### PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data		
1.1 Company	<b>577</b>	STMicroelectronics International N.V
1.2 PCN No.		MDG/19/10233
1.3 Title of PCN		Conversion of Back-end line at Amkor ATP (Philippines) in TSSOP20 package - non automotive products
1.4 Product Category		TSSOP 20 package products listed- non automotive products
1.5 Issue date		2019-01-23

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	Ricardo Antonio DE SA EARP	
2.1.2 Marketing Manager	Veronique BARLATIER	
2.1.3 Quality Manager	Pascal NARCHE	

3. Change		
3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Materials	Any change on substrate (part number, supplier, plant, design or composition of any layer)	Amkor ATP (Philippines)

4. Description of change			
	Old	New	
4.1 Description	Current line in Amkor: - Leadframe: Pre-Plated Frame (PPF), High Density Leadframe (HDLF) - Molding compound: Sumitomo EME-G700K - Second level interconnect: e4	Converted line: - Leadframe: Tin Post-plated Frame, Extreme Density Leadframe (XDLF) - for STM8T products Leadframe pad size changed from 2.4x3.6mm to 3x4.2mm - Molding compound: Sumitomo EME-G700LS - Second level interconnect: e3 - Enhanced traceability in marking: 2 digits added  Bill Of Materials (BOM) is already qualified in TSSOP14 package.	
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	Lead color and surface finish will change due to different leadframe finishing. Pin1 identifier might change in terms of form and positioning. Package darkness changes depending on molding.		

5. Reason / motivation for change		
	Due to the success on the market of MCD microcontrollers, ST Microcontrollers Division must convert the line to maintain state of the art service level to our customers.	
5.2 Customer Benefit	SERVICE CONTINUITY	

6. Marking of parts / traceability of change		
6.1 Description	Second level interconnect changes from e4 to e3.	

7. Timing / schedule		
7.1 Date of qualification results	2019-01-31	
7.2 Intended start of delivery	2019-02-28	
7.3 Qualification sample available?	Upon Request	

8. Qualification / Validation			
8.1 Description 10233 MDG-MCD-RER1712 - PCN10233- TSSOP20 HDLF to XDLF ATP1 - reliability plan.pdf			pility plan.pdf
8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2019-01-23

## 9. Attachments (additional documentations)

10233 Public product.pdf 10233 MDG-MCD-RER1712 - PCN10233- TSSOP20 HDLF to XDLF ATP1 - reliability plan.pdf 10233 PCN10233\_Additional information.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		
	STM32F030F4P6			
	STM32F030F4P6TR			
	STM32F031F4P6			
	STM32F031F4P7			
	STM32F031F6P6			
	STM32F031F6P7			
	STM32F038F6P6			
	STM32F042F4P6			
	STM32F042F6P6			
	STM32F042F6P7			
	STM32F070F6P6			
	STM32F070F6P6TR			
	STM32L011F3P6			
	STM32L011F4P6			
	STM32L031F4P3			
	STM32L031F4P6			
	STM32L031F6P6			
	STM32L031F6P7			
	STM32L041F6P7			
	STM8L051F3P6			
	STM8L101F2P6			
	STM8L101F2P6TR			
	STM8L151F3P6			
	STM8L151F3P6TR			
	STM8S003F3P6			
	STM8S003F3P6TR			
	STM8S103F2P6			
	STM8S103F3P3			
	STM8S103F3P6			
	STM8S103F3P6TR			

#### **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



# **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: Conversion of Back-end line at Amkor ATP (Philippines) in TSSOP20 package - non automotive products

PCN Reference: MDG/19/10233

Subject: Public Products List

Dear Customer,

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

STM32F070F6P6TR	STM32F030F4P6TR	STM32F031F6P6
STM8S003F3P6	STM8S903F3P6TR	STM32F031F4P7
STM8L101F2P3	STM32F031F6P7TR	STM32L031F6P6TR
STM8L051F3P6	STM8L151F3P6	STM8TL52F4P6TR
STM8S903F3P6	STM8S103F3P6	STM32L031F4P3
STM32F070F6P6	STM32F031F4P6TR	STM32F042F6P6
STM8S103F3P3	STM8L101F2P6	STM8S903F3P3
STM32F030F4P6	STM32F038F6P6	STM32F031F4P6
STM32F042F4P6TR	STM8L151F3P3	STM8S103F2P3TR
STM8L151F3P6TR	STM8S103F2P3	STM32L031F4P6
STM8S103F2P6TR	STM32L011F3P6TR	STM8L101F3P6TR
STM32F042F4P6	STM8L051F3P6TR	STM32F031F6P7
STM8S103F2P6	STM32F031F6P6TR	STM32L011F4P6TR
STM8L151F2P6TR	STM32L031F6P7	STM8L101F2P3TR
STM8S003F3P6TR	STM8L151F2P6	STM8S103F3P3TR
STM8L101F2P6TR	STM8SPLNB1P6	STM8L101F3P3
STM32F038F6P6TR	STM32L041F6P7	STM32L031F6P7TR
STM8TL52F4P6	STM8S103F3P6TR	STM32L011F3P6
STM32F042F6P7	STM32L011F4P6	STM32L010F4P6
STM8L101F3P6	STM32L031F6P6	STM8TL53F4P6

#### **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