


PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCN No.	MDG/20/12190	
1.3 Title of PCN	ASE Kaohsiung (Taiwan) additional source for TFBGA14x14 for STM32H75 2MB products	
1.4 Product Category	TFBGA14x14 for STM32H75 2MB products	
1.5 Issue date	2020-09-11	

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	Ricardo Antonio DE SA EARP
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: Assembly site (SOP 2617)	ASE Kaohsiung Taiwan

4. Description of change

	Old	New
4.1 Description	Back-end sources: - Amkor ATP Philippines	Back-end sources: - Amkor ATP Philippines - ASE Kaohsiung Taiwan - Additional source For more information, please refer to PCN12190 – Additional information attached document.
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	Different manufacturing site Molding compound impacting Package darkness (color) Ball material and Package Outline Assembly (POA) dimensions changes. No other change in spec.	

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 back-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	Tracability is ensure by ST internal tools. Please refer to PCN12190 Additional information attached document.
-----------------	---

7. Timing / schedule

7.1 Date of qualification results	2020-10-30
7.2 Intended start of delivery	2020-10-30
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	12190 MDG-MCD-RERMCD2011 PCN12190 - ASE Kaohsiung additional source for TFBGA 14x14 STM32- reliability plan.pdf
-----------------	---

8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2020-09-11
--	----------------------------	------------	------------

9. Attachments (additional documentations)
12190 Public product.pdf 12190 MDG-MCD-RERMCD2011 PCN12190 - ASE Kaohsiung additional source for TFBGA 14x14 STM32- reliability plan.pdf 12190 PCN12190_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
	STM32H743XIH6	
	STM32H745XIH6	
	STM32H747XIH6	
	STM32H750XBH6	
	STM32H753XIH6	
	STM32H755XIH6	
	STM32H757XIH6	

IMPORTANT NOTICE – PLEASE READ CAREFULLY

Subject to any contractual arrangement in force with you or to any industry standard implemented by us, STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2018 STMicroelectronics – All rights reserved



life.augmented

**RERMCD2011 for
PCN12190
ASE Kaohsiung (Taiwan)
additional source for
TFBGA 14x14**

June 24th, 2020

MDG MCD Quality & Reliability Department

RERMCD2011 ASE Kh (Taiwan) additional source for TFBGA 14X14 - Package Test Vehicle

Package line	Assembly Line	Package	Device (Partial RawLine Code)	Diffusion Plants & Process	Number of Reliability Lots
BGA	TFBGA 14x14	265 balls	CV*450	ST Crolles M40	3

RERMCD2011 ASE Kh (Taiwan) additional source for TFBGA 14x14 - Package Reliability Trials

Reliability Trial & Standard		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	231	3
TC (*)	Thermal Cycling JESD22 A104	-50°C, +150°C Or equivalent -65°C +150°C	1000Cy 500Cy	77	3
THB (*)	Temperature Humidity Bias JESD22-A101	85°C, 85% RH, bias	1000h	77	3
HTSL (*)	High Temperature Storage Life JESD22 A103	150°C- no bias	1000h	77	3
Construction analysis	JESD 22B102 JESDB100/B108			50	3
ESD	ESD Charge Device Model ANSI/ESD STM5.3.1	Aligned with device datasheet	250V	3	1

(*) tests performed after preconditioning

Thank you

© STMicroelectronics - All rights reserved.

The STMicroelectronics corporate logo is a registered trademark of the STMicroelectronics group of companies. All other names are the property of their respective owners.



IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics International NV and its affiliates (“ST”) reserve the right to make changes corrections, enhancements, modifications, and improvements to ST products and/or to this document any time without notice.

This document is provided solely for the purpose of obtaining general information relating to an ST product. Accordingly, you hereby agree to make use of this document solely for the purpose of obtaining general information relating to the ST product. You further acknowledge and agree that this document may not be used in or in connection with any legal or administrative proceeding in any court, arbitration, agency, commission or other tribunal or in connection with any action, cause of action, litigation, claim, allegation, demand or dispute of any kind. You further acknowledge and agree that this document shall not be construed as an admission, acknowledgement or evidence of any kind, including, without limitation, as to the liability, fault or responsibility whatsoever of ST or any of its affiliates, or as to the accuracy or validity of the information contained herein, or concerning any alleged product issue, failure, or defect. ST does not promise that this document is accurate or error free and specifically disclaims all warranties, express or implied, as to the accuracy of the information contained herein. Accordingly, you agree that in no event will ST or its affiliates be liable to you for any direct, indirect, consequential, exemplary, incidental, punitive, or other damages, including lost profits, arising from or relating to your reliance upon or use of this document.

Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement, including, without limitation, the warranty provisions thereunder.

In that respect please note that ST products are not designed for use in some specific applications or environments described in above mentioned terms and conditions.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

Information furnished is believed to be accurate and reliable. However, ST assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously in any prior version of this document.

© 2020 STMicroelectronics - All rights reserved



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

**ASE Kaohsiung (Taiwan) additional source
For TFBGA14x14 240b for STM32H75 2MB products**

MDG - Microcontrollers Division (MCD)

What are the changes?

Changes described in table below:

	Existing back-end site	Added back-end site
Assembly site	AMKOR ATP (Philippines)	ASE Kaohsiung (Taiwan)
Die Attach Material	Ablebond 2300	ATB-125
Molding compound (1)	GE100LFCS	KE-G1250AAS
Ball material	SAC105	SACN305
POA (2)		
Max package thickness	1.1mm	1.2mm
Min Ball diam after reflow	0.350mm	0.320mm

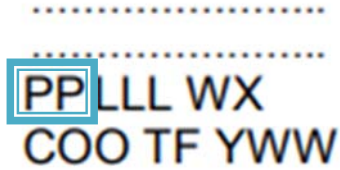
(1) Package darkness changes depending on molding compound.

(2) All other Package Outline Assembly (POA) dimensions remain unchanged.

Note: Pin1 identifier can change in terms of form and positioning.
Marking position and size could be different upon assembly site, without any
loss of information.

How can the change be seen?

The standard marking is:



PP code indicates assembly traceability plant code.

Please refer to DataSheet for marking details.

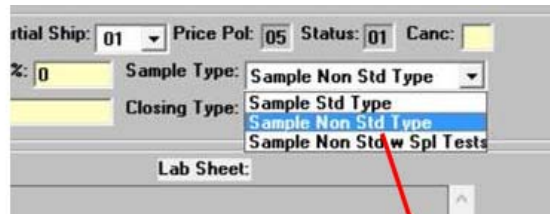
The marking is changing as follows:

Existing		Additional	
PP code	Fab	PP code	Fab
7B	Amkor ATP Philippines	AA	ASE Kaohsiung Taiwan

How to order samples?

For all samples request linked to this PCN, please:

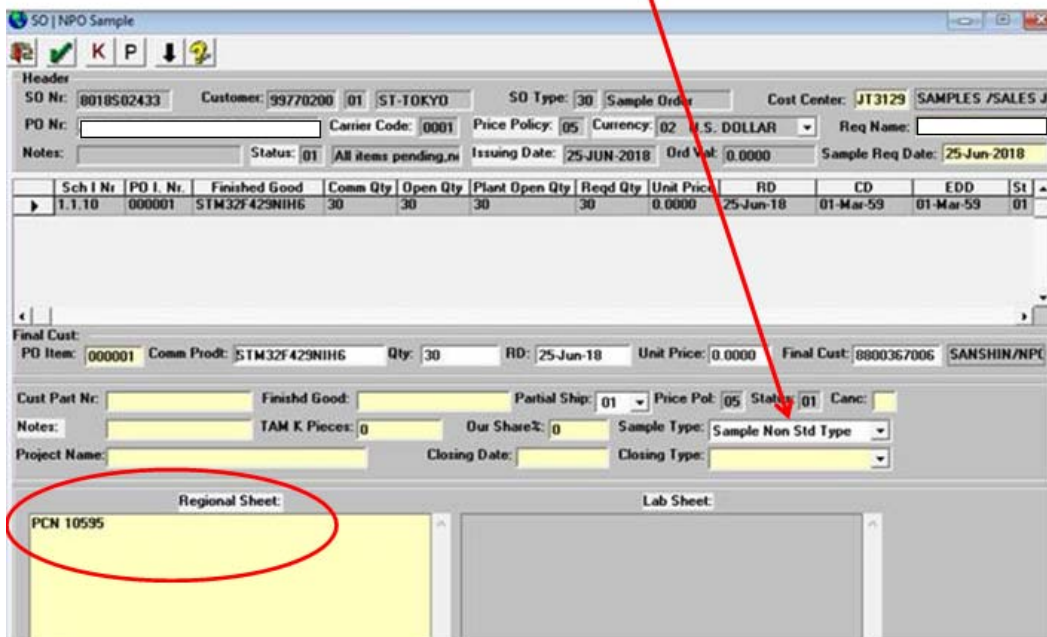
- place a **Non-standard** sample order (choose Sample Non Std Type from pull down menu)
- insert the PCN number “**PCN11190**” into the NPO Electronic Sheet/**Regional Sheet**
- request sample(s) through Notice tool, indicating a single Commercial Product for each request



Partial Ship: 01 Price Pol: 05 Status: 01 Canc: ☐

%: 0 Sample Type: Sample Non Std Type
Closing Type: Sample Std Type
Sample Non Std Type
Sample Non Std w Spl Tests

Lab Sheet:



SO | NPO Sample

Header

SO Nr: 0018502433 Customer: 99770200 01 ST-TOKYO SO Type: 30 Sample Order Cost Center: JT3129 SAMPLES /SALES J

PO Nr: Carrier Code: 0001 Price Policy: 05 Currency: 02 U.S. DOLLAR Req Name:

Notes: Status: 01 All items pending. Issuing Date: 25-JUN-2018 Ord Val: 0.0000 Sample Req Date: 25-Jun-2018

Sch I Nr	PO I. Nr.	Finished Good	Comm Qty	Open Qty	Plant Open Qty	Reqd Qty	Unit Price	RD	CD	EDD	St
1.1.10	000001	STM32F429NIH6	30	30	30	30	0.0000	25-Jun-18	01-Mar-59	01-Mar-59	01

Final Cust: PD Item: 000001 Comm Prod: STM32F429NIH6 Qty: 30 RD: 25-Jun-18 Unit Price: 0.0000 Final Cust: 8800367006 SANSIHN/NP

Cust Part Nr: Finishd Good: Partial Ship: 01 Price Pol: 05 Status: 01 Canc: ☐

Notes: TAM K Pieces: 0 Our Share: 0 Sample Type: Sample Non Std Type

Project Name: Closing Date: Closing Type:

Regional Sheet: PCN 10595

Lab Sheet:



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 : ASE Kaohsiung (Taiwan) additional source for TFBGA14x14 for STM32H75 2MB products

PCN Reference : MDG/20/12190

Subject : Public Products List

Dear Customer,

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

STM32H743XIH6	STM32H745XGH6	STM32H750XBH6
STM32H745XIH3	STM32H747XGH6	STM32H745XIH6
STM32H753XIH6	STM32H742XGH6	STM32H755XIH6
STM32H743XGH6	STM32H742XIH6	STM32H757XIH6
STM32H747XIH6	STM32H755XIH3	



IMPORTANT NOTICE – PLEASE READ CAREFULLY

Subject to any contractual arrangement in force with you or to any industry standard implemented by us, STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.