



## PRODUCT/PROCESS CHANGE NOTIFICATION PCN 9977 – Additional information

**Transfer assembly plant  
from Stats ChipPAC Shanghai China (SCC)  
to Stats ChipPAC Jiangyin China (JSCC)  
for products in UFQFPN 5x5 & 7x7 packages**

**MDG - Microcontrollers Division (MCD)**

### What are the changes?

	Transfer location from:	to:
Assembly site	Stats ChipPAC Shanghai China (SCC)	Stats ChipPAC Jiangyin China (JSCC)
	Source closure	New source
Lead frame	Copper Frame Spot Ag	Copper Frame Spot Ag (1)
Leadfinishing	Pure Sn (e3)	Pure Sn (e3)
Mold compound	Sumitomo EME G770	Sumitomo EME G770
Die attach Glue	Ablestick 8290	Ablestick 8290
Wire	0.8 mil Au	0.8 mil 96.5% Ag
Enhanced traceability in marking	No digits	2 digits added
Tray		
UFQFPN 5x5 package	PEAK QFN0505 1.0 150°C	PEAK QFN0505 0.85 150°C
UFQFPN 7x7 package	No change	No change

(1) Quality improvement through enhanced lead frame implementation:

- Down Bonds/Ground Bonds secured by groove.
- Better lead shape for sawing robustness thanks to neck design:

From



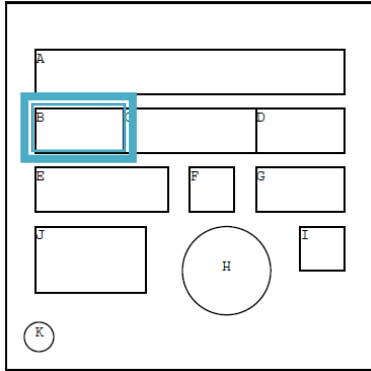
To



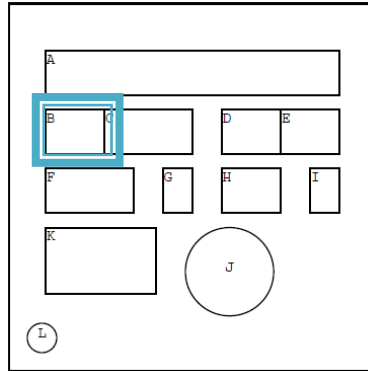
No impact on foot print and customer PCB (Printed Circuit Board).

## How can the change be seen?

For products in UFQFPN 5x5 packages, the marking instruction of the assembly plant indicated on the products is changing from GH (in B) to GQ (in B).

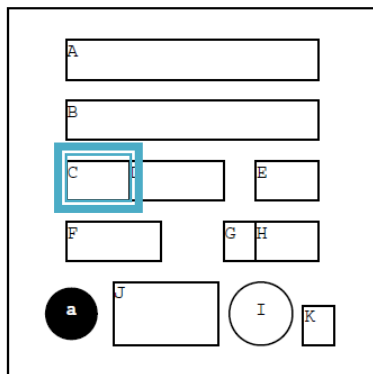


Example of previous marking

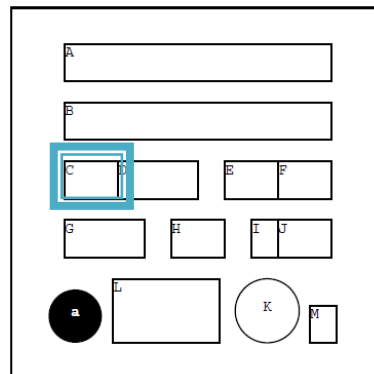


Example of new marking

For products in UFQFPN 7x7 packages, the marking instruction of the assembly plant indicated on the products is changing from GH (in C) to GQ (in C).



Example of previous marking



Example of new marking

## 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 9977" into the remarks of your order.
- place **non standard** sample order using the following field in your system.

SO | NPO Sample

Header

SO Nr: [ ] Customer: [ ] SO Type: 38 Sample Order

PO Nr: [ ] Carrier Code: [ ] Price Policy: [ ] Currency: [ ]

Notes: [ ] States: [ ] Issuing Date: [ ] Ord Val: 0.0000

Sch 1 Nr	PO 1 Nr	Finished Good	Comm Qty	Open Qty	Plant Open Qty	Reqd Qty	Unit Price	RD	CD	EDD	St

PO Item: [ ] Comm Prod: [ ] Qty: 0 RD: 06-Jan-15 Unit Price: 0.0000 Final Cost: [ ]

Cust Part Nr: [ ] Finishd Good: [ ] Partial Ship: 01 Price Pol: [ ] Status: 01 Conc: [ ]

Notes: [ ] TAM K Pieces: 0 Our Share%: 0 Sample Type: **Sample Non Std Type**

Project Name: [ ] Closing Date: [ ] Closing Type: [ ]

Regional Sheet: [ ] Lab Sheet: [ ]

SO Nr: 7075S05890 Customer: 99800200 SGS-TH/USA PO Nr: Mos/TPapay/RBC-Ullmer

Company: STM Issuing Date: 29-JUL-2015 12:07:00 Ship To: 9980020081 SGS/USANPO Price Policy: 05 Curr Code: 02 U.S. DOLLAR

Carrier Code: 0001 \* Bill To: 9980020001 SGS-TH/USA

Carriage Code: F1 F.I.S. Confirm To: 81

Transportn Mode: 01 AIR FREIGHT Sales Rep. ID: 07R000 NO COMMISSION

Payment Term: 0006 FREE OF CHARGE Cust Serv Rep ID: 11A000 Dummy FSA SWISS

SO Remark Details

SO Nr: 7075S05890

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



# PCN 9977 - MCDRER1622 Qualification Plan UQFN5x5\_7x7 Transfer assembly plant from Stats ChipPAC Shanghai China (SCC) to Stats ChipPAC Jiangyin China (JSEC)

Dec 13th 2016

MDG MCD Quality & Reliability Department

# PCN 9977- MCDRER1622 Qualification Plan JSCC plant for UQFN5x5-7x7 packages

- Qualification plan for changes described in the PCN 9977
- Reliability report: RERMCD1622
- Test Vehicles

Package line	Assembly Line	Package	Device (Partial RawLine Code)	Diffusion Process	Number of qual Lots
UQFN	UQFN 5*5-7*7	UQFN5*5 32L	STM32(MG*440)	TSMC0.18	1
			STM32(MG*417)	F9GO2S	1
			STM8(MG*767)	F9GO1	1
		UQFN7*7 48L	STM32(MI*423)	M10	1
			STM32(MI*435)	TSMC90nm	1
			STM8(MI*764)	F9GO2	1

**Package Reliability Trials :**

(\*) tests performed after preconditioning

# PCN 9977- RERMCD1622

## JSCC UQFN5x5-7x7 RELIABILITY TRIALS

3

Reliability Trial	Test Conditions	Pass Criteria	Unit per Lot	Lot qty	
PC	Pre Conditioning: Moisture Sensitivity Jedec Level 3 J-STD-020/ JESD22-A113	Bake (125°C / 24 hrs) Soak (30°C / 60% RH / 192 hrs) for level 3 Convection reflow: 3 passes	3 passes MSL3	308	1/ device qual
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	96h	77	1/ device qual
TC(*)	Thermal Cycling JESD22 A104	-50°C, +150°C Or equivalent -65°C +150°C	1000Cy  500Cy (1000cy/2000cy as monitoring)	77	1/ device qual
WPT/WBS After TC	Wire Bond Pull- Mil Std883 method 2011 Wire Bond Shear ,AECQ100-001	3g min pull strength  15g min bond shear	500Cy 1000Cy 2000Cy		
THB(*) or HAST(*)	Temperature Humidity Bias JESD22 A101 Biased Highly Accelerated temperature & humidity stress JESD22 A110	85°C, 85% RH, bias  110°C, 1.2 atm , 85% RH bias	1000h  264h	77  77	1/ device qual
HTSL	High Temperature Storage Life JESD22 A103	150°C- no bias	1000h	77	1/ device qual
Construction analysis including Solderability, Physical demensions	JESD 22B102 JESDB100/B108			15 10	1/ Lead frame and Front end technology
ESD	ESD Charge Device Model ANSI/ESD STM5.3.1	250V / 500V/ 750V depending on device datasheet	250V or 500V or 750V	3	1/ device qual

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## Public Products List

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**PCN Title :** Transfer assembly plant from Stats ChipPAC Shanghai China (SCC) to Stats ChipPAC Jiangyin China (JSCC) for products in UFQFPN 5x5 & 7x7 packages

**PCN Reference :** MDG/17/9977

**Subject :** Public Products List

Dear Customer,

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

STM8L151C8U3	STM8TL53C4U6	STM32L151C8U6TR
STM32F101C8U6TR	STM32L152C8U6A	STM32L152C6U6A
STM32F071C8U6	STM32F410C8U6	STM32L152C8U6
STM32F401CCU6TR	STM32F042C6U6	STM32F411CEU6TR
STM32F078C8U6	STM8L151C8U6	STM32L151C8U6TR
STM32F091CCU7	STM32L151C8U6D	STM32F401C8U6
STM32F101C8U6TR	STM32F091CCU6TR	STM8L152C4U6
STM32L151C6U6ATR	STM32L152C8U6	STM32L151C8U6
STM32F051C8U6TR	STM32F103C8U6	STM32F098CCU6
STM32F072C8U7	STM32F072C8U6TR	STM32L152C6U6
STM32F411CEU7	STM32L100C6U6A	STM32F042C6U7
STM32L433CCU6	STM32F101C8U6	STM8L151C4U6
STM32F071C8U7TR	STM32F401C8U7	STM32F071C8U7
STM32F410C8U6	STM32F051C8U7	STM8L151C6U3
STM32F051C4U6	STM32L151CCU6TR	STM32F103C8U6TR
STM32F071C8U6TR	STM32L443CCU6	STM32F051C8U6
STM32F072C8U6TR	STM32F411CEU6	STM32F051C6U6
STM32L151C8U6A	STM32F091C8U6	STM32F058C8U6
STM32L152C8U6A	STM32F401C8U6TR	STM32F072C8U6
STM32F072C8U6	STM32F048C6U6	STM8L152C6U3
STM32L100C6U6	STM32F401C8U6	STM32F401C8U6TR
STM32L152CCU6	STM32F101C8U6	STM32F411CCU6TR
STM32F091CCU6	STM32F401CCU6	STM32L151C6U6TR
STM32L151C6U6	STM32F401CEU6	STM32F103C6U6A
STM32F048C6U6TR	STM8L151C4U6TR	STM32L151CCU6
STM8L151C8U6TR	STM8L152C6U6	STM8L151C6U6
STM32L100C6U6TR	STM8L151C6U6TR	STM32L100C6U6ATR
STM8L152C8U6	STM32L151C8U6A	STM32L151C8U6
STM32L151C6U6A	STM32F051K6U6	STM32F302K8U6TR
STM32F051K8U7TR	STM32L051K8U6TR	STM32F302K8U6
STM8S105K6U3A	STM8S103K3U6	STM32L011K3U6
STM8S105K6U6A	STM32L031K6U6TR	STM32L052K8U6D
STM8S103K3U6TR	STM8S105K4U6A	STM32L442KCU6
STM32F051K6U6TR	STM32L052K8U3	STM32L051K6U6
STM32F031K6U7	STM32F051K4U6TR	STM32F031K6U6





## Public Products List

STM32L052K8U6TR	STM32L432KCU6	STM32L071KZU3
STM32F031K4U6	STM32F042K6U6	STM32F301K8U7
STM32L052K6U6TR	STM8L151K4U6TR	STM32F042K6U7
STM32F301K6U6	STM32F051K4U7	STM32L071K8U6
STM8S903K3U6TR	STM32L031K4U6	STM32F301K6U7
STM32L041K6U7	STM8L151K6U6	STM8S903K3U3
STM32L011K4U6	STM32L052K6U6	STM32L011K4U3
STM8L101K3U6	STM8L151K3U6	STM8L152K4U6
STM32L072KBU7	STM32F302K6U6	STM32F042K4U6
STM32F302K8U7	STM32L041K6U6D	STM32L031K4U6TR
STM32F051K4U7TR	STM32F051K6U7TR	STM32L062K8U6
STM32F051K8U7	STM8L152K6U6TR	STM32L031K6U7
STM8S105K6U6ATR	STM32L051K8U7TR	STM8L101K3U6TR
STM8L151K3U3	STM32L072KBU6	STM32F301K8U7TR
STM32F318K8U6	STM32F031K4U6TR	STM32F038K6U6
STM8S903K3U3TR	STM32L082KBU6	STM32L051K8U6DTR
STM8S105K4U6ATR	STM32L071KBU6	STM8S105K4U3A
STM32F051K6U7	STM32F051K8U6TR	STM32L072KZU6
STM32L051K8U7	STM32F301K6U6TR	STM8L151K4U6
STM8L151K2U6	STM32L081KZU6	STM32L071K8U3
STM32F051K8U6	STM32L052K8U6DTR	STM8L151K6U3
STM8L152K6U6	STM32F031K6U6TR	STM8L151K3U3TR
STM32L041K6U6	STM32L041K6U6TR	STM32L071KBU3
STM32L052K8U3TR	STM32L051K8U6	STM32F318K8U7
STM32L082KZU6	STM8L151K6U6TR	STM32L031K6U6
STM32F301K8U6TR	STM32L051K6U6TR	STM32L052K8U6
STM32F301K8U6	STM8S903K3U6	STM32L051K8U3
STM32L071KZU6	STM32F051K4U6	STM32F072CBU7TR
STM32F072CBU7		



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