PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company	STMicroelectronics International N.V
1.2 PCN No.	EMBEDDED PROCESSING/26/16018
1.3 Title of PCN	ST Shenzhen (China) additional source for STM32F2x and STM32F4x listed products in LQFP 20x20 and LQFP 24x24 packages.
1.4 Product Category	STM32F205x, STM32F215x, STM32F207x, STM32F217x, STM32F405x, STM32F415x, STM32F407x, STM32F417x, STM32F429x, STM32F439x, STM32F427x and STM32F437x
1.5 Issue date	2026-04-21

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)	ST Shenzhen (China)

4. Description of change

	Old	New
4.1 Description	Current assembly sites (depending on package): - AMKOR ATP (Philippine) Gold wire, - AMKOR ATP (Philippine) Copper Palladium wire, - ASE Kaohsiung (Taiwan) Gold wire , - ASE Kaohsiung (Taiwan) Copper Palladium wire , You may refer to 16018_Additional information.pdf document for further details.	Current assembly sites: (depending on package) : - AMKOR ATP (Philippine) Gold , - AMKOR ATP (Philippine) Copper Palladium wire , - ASE Kaohsiung (Taiwan) Gold wire , - ASE Kaohsiung (Taiwan) Copper Palladium wire , Additional assembly site for extended capacity: - ST Shenzhen (China) Copper Alloy wire .
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 on the marking Assembly Site code . • GK : ST Shenzhen (China) new assembly site • 7B : AMKOR ATP (Philippines) • AA : ASE KaoHsiung (Taiwan) Please refer to PCN 16018_Additional information.pdf document for further details.

7. Timing / schedule

7.1 Date of qualification results	2026-06-22
7.2 Intended start of delivery	2026-06-25
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	16018 MDRF-GPAM-RER2506 PCN16018 - ST Shenzhen LQFP 20x20_24x24 packages - reliab plan.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	**Issue Date**	2026-04-21

9. Attachments (additional documentations)

16018 Public product.pdf
16018 MDRF-GPAM-RER2506 PCN16018 - ST Shenzhen LQFP 20x20_24x24 packages - reliab plan.pdf
16018 _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**
006-1068823-R	STM32F205ZCT6	
SEHUA30245	STM32F217ZGT6	
SEHUA37992	STM32F405ZGT6	
SEHUA43192	STM32F407IGT7	
SEHUA43191	STM32F427IIT7	
SEHUA40118	STM32F437ZIT6	

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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 : ST Shenzhen (China) additional source for STM32F2x and STM32F4x listed products in LQFP 20x20 and LQFP 24x24 packages.

PCN Reference : EMBEDDED PROCESSING/26/16018

Subject : Public Products List

Dear Customer,

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

STM32F405ZGT6	STM32F429ZGT6TR	STM32F437ZIT6
STM32F427ZGT6	STM32F437IGT6	STM32F205ZET6
STM32F207ICT6	STM32F205ZGT7	STM32F427ZIT7TR
STM32F429IGT6	STM32F407ZET6TR	STM32F407IET6
STM32F217IGT7	STM32F407ZGT7	STM32F205ZCT6
STM32F207IFT6	STM32F427IGT6	STM32F429ZIT6
STM32F407ZGT6TR	STM32F429ZIT7	STM32F417IGT7
STM32F207IET6	STM32F429ZIT6TR	STM32F429ZET6TR
STM32F205ZGT6	STM32F417ZET6	STM32F427IIT6
STM32F205ZCT7	STM32F429ZGT6	STM32F217ZET6
STM32F427ZIT6	STM32F205ZGT7TR	STM32F437ZIT7
STM32F217ZGT6	STM32F407IGT6	STM32F407ZGT6
STM32F205ZGT6TR	STM32F205ZCT7TR	STM32F205ZET7TR
STM32F417IGT6	STM32F205ZCT6TR	STM32F427ZIT7
STM32F217IGT6	STM32F207ZGT7	STM32F405ZGT7TR
STM32F437IIT7	STM32F205ZET6TR	STM32F429IET6
STM32F427IIT7	STM32F205ZET7	STM32F217IET6
STM32F405ZGT6TR	STM32F437ZGT6	STM32F437IIT6
STM32F429IIT6	STM32F429ZET6	STM32F207ZFT6
STM32F407IGT7	STM32F407ZET7	STM32F207IGT7
STM32F417IET6	STM32F405ZGT7	STM32F439ZGT6
STM32F207ZCT6	STM32F215ZGT6	STM32F207ZGT6
STM32F207IGT6	STM32F207ZET6TR	STM32F439IGT6
STM32F217ZET7	STM32F415ZGT6	STM32F427ZGT6TR
STM32F407ZET6	STM32F439ZIT6	STM32F215ZET6TR
STM32F439ZGT6TR	STM32F215ZET6	STM32F439IIT6
STM32F215ZGT7TR	STM32F205ZFT6	STM32F417ZGT6
STM32F439ZGT7TR	STM32F427ZIT6TR	STM32F439ZGT7
STM32F207ZGT6TR	STM32F207ZCT7TR	STM32F207ZCT7
STM32F437ZIT7TR	STM32F207ZET6	STM32F215ZGT7

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PRODUCT/PROCESS CHANGE NOTIFICATION
PCN16018
– Additional information

ST Shenzhen (China) additional source for STM32F2x and STM32F4x listed products in LQFP 20x20 and LQFP 24x24 packages.

MRDF – General Purpose and Automotive Microcontrollers (GPAM)

What are the changes?

Introduction of an additional assembly line to continue our path through the deployment of our Low-cost wire strategy to secure our supply chain.

Table_1: Bill of material change description for LQFP 144 20X20 package

LQFP 144L 20X20	Existing back-End assembly lines				New Added line
	Amkor ATP (Philippines)		**ASE KoaHsiung (Taiwan)**		**ST Shenzhen (China)**
Molding Compound (2)	G631HQ		G631SH		CEL-9240ZHF
Die attach Glue	SUMITOMO CRM 1076YB	D/A Ablestik 3230	SUMITOMO CRM 1076WA	HITACHI EN4900G	ABLESTIK 8303A
Bonding Wire	Gold 0.8 Mils	CuPd 0.8 Mils	Gold 0.8 Mils	CuPd 0.8 Mils	Copper Alloy 0.8 Mils
Leadframe	PPF Pre-plated	Copper, post-plated			
Leadfinishing (1)	Ni/Pd/Au (e4)	Pure Tin (e3)			
Marking composition	2D Marking		w/o 2D	2D Marking	

Table_2: Bill of material change description for LQFP 176 24X24 package

LQFP 176L 24x24	Existing back-End assembly lines		New Added line
	ASE KaoHsiung (Taiwan)		**ST Shenzhen (China)**
Molding Compound [2]	G631SH		CEL-9240ZHF
Die attach Glue	YIZTECH 8143	HITACHI EN4900G	ABLESTIK 8303A
Bonding Wire	Gold 0.8 Mils	CuPd 0.8 Mils	Copper Alloy 0.8 Mils
Leadframe	Copper, post-plated		
Leadfinishing [1]	Pure Tin (e3)		
Marking composition	w/o 2D	2D Marking	

(1) Lead color and surface finishing may slightly vary depending on lead finishing.
(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?

Standard marking fields example for **LQFP 144 20x20** package as well as for **LQFP 176 24x24** package:

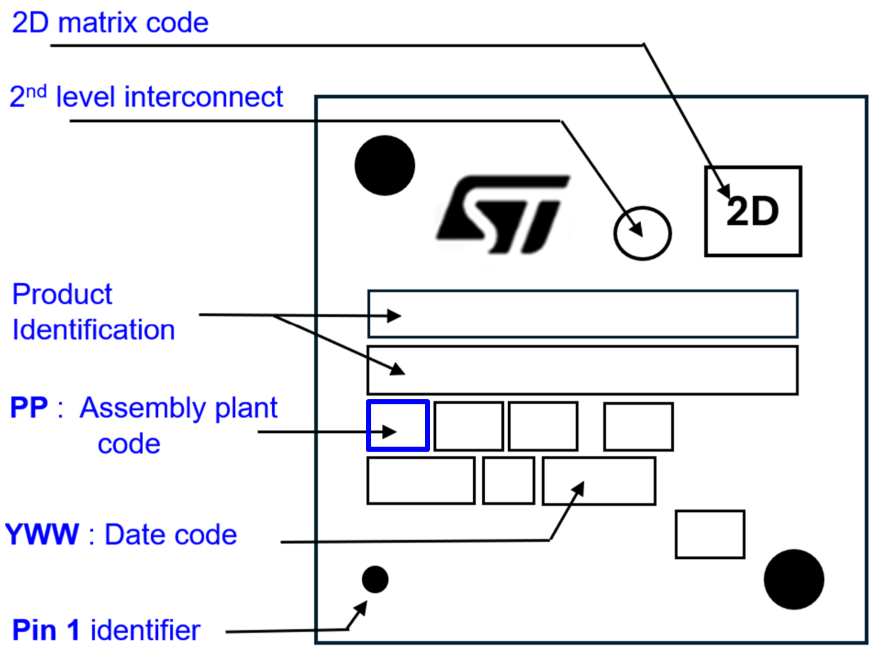
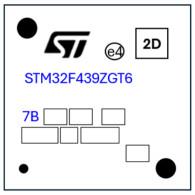
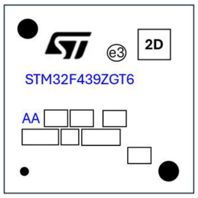
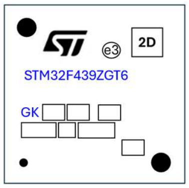
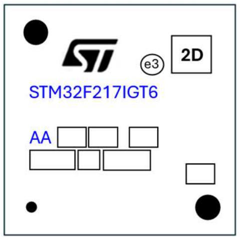
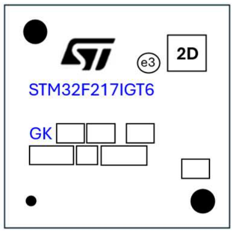


Table_3: Assembly plant code marking field

Marking field		Existing		Additional
		Amkor ATP (Philippines)	ASE KaoHsiung (Taiwan)	ST ShenZhen (China)
PP	**Assembly plant code**	**7B**	**AA**	**GK**

Table_4: Package top view marking examples

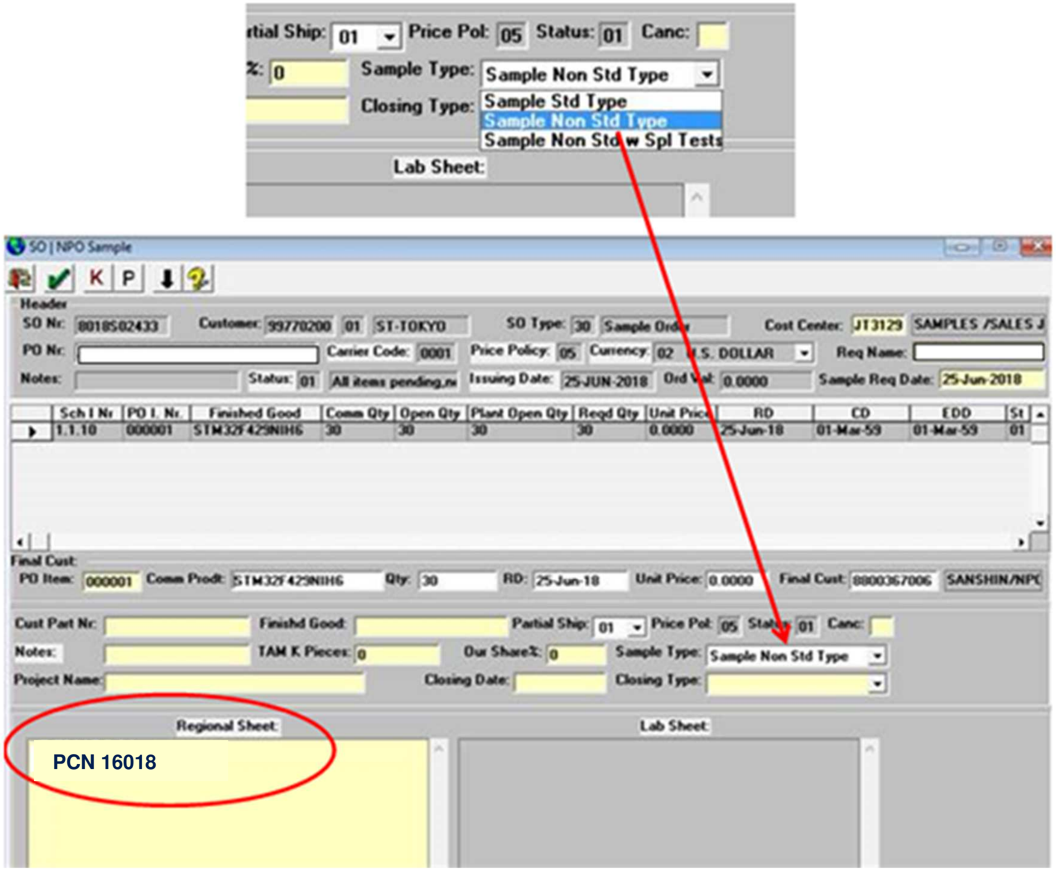
Package marking example	Amkor ATP (Philippines)	ASE KaoHsiung (Taiwan)	ST ShenZhen (China)
LQFP 20x20 144L (ie: STM32F439ZGT6)			
LQFP 24x24 176L (ie: STM32F217IGT6)	**N.A.**		

Please refer to product **DataSheet** or Technical Note **TN1433** for package marking details.

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 “**PCN16018**” into the NPO Electronic Sheet/**Regional Sheet.**
- request sample(s) through Notice tool, indicating a single Commercial Product for each request.



rtial Ship: 01 Price Pol: 05 Status: 01 Canc:
%: 0 Sample Type: Sample Non Std Type
Closing Type:
Lab Sheet:

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,n Issuing Date: 25-JUN-2018 Ord Val: 0.0000 Sample Req Date: 25-Jun-2018

Sch l 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 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:
PCN 16018

Lab Sheet:

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MDRF-GPAM-RER2506 for PCN16018

ST Shenzhen (China) additional source for STM32F2x and STM32F4x listed products in LQFP 20x20 and LQFP 24x24 packages

Reliability Evaluation Plan

2nd April, 2026

MDRF GPAM Quality & Reliability Department

MDRF-GPAM-RER2506
ST Shenzhen (China) LQFP 20x20 and LQFP 24x24 packages
Package Test Vehicles

Package line	Assembly Line	Package	Device (RawLine Code)	Diffusion Process Plant	Number of Reliability Lots
LQFP	LQFP24x24	176L	1T*413	RSST M10	3

Reliability strategy:

- Reliability will be performed on 3 lots from representative test vehicle of STM32F2x and STM32F4x.
- LQFP24x24 and LQFP20x20 using the same assembly line/same BOM, the 3 lots in LQFP24x24 will qualify by similarity LQ20X20 package for listed products.
- Refer to details in above and next tables.

MDRF-GPAM-RER2506
ST Shenzhen (China) LQFP 20x20 and LQFP 24x24 packages
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	231	3
Uhast(*)	UnBiased Highly Accelerated Temperature and Humidity Stress JESD22 A118	130°C, 85%RH, 2.3 atm	96h 168h for monitoring	77	3
TC(*)	Thermal Cycling JESD22 A104	-65°C +150°C	500cy 1000cy for monitoring	77	3
THB(*)	Biased temperature & humidity stress JESD22 A101	85°C, 85% RH bias	1000h 1500h for monitoring	77	3
HTSL	High Temperature Storage Life JESD22 A103	150°C- no bias	1000h 1500h for monitoring	77	3
Construction analysis	ST internal specifications	Construction analysis including Ball shear, pull test	NA	50	1
ESD	ESD Charge Device Model JEDEC JS-002	Aligned with device datasheet	Aligned with device datasheet	3	1

(*) tests performed after preconditioning

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