

PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company	 STMicroelectronics International N.V
1.2 PCN No.	MDG/24/14661
1.3 Title of PCN	JSCC (China) UFQFPN 7X7 48L new BOM for STM32U53/545x STM32U57/585x listed products.
1.4 Product Category	STM32U535x STM32U545x, STM32U575x, STM32U585x
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
2.1.2 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
Materials	Direct Material: Bond Wire - Metallurgy (metallic composition/ raw material)	JSCC (China)

4. Description of change

	Old	New
4.1 Description	Assembly lines / wire bonding: - JSCC (China) / Gold wire	Assembly lines / wire bonding: - JSCC (China) / Gold wire - JSCC (China) / Copper Palladium wire additional source
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	no impact on form, Fit, Function	

5. Reason / motivation for change

5.1 Motivation	To improve service
5.2 Customer Benefit	SERVICE IMPROVEMENT

6. Marking of parts / traceability of change

6.1 Description	traceability ensured by ST Internal tools
-----------------	---

7. Timing / schedule

7.1 Date of qualification results	2024-05-15
7.2 Intended start of delivery	2024-05-30
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	14661 MDRF-GPM-RER2401 PCN14536-PCN14661 - JSCC QFN package CuPd_ STM32 lstd prd - rel plan.pdf
8.2 Qualification report and qualification results	Available (see attachment)

Issue Date 2024-04-11

9. Attachments (additional documentations)

14661 Public product.pdf
14661 MDRF-GPM-RER2401 PCN14536-PCN14661 - JSCC QFN package CuPd_ STM32 Istd prd - rel plan.pdf
14661 PCN14661_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
	STM32U545CEU6Q	
	STM32U575CIU6Q	
	STM32U585CIU6	
	STM32U585CIU6Q	

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

MDG-GPM-RER2401

JSCC(China) UFQFPN 5X5 32L, UFQFPN 7X7 48L and VFQFPN 8X8 68L new BOM for STM32H50x & STM32H56x/H7x listed product

Reliability Evaluation Plan

10 April, 2024

MDRF GPM Quality & Reliability Department



JSCC(China) UFQFPN 5X5 32L, UFQFPN 7X7 48L and VFQFPN 8X8 68L

MDG-GPM-RER2401

new BOM

Package Test Vehicles

Package line	Assembly Line	Package	Device (RawLine Code)	Diffusion Process Plant	Number of Reliability Lots	Full
UQFN	UQFPN 7x7	48L	MI*474	Crolles E40	1	Full
	UQFPN 7x7	48L	MI*455	TSMC N40	2	Full

Reliability strategy:

- Reliability will be performed on 3 lots from representative test vehicles of STM32H50x & STM32H56x/H7x listed products, to cover both Crolles E40 / TSMC N40 technologies. Refer to details in above and next tables.

MDG-GPM-RER2401

JSCC(China) UFQFPN 5X5 32L, UFQFPN 7X7 48L and VFQFPN 8X8 68L new BOM 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	308 (for 474) or 271 (for 455)	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	77 (for 474) or 40 (for 455)	3
HTSL(*)	High Temperature Storage Life JESD22 A103	150°C- no bias	1000h	77	3
Construction analysis	JESDB100/B108 ST internal specifications	Construction analysis including physical dimensions measurement, Ball shear, pull test	NA	50	2
ESD	ESD Charge Device Model JEDEC JS-002	Aligned with device datasheet	Aligned with device datasheet	3	2

(*) tests performed after preconditioning

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.



PRODUCT/PROCESS CHANGE NOTIFICATION

PCN14661 – Additional information

JSCC (China) UFQFPN 7X7 48L new BOM for STM32U53/545x STM32U57/585x listed products.

MDRF – General Purpose Microcontrollers Division (GPM)

What are the changes?

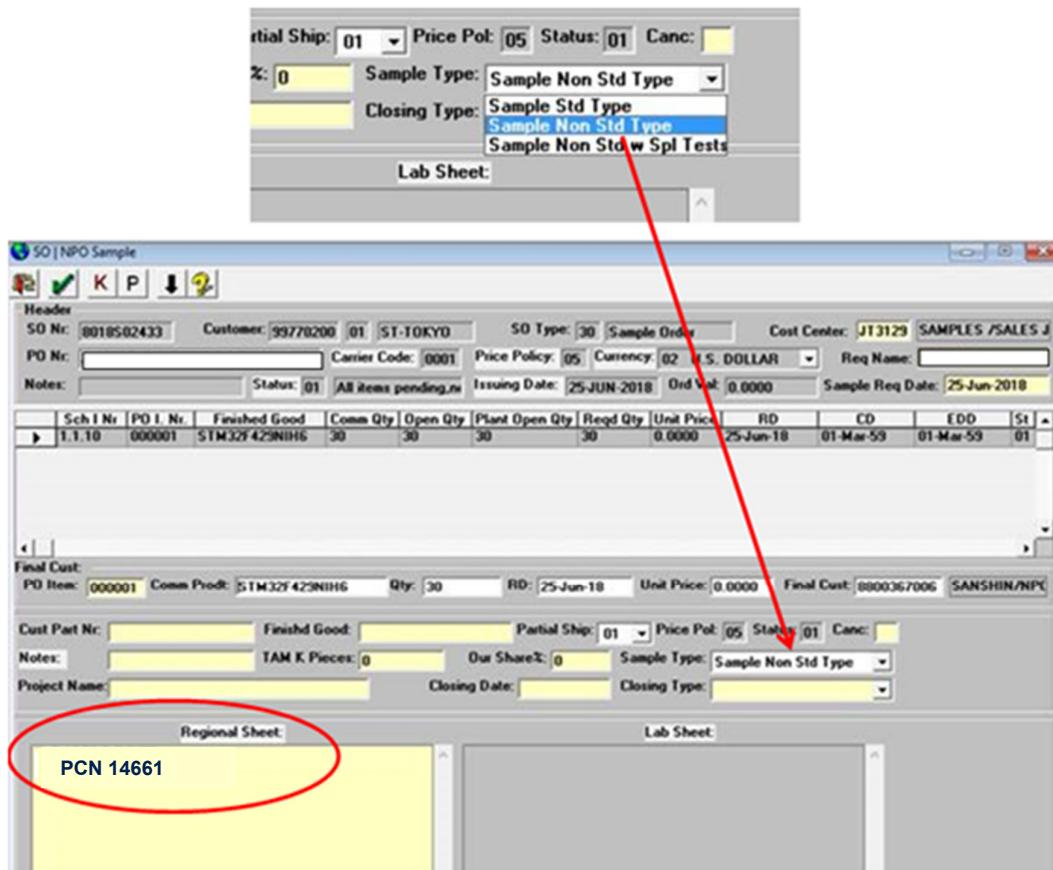
Changes described in table below:

	Existing back-end line	Added back-end line
Assembly site	StatsChipPAC JSCC Jiangyin (China)	
Molding Compound	SUMITOMO G770	Sumitomo G631BQ-CJ
Wire	Gold 0.8mil	Copper Palladium 0.8mil

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 “**PCN14661**” into the NPO Electronic Sheet/**Regional Sheet**.
- request sample(s) through Notice tool, indicating a single Commercial Product for each request.





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.

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 : JSCC (China) UFQFPN 7X7 48L new BOM for STM32U53/545x STM32U57/585x listed products.

PCN Reference : MDG/24/14661

Subject : Public Products List

Dear Customer,

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

STM32U575CGU3	STM32U575CGU6	STM32U585CIU6
STM32U585CIU6Q	STM32U535CCU6	STM32U575CIU6
STM32U585CIU3Q	STM32U535CCU6TR	STM32U575CGU3Q
STM32U535CEU6Q	STM32U545CEU6	STM32U535CEU6
STM32U575CGU6Q	STM32U575CGU6TR	STM32U535CBU6Q
STM32U575CIU6Q	STM32U545CEU6TR	STM32U535CCU6Q
STM32U545CEU6Q	STM32U585CIU6TR	STM32U535CEU6QTR
STM32U535CBU6		

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