



## **MCU DIVISION NOTE – October 30<sup>th</sup>, 2017**

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### **M10/90nm Additional Front-end Source**

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#### **MMS - Microcontrollers Division (MCD)**

**Dear Customer,**

We are in the process to transfer ST M10/90nm eNVM technology, currently used to produce our STM32F2x, STM32F4x and STM32F7x product to TSMC Fab 14 located in Taiwan. Fab14 is currently producing STM32L4x products.

Most of the STM32F2x, STM32F4x and STM32F7x volume production will be transferred to TSMC Fab 14.

This letter is a pre-announcement. Formal PCN will follow in coming weeks.

#### **Why to add a source for M10 technology**

- STM32F2x, STM32F4x and STM32F7x are experimenting a big success in the market and we are facing a growing and solid demand since months.
- Our two production sites ST Rousset R8 and ST Crolles CR300 fabs will not be able to absorb all future demand. Adding TSMC Fab14 as manufacturing source will provide the flexibility to cope with future demand and further growth.

#### **Products involved**

- STM32F2x
- STM32F4x
- STM32F7x

#### **Timing:**


- We intend to complete qualification of all part number by Q3 2018.
- First PCN announcing the first part number batch of transfer will be published mid-November 2017 for delivery starting in March 2018.
- ST will do its best to support customers during the short transition time.

Sincere regards.

Veronique Barlatier  
WW Commercial Marketing Manager  
ST Microcontroller Division

# PRODUCT / PROCESS CHANGE NOTIFICATION

## 1. PCN basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCN No.	MDG/18/10596	
1.3 Title of PCN	TSMC (Taiwan) additional source for STM32F410x products in M10/90nm technology	
1.4 Product Category	STM32F410x products in M10/90nm technology	
1.5 Issue date	2018-04-25	

## 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	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
Transfer	Line transfer for a full process or process brick (process step, control plan, recipes) from one site to another site: Wafer fabrication	TSMC Fab14 (Taiwan)

## 4. Description of change

	Old	New
4.1 Description	Front-end source: - ST Crolles CR300 (France)	Front-end sources: - ST Crolles CR300 (France) - Existing source - TSMC Fab14 (Taiwan) - Additional source - There is no change in the product functionality. Please refer to PCN 10596 – Additional information attached document.
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	no change	

## 5. Reason / motivation for change

5.1 Motivation	Due to the success on the market of STM32 devices, ST Microcontrollers Division decided to qualify an additional front-end site to maintain state of the art service level to our customers thanks to extra capacity.
5.2 Customer Benefit	CAPACITY INCREASE

## 6. Marking of parts / traceability of change

6.1 Description	Change is visible through diffusion traceability plant, in the marking: - "VQ" for ST Crolles CR300 (France) - "9R" for TSMC Fab14 (Taiwan) Please refer to PCN 10596 – Additional information attached document.
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## 7. Timing / schedule

7.1 Date of qualification results	2018-07-27
7.2 Intended start of delivery	2018-07-27
7.3 Qualification sample available?	Not Applicable

## 8. Qualification / Validation

8.1 Description	10596 MDG-MCD RER1715 - PCN10333 - PCN10544 - PCN10595 - PCN10703 - PCN10596 TSMC Taiwan.pdf
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8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2018-04-25
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9. Attachments (additional documentations)
10596 Public product.pdf 10596 PCN10596_Division Note M10 Additional Source.pdf 10596 MDG-MCD RER1715 - PCN10333 - PCN10544 - PCN10595 - PCN10703 - PCN10596 TSMC Taiwan.pdf 10596 PCN10596_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
	STM32F410CBT3	
	STM32F410CBU6	
	STM32F410R8T6	
	STM32F410RBT6	
	STM32F410RBT7	

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**PRODUCT/PROCESS  
CHANGE NOTIFICATION  
PCN 10596 – Additional information**

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**TSMC (Taiwan) additional source  
for STM32F410x products  
in M10/90nm technology**

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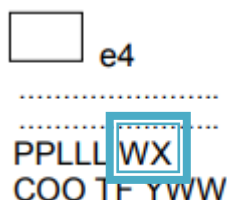
**MDG - Microcontrollers Division (MCD)**

Fab 14 TSMC is a fab already diffusing 90nm used for STM32L4 products.

Design database remains the same, except few changes on dummy structures at mask level to adapt to fab equipment.

**How can the change be seen?**

The standard marking is:



**WX** code indicates the diffusion traceability plant code.

Please refer to the DataSheet for marking details.

The marking is changing as follows:

Existing		Additional	
WX code	Fab	WX code	Fab
VQ	ST Crolles CR300 (France)	9R	TSMC Fab14 (Taiwan)



## Public Products List

Public 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 :** TSMC (Taiwan) additional source for STM32F410x products in M10/90nm technology

**PCN Reference :** MDG/18/10596

**Subject :** Public Products List

Dear Customer,

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

STM32F410CBU3TR	STM32F410T8Y6TR	STM32F410TBY7TR
STM32F410RBT7TR	STM32F410R8T6	STM32F410CBU3
STM32F410RBI6	STM32F410TBY6TR	STM32F410RBT7
STM32F410C8U6	STM32F410RBI3	STM32F410CBT3
STM32F410CBT6	STM32F410TBY3TR	STM32F410RBT6
STM32F410C8U6TR	STM32F410CBU6	STM32F410RBT6TR



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