


# PRODUCT / PROCESS CHANGE NOTIFICATION

## 1. PCN basic data

1.1 Company	 STMicroelectronics International N.V
1.2 PCN No.	MICROCONTROLLERS/24/14844
1.3 Title of PCN	ST MUAR (Malaysia) additional source for STM32H74x/75x, STM32H72x/73x and STM32G47x/48x/G41x listed products in LQFP 14x14 100L package
1.4 Product Category	STM32H74x/75x STM32H72x/73x STM32G47x/48x/G41x
1.5 Issue date	2024-09-16

## 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: Assembly site (SOP 2617)	ST Muar (Malaysia)

## 4. Description of change

	Old	New
4.1 Description	Current assembly sites: - ASE Kaohsiung (Taiwan) Gold wire & Copper Palladium wire - AMKOR ATP (Philippine) Gold wire & Copper Palladium wire	Current assembly site: - ASE Kaohsiung (Taiwan) Gold wire & Copper Palladium wire - AMKOR ATP (Philippine) Gold wire & Copper Palladium wire Additional assembly site for extended capacity: - ST Muar (Malaysia) 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 Microcontrollers sub-group 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 14844 – Additional information attached document.
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## 7. Timing / schedule

7.1 Date of qualification results	2024-12-01
7.2 Intended start of delivery	2024-12-16
7.3 Qualification sample available?	Upon Request

## 8. Qualification / Validation

8.1 Description	14844 MDRF-GPM-RER2414 PCN14844 - ST Muar additional source in LQFP 14x14 100L package - Reliability plan.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2024-09-16

9. Attachments (additional documentations)

14844 Public product.pdf  
14844 MDRF-GPM-RER2414 PCN14844 - ST Muar additional source in LQFP 14x14 100L package - Reliability plan.pdf  
14844 PCN14844 \_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
	STM32G473VBT6	
	STM32G473VCT3	
	STM32G473VCT6	
	STM32G473VET3	
	STM32G473VET6	
	STM32G474VBT6	
	STM32G474VET3	
	STM32G474VET6	
	STM32G474VET6TR	
	STM32G483VET6	
	STM32G484VET6	
	STM32H723VET6	
	STM32H723VGT6	
	STM32H730VBT6	
	STM32H733VGT6	
	STM32H742VGT6	
	STM32H742VIT6	
	STM32H743VGT6	
	STM32H743VIT6	
	STM32H743VIT6TR	
	STM32H750VBT6	
	STM32H750VBT6TR	
	STM32H753VIT6	

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**PRODUCT/PROCESS  
CHANGE NOTIFICATION  
PCN14844  
– Additional information**

**ST MUAR (Malaysia) additional source for STM32H74x/75x,  
STM32H72x/73x and STM32G47x/48x/G41x listed products in  
LQFP 14x14 100L package**

**MRDF - General Purpose Microcontroller Division (GPM)**

**What are the changes?**

ST General Purpose Microcontrollers Division decided to qualify an additional back-end assembly site. The full process transfer to ST MUAR 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 14x14 100L package.

Changes are described in table below:


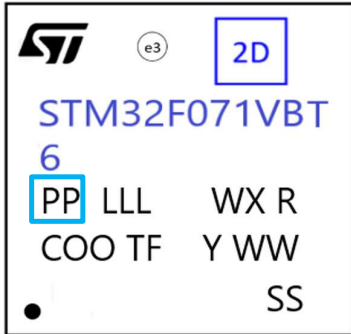
Assembly site	Existing back-end lines					Added back-end line
	ASE Kaohsiung (Taiwan)		AMKOR ATP (Philippine)			ST Muar (Malaysia)
STM32H74x/75x		<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>
STM32H72x/73x	<b>X</b>	<b>X</b>				<b>X</b>
STM32G47x/48x/G41x		<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>
LeadFrame	Copper, post-plated		Copper, pre-plated	Copper, post-plated		Copper, post-plated
Lead finishing <sup>(1)</sup>	Pure tin (e3)		NiPdAu (e4)	Pure tin (e3)		Pure tin (e3)
Molding Compound <sup>(2)</sup>	Sumitomo G631SH		Sumitomo G631HQ	Sumitomo G631SHQ		Sumitomo G700LS
Bonding Wire	Au 0.8MIL	CuPd 0.8MIL	Au 0.8MIL	CuPd 0.8MIL	Au 0.8MIL	Cu Alloy 0.8MIL
Die Attach Glue	SUMITOMO CRM 1076WA	HITACHI EN4900G	SUMITOMO CRM 1076YB	Ablestik 3230	Evertech AP4200	ABLESTIK ABP8302
Marking Composition	w/o 2D marking		w/o 2D marking	2D Marking		2D Marking

<sup>(1)</sup> Lead color and surface finishing may slightly vary depending on leadfinishing.

<sup>(2)</sup> 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	Existing (Example)	Added Back-End Site
LQFP 14x14 100L		
<b>PP</b> code	<b>AA:</b> ASE KaoHsiung (Philippines) <b>7B:</b> AMKOR ATP (Philippines)	<b>9H:</b> ST MUAR (Malaysia)

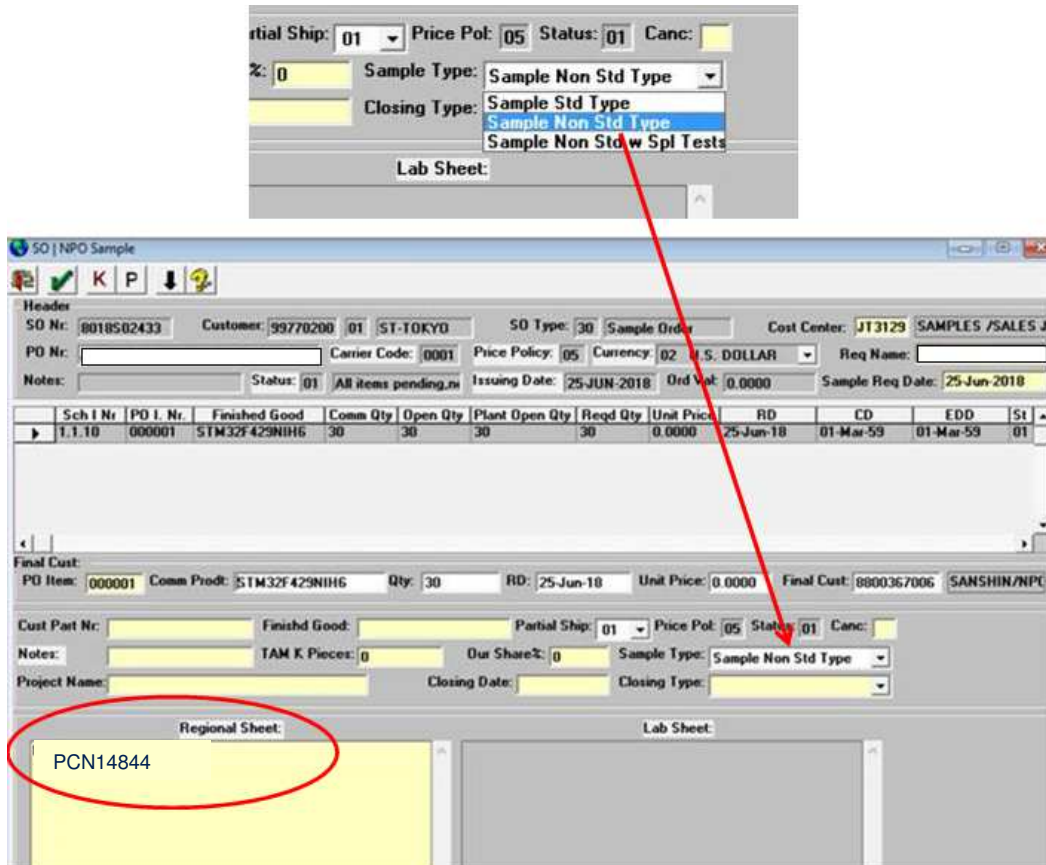
**Y WW code** indicates Year Week (manufacturing date)

**PP code** indicates assembly traceability plant code.

## 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 “**PCN14844**” into the NPO Electronic Sheet/**Regional Sheet**
- request sample(s) through Notice tool, indicating a single Commercial Product for each request



The screenshot displays the NPO Sample system interface. At the top, a dropdown menu for 'Sample Type' is open, showing options: 'Sample Std Type', 'Sample Non Std Type' (highlighted), and 'Sample Non Std w Spl Tests'. A red arrow points from this menu to the 'Sample Type' field in the main form. The main form includes fields for 'SO No.', 'Customer', 'SO Type', 'Cost Center', 'PO No.', 'Carrier Code', 'Price Policy', 'Currency', 'Req Name', 'Status', 'Issuing Date', 'Ord Val', and 'Sample Req Date'. Below these fields is a table with columns: 'Sch I No', 'PO I. No', 'Finished Good', 'Comm Qty', 'Open Qty', 'Plant Open Qty', 'Reqd Qty', 'Unit Price', 'RD', 'CD', 'EDD', and 'St'. The table contains one row with data: '1.1.10', '000001', 'STM32F429NIH6', '30', '30', '30', '30', '0.0000', '25-Jun-18', '01-Mar-59', '01-Mar-59', and '01'. Below the table, there are fields for 'Final Cust', 'PO Item', 'Comm Prod', 'Qty', 'RD', 'Unit Price', and 'Final Cost'. The 'Regional Sheet' section is highlighted with a red circle and contains the text 'PCN14844'.

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# **MDRF-GPM-RER2414 PCN14844 - ST Muar additional source for STM32H74x/75x, STM32H72x/73x and STM32G47x/48x/G41x listed products in LQFP 14x14 100L package**

## **Reliability Evaluation Plan**

**August 27<sup>th</sup>, 2024**

**MDRF GPM Quality & Reliability Department**





MDRF-GPM-RER2414 PCN14844 ST MUAR additional source for  
 STM32H74x/75x, STM32H72x/73x and STM32G47x/48x/G41x listed products  
 in LQFP 14x14 100L package  
**Package Test Vehicles**

Package line	Assembly Line	Package	Device (RawLine Code)	Diffusion Process Plant	Number of Reliability Lots
LQFP	LQFP 14*14	100L	A11L*469	TSMC90	1
LQFP	LQFP 14*14	100L	A21L*450	M40	1
LQFP	LQFP 14*14	100L	A11L*483	M40	1

# MDRF-GPM-RER2414 PCN14844 ST MUAR additional source for STM32H74x/75x, STM32H72x/73x and STM32G47x/48x/G41x listed products in LQFP 14x14 100L 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	231	3
Uhast(*)	UnBiased Highly Accelerated Temperature and Humidity Stress JESD22 A118	130°C, 85%RH, 2.3 atm	96h	77	3
TC(*)	Thermal Cycling JESD22 A104	-65°C +150°C	500Cy	77	3
THB(*)	Biased temperature & humidity stress JESD22 A101	85°C, 85% RH bias	1000h	77	3
HTSL	High Temperature Storage Life JESD22 A103	150°C- no bias	1000h	77	3
Construction analysis	JESD 22B102 JESDB100/B108	including Solderability, Physical dimensions	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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**PCN Title :** ST MUAR (Malaysia) additional source for STM32H74x/75x, STM32H72x/73x and STM32G47x/48x/G41x listed products in LQFP 14x14 100L package

**PCN Reference :** MICROCONTROLLERS/24/14844

**Subject :** Public Products List

Dear Customer,

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

STM32H742VGT6	STM32H723VGT6	STM32G473VET6TR
STM32G474VCT6	STM32H743VIT6TR	STM32H753VIT6
STM32G473VET6	STM32H750VBT6TR	STM32G483VET6
STM32G473VCT6TR	STM32G474VBT6	STM32G474VBT3TR
STM32G473VCT6	STM32H750VBT6	STM32H742VIT6TR
STM32G474VBT3	STM32G473VBT6	STM32H743VGT6
STM32H742VIT6	STM32G474VCT3TR	STM32H743VIT6
STM32G474VET3	STM32H733VGT6	STM32H742VGT6TR
STM32G484VET6	STM32G473VCT3TR	STM32H723VET6
STM32G474VET6	STM32G483VET3	STM32G473VCT3
STM32G474VET6TR	STM32G474VET3TR	STM32G473VET3
STM32H723VET6TR	STM32H730VBT6	STM32G483VET3TR

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