PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data	
1.1 Company	STMicroelectronics International N.V
1.2 PCN No.	ADG/23/14177
1.3 Title of PCN	L9959x (UM29,MV19): Diffusion Transfer to SMEC Foundry
1.4 Product Category	see list
1.5 Issue date	2023-06-13

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	Fabrizio CASSANI
2.1.2 Marketing Manager	Alberto CAROLI
2.1.3 Quality Manager	Alberto BIGNAZZI

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	SMEC Foundry - Shaoxing (China).

4. Description of change		
	Old	New
4.1 Description	Diffusion Locations: ST Agrate / ST Singapore	Diffusion Location: SMEC 2nd source approach possibility for ST Agrate / ST Singapore
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	No Impact	

5. Reason / motivation for change	
5.1 Motivation	Service and Capacity improvement. Diffusion transfer is going to allow increased overall Front-End capacity.
5.2 Customer Benefit	SERVICE IMPROVEMENT

6. Marking of parts / traceability of change	
6.1 Description	Dedicated Finished Good codes

7. Timing / schedule	
7.1 Date of qualification results	2023-12-15
7.2 Intended start of delivery	2024-01-01
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)
14177 Public product.pdf 14177 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
	L9959S-TR-D	
	L9959T-TR-D	

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PRODUCT/PROCESS CHANGE NOTIFICATION

TITLE	**L9959x (UM29, MV19): Diffusion Transfer to SMEC Foundry**
IMPACTED PRODUCTS	Following ST lines manufactured in BCD6s technology: - UM29 diffused in Agrate/Singapore and assembled in PowerSSO24 package (Muar) - UM29 diffused in Agrate/Singapore and assembled in PowerSSO36 package (Muar) - MV19 diffused in Agrate/Singapore and assembled in PowerSSO36 package (Muar) Detailed part numbers list is attached.
MANUFACTURING STEP	Wafers diffusion.
INVOLVED PLANT	SMEC Foundry (ST Subcontractor) located in Shaoxing (China).
CHANGE REASON	Service and Capacity improvement. Diffusion transfer is going to allow increased overall Front-End capacity.
CHANGE DESCRIPTION	Product diffusion transfer from ST Agrate and ST Singapore to SMEC Foundry. A brief Company introduction with relevant Automotive Certifications (e.g. IATF16949) is attached.
TRACEABILITY	Dedicated Finished Good codes.
VALIDATION	Validation according to AEC-Q100 and AEC-Q006 standards, by applying ZVEI Delta Qualification Matrix item SEM-PW-13 - Move all or parts of production to a different wafer fab site, resulting in the plan shown here below:

Temperature Humidity Bias or biased HAST	Autoclave or Unbiased HAST	Temperature Cycling	Power Temperature Cycling	High Temperature Storage Life	High Temperature Operating Life	Early Life Failure Rate	Wire Bond Shear	Wire Bond Pull	Electromigration	Time Depending Dielectric Breakdown	Hot Carrier Injection	Negative Bias Temperature Instability	Stress Migration	Electronic Discharge Human Body Model	Electronic Discharge Charged Device Model	Latch up	Electrical Distribution	For Cu Wire Products: Consider AEC-Q006			
THB	AC	TC	PTC	HTSL	HTOL	ELFR	WBS	WBP	EM	TDDB	HCI	NBTI	SM	HBM	CDM	LU	ED				
A2	A3	A4	A5	A6	B1	B2	C1	C2	D1	D2	D3	D4	D5	E2	E3	E4	E5				
•	•	•	M	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			

To cover the different Front-End vs. Back-End configurations the following scheme has been adopted:

- 1 lot UM29 - PowerSSO24
- 2 lots MV19 - PowerSSO36 (covering UM29 - PowerSSO36 for similarity)

CURRENT PRODUCTS	New diffusion site SMEC will be used for production, with 2nd source approach possibility for the sending plants.
REPORTS	Qualification activity is in progress, with completion forecast by end 2023.

Public Products List

Publict 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 : L9959x (UM29,MV19): Diffusion Transfer to SMEC Foundry

PCN Reference : ADG/23/14177

Subject : Public Products List

Dear Customer,

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

L9959S-TR-D	L9959U-TR-D	L9959T-TR-D

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