

PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company	 STMicroelectronics International N.V
1.2 PCN No.	MDG/24/14484
1.3 Title of PCN	STM32U535x & STM32U545x - product Enhancement
1.4 Product Category	STM32U535x, STM32U545x
1.5 Issue date	2024-04-11

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
2.2.2 Marketing Manager	Veronique BARLATIER
2.2.3 Quality Manager	Pascal NARCHE

3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
General Product & Design	Die redesign : Mask or mask set change with new die design like metallization (specifically chip frontside) or bug fix	TSMC FAB14 (Taiwan)

4. Description of change

	Old	New
4.1 Description	STM32U535x & STM32U545x (Die455 - cut1.1 revision Z) product shows some limitations	STM32U535x & STM32U545x (Die455 - cut1.2 revision Y) product fixes those limitations as described in the Errata Sheet (ES0587 Rev 4 / April 2024)
4.2 Anticipated Impact on form, fit, function, quality, reliability or processability?	Functionality enhancement	

5. Reason / motivation for change

5.1 Motivation	Improvements 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 Die revision changes from "Z" to "Y" on Package Marking.
-----------------	---

7. Timing / schedule

7.1 Date of qualification results	2024-04-08
7.2 Intended start of delivery	2024-06-25
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	14484 PCN14484_MDG-MCD-RER2103_STM32U5 512k - Die 455 - Rel Plan.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2024-04-11

9. Attachments (additional documentations)

14484 Public product.pdf
14484 PCN14484_MDG-MCD-RER2103_STM32U5 512k - Die 455 - Rel Plan.pdf
14484 PCN14484_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
	STM32U535CET6	
	STM32U535RET6	
	STM32U535VET6	
	STM32U545CET6Q	
	STM32U545CEU6Q	
	STM32U545RET6Q	
	STM32U545VEI6Q	
	STM32U545VET6Q	

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

STM32U535xx & STM32U545xx - product enhancement

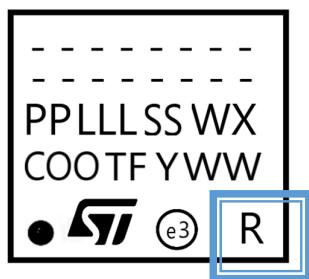
MDG – General Purpose Microcontrollers Division (GPM)

What are the changes?

Changes described in table below:

STM32U535xx & STM32U545xx	Current Die 455 CUT 1.1	New Die 455- CUT 1.2
Die revision Marking R	“Z”	“Y”

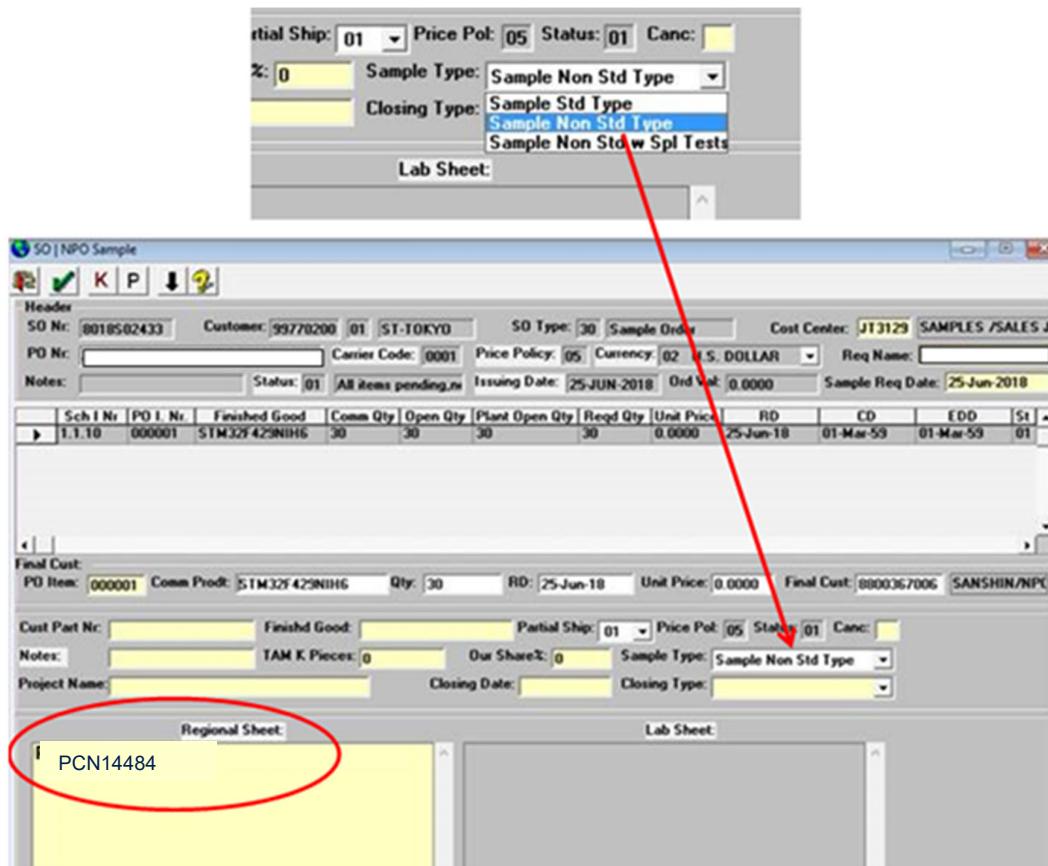
Example: Marking on package UFQFPN 7X7X0.55 48L



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 “**PCN14484**” into the NPO Electronic Sheet/**Regional Sheet**
- request sample(s) through Notice tool, indicating a single Commercial Product for each request



SO | NPO Sample

Header

SO Nr: 0010502433 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, no Issuing Date: 25-JUN-2018 Ord Val: 0.0000 Sample Req Date: 25-Jun-2018

Sch 1 Nr	PO 1 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 Prod: STM32F429NIH6 Qty: 30 RD: 25-Jun-18 Unit Price: 0.0000 Final Cust: 0000367006 SANSHIN/NPC

Cust Part Nr: Finished 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: **PCN14484**

Lab Sheet:

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.



PCN 14484 RER2103 Die 455XXX Cut 1.2 TSMC40ULP 40nm Reliability Plan

February 15th, 2024

MDG GPM Quality & Reliability Department

RER2103 – Die 455XXXY Cut 1.2

TSMC40ULP 40nm

Trial	Test	Method	Conditions	package	Bounding Option	Sample x lot
						455 Rev Y (Cut 1.2)
Die	HTOL	MIL-STD-883 Method 1005 JESD22A108	T _j 130°C 168h	LQFP100 14x14x1.4 P0.5mm	SMPS	77 x 1
						3 x 1
	LU	0018695 JESD78	T _j 130°C	LQFP100 14x14x1.4 P0.5mm	Legacy	3 x 1
					SMPS	3 x 1
				WLCSP72 P0.35mm	SMPS	3 x 1
	ESD HBM	ANSI/ESDA/JEDEC JS-001	Ta 25°C Min 1kV (Class 1C) Target 2kV (Class 2)	LQFP100 14x14x1.4 P0.5mm	Legacy	3 x 1
					SMPS	3 x 1
				WLCSP72 P0.35mm	SMPS	3 x 1
	ESD CDM	ANSI/ESDA/ JEDEC JS-002	Ta 25°C Min 250V (class C1) Target 500V (Class C2a)	LQFP100 14x14x1.4 P0.5mm	Legacy	3 x 1
					SMPS	3 x 1

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.

© 2024 STMicroelectronics - All rights reserved

Public Products List

Public 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 : STM32U535x & STM32U545x - product Enhancement

PCN Reference : MDG/24/14484

Subject : Public Products List

Dear Customer,

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

STM32U545JEY6QTR	STM32U545NEY6QTR	STM32U535RET6QTR
STM32U535JEY6QTR	STM32U535NCY6QTR	STM32U535NEY6QTR
STM32U535RET6	STM32U535CCU6	STM32U535REI6
STM32U535CCU6TR	STM32U535REI6Q	STM32U535CEU6Q
STM32U535VCT6	STM32U535CBT6	STM32U535CEU6
STM32U545VEI6	STM32U535RCT6	STM32U545RET6Q
STM32U545RET3	STM32U535CBT6Q	STM32U535CET6
STM32U545CET6	STM32U545VET6Q	STM32U535RET6Q
STM32U535REI6TR	STM32U535RBT6	STM32U545CEU6TR
STM32U535VET6Q	STM32U545RET6	STM32U535VCI6Q
STM32U535VEI3	STM32U535VCI6	STM32U545CEU6Q
STM32U535RBT6Q	STM32U545REI6	STM32U535CCT6Q
STM32U545CEU6	STM32U535CBU6Q	STM32U545REI6Q
STM32U535VEI3TR	STM32U535CCT6	STM32U535RCT6Q
STM32U535CCU6Q	STM32U535VET6	STM32U535VEI6Q
STM32U545VEI6Q	STM32U545VET6	STM32U535VEI6
STM32U535RBI6Q	STM32U535RET6TR	STM32U535RCI6Q
STM32U545CET6Q	STM32U535CBU6	STM32U535CET6Q
STM32U535CEU6QTR		

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