



**PRODUCT/PROCESS
CHANGE NOTIFICATION
PCN 10995 – Additional information**

**ST Calamba Philippines additional source for
STM8S/L & STM32 products
in UFQFPN 5x5 & 7x7 packages**

MMS - Microcontrollers Division (MCD)

What are the changes?

	Current location	Additional / new location
BOM	Stats ChipPAC Jiangyin China (JSCC)	ST Calamba Philippines
Lead frame (1)	Copper Frame Spot Ag	Copper plated PPF
Die attach Glue	Ablestick 8290	QMI519 (Henkel)
Mold compound (2)	Sumitomo G770	Hitachi CEL9240ZHF10
Leadfinishing	Pure Sn (e3)	NiPdAu (e4)

- (1) Lead color and surface finish change depending on lead finishing.
(2) Package darkness changes depending on molding.

How can the change be seen?

The standard marking is:



PP code indicates the assembly traceability plant code.

Please refer to the [DataSheet](#) for marking details.

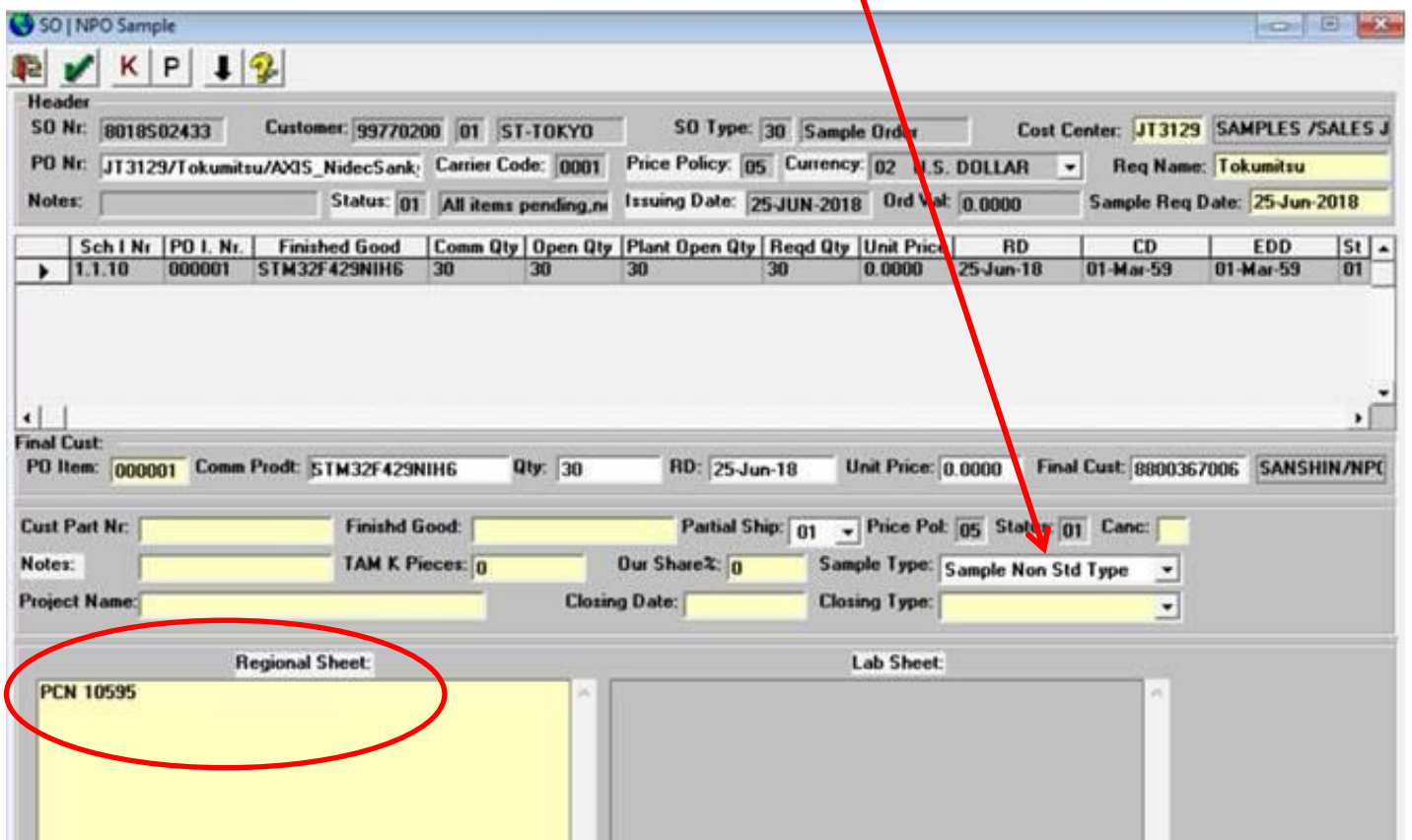
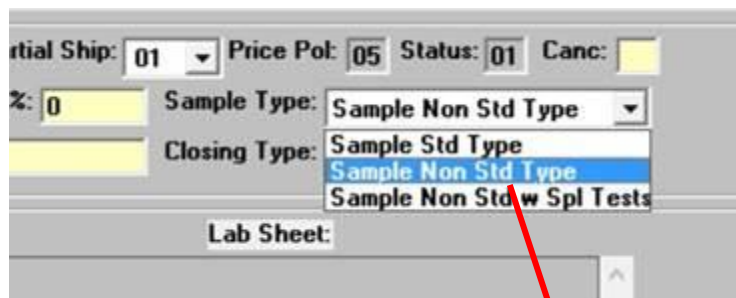
The marking is changing as follows:

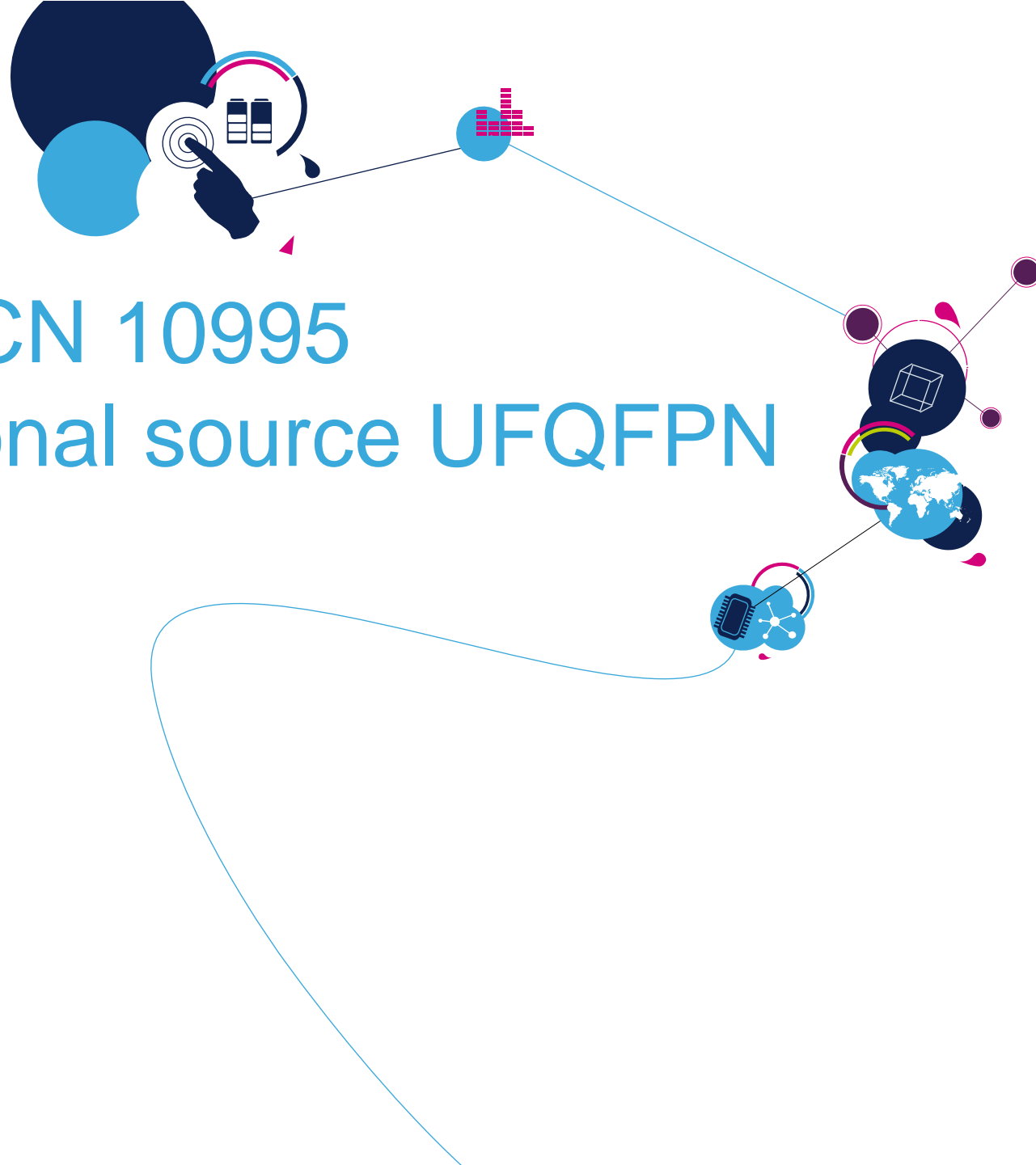
Existing		Additional	
PP code	Fab	PP code	Fab
GQ	Stats ChipPAC Jiangyin China (JSCC)	78	ST Calamba Philippines

How to order samples?

For all samples requests linked to this PCN, please:

- place a **Non-standard** sample order (choose Sample Non Std Type from pull down menu)
- insert the PCN number "**PCN10995**" into the NPO Electronic Sheet/**Regional Sheet**
- request sample(s) through Notice tool, indicating a single Commercial Product for each request





RERMCD1812 for PCN 10995 ST CALAMBA additional source UFQFPN 5x5 & 7x7 packages

Reliability Evaluation Plan

July 24th, 2018

MMS MCD Quality & Reliability Department

RERMCD1812 – ST CALAMBA additional source for UFQFPN 5X5 & 7X7 Package Test Vehicles

Package Line	Package	Device (Partial RawLine Code)	Diffusion Process	Number of Reliability Lots
UFQFPN	UFQFPN5*5 32L	STM32(MG*440)	TSMC0.18	1 lot by Package Assembly Line
		STM32(MG*417)	F9GO2S	
		STM8(MG*767)	F9GO1	
	UFQFPN7*7 48L	STM32(MI*440)	TSMC0.18	
		STM32(MI*423)	M10	
		STM32(MI*435)	TSMC90nm	
		STM8(MI*764)	F9GO2	

RERMCD1812 – ST CALAMBA additional source for UFQFPN 5X5 & 7X7 Package Reliability Trials

Reliability Trial & Standard		Test Conditions	Pass Criteria	Lot Strategy	Units per Lot
PC	Pre Conditioning: Moisture Sensitivity Jedec Level 3 J-STD-020/ JESD22-A113	Bake (125°C / 24h) Soak (30°C / 60% RH / 192h) for level 3 Convection reflow: 3 passes with Jedec level 3	3 Passes MSL3	1 lots	308
AC or UHAST (*)	Autoclave JESD22 A102 Or Unbiased Highly Accelerated Temperature & Humidity Stress JESD22-A118	121°C, 100% RH, 2 Atm 130°C, 85%RH, 2 Atm	96h	1 lots	77
TC (*)	Thermal Cycling JESD22-A104	-50°C, +150°C Or equivalent -65°C +150°C	500Cy (1000cy/2000cy as monitoring)	1 lots	77
WPT/WBS AfterTC	Wire Bond Pull-Mil Std883 method2011 Wire Bond Shear,AECQ100-001	3g min pull strength 15g min bond shear	500Cy 1000Cy 2000Cy		
HAST or THB (*)	Biased Highly Accelerated Temperature and Humidity Stress JESD22 A110 Or Temperature Humidity Bias JESD22-A101	110°C/ 1.2 Atm 85°C, 85% RH, bias	264h 1000h	1 lots	77
HTSL (*)	High Temperature Storage Life JESD22-A103	150°C - no bias	1000h	1 lots	77
Construction Analysis	JESD22-B102	Including Solderability & Physical Dimensions	No concern	1 by package assembly line	15
	JESD22-B100/B108				10
ESD CDM	ESD Charged Device Model ANSI/ESD STM5.3.1	Aligned with device datasheet	250V to 500V	1 by package assembly line	3

(*) Tests performed after preconditioning



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