


PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCN No.	MMS/15/9484	
1.3 Title of PCN	Capacity increase for LQFP 48 7x7 products listed below	
1.4 Product Category	LQFP 48 7x7 package products listed in 9484_Detailed description attached document.	
1.5 Issue date	2015-12-21	

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	Daniel COLONNA
2.1.3 Quality Manager	Pascal NARCHE

3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Transfer of a full process or process brick (process step, control plan, recipes) from one site to another site	Assembly site	ST Muar (Malaysia), STATS ChipPAC Shanghai (China), Amkor ATP (Philippines).

4. Description of change

	Old	New
4.1 Description	Assembly plants : ST Muar (Malaysia), STATS ChipPAC Shanghai (China), Amkor ATP (Philippines)	ST Microcontrollers Division has decided to add a new line in ST Muar (Malaysia) assembly site, for LQFP 48 7x7 products listed below. See more information on 9484_Detailed description attached document.
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	Form : lead color and surface finish change depending on leadfinishing See in 9484_Detailed description attached document.	

5. Reason / motivation for change

5.1 Motivation	ST Microcontrollers Division add a LQFP 48 7x7 products on a new line in Muar (Malaysia) assembly site, to increase assembly capacity.
5.2 Customer Benefit	CAPACITY INCREASE

6. Marking of parts / traceability of change

6.1 Description	See in 9484_Detailed description attached document.
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7. Timing / schedule

7.1 Date of qualification results	2016-04-03
7.2 Intended start of delivery	2016-05-03
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	9484_reliability plan_LQFP7x7 48L RERMCD1514.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2015-12-21

9. Attachments (additional documentations)

9484PpPrdtLst.pdf
 9484_Detailed description.pdf
 9484_reliability plan_LQFP7x7 48L RERMCD1514.pdf

10. Affected parts

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
	STM32F030C6T6	
	STM32F030C8T6	
	STM32F031C4T6	
	STM32F031C6T6	
	STM32F042C6T6	
	STM32F051C4T6	
	STM32F051C6T6	
	STM32F051C8T6	
	STM32F051C8T6TR	
	STM32F070CBT6	
	STM32F071CBT6	
	STM32F072CBT6	
	STM32F091CCT6	
	STM32F100C4T6B	
	STM32F100C6T6B	
	STM32F100C8T6B	
	STM32F100CBT6B	
	STM32F101C6T6A	
	STM32F101C8T6	
	STM32F101CBT6	
	STM32F102C6T6A	
	STM32F102CBT6	
	STM32F103C4T6A	
	STM32F103C6T6A	
	STM32F103C6T7A	
	STM32F103C8T6	
	STM32F103C8T7	
	STM32F103CBT6	
	STM32F103CBT7	
	STM32F302C8T6	
	STM32F303C8T6	
	STM32F303CCT6	
	STM32F334C4T6	
	STM32F334C6T6	
	STM32F334C8T6	
	STM32F373C8T6	
	STM32F373CBT6	
	STM32F373CCT6	
	STM32L051C6T6	
	STM32L051C8T3	
	STM32L051C8T6	
	STM32L052C8T6	
	STM32L053C8T6	
	STM8S207C6T6	

	STM8S207C8T3	
	STM8S207C8T6	
	STM8S207CBT6	
	STM8S208C6T3	
	STM8S208C8T6	
	STM8S208CBT6	

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PRODUCT/PROCESS CHANGE NOTIFICATION PCN 9484 - Detailed description

Capacity increase for LQFP 48 7x7 products listed below

MMS - Microcontrollers Division (MCD)

What are the changes?

On LQFP 48 7x7 products listed below, the assembly plants and Bill Of Materials are as below:

	Existing Bill Of Materials			Added Bill Of Materials
Assembly site	STATS ChipPAC Shanghai (China)	Amkor ATP (Philippines)	ST Muar (Malaysia)	ST Muar (Malaysia)
Wire	Gold 0.8mil	Gold 0.8mil	Gold 0.8mil	Silver 0.8mil
Leadframe	Copper Frame Spot Ag	Copper Frame Spot Ag	Pre Plated Frame	Pre Plated Frame
Leadfinishing (*1)	Pure Tin (e3)	Pure Tin (e3)	Rough Ni Pd AgAu (e4)	Rough Ni Pd AgAu (e4)
Resin	Sumitomo G700E	Sumitomo G631HQ	Sumitomo G700LS	Sumitomo G700LS
Glue	Ablestik 3230	Evertch AP4200	Hitachi EN4900	Hitachi EN4900

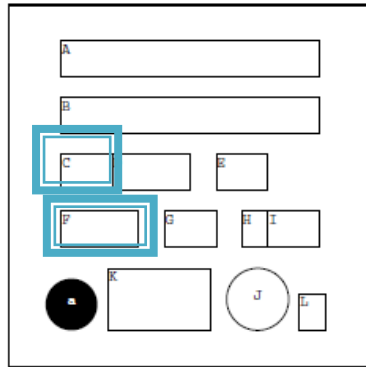
(*1) Lead color and surface finished change depending on leadfinishing

How & when will the change be qualified?

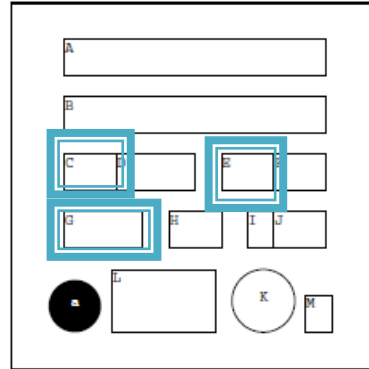
This change will be qualified using the standard STMicroelectronics Corporate Procedures for Quality and Reliability, in full compliancy with the JESD-47 international standard. You can find below Qualification Plan.

How can the change be seen?

The marking instruction indicated on the products is changing.



Previous marking



New marking

1/ For products listed below changing from STATS ChipPAC Shanghai (China) to Muar (Malaysia) assembly site:

- C : Assembly plant changes from GH to 99
- Country Of Origin change from CHN (in F) to MYS (in G)
- E : 2 digits are added for enhanced traceability

2/ For products listed below changing from Amkor ATP (Philippines) to Muar (Malaysia) assembly site:

The marking instruction indicated on the products is changing from:

- C : Assembly plant changes from 7B to 99
- Country Of Origin change from PHL (in F) to MYS (in G)
- E: 2 digits are added for enhanced traceability

3/ For products listed below remaining at Muar (Malaysia) assembly site:

- E : 2 digits are added for enhanced traceability

How to order samples?

For all sample request linked to this PCN, please:

- request sample(s) through Notice tool, indicating a single Commercial Product for each request.
- insert "PCN 9484" into the remarks of your order.
- place **non standard** sample order using the following field in your system.

The screenshot shows the 'SD | NPO Sample' window. The 'Header' section includes fields for SO No., Customer, SO Type (Sample Order), PO No., Carrier Code, Price Policy, and Currency. Below this is a table with columns: Sch 1 Nr, PO 1 Nr, Finished Good, Comm Qty, Open Qty, Plant Open Qty, Reqd Qty, Unit Price, RD, CD, EDD, St. The 'PO Item' section shows PO Item, Comm Prod, Qty (0), RD (26-Jan-15), Unit Price (0.0000), and Final Cost. The 'Cust Part Nr' section includes Cust Part Nr, Finished Good, Partial Ship (01), Price Pol, Status (01), and Canc. The 'Notes' section includes Notes, TAM K Pieces (0), Our Share (%), and a dropdown menu for 'Sample Type' which is highlighted with a red box and contains the text 'Sample Non Std Type'. The 'Project Name' section includes Project Name, Closing Date, and Closing Type. At the bottom, there are sections for 'Regional Sheet' and 'Lab Sheet'.

The screenshot shows the 'SD Remark Details' window. The window title is 'SO Remark Details'. The 'SO No.' field is 7075S05890. The table below has columns: SO Remark Type, Text, Status Co, and Last Update. The first row contains '01 INVOICE & O/C REMARK', 'PER PCN 9108- THANK YOU', '01', and '30-Jul-2015'. The second row contains an asterisk (*). The window also shows a 'Parti' section with a dropdown menu for 'SO Remark Type' and a 'Logist' section.

SO Remark Type	Text	Status Co	Last Update
01 INVOICE & O/C REMARK	PER PCN 9108- THANK YOU	01	30-Jul-2015
*			

List of Commercial Products

STM32F030C6T6
STM32F030C6T6TR
STM32F030C8T6
STM32F030C8T6TR
STM32F030CCT6
STM32F031C4T6
STM32F031C4T6TR
STM32F031C6T6
STM32F031C6T6BOO
STM32F031C6T6TR
STM32F031C6T7
STM32F038C6T6
STM32F038C6T7
STM32F042C4T6
STM32F042C6T6
STM32F042C6T6TR
STM32F051C4T6
STM32F051C6T6
STM32F051C6T6TR
STM32F051C6T7
STM32F051C8T6
STM32F051C8T6TR
STM32F051C8T7
STM32F051C8T7TR
STM32F070C6T6
STM32F070CBT6
STM32F070CBT6TR
STM32F071C8T6
STM32F071CBT6
STM32F071CBT6TR
STM32F071CBT7
STM32F072C8T6
STM32F072C8T6TR
STM32F072CBT6
STM32F072CBT6TR
STM32F072CBT7
STM32F078CBT6
STM32F091CBT6
STM32F091CBT6TR
STM32F091CCT6
STM32F091CCT6J
STM32F091CCT6TR
STM32F091CCT7
STM32F098CCT6
STM32F100C4T6B
STM32F100C4T6BTR
STM32F100C4T7B
STM32F100C6T6B
STM32F100C6T6BTR
STM32F100C6T7B
STM32F100C8T6B
STM32F100C8T6BTR
STM32F100C8T7B
STM32F100C8T7BTR
STM32F100CBT6B
STM32F100CBT6BTR
STM32F100CBT7B
STM32F100CBT7BTR
STM32F101C4T6A
STM32F101C6T6A
STM32F101C6T6ATR
STM32F101C8GAL
STM32F101C8T6
STM32F101C8T6TR
STM32F101CBT6
STM32F101CBT6TR
STM32F102C4T6A
STM32F102C4T6ATR
STM32F102C6T6A
STM32F102C6T6ATR
STM32F102C8T6
STM32F102C8T6TR
STM32F102CBT6
STM32F102CBT6TR
STM32F103C4T6A
STM32F103C6T6A
STM32F103C6T6ATR
STM32F103C6T7A
STM32F103C6T7ATR
STM32F103C8T6
STM32F103C8T6TR
STM32F103C8T7
STM32F103C8T7TR
STM32F103CBT6
STM32F103CBT6TR
STM32F103CBT7
STM32F103CBT7TR
STM32F301C4T6
STM32F301C6T6
STM32F301C6T6TR
STM32F301C8T6
STM32F301C8T6TR
STM32F301C8T7
STM32F302C4T6
STM32F302C6T6
STM32F302C8T6
STM32F302C8T7
STM32F302CBT6
STM32F302CBT7
STM32F302CCT6
STM32F302CET6
STM32F303C6T6
STM32F303C8T6
STM32F303CBT6
STM32F303CBT6TR
STM32F303CBT7
STM32F303CCT6

STM32F303CCT6TR
STM32F303CCT7
STM32F303CET6
STM32F303CET7
STM32F318C8T6
STM32F328C8T6
STM32F334C4T6
STM32F334C6T6
STM32F334C6T7
STM32F334C8T6
STM32F334C8T7
STM32F334C8T7TR
STM32F358CCT6
STM32F373C8T6
STM32F373C8T6TR
STM32F373CBT6
STM32F373CCT6
STM32F373CCT7
STM32F378CCT6
STM32F398CET6
STM32FEBKC6T6A
STM32FEBKC6T6ATR
STM32L031C6T7
STM32L041C6T7
STM32L051C6T6
STM32L051C6T6TR
STM32L051C8T3
STM32L051C8T6
STM32L051C8T6TR
STM32L051C8T7
STM32L052C6T6
STM32L052C8T6
STM32L052C8T6D
STM32L052C8T7
STM32L053C6T6
STM32L053C6T7
STM32L053C8T6
STM32L053C8T6D
STM32L053C8T6TR
STM32L053C8T7
STM32L063C8T6
STM32L071C8T6
STM32L071CBT6
STM32L071CZT6
STM32L071CZT7
STM32L073CZT6
STM32L083CBT6
STM32L083CZT6
STM32L083CZT6TR
STM32L151C6T6A
STM32L151C8T6A
STM32L151CBT6A

STM32L151CBT6D
STM32L151CCT6
STM32L151CCT6J
STM32L151CCT6TR
STM32L152C6T6A
STM32L152C8T6A
STM32L152CBT6A
STM32L152CCT6
STM32L152CCT6D
STM32P051C8JAETR
STM32P101CBMBD
STM32P101CBMBDTR
STM32P102C8MAPTR
STM32P103C8MBCTR
STM32P103CBMAZTR
STM32P103MAYATR
STM8S005C6T6
STM8S005C6T6TR
STM8S007C8T6
STM8S007C8T6TR
STM8S105C4T3
STM8S105C4T6
STM8S105C4T6TR
STM8S105C6T3
STM8S105C6T3TR
STM8S105C6T6
STM8S105C6T6TR
STM8S207C6T3
STM8S207C6T6
STM8S207C6T6TR
STM8S207C8T3
STM8S207C8T6
STM8S207C8T6TR
STM8S207CBT3
STM8S207CBT6
STM8S207CBT6TR
STM8S208C6T3
STM8S208C6T6
STM8S208C6T6TR
STM8S208C8T6
STM8S208C8T6TR
STM8S208CBT6



RERMCD1514 reliability plan for MUAR LQFP7*7 48L - PCN 9484

Reliability Evaluation Plan

Nov 4th,2015

MMS MCD Quality & Reliability Department

PCN 9484 - RERMCD1514 reliability plan for ST Muar LQFP7*7 48L – Capacity increase

- Context :
- In order to increase assembly capacity, ST Microcontrollers Division has decided to add a High Density line in ST Muar (Malaysia) assembly site, for LQFP 48 7x7 products.

STM8 & STM32 TEST VEHICLES

Package line	Assembly Line	Package	Device (Partial RawLine Code)	Diffusion Process	Number of Lots
HD LQFP	LQFP7*7	48L	STM8L (5B*765)	F9GO1	1
			STM32 (5B*410)	TSMC 0.18 μ m	1
			STM32L (5B*427)	F9GO2S	1

RERMCD 1514 -STM8-STM32 LQFP7x7

RELIABILITY TRIALS

Package Reliability Trials :

(*) tests performed after preconditioning

Reliability Trial	Test Conditions	Pass Criteria	Unit per Lot	Lot qty
PC	Pre Conditioning: Moisture Sensitivity Jedec Level 1 (for MSL2 qual) J-STD-020/ JESD22-A113	Bake (125°C / 24 hrs) Soak (85°C / 85% RH / 168 hrs) Convection reflow: 3 passes with Jedec level 1	308	1/ device
AC or Uhast(*)	Autoclave JESD22 A102 or UnBiased Highly Accelerated Temperature and Humidity Stress JESD22 A118	121°C, 100% RH, 2 Atm 130°C, 85%RH, 2 atm	77	1/ device
TC(*)	Thermal Cycling JESD22 A104	-50°C, +150°C Or equivalent -65°C +150°C	77	1/ device
WPT/WBS After TC	Wire Bond Pull- Mil Std883 method 2011 Wire Bond Shear ,AECQ100-001	3g min pull strength 15g min bond shear	3 (30 wires)	1/ device
THB(*)	Temperature Humidity Bias JESD22 A101	85°C, 85% RH, bias	77	1/ device
HTSL	High Temperature Storage Life JESD22 A103	150°C- no bias	77	1/ device
Construction analysis including Solderability, Physical demensions	JESD 22B102 JESDB100/B108		15 10	1/ device
ESD	ESD Charge Device Model ANSI/ESD STM5.3.1	250V	3	1/ device

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Public Products List

PCN Title : Capacity increase for LQFP 48 7x7 products listed below

PCN Reference : MMS/15/9484

PCN Created on : 30-Oct-2015

Subject : Public Products List

Dear Customer,

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

STM32F100CBT6B	STM32F302CBT6	STM32F102CBT6TR
STM8S207C8T6	STM32F051C8T6	STM8S207CBT6TR
STM32F101C8T6	STM8S208CBT6	STM8S208C8T6
STM32F072CBT6	STM32L151CCT6J	STM32F070C6T6
STM32F103CBT6	STM32L052C6T6	STM8S207C8T6TR
STM8S207C6T6	STM32F103CBT7TR	STM32L053C6T7
STM32F103CBT7	STM32F072C8T6TR	STM32F100C6T6BTR
STM32L073CZT6	STM32L053C8T6	STM32F101CBT6
STM32F030C8T6	STM32F038C6T6	STM32F103C8T6TR
STM32F103C8T6	STM32F100C8T6B	STM32F373CCT6
STM32F030C8T6TR	STM8S105C6T6	STM8S207C6T6TR
STM32F070CBT6	STM32F378CCT6	STM32F103C8T7
STM32F051C8T7TR	STM32F334C6T7	STM32F071CBT7
STM8S005C6T6TR	STM32F042C4T6	STM32L052C8T7
STM8S105C6T6TR	STM32L053C8T6D	STM32F072C8T6
STM32F031C4T6	STM32F031C6T6	STM32L051C6T6
STM32L031C6T7	STM32F303CBT6TR	STM32F072CBT7
STM32F301C8T6TR	STM32F102C8T6TR	STM8S207CBT3
STM32L053C8T7	STM8S005C6T6	STM32F103CBT6TR
STM32F373CBT6	STM32F101CBT6TR	STM8S007C8T6
STM32F100C6T6B	STM32F051C6T6TR	STM32F051C4T6
STM32L151C8T6A	STM8S208C6T6	STM32F302C6T6
STM32F030C6T6	STM32F030CCT6	STM8S105C4T6
STM32F100CBT6BTR	STM32F103C8T7TR	STM32F031C6T6TR
STM32F102CBT6	STM32F102C6T6ATR	STM32F101C6T6A
STM32F302C8T6	STM32F072CBT6TR	STM32F103C6T6A
STM32F102C4T6A	STM32F328C8T6	STM32F031C4T6TR
STM32F100C8T6BTR	STM32F070CBT6TR	STM32F031C6T7
STM32L063C8T6	STM32F051C8T6TR	STM32F102C8T6
STM32F038C6T7	STM8S105C4T3	STM8S208C6T6TR
STM8S207CBT6	STM8S208C8T6TR	STM8S207C6T3
STM32F103C4T6A	STM32F071CBT6TR	STM32L053C6T6
STM32F301C6T6	STM32L151CCT6TR	STM32L051C8T6TR
STM32L071CBT6	STM32F071CBT6	STM32F102C6T6A
STM32F091CCT7	STM32L151CCT6	STM32F301C8T6
STM32F051C6T7	STM32F334C8T6	STM32F334C4T6
STM32F334C8T7	STM32F303CBT7	STM32L152CCT6



Public Products List

STM32L083CZT6	STM32L152C6T6A	STM32F303CCT6TR
STM32L051C8T6	STM32F091CBT6	STM8S207C8T3
STM32F091CCT6J	STM32F078CBT6	STM32F303CCT6
STM32L152CBT6A	STM32F100C4T6BTR	STM32F103C6T7A
STM32F334C6T6	STM32F302CCT6	STM32F373C8T6
STM32L152C8T6A	STM32L051C6T6TR	STM32F100C4T6B
STM32F302CBT7	STM32F303CBT6	STM32F303C8T6
STM32L051C8T7	STM32F100CBT7BTR	STM32F103C6T7ATR
STM32F100C6T7B	STM32L051C8T3	STM32F098CCT6
STM8S105C4T6TR	STM32F102C4T6ATR	STM8S208C6T3
STM32F051C6T6	STM32L053C8T6TR	STM32F051C8T7
STM32F358CCT6	STM32F042C6T6	STM32F100C8T7B
STM32L151CBT6A	STM8S105C6T3TR	STM32L052C8T6
STM32F100C8T7BTR	STM32L151CBT6D	STM32F100CBT7B
STM32F030C6T6TR	STM32L151C6T6A	STM32F101C6T6ATR
STM32F303C6T6	STM32F100C4T7B	STM32F091CCT6
STM32L083CZT6TR	STM32L052C8T6D	STM32F301C8T7
STM32F318C8T6	STM32F091CCT6TR	STM32F302C8T7
STM32F373C8T6TR		



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