

PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company	 STMicroelectronics International N.V
1.2 PCN No.	ADG/23/14120
1.3 Title of PCN	Microcontrollers (M10 Family): Activation of SSHD Assembly Line in Malta on LQFP176 / LQFP144 Packages – Second wave
1.4 Product Category	see list
1.5 Issue date	2023-05-23

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
Materials	New direct material part number (same supplier, different supplier or new supplier), Lead frame base material	ST Kirkop - Malta

4. Description of change

	Old	New
4.1 Description	Standard Leadframe ABLESTIK 3280T Die Attach EME-G700LS Mold Compound CuPd 0.7 mils Wire	Super Super High Density (SSHD) Leadframe ABLESTIK 8303A-2B1 Die Attach CEL 9240ZHF10S9 Mold Compound Cu 0.8 / 0.7 mils Wire
4.2 Anticipated Impact on form, fit, function, quality, reliability or processability?	No impact	

5. Reason / motivation for change

5.1 Motivation	Service – Assembly throughput increasing Quality – Automated new assembly line
5.2 Customer Benefit	YIELD IMPROVEMENT

6. Marking of parts / traceability of change

6.1 Description	Dedicated Finished Codes
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7. Timing / schedule

7.1 Date of qualification results	2024-03-31
7.2 Intended start of delivery	2024-03-31
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	
8.2 Qualification report and qualification results	In progress

9. Attachments (additional documentations)

14120 Public product.pdf
14120 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
	SPC560B40L5C6E0X	
	SPC560B50L5C6E0X	
	SPC560B50L5C6E0Y	
	SPC560B54L5B6E0Y	
	SPC560B60L5B6E0Y	
	SPC560B64L5C6E0X	
	SPC560P50L5CEFAR	
	SPC563M64L7COAR	
	SPC563M64L7COAY	
	SPC564A80L7CFAR	

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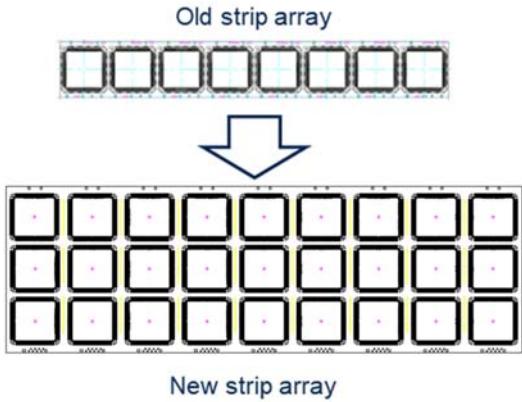
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PRODUCT/PROCESS CHANGE NOTIFICATION

TITLE	Microcontrollers (M10 Family): Activation of SSHD Assembly Line in Malta on LQFP176 / LQFP144 Packages – Second wave									
IMPACTED PRODUCTS	<p>LQFP 176 24x24x1.4 package:</p> <ul style="list-style-type: none"> FM64 – Monaco 1.5M FA70 – Andorra 2M FA80 – Andorra 4M <p>LQFP 144 20X20X1.4 package:</p> <ul style="list-style-type: none"> FB64 – Bolero 1.5M FB50 – Bolero 512K FP60 – Pictus 1M FP50 – Pictus 512M 									
MANUFACT. STEP	Assembly									
INVOLVED PLANT	Kirkop – Malta BE									
CHANGE REASON	<p>Service – assembly throughput increasing</p> <p>Quality – automated new assembly line</p>									
CHANGE DESCRIPTION	<p>Activation of SSHD line in Malta on M10 product family on LQFP176 and LQFP144</p>  <table border="1" data-bbox="1024 1748 1351 1854"> <thead> <tr> <th>Package</th> <th>Old Strip array</th> <th>New strip array</th> </tr> </thead> <tbody> <tr> <td>LQFP176</td> <td>1x8</td> <td>3x9</td> </tr> <tr> <td>LQFP144</td> <td>1x8</td> <td>3x11</td> </tr> </tbody> </table>	Package	Old Strip array	New strip array	LQFP176	1x8	3x9	LQFP144	1x8	3x11
Package	Old Strip array	New strip array								
LQFP176	1x8	3x9								
LQFP144	1x8	3x11								

Bill of Materials comparison					
		Material	Current	SSHD	Note
FM64 QFP176	FRAME	LQFP 176L 24SQ 7.6sq	LQFP 176L 24SQ 7.6sq SSHD	No Gap	
	GLUE	LOCTITE ABLESTIK 3280T	LOCTITE ABLESTIK 8303A-2B1	Difference	
	RESIN	SUMITOMO EME-G700LS D14mm	SHOWA DENKO CEL 9240ZHF10S9 D18mm	Difference	
	WIRE	CuPd CLR3 D0.7	Cu Alloy 2N D0.7	Difference	
FA70 QFP176	FRAME	LQFP 176L 24SQ 8sq	LQFP 176L 24SQ 8sq SSHD	No Gap	
	GLUE	LOCTITE ABLESTIK 3280T	LOCTITE ABLESTIK 8303A-2B1	Difference	
	RESIN	SUMITOMO EME-G700LS D14mm	SHOWA DENKO CEL 9240ZHF10S9 D18mm	Difference	
	WIRE	CuPd CLR3 D0.7	Cu Alloy 2N D0.7	Difference	
FA80 QFP176	FRAME	LQFP 144L 20x20 10sq	LQFP 144L 20x20 10sq SSHD	No Gap	
	GLUE	LOCTITE ABLESTIK 3280T	LOCTITE ABLESTIK 8303A-2B1	Difference	
	RESIN	SUMITOMO EME-G700SLS D14mm	SHOWA DENKO CEL 9240ZHF10S9 D18mm	Difference	
	WIRE	CuPd CLR3 D0.7	Cu Alloy 2N D0.7	Difference	
FB64 FB50 FP60 QFP144	FRAME	LQFP 144L 20x20 8sq	LQFP 144L 20x20 8sq SSHD	No Gap	
	GLUE	LOCTITE ABLESTIK 3280T	LOCTITE ABLESTIK 8303A-2B1	Difference	
	RESIN	SUMITOMO EME-G700SLS D14mm	SHOWA DENKO CEL 9240ZHF10S9 D18mm	Difference	
	WIRE	CuPd CLR3 D0.7	Cu Alloy 2N D0.8	Difference	
FP50 QFP144	FRAME	LQFP 144L 20x20 6sq	LQFP 144L 20x20 6sq SSHD	No Gap	
	GLUE	LOCTITE ABLESTIK 3280T	LOCTITE ABLESTIK 8303A-2B1	Difference	
	RESIN	SUMITOMO EME-G700SLS D14mm	SHOWA DENKO CEL 9240ZHF10S9 D18mm	Difference	
	WIRE	CuPd CLR3 D0.7	Cu Alloy 2N D0.8	Difference	
TRACEABILITY	Dedicated Finished Good Code.				



Super Super High Density Line (SSHD)

Kirkop Malta

G. M. Mari

Dec'22

Kirkop – Malta Back-End plant

Super Super High Density (SSHD) line activation is a fundamental step in the ST manufacturing strategy aimed to guarantee always better performance in customers requirement fulfillment

- *Better reactivity and flexibility due to the improved throughput*
- *Improved quality level due to the new automated line*



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PCN Title : Microcontrollers (M10 Family): Activation of SSHD Assembly Line in Malta on LQFP176 / LQFP144 Packages –

Second wave

PCN Reference : ADG/23/14120

Subject : Public Products List

Dear Customer,

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

SPC563M64L7COBR	SPC564A80L7COBR	SPC560P60L5CEAAR
SPC564A80L7CFBY	SPC560P60L5CEFAR	SPC560B50L5C6E0Y
SPC560B60L5B6E0Y	SPC560B54L5B6E0Y	SPC560B54L5C6E0X
SPC560B64L5C6E0X	SPC560P50L5BEFAR	SPC56AP60L5CEFAR
SPC564A70L7CFAY	SPC56AP60L5CEFAY	SPC564A80L7COBY
SPC564A70L7CFBR	SPC560P54L5CEAAR	SPC564A80L7CFAR
SPC560B40L5C6E0X	SPC564A70L7COBY	SPC560B60L5C6E0X
SPC564A80L7CFAY	SPC564A80L7CFBR	SPC560P50L5CEFAR
SPC563M64L7COAY	SPC564A70L7CFAR	SPC564A70L7CFBY
SPC560P54L5BEAAR	SPC560B60L5B6E0X	SPC560B50L5C6E0X
SPC563M64L7COBY	SPC563M64L7COAR	SPC564A70L7COBR

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