


PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCN No.	ADG/22/13635	
1.3 Title of PCN	SPC58xGx, SPC58xEx (FH84, FH86): Activation of Samsung as Additional Diffusion Plant	
1.4 Product Category	see list	
1.5 Issue date	2022-09-05	

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	Luca RODESCHINI
2.1.2 Marketing Manager	Matteo MOIOLI
2.1.3 Quality Manager	Alberto MERVIC

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: Wafer fabrication	Subcontractor Samsung - Korea

4. Description of change

	Old	New
4.1 Description	ST Crolles Diffusion Plant	ST Crolles and Subcontractor Samsung Diffusion Plant
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	No Impact	

5. Reason / motivation for change

5.1 Motivation	Dual Sourcing Strategy and Service and Capacity Improvement
5.2 Customer Benefit	CAPACITY INCREASE

6. Marking of parts / traceability of change

6.1 Description	Dedicated Finished Good Codes
-----------------	-------------------------------

7. Timing / schedule

7.1 Date of qualification results	2023-01-30
7.2 Intended start of delivery	2023-03-31
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description			
8.2 Qualification report and qualification results	In progress	Issue Date	

9. Attachments (additional documentations)

13635 Public product.pdf
13635 Details.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
	SPC58EE80E7QMHAY	
	SPC58EE84E7QMSAR	
	SPC58EG80E5FEC0X	
	SPC58EG80E5QEC0X	
	SPC58NE84C3QMHAR	
	SPC58NE84E7QMHAR	
	SPC58NE84E7QMSAR	
	SPC58NG84E7QEH0Y	

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.

© 2018 STMicroelectronics – All rights reserved

PRODUCT/PROCESS CHANGE NOTIFICATION

TITLE	SPC58xGx, SPC58xEx (FH84, FH86): Activation of Samsung as Additional Diffusion Plant																																														
IMPACTED PRODUCTS	Silicon lines FH84 and FH86 (Chorus6M, Eiger) assembled in QFP-176 and BGA packages. Bare die option will not be transferred.																																														
MANUFACT. STEP	Silicon Diffusion																																														
INVOLVED PLANT	Subcontractor Samsung																																														
CHANGE REASON	Dual Sourcing Strategy and Service and Capacity Improvement																																														
CHANGE DESCRIPTION	Activation of Subcontractor Samsung as additional silicon diffusion source																																														
TRACEABILITY	Dedicated Finished Good Codes																																														
VALIDATION	<p>According to ZVEI (AEC-Q100/Q006) recommendations, item SEM-PW-13 Move all or parts of production to a different wafer fab site</p> <table border="1"> <thead> <tr> <th colspan="2">AEC-Q100 Revision H</th> </tr> </thead> <tbody> <tr> <td>THB</td><td>Temperature Humidity Bias or biased HAST</td> </tr> <tr> <td>AC</td><td>Autoclave or Unbiased HAST</td> </tr> <tr> <td>TC</td><td>Temperature Cycling</td> </tr> <tr> <td>PTC</td><td>Power Temperature Cycling</td> </tr> <tr> <td>HTOL</td><td>High Temperature Operating Life</td> </tr> <tr> <td>ELFR</td><td>Early Life Failure Rate</td> </tr> <tr> <td>EDR</td><td>NVM Endurance, Data Retention, and Operational Life</td> </tr> <tr> <td>WBS</td><td>Wire Bond Shear</td> </tr> <tr> <td>WBP</td><td>Wire Bond Pull</td> </tr> <tr> <td>EM</td><td>Electromigration</td> </tr> <tr> <td>TDDB</td><td>Time Depending Dielectric Breakdown</td> </tr> <tr> <td>HCI</td><td>Hot Carrier Injection</td> </tr> <tr> <td>NEBT</td><td>Negative Bias Temperature Instability</td> </tr> <tr> <td>SM</td><td>Stress Migration</td> </tr> <tr> <td>HBM</td><td>Electronic Discharge Human Body Model</td> </tr> <tr> <td>CDM</td><td>Electronic Discharge Charged Device Model</td> </tr> <tr> <td>LU</td><td>Latch up</td> </tr> <tr> <td>ED</td><td>Electrical Distribution</td> </tr> <tr> <td>MECH</td><td>Hermetic Package Test</td> </tr> <tr> <td>DS</td><td>Die Shear</td> </tr> <tr> <td></td><td>Parameter-Analysis: Comparison of current with changed device characterization, electrical distribution</td> </tr> <tr> <td></td><td>For Cu Wire Products: Consider AEC-Q006</td> </tr> </tbody> </table>	AEC-Q100 Revision H		THB	Temperature Humidity Bias or biased HAST	AC	Autoclave or Unbiased HAST	TC	Temperature Cycling	PTC	Power Temperature Cycling	HTOL	High Temperature Operating Life	ELFR	Early Life Failure Rate	EDR	NVM Endurance, Data Retention, and Operational Life	WBS	Wire Bond Shear	WBP	Wire Bond Pull	EM	Electromigration	TDDB	Time Depending Dielectric Breakdown	HCI	Hot Carrier Injection	NEBT	Negative Bias Temperature Instability	SM	Stress Migration	HBM	Electronic Discharge Human Body Model	CDM	Electronic Discharge Charged Device Model	LU	Latch up	ED	Electrical Distribution	MECH	Hermetic Package Test	DS	Die Shear		Parameter-Analysis: Comparison of current with changed device characterization, electrical distribution		For Cu Wire Products: Consider AEC-Q006
AEC-Q100 Revision H																																															
THB	Temperature Humidity Bias or biased HAST																																														
AC	Autoclave or Unbiased HAST																																														
TC	Temperature Cycling																																														
PTC	Power Temperature Cycling																																														
HTOL	High Temperature Operating Life																																														
ELFR	Early Life Failure Rate																																														
EDR	NVM Endurance, Data Retention, and Operational Life																																														
WBS	Wire Bond Shear																																														
WBP	Wire Bond Pull																																														
EM	Electromigration																																														
TDDB	Time Depending Dielectric Breakdown																																														
HCI	Hot Carrier Injection																																														
NEBT	Negative Bias Temperature Instability																																														
SM	Stress Migration																																														
HBM	Electronic Discharge Human Body Model																																														
CDM	Electronic Discharge Charged Device Model																																														
LU	Latch up																																														
ED	Electrical Distribution																																														
MECH	Hermetic Package Test																																														
DS	Die Shear																																														
	Parameter-Analysis: Comparison of current with changed device characterization, electrical distribution																																														
	For Cu Wire Products: Consider AEC-Q006																																														
CURRENT PRODUCTS	Current diffusion site (Crolles) will be kept in production to have a full dual source capability. Main production plant will be Samsung																																														
REPORTS	Transfer qualification is presently in progress. AEC-Q100 Reliability Report will be provided with complete set of qualification (including AEC-Q006 results) within Jan 2023																																														
IMPLEMENT.	Change activation is proposed upon ST full qualification, pending Customer approval. Start of Production is foreseen for Q1'23 and will be progressive according to the qualification schedule.																																														



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 : SPC58xGx, SPC58xEx (FH84, FH86): Activation of Samsung as Additional Diffusion Plant

PCN Reference : ADG/22/13635

Subject : Public Products List

Dear Customer,

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

SPC58NE84C3QM HAR	SPC58NE80E7QM HAY	SPC58EG80E5FEC0X
SPC58NG84C3GEC0X	SPC58NE84C3QM HAY	SPC58NG84C3QTH0Y
SPC58NE84E7QMSAR	SPC58NG84E7QEH0Y	SPC58NG84E7QEH0X
SPC58EE80E7QM HAY	SPC58EG80E5PEC0X	SPC58NG80E5QEC0X
SPC58NE84E7QM HAR	SPC58NE84E7QM HAY	SPC58EE84E7QMSAR
SPC58NG84C3QTH0X	SPC58EG84E5GEC0X	SPC58EG80E5QEH0Y
SPC58EG80E5QEC0X	SPC58EG80E5P0H0Y	



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.