


**PRODUCT / PROCESS CHANGE NOTIFICATION**

**1. PCN basic data**

1.1 Company		STMicroelectronics International N.V
1.2 PCN No.	MDG/18/11130	
1.3 Title of PCN	Extension of AMKOR XDLF SO8N assembly & test line usage to CMOSF8H Industrial Range EEPROM (M24256, M24512, M24M01, M24M02, M95256, M95512, M95M01, M95M02)	
1.4 Product Category	EEPROM in SO8N from CMOS F8H process: M24256, M24512, M24M01, M24M02, M95256, M95512, M95M01, M95M02	
1.5 Issue date	2018-10-09	

**2. PCN Team**

<b>2.1 Contact supplier</b>	
2.1.1 Name	ROBERTSON HEATHER
2.1.2 Phone	+1 8475853058
2.1.3 Email	heather.robertson@st.com
<b>2.2 Change responsibility</b>	
2.2.1 Product Manager	Benoit RODRIGUES
2.1.2 Marketing Manager	Hubert LEDUC
2.1.3 Quality Manager	Rita PAVANO

**3. Change**

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Machines	New equipment changing process technique or using different technology (eg first equipment of a new brand)	AMKOR (Philippines)

**4. Description of change**

	Old	New
4.1 Description	The EEPROM products (industrial range) processed with CMOSF8H process technology (M24256, M24512, M24M01, M24M02, M95256, M95512, M95M01, M95M02) at ST Rousset (France) and assembled/tested in SO8N package at ST Shenzhen (China) and at Amkor (Philippines) on HDLF line.	will be also assembled/tested on AMKOR extra high density lead frame (XDLF) assembly line.
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	No change	

**5. Reason / motivation for change**

5.1 Motivation	Capacity increase
5.2 Customer Benefit	CAPACITY INCREASE

**6. Marking of parts / traceability of change**

6.1 Description	Finished Good Marking on Box Label
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**7. Timing / schedule**

7.1 Date of qualification results	2018-11-16
7.2 Intended start of delivery	2019-01-01
7.3 Qualification sample available?	Upon Request

**8. Qualification / Validation**

8.1 Description	
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8.2 Qualification report and qualification results	In progress	Issue Date	
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9. Attachments (additional documentations)
11130 Public product.pdf 11130 XDLF_P2v3.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
	M24256-BRMN6TP	
	M24256-BWMN6TP	
	M24256-DFMN6TP	
	M24512-DFMN6TP	
	M24512-RMN6TP	
	M24512-WMN6TP	
	M24M01-DFMN6TP	
	M24M01-RMN6TP	
	M24M02-DRMN6TP	
	M95256-DFMN6TP	
	M95256-RMN6TP	
	M95256-WMN6TP	
	M95512-DFMN6TP	
	M95512-RMN6TP	
	M95512-WMN6TP	
	M95M01-DFMN6TP	
	M95M01-RMN6TP	
	M95M02-DRMN6TP	

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## Public Products List

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**PCN Title :** Extension of AMKOR XDLF SO8N assembly & test line usage

to CMOSF8H Industrial Range EEPROM (M24256, M24512, M24M01, M24M02, M95256, M95512, M95M01, M95M02)

**PCN Reference :** MDG/18/11130

**Subject :** Public Products List

Dear Customer,

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

M24256-DFMN6TP	M24512-WMN6TP	M24256-BRMN6TP
M95256-WMN6TP	M95M02-DRMN6TP	M95256-DFMN6TP
M24M01-RMN6TP	M24512-DFMN6TP	M24M01-DFMN6TP
M24512-RMN6TP	M95512-DFMN6TP	M95256-RMN6TP
M95512-WMN6TP	M24256-BWMN6TP	M95M01-DFMN6TP
M24M02-DRMN6TP	M95512-RMN6TP	M95M01-RMN6TP



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**Extension of AMKOR XDLF SO8N assembly & test line usage  
to CMOSF8H Industrial Range EEPROM (M24256, M24512, M24M01,  
M24M02, M95256, M95512, M95M01, M95M02)**

**What is the change?**

The EEPROM products (industrial range) processed with CMOSF8H process technology (M24256, M24512, M24M01, M24M02, M95256, M95512, M95M01, M95M02) at ST Rousset (France) and assembled/tested in SO8N package at ST Shenzhen (China) and at Amkor (Philippines) on HDLF line will be also assembled/tested on AMKOR *extra high density lead frame* (XDLF) assembly line.

This XDLF line is already qualified and running in full production for the manufacturing of CMOSF8H+ EEPROM (PCN MMS-MMY/14/8411, associated Qualification Report QRMMY1304).

**Why?**

The strategy of STMicroelectronics Memory Division is to support our customers on a long-term basis. In line with this commitment, the extension of the AMKOR XDLF SO8N assembly line usage for the EEPROM products (industrial range) in CMOSF8H will increase the production capacity throughput and consequently improve the service to our customers.

**When?**

The assembly of the EEPROM products in SO8N on the XDLF line will ramp up from Week 48/2018 and shipments can start from Week 01/2019 onward

**How will the change be qualified?**

The assembly and the functional test of M24256, M24512, M24M01, M24M02, M95256, M95512, M95M01, M95M02 on the XDLF line at AMKOR will be qualified following the standard ST Microelectronics Corporate Procedures for Quality and Reliability.

**What is the impact of the change?**


- **Form:** no change
- **Fit:** no change
- **Function:** no change

**- BOX LABEL MARKING**

**How can the change be seen?**

The change is visible on the **BOX LABEL MARKING**, inside the **Finished Good Part Number**:  
the **Assembly and Test & Finishing plant** identifier is **"X"** for the **SO8N XDLF line**.

→ Example for M24512-RMN6TP

STMicroelectronics	Manufactured under patents or patents pending		
	Assembled in: Philippines		
	Pb-free	2 <sup>nd</sup> Level Interconnect	
	MSL: 1	NOT MOISTURE SENSITIVE	
	PBT: 260 °C Category: e4 ECOPACK2/ROHS		
	TYPE: <b>M24512-RMN6TP</b>		
	<b>M24512-RMN6TP K X B</b>		
	Total Qty: 2500	Process Technology	Mask revision and/or wafer diffusion plant
	<b>Assembly and Test &amp; Finishing plant:</b> "X" for new XDLF line (was G, H or B for current assembly lines)		
	Trace Codes PPYWLLLL WX TF		
Marking 24512RP			
Bulk ID X0X00XXX0000			
			
Please provide the bulk ID for any inquiry			

## **Appendix A- Product Change Information**

<b>Product family / Commercial products:</b>	EEPROM in SO8N from CMOS F8H process: M24256, M24512, M24M01, M24M02, M95256, M95512, M95M01, M95M02
<b>Customer(s)</b>	All
<b>Type of change</b>	Package assembly process change
<b>Reason for the change</b>	Capacity increase
<b>Description of the change</b>	Extension of XDLF assembly line (AMKOR) usage
<b>Forecast date of the change</b>	Week 40 / 2018
<b>Forecast date of <u>Qualification samples availability</u> for customer(s)</b>	-> Week 46/2018 for M24256, M24512, M24M01 & M95512  -> Week 51/2018 for M95256 & M95M01  -> March 2019 for M24M02 & M95M02
<b>Forecast date for the internal STMicroelectronics change, <u>Qualification Report availability</u></b>	-> Week 46/2018 for M24256, M24512, M24M01 & M95512  -> Week 51/2018 for M95256 & M95M01  -> March 2019 for M24M02 & M95M02
<b>Marking to identify the changed product</b>	Finished Good Marking on Box Label
<b>Description of the qualification program:</b>	Standard ST Microelectronics Corporate Procedures for Quality and Reliability
<b>Product Line(s) and/or Part Number(s)</b>	See APPENDIX B
<b>Manufacturing location</b>	AMKOR (Philippines)
<b>Estimated date of first shipment</b>	Week 01 / 2019



## **Appendix B- Concerned Commercial Part Numbers:**

Commercial Product	Qualification report	Qualification samples
M24256-BRMN6TP	Week 46 - 2018	Week 46 - 2018
M24256-BWMN6TP	Week 46 - 2018	Week 46 - 2018
M24256-DFMN6TP	Week 46 - 2018	Week 46 - 2018
M24512-DFMN6TP	Week 46 - 2018	Week 46 - 2018
M24512-RMN6TP	Week 46 - 2018	Week 46 - 2018
M24512-WMN6TP	Week 46 - 2018	Week 46 - 2018
M24M01-DFMN6TP	Week 46 - 2018	Week 46 - 2018
M24M01-RMN6TP	Week 46 - 2018	Week 46 - 2018
M24M02-DRMN6TP	March 2019	March 2019
M95256-DFMN6TP	Week 51 - 2018	Week 51 - 2018
M95256-RMN6TP	Week 51 - 2018	Week 51 - 2018
M95256-WMN6TP	Week 51 - 2018	Week 51 - 2018
M95512-DFMN6TP	On request	Week 46 - 2018
M95512-RMN6TP	Week 46 - 2018	Week 46 - 2018
M95512-WMN6TP	Week 46 - 2018	Week 46 - 2018
M95M01-DFMN6TP	On request	Week 51 - 2018
M95M01-RMN6TP	Week 51 - 2018	Week 51 - 2018
M95M02-DRMN6TP	March 2019	March 2019

## Document Revision History

[illegible]

### Source Documents & Reference Documents

Source document Title	Rev.:	Date: