

PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company	 STMicroelectronics International N.V
1.2 PCN No.	MDG/24/14486
1.3 Title of PCN	STM32U575x & STM32U585x - product Enhancement
1.4 Product Category	STM32U575x STM32U585x
1.5 Issue date	2024-07-10

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	STM32U575xx and STM32U585xx - (Die482 - cut3.1 revision W) product shows several limitations as described in Errata Sheet (ES0499 - Rev 9 -January 2024) : - Device hang-up can occur when wakeup request received a few clock cycles before entering Stop 2 or Stop 3 mode - Device may be locked upon system reset under Stop 2 mode - Device may hang up when entering low-power modes	STM32U575xx and STM32U585xx - (Die482 - cut3.3 revision U) product enhancement fixes three limitations related to low-power modes as described in Errata Sheet (ES0499 - Rev 10 - July 2024): - Device hang-up can occur when wakeup request received a few clock cycles before entering Stop 2 or Stop 3 mode - Device may be locked upon system reset under Stop 2 mode - Device may hang up when entering low-power modes
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	Functionality enhancement	

5. Reason / motivation for change

5.1 Motivation	Improvements was 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 "W" to "U" on Package Marking.
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7. Timing / schedule

7.1 Date of qualification results	2024-07-31
7.2 Intended start of delivery	2024-10-01
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	14486 RERMCD1919 STM32U5 Die 482U cut3.3 - qual plan.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2024-07-10

9. Attachments (additional documentations)

14486 Public product.pdf
 14486 RERMCD1919 STM32U5 Die 482U cut3.3 - qual plan.pdf
 14486 PCN14486_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
	STM32U575CGT6	
	STM32U575CGU6	
	STM32U575CIT6	
	STM32U575CIT6Q	
	STM32U575CIU6Q	
	STM32U575QII6Q	
	STM32U575RGTR6	
	STM32U575RGTR6TR	
	STM32U575RIT6	
	STM32U575RIT6Q	
	STM32U575VGT6	
	STM32U575VGT6Q	
	STM32U575VGT6TR	
	STM32U575VIT6	
	STM32U575VIT6Q	
	STM32U575ZIT6	
	STM32U575ZIT6Q	
	STM32U585AI6	
	STM32U585AI6Q	
	STM32U585CIT6	
	STM32U585CIT6Q	
	STM32U585CIU6	
	STM32U585CIU6Q	
	STM32U585OIY6QTR	
	STM32U585QII3	
	STM32U585QII3TR	
	STM32U585QII6	
	STM32U585QII6Q	
	STM32U585RIT6	
	STM32U585RIT6Q	
	STM32U585VIT6	
	STM32U585VIT6Q	
	STM32U585VIT6TR	
	STM32U585ZIT6	

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STM32U575x and STM32U585x - product enhancement

MDG – General Purpose Microcontrollers Division (GPM)

What are the changes?

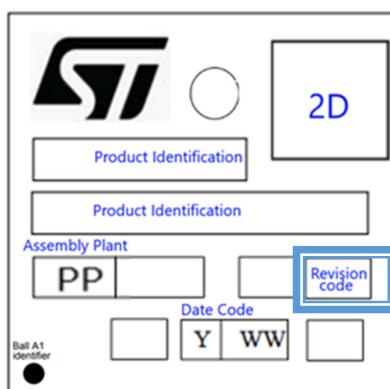
STM32U575xx and STM32U585xx (Die482 - cut3.3 revision U) product enhancement fixes three limitations related to low-power modes as described in Errata Sheet (ES0499 - Rev 10 - July 2024):

- Device hang-up can occur when wakeup request received a few clock cycles before entering Stop 2 or Stop 3 mode.
- Device may be locked upon system reset under Stop 2 mode.
- Device may hang up when entering low-power modes.

Changes described in table below:

STM32U575x STM32U585x	Current Die 482 Cut 3.1	New Die 482 Cut3.3
Die revision Marking R	“W”	“U”

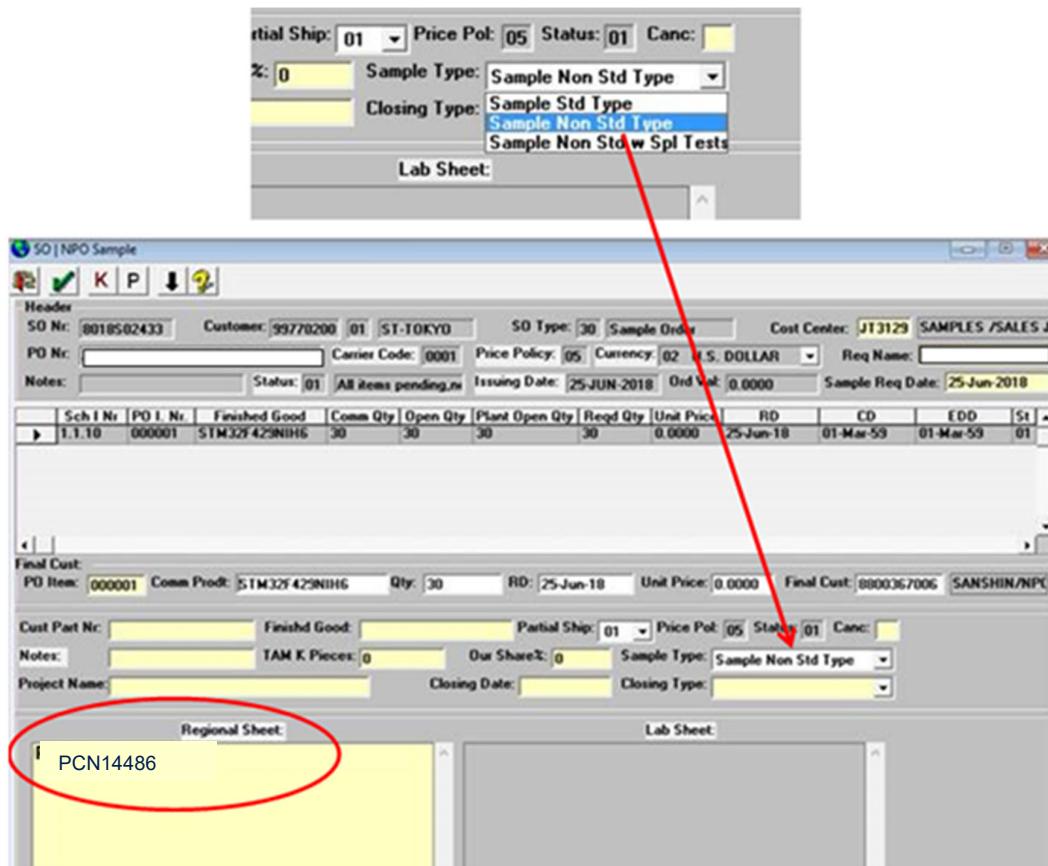
Example: Marking on package UFBGA 7X7X0.6 132L



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 “**PCN14486**” 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,ns 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: 8800367006 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: **PCN14486**

Lab Sheet:

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Public Products List

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PCN Title : STM32U575x & STM32U585x - product Enhancement

PCN Reference : MDG/24/14486

Subject : Public Products List

Dear Customer,

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

STM32U585CIT6	STM32U585CIU6	STM32U585VIT6TR
STM32U575ZGT6Q	STM32U575VIT6TR	STM32U575AGI6TR
STM32U575CIT6Q	STM32U585CIT3	STM32U575RGT6TR
STM32U585ZIT3Q	STM32U585OIY6QTR	STM32U585RIT3TR
STM32U575QGI3	STM32U585QII6TR	STM32U585VIT6Q
STM32U575CGU6	STM32U585RIT6TR	STM32U585AII6TR
STM32U575OGY3QTR	STM32U575VGT3	STM32U575CIT6
STM32U575OIY6QTR	STM32U585ZIT6Q	STM32U575QII3
STM32U575VGT6Q	STM32U585QII3	STM32U575QII6
STM32U575VGT6TR	STM32U575ZIT6Q	STM32U575OGY6QTR
STM32U585AII6Q	STM32U585CIU6Q	STM32U575CGT6
STM32U575CGT6Q	STM32U585VIT3TR	STM32U585AII6
STM32U575CGU6Q	STM32U575RGT3	STM32U585QII6Q
STM32U585QII3QTR	STM32U585RIT3	STM32U575VGT3TR
STM32U575VIT6Q	STM32U575QGI3TR	STM32U575RIT3
STM32U575QII3TR	STM32U585VIT3	STM32U575CIU6
STM32U585RIT6Q	STM32U575AGI6	STM32U585CIU3Q
STM32U575QGI6Q	STM32U585CIT6Q	STM32U575ZIT6TR
STM32U585AII6QTR	STM32U575RGT6Q	STM32U575CGU6TR
STM32U575ZGT3QTR	STM32U575CGU3	STM32U575QII6Q
STM32U575AII6	STM32U585CIT3TR	STM32U575ZIT3Q
STM32U585QII6	STM32U585VIT3Q	STM32U575RIT6Q
STM32U585QII3TR	STM32U575VIT6	STM32U585RIT6
STM32U575RIT6	STM32U575VGT6	STM32U575ZGT3Q
STM32U575ZIT6	STM32U575VIT6QTR	STM32U585QII6QTR
STM32U585ZIT3QTR	STM32U575QGI6	STM32U585RIT3Q
STM32U575ZGT6	STM32U575AII6Q	STM32U575ZGT3
STM32U575OIY3QTR	STM32U585RIT6QTR	STM32U575CIU6Q
STM32U575ZIT3QTR	STM32U575QGI3Q	STM32U575RGT6
STM32U585AII3	STM32U575AGI6Q	STM32U585ZIT6
STM32U585VIT6QTR	STM32U585QII3Q	STM32U585CIU6TR
STM32U575QGI6TR	STM32U575CGU3Q	STM32U585VIT6
STM32U575QII6TR		

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PCN14486 : RERMCD1919 STM32U585VIT6 rev U Die 482U Cut 3.3 TSMC CMOS40 – Reliability Plan

June 28th, 2024

MDRF GPM Quality & Reliability Department

PCN14486 : RERMCD1919 Die 482U Cut 3.3 TSMC CMOS40nm

Trial	Test	Method	Conditions	Test 2	Method 2	Conditions 2	package	Sample x lot
Die Oriented Reliability Trials	HTOL	MIL-STD-883 Method 1005 JESD22A108	T _j 130°C VGO1Max: 1.26V VGO2Max: 3.63V 168 h				UFBGA 7x7 169L pitch 0.5, gold, legacy.	482XXXU 77 x 1
	LU	0018695 JESD78	T _j 130°C					482XXXU 3 x 1
	ESD HBM	ANSI/ESDA/JEDEC JS-001	T _a 25°C Min 1KV (Class 1C) Target 2KV (Class 2)					482XXXU 3 x 1
	ESD CDM	ANSI/ESDA/ JEDEC JS-002	T _a 25°C Min 250V (class C1) Target 500V (Class C2a)					482XXXU 3 x 1

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