PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company	STMicroelectronics International N.V
1.2 PCN No.	MDG/17/10029
1.3 Title of PCN	PCN9942 replacement - STM32F7x 2MB - die minor revision & Optimized substrate layout on TFBGA package only
1.4 Product Category	Change 1 : STM32F7x 2MB family products, all products listed in this PCN. Change 2 : STM32F7x 2MB family products in TFBGA package, so only STM32F7xNxH commercial products listed in this PCN.
1.5 Issue date	2017-04-03

2. PCN Team

2.1 Contact supplier	
2.1.1 Name	FRANK WOLINSKI
2.1.2 Phone	+49 89460062287
2.1.3 Email	frank.wolinski@st.com
2.2 Change responsibility	
2.2.1 Product Manager	Michel BUFFA
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**
Die redesign	Mask or mask set change with new die design	Change 1 : diffusion plant, Crolles 300 (France) Change 2 : assembly plant, Amkor ATP3 (Philippines)

4. Description of change

	Old	**New**
4.1 Description	Change 1 : Die with revision A This change impacts also RMII electrical timing parameters. There are described in : - Datasheet Revision 3 for STM32F777x STM32F778Ax and STM32F779xx products, table 97 - DocID028294 - Datasheet Revision 3 for STM32F765xx STM32F767xx STM32F768Ax and STM32F769xx products, table 97 - DocID028294 Change 2: LSE high driving and low driving capability is not usable for TFBGA package under certain conditions. Both limitations are described in Errata sheet Revision 3 for STM32F76xxx STM32F77xxx products - DocID028806	Change 1: Die with revision Z. This change impacts also RMII electrical timing parameters. The update remains within the limits of RMII International Specification rev 1.2. It is described in : - Datasheet Revision 4 for STM32F777x STM32F778Ax and STM32F779xx products, table 97 - DocID028294 - Datasheet Revision 4 for STM32F765xx STM32F767xx STM32F768Ax and STM32F769xx products, table 97 - DocID028294 Change 2: New substrate layout on TFBGA package products, to fix LSE high driving and low driving limitations. Both changes are implemented at the same time and cannot be accepted independently. Both changes are described in Errata sheet Revision 4 for STM32F76xxx STM32F77xxx products - DocID028806.
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	Change 1 & 2 : Function : improvements are indicated in Errata sheet and RMII update is indicated in datasheets	

5. Reason / motivation for change

5.1 Motivation	To increase the robustness and improve performances, the quality and the functionality of our products. We are introducing a new die revision which optimize the substrate design for the TFBGA package.
5.2 Customer Benefit	QUALITY IMPROVEMENT

6. Marking of parts / traceability of change	
6.1 Description	The die revision changes from "A" to "Z". It is marked on packages of the part.

7. Timing / schedule	
7.1 Date of qualification results	2016-11-15
7.2 Intended start of delivery	2017-02-15
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation			
8.1 Description	10029 PCN10029_MMS-MCD RERMCD1501 - STM32F7x- Die 451XXXZ - Reliability Evaluation Report.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	**Issue Date**	2017-04-03

9. Attachments (additional documentations)
10029 Public product.pdf 10029 PCN10029_Additional information.pdf 10029 PCN10029_MMS-MCD RERMCD1501 - STM32F7x- Die 451XXXZ - Reliability Evaluation Report.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**
	STM32F767IIT6	
	STM32F769BIT6	
	STM32F769IIT6	

IMPORTANT NOTICE – PLEASE READ CAREFULLY