
STM32G0B1RCT7TR	STM32G071CBU6	STM32G081EBY6TR
STM32G0B1NEY6TR	STM32G071RBI3	STM32G0B1REI6NTR
STM32G0B1CCT6TR	STM32G081KBT6	STM32G0B1CCU6N
STM32G0B1VET6	STM32G0C1KCU6N	STM32G0B1CEU6
STM32G0B1REI7N	STM32G071K8T3	STM32G071GBU6N

Public Products List

STM32G0B1MET6	STM32G0C1MET6	STM32G0B1CEU7
STM32G0C1KCT6N	STM32G0B1RBT7TR	STM32G081CBU6
STM32G071RBT7	STM32G0B1CCU6	STM32G0C1CEU6TR
STM32G071C8U3	STM32G0B1CBT6N	STM32G0B1CBU7TR
STM32G0B1RBT6N	STM32G071K8U6	STM32G0B1VBI6
STM32G081RBT3	STM32G071G8U6TR	STM32G0B1CEU7TR
STM32G0B1KCT6N	STM32G0B1KBU6	STM32G0B1CBU3
STM32G0C1CET6	STM32G0B1KCU7TR	STM32G0B1CET6
STM32G0B1RCT6	STM32G0B1RCI6NTR	STM32G0B1CEU6N
STM32G071RBI3TR	STM32G071CBT7	STM32G0C1VET6
STM32G071GBU3	STM32G070RBT6TR	STM32G081CBT6
STM32G071G8U6	STM32G0B1KCU7	STM32G0B1KCU6
STM32G071RBT3	STM32G081GBU6	STM32G0C1RET3TR
STM32G0B1RCI6N	STM32G0B1RCT7	STM32G0B1KET6N
STM32G0B1CCT6	STM32G0B1KCT6	STM32G0B1CBT3
STM32G0B1VCT6	STM32G0B1VEI6	STM32G0B1MBT6
STM32G0B1KBT6	STM32G0C1RET6	STM32G0C1VET3
STM32G0C1MCT6	STM32G0B1KBT3	STM32G0B1CET6TR
STM32G0C1KEU6N	STM32G0B1MCT6	STM32G0B0KET6
STM32G0C1KCU6	STM32G0C1RET3	STM32G0C1REI6N
STM32G0B1RBI6N	STM32G0B1VCI6TR	STM32G0B1KBU6N
STM32G0C1REI6NTR	STM32G0B1RBI3N	

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