PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company	STMicroelectronics International N.V
1.2 PCN No.	EMBEDDED PROCESSING/25/15423
1.3 Title of PCN	JSCC (China) additional source for legacy STM32F2x and STM32F4x listed products in LQFP 10x10 64L package
1.4 Product Category	STM32F205/215x , STM32F405/415x , STM32F411x and STM32F412x
1.5 Issue date	2025-08-25

2. PCN Team

2.1 Contact supplier	
2.1.1 Name	
2.1.2 Phone	
2.1.3 Email	
2.2 Change responsibility	
2.2.1 Product Manager	
2.1.2 Marketing Manager	
2.1.3 Quality Manager	

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: Assembly site (SOP 2617)	JSCC JiangYing (China)

4. Description of change

	Old	**New**
4.1 Description	Current assembly sites (depending on package/product): - AMKOR ATP (Philippine) Gold for Crolles, TSMC & Rousset Dice, - ASE Kaohsiung (Taiwan) Gold wire for Crolles, TSMC & Rousset Dice, - ASE Kaohsiung (Taiwan) Copper Palladium wire for Crolles & TSMC Dice, - JSCC (China) Silver for Crolles, TSMC & Rousset Dice, - JSCC (China) Copper Palladium wire for Crolles, TSMC Dice. You may refer to 15423_Additional information.pdf document for further details.	Current assembly sites: (depending on package/product): - AMKOR ATP (Philippine) Gold for Crolles, TSMC & Rousset Dice, - ASE Kaohsiung (Taiwan) Gold wire for Crolles, TSMC & Rousset Dice, - ASE Kaohsiung (Taiwan) Copper Palladium wire for Crolles & TSMC Dice, - JSCC (China) Silver for Crolles, TSMC & Rousset Dice, - JSCC (China) Copper Palladium wire for Crolles, TSMC Dice. Additional assembly site for extended capacity: - JSCC (China) Copper Palladium wire for Rousset Dice.
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	No Impact on Form, Fit or Function	

5. Reason / motivation for change

5.1 Motivation	Due to the success on the market of STM32 devices, ST General Purpose and Automotive Microcontrollers division decided to qualify an additional back-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 in the marking. Please refer to PCN 15423_Additional information.pdf document for further details.

7. Timing / schedule

7.1 Date of qualification results	2025-11-14

7.2 Intended start of delivery	2025-12-15
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	15423 MDRF-GPAM-RER2520 PCN15423- JSCC (China) STM32F2x and STM32F4x LQFP 10x10 64L packages- Reliability Plan.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	**Issue Date**	2025-08-25

9. Attachments (additional documentations)

15423 Public product.pdf
15423 MDRF-GPAM-RER2520 PCN15423- JSCC (China) STM32F2x and STM32F4x LQFP 10x10 64L packages- Reliability Plan.pdf
15423 _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**
	STM32F205RBT6	
	STM32F205RBT6TR	
	STM32F205RBT7	
	STM32F205RCT6	
	STM32F205RCT6TR	
	STM32F205RCT7	
	STM32F205RCT7TR	
	STM32F205RET6	
	STM32F205RET6TR	
	STM32F205RET7	
	STM32F205RFT6	
	STM32F205RFT6TR	
	STM32F205RGT6	
	STM32F205RGT6TR	
	STM32F205RGT7	
	STM32F215RET6	
	STM32F215RGT6	
	STM32F215RGT6TR	
	STM32F405RGT6	
	STM32F405RGT6TR	
	STM32F405RGT7	
	STM32F405RGT7TR	
	STM32F411RCT6	
	STM32F411RCT6TR	
	STM32F411RET6	
	STM32F411RET6TR	
	STM32F411RET7	
	STM32F412RET6	
	STM32F412RET6TR	
	STM32F412RET7	
	STM32F412RGT6	
	STM32F412RGT6TR	
	STM32F415RGT6	
	STM32F415RGT6TR	
	STM32F405RGT6U	
	STM32F411RCT6GEM	

	STM32F205RGT6V	
	STM32F205RGT6W	
	STM32F405RGT6V	
	STM32F405RGT6W	

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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 : JSCC (China) additional source for legacy STM32F2x and STM32F4x listed products in LQFP 10x10 64L package
PCN Reference : EMBEDDED PROCESSING/25/15423

Subject : Public Products List

Dear Customer,

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

STM32F215RGT6	STM32F205RFT6TR	STM32F415RGT6TR
STM32F205RBT6	STM32F412RET7	STM32F205RGT6
STM32F205RFT6	STM32F405RGT6TR	STM32F411RET6TR
STM32F215RET6	STM32F205RGT7	STM32F205RGT6V
STM32F405RGT6V	STM32F411RET7	STM32F411RCT6TR
STM32F405RGT7TR	STM32F405RGT7	STM32F411RCT7
STM32F205RBT6TR	STM32F215RET6TR	STM32F412RGT6
STM32F205RET7	STM32F411RCT6	STM32F412RET6TR
STM32F205RET6TR	STM32F412RET6	STM32F205RBT7
STM32F405RGT6W	STM32F215RGT6TR	STM32F205RGT6TR
STM32F205RCT7TR	STM32F415RGT6	STM32F411RET6
STM32F205RCT7	STM32F411RCT7TR	STM32F205RCT6TR
STM32F405RGT6	STM32F412RET7TR	STM32F205RET7TR
STM32F205RET6	STM32F205RGT6W	STM32F205RCT6
STM32F412RGT6TR		

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MDRF-GPAM-RER2520 PCN15423
JSCC (China) additional source for legacy STM32F2x and STM32F4x listed products in LQFP 10x10 64L package

Reliability Evaluation Plan

July 17th, 2025

MDRF GPAM Quality & Reliability Department

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MDRF-GPAM-RER2520 PCN15423 – JSCC (China) additional source for legacy STM32F2x and STM32F4x listed products in LQFP 10x10 64L package

Package Test Vehicles

Package line	Assembly Line	Package	BE plant	Device (RawLine Code)	Diffusion Process Plant	Number of Reliability Lots
LQFP	LQFP 7x7 to 20x20	LQFP 10x10 64L	ASEKH	5W*413	CMOSM10 Rousset (R8)	3
	LQFP 24x24	LQFP 24x24 176L	ASEKH	1T*413	CMOSM10 Rousset (R8)	1
	LQFP 7x7 to 12x12	LQFP 10x10 64L	JSCC	5W*413	CMOSM10 Rousset (R8)	1

Reliability strategy:

- ASE LQFP Copper wire assembly lines are already qualified in M10 technology from Crolles & TSMC.
- Reliability will be performed on 3 reliability lots in LQFP10x10 ASEKH to qualify Copper wire for CMOSM10 Rousset R8, with representative test vehicle of STM32F2x, STM32F4x products families.
- Other supply chains will be qualified with 1 reliability lot per assembly line

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MDRF-GPAM-RER2520 PCN15423 - JSCC (China) additional source for legacy STM32F2x and STM32F4x listed products in LQFP 10x10 64L package

Package Reliability Trials

Reliability Trial & Standard		Test Conditions	Pass Criteria	Unit per Lot	Lot qty
PC	Pre-Conditioning: Moisture Sensitivity Jedec Level 3 J-STD-020/ JESD22-A113	Bake (125°C / 24 hrs) Soak (30°C / 60% RH / 192 hrs) for level 3 Convection reflow: 3 passes	3 passes MSL3	75 for LQFP64 (ASEKH) 231 for LQFP176 (ASEKH) 231 for LQFP64 (JSCC)	3 1 1
Uhast(*)	UnBiased Highly Accelerated Temperature and Humidity Stress JESD22 A118	130°C, 85%RH, 2.3 atm	96h	25 for LQFP64 (ASEKH) 77 for LQFP176 (ASEKH) 77 for LQFP64 (JSCC)	3 1 1
TC(*)	Thermal Cycling JESD22 A104	-65°C +150°C	500cy	25 for LQFP64 (ASEKH) 77 for LQFP176 (ASEKH) 77 for LQFP64 (JSCC)	3 1 1
THB(*)	Biased temperature & humidity stress JESD22 A101	85°C, 85% RH bias	1000h	25 for LQFP64 (ASEKH) 77 for LQFP176 (ASEKH) 77 for LQFP64 (JSCC)	3 1 1
HTSL	High Temperature Storage Life JESD22 A103	150°C- no bias	1000h	25 for LQFP64 (ASEKH) 77 for LQFP176 (ASEKH) 77 for LQFP64 (JSCC)	3 1 1
Construction analysis	JESDB100/B108 ST internal specifications	Construction analysis including physical dimensions measurement, Ball shear, pull test	NA	50	3
ESD	ESD Charge Device Model JEDEC JS-002	Aligned with device datasheet	Aligned with device datasheet	3	3

(*) tests performed after preconditioning

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PRODUCT/PROCESS CHANGE NOTIFICATION
PCN15423
– Additional information

JSCC (China) additional source for legacy STM32F2x and STM32F4x listed products in LQFP 10x10 64L package

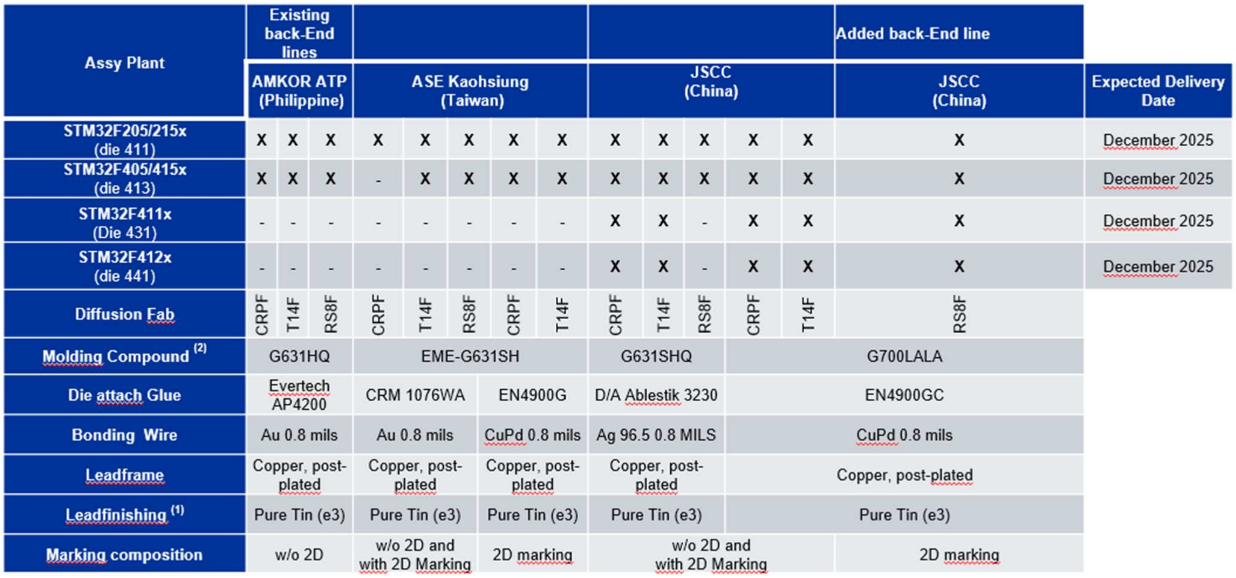
MRDF - General Purpose and Automotive Microcontroller Division (GPAM)

What are the changes?

ST General Purpose Microcontrollers Division decided to qualify an additional back-end assembly site. The full process transfer to JSCC (China) Assembly site is done maintaining state of the art service level to our customers thanks to extra capacity. This PCN is limited to STM32x listed products in LQFP 64 10x10 package as shown in the tables below.

Changes are described in the table below:

LQFP 64 10x10

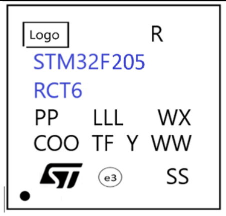
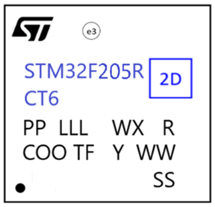


Assy Plant	Existing back-End lines													Added back-End line	
	AMKOR ATP (Philippine)			ASE Kaohsiung (Taiwan)					JSCC (China)					JSCC (China)	Expected Delivery Date
STM32F205/215x (die 411)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	December 2025
STM32F405/415x (die 413)	X	X	X	-	X	X	X	X	X	X	X	X	X	X	December 2025
STM32F411x (Die 431)	-	-	-	-	-	-	-	-	X	X	-	X	X	X	December 2025
STM32F412x (die 441)	-	-	-	-	-	-	-	-	X	X	-	X	X	X	December 2025
Diffusion Fab	CRPF	T14F	RS8F	CRPF	T14F	RS8F	CRPF	T14F	CRPF	T14F	RS8F	CRPF	T14F	RS8F	
Molding Compound [2]	G631HQ			EME-G631SH					G631SHQ			G700LALA			
Die attach Glue	Evertech AP4200			CRM 1076WA			EN4900G		D/A Ablestik 3230			EN4900GC			
Bonding Wire	Au 0.8 mils			Au 0.8 mils			CuPd 0.8 mils		Ag 96.5 0.8 MILS			CuPd 0.8 mils			
Leadframe	Copper, post-plated			Copper, post-plated			Copper, post-plated		Copper, post-plated			Copper, post-plated			
Leadfinishing [1]	Pure Tin (e3)			Pure Tin (e3)			Pure Tin (e3)		Pure Tin (e3)			Pure Tin (e3)			
Marking composition	w/o 2D			w/o 2D and with 2D Marking			2D marking		w/o 2D and with 2D Marking					2D marking	

(1) Lead color and surface finishing may slightly vary depending on leadfinishing.
(2) Package darkness or chromaticity may change depending on molding compound.

Pin1 identifier may change in terms of size and positioning however remaining near pin1's edge. Marking position and size may be different upon assembly site, without any loss of information.

How can the change be seen?

Marking examples	Existing Back-End Site	Added Back-End Site
LQFP 64 10x10x1.4 MM (5W)		
PP code	**AA:** ASE KaoHsiung (Philippines) **7B**: AMKOR ATP (Philippines) **GQ :** JSCC (China)	
WX code	**VQ:** ST Crolles 300 (France) - CRPF **9R** : TSMC Fab14 (Taiwan) - T14F **VG** : Rousset 8 (France) - RS8F	

Y WW code indicates Year Week (manufacturing date)

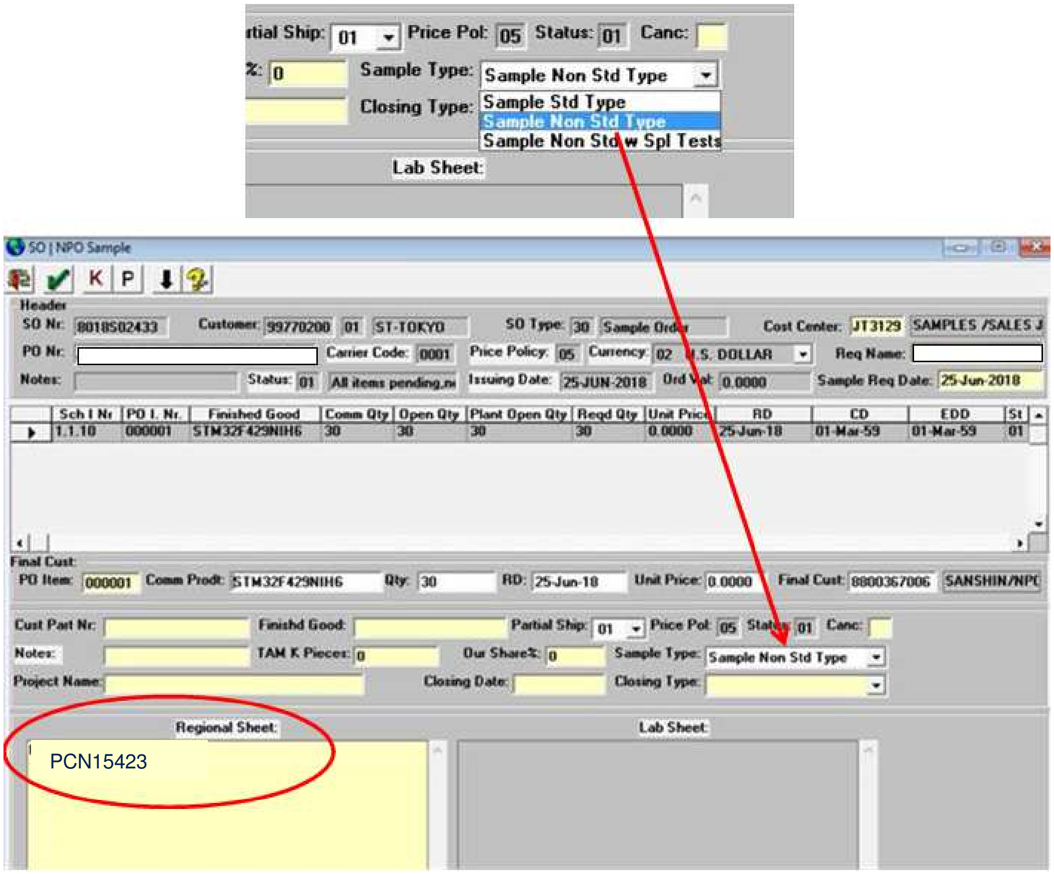
PP code indicates assembly traceability plant code.

WX code indicates diffusion traceability plant code.

How to order samples?

For all samples request linked to this PCN, please:

- place a **<u>Non-standard</u>** sample order (choose Sample Non Std Type from pull down menu)
- insert the PCN number “**PCN15423**” 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:
Lab Sheet:

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,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

PO Item: 000001 Comm Prodt: STM32F429NIH6 Qty: 30 RD: 25-Jun-18 Unit Price: 0.0000 Final Cust: 8800367006 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: PCN15423
Lab Sheet:

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