PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company	STMicroelectronics International N.V
1.2 PCN No.	ADG/21/12703
1.3 Title of PCN	L99DZxx / L99PCxx : High Density NEAP Leadframe Introduction (LQFP-64 Package Upgrade)
1.4 Product Category	see list
1.5 Issue date	2021-04-08

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	Vito GRAZIANO
2.1.2 Marketing Manager	Angelo MOTTESE
2.1.3 Quality Manager	Marcello Donato MENCHISE

3. Change

3.1 Category	**3.2 Type of change**	**3.3 Manufacturing Location**
Materials	New direct material part number (same supplier, different supplier or new supplier), Lead frame base material	ST Muar (Malaysia)

4. Description of change

	Old	**New**
4.1 Description	- Leadframe finishing: Pre Plated Frame - Ni/Pd/Ag-Au - Leads finishing: from PPF (e4) - Ni/Pd/Ag-Au - Mold injection point: corner top gate - Marking: standard	- Leadframe finishing: NEAP (Non Etching Adhesion Promoter) - Leads finishing: pure Sn (e3) - Mold injection point: central top gate - Marking: re-layout linked to central top gate, with 2D mark and sublot information introduction
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	No Impact	

5. Reason / motivation for change

5.1 Motivation	Service and Quality improvement. Manufacturing process optimization
5.2 Customer Benefit	QUALITY IMPROVEMENT

6. Marking of parts / traceability of change

6.1 Description	Dedicated Finished Good Codes

7. Timing / schedule

7.1 Date of qualification results	2021-12-15
7.2 Intended start of delivery	2022-01-16
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)
12703 Public product.pdf 12703 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
	L99DZ100GPTR	
	L99DZ100GTR	

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PRODUCT/PROCESS CHANGE NOTIFICATION

TITLE

L99DZxx / L99PCxx : High Density NEAP Leadframe Introduction (LQFP-64 Package Upgrade)

IMPACTED PRODUCTS

ST silicon lines diffused in BCD8S Auto technology and assembled in LQFP 64 10x10x1.4 Exposed Pad Down package:

UAJ9	UAN9	UBF9
UAM6	UBA9	UBFK
UAN7	UBBK	
UAN8	UBDG	

corresponding to L99DZxx / L99PCxx part numbers.

MANUFACT. STEP

Assembly

INVOLVED PLANT

ST Muar Plant (Malaysia)

CHANGE REASON

Service and Quality improvement. Manufacturing process optimization.

CHANGE DESCRIPTION

Package upgrade through introduction of following changes:

- leadframe finishing: from current RT PPF (Rough Treatment Pre-Plated) to NEAP (Non Etching Adhesion Promoter) – improved resin/frame adhesion (i.e. robustness);
- leads finishing: from PPF (e4) to pure Sn (e3);
- mold injection point: from corner to central top gate (reduced wire sweeping risk);
- marking: re-layout linked to central top gate, with 2D mark and sublot information introduction.

TRACEABILITY

Dedicated Finished Good code (internal part number) and product marking (layout)

VALIDATION

According to ZVEI Delta Qualification Matrix corresponding to following selected items:

- SEM-PA-04 Change of lead frame finishing material / area (internal)
- SEM-PA-05 Change of lead and heat slug plating material/plating thickness (external)

- SEM-PA-13 Change of product marking
- SEM-PA-14 Change in process technology (leadframe)

leading to the following reliability qualification plan:

AEC-Q100 Revision H	Check of specification (for raw material only)	Temperature Humidity Bias or biased HAST	Autoclave or Unbiased HAST	Temperature Cycling	Power Temperature Cycling	High Temperature Storage Life	Wire Bond Pull	Solderability	Lead Integrity	Lead free	Hermetic Package Test	Die Shear	For Cu Wire Products: Consider AEC-Q006
		THB	AC	TC	PTC	HTSL	WBP	SD	LI	LF	MECH	DS	
		A2	A3	A4	A5	A6	C2	C3	C6	E12	G1-4	G7	
●	●	●	●	●	M	●	C	B,●	●	L	H	H	●

B	For symbol rework, new cure time, temp
C	If bond to lead finger
H	Hermetic only
L	Lead free
M	For devices requiring PTC

CURRENT PRODUCTS Replaced by new version featuring new upgraded package

REPORTS Activity in progress. Reports available by 2021Q4.

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 : L99DZxx / L99PCxx : High Density NEAP Leadframe Introduction (LQFP-64 Package Upgrade)
PCN Reference : ADG/21/12703

Subject : Public Products List

Dear Customer,

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

L99DZ100G	**L99DZ100GTR**	**L99DZ100GPTR**
L99DZ200G		

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