

**PRODUCT / PROCESS CHANGE NOTIFICATION**

**1. PCN basic data**

|                             |   |                                      |
|-----------------------------|---|--------------------------------------|
| <b>1.1 Company</b>          |  | STMicroelectronics International N.V |
| <b>1.2 PCN No.</b>          | MDG/19/10690  |                                      |
| <b>1.3 Title of PCN</b>     | ASE Kaohsiung (Taiwan) additional source for UFBGA 5X5 7x7 10x10 package products |                                      |
| <b>1.4 Product Category</b> | UFBGA 5X5 7x7 10x10 listed products   |                                      |
| <b>1.5 Issue date</b>       | 2019-03-08  |                                      |

**2. PCN Team**

|                                  |                            |
|----------------------------------|----------------------------|
| <b>2.1 Contact supplier</b>      |                            |
| <b>2.1.1 Name</b>                | ROBERTSON HEATHER          |
| <b>2.1.2 Phone</b>               | +1 8475853058              |
| <b>2.1.3 Email</b>               | heather.robertson@st.com   |
| <b>2.2 Change responsibility</b> |                            |
| <b>2.2.1 Product Manager</b>     | Ricardo Antonio DE SA EARP |
| <b>2.1.2 Marketing Manager</b>   | Veronique BARLATIER        |
| <b>2.1.3 Quality Manager</b>     | Pascal NARCHE              |

**3. Change**

|                     |   |                                   |
|---------------------|---|-----------------------------------|
| <b>3.1 Category</b> | <b>3.2 Type of change</b>   | <b>3.3 Manufacturing Location</b> |
| 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**

|   |   |  |
|---|---|--|
|   | <b>Old</b>  | <b>New</b>   |
| <b>4.1 Description</b>  | Back-end source:<br>- Amkor ATP Philippines   | Back-end sources:<br>- Amkor ATP Philippines<br>- ASE Kaohsiung Taiwan - Additional source<br>For more information, please refer to PCN10690 – Additional information attached document. |
| <b>4.2 Anticipated Impact on form, fit, function, quality, reliability or processability?</b> | Visual aspect (color) might change depending on substrate material.<br>Package darkness might change depending on molding compound.<br>Ball1 identifier remain in the same corner but might change in terms of form and positioning.<br>Marking position and size could be different upon assembly site, without any loss of information. |  |

**5. Reason / motivation for change**

|                             |  |
|-----------------------------|--|
| <b>5.1 Motivation</b>       | 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. |
| <b>5.2 Customer Benefit</b> | CAPACITY INCREASE  |

**6. Marking of parts / traceability of change**

|                        |  |
|------------------------|--|
| <b>6.1 Description</b> | Change is visible through assembly traceability plant, in the marking:<br>- "7B" for Amkor ATP Philippines<br>- "AA" for ASE Kaohsiung Taiwan<br>Please refer to PCN 10690 – Additional information attached document. |
|------------------------|--|

**7. Timing / schedule**

|  |              |
|--|--------------|
| <b>7.1 Date of qualification results</b>   | 2019-04-24   |
| <b>7.2 Intended start of delivery</b>      | 2019-05-24   |
| <b>7.3 Qualification sample available?</b> | Upon Request |

| 8. Qualification / Validation |  |  |  |
|-------------------------------|--|--|--|
|-------------------------------|--|--|--|

|   |   |                   |            |
|---|---|-------------------|------------|
| <b>8.1 Description</b>                                    | 10690 MDG-MCD-RER1901-PCN 10690-ASE Kaohsiung additional source for UFBGA 5x5_7x7_10x10.pdf |                   |            |
| <b>8.2 Qualification report and qualification results</b> | Available (see attachment)  | <b>Issue Date</b> | 2019-03-08 |

| 9. Attachments (additional documentations) |  |  |  |
|--|--|--|--|
|--|--|--|--|

10690 Public product.pdf  
 10690 MDG-MCD-RER1901-PCN 10690-ASE Kaohsiung additional source for UFBGA 5x5\_7x7\_10x10.pdf  
 10690 PCN10690\_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  |
|                         | STM32F207IGH6           |                          |
|                         | STM32F217IGH6           |                          |
|                         | STM32F407IEH6           |                          |
|                         | STM32F407IGH6           |                          |
|                         | STM32F407IGH6TR         |                          |
|                         | STM32F411VEH6           |                          |
|                         | STM32F413VGH6           |                          |
|                         | STM32F413VHH6           |                          |
|                         | STM32F413ZGJ6           |                          |
|                         | STM32F413ZHJ6           |                          |
|                         | STM32F417IEH6           |                          |
|                         | STM32F417IGH6           |                          |
|                         | STM32F427AGH6           |                          |
|                         | STM32F427AIH6           |                          |
|                         | STM32F427IGH6           |                          |
|                         | STM32F427IIH6           |                          |
|                         | STM32F429AGH6           |                          |
|                         | STM32F429AIH6           |                          |
|                         | STM32F429IGH6           |                          |
|                         | STM32F429IIH6           |                          |
|                         | STM32F437IIH6           |                          |
|                         | STM32F439IIH6           |                          |
|                         | STM32F446ZEH6           |                          |
|                         | STM32F446ZEJ6           |                          |
|                         | STM32F446ZEJ6TR         |                          |
|                         | STM32F469AIH6           |                          |
|                         | STM32F722IEK6           |                          |
|                         | STM32F723IEK6           |                          |
|                         | STM32F723ZEI6           |                          |
|                         | STM32F730I8K6           |                          |
|                         | STM32F732IEK6           |                          |
|                         | STM32F745IEK6           |                          |
|                         | STM32F745IGK6           |                          |
|                         | STM32F746IEK6           |                          |
|                         | STM32F746IGK6           |                          |
|                         | STM32F756IGK6           |                          |
|                         | STM32F765IGK6           |                          |
|                         | STM32F765IIK6           |                          |
|                         | STM32F767IGK6           |                          |

|  |                |  |
|--|----------------|--|
|  | STM32F767IIK6  |  |
|  | STM32F777IIK6  |  |
|  | STM32H743IIK6  |  |
|  | STM32H750IBK6  |  |
|  | STM32L072RZI6  |  |
|  | STM32L151QEH6  |  |
|  | STM32L412RBI6  |  |
|  | STM32L422RBI6  |  |
|  | STM32L431RBI6  |  |
|  | STM32L431VCI6  |  |
|  | STM32L433RBI6  |  |
|  | STM32L433RCI3  |  |
|  | STM32L433RCI6  |  |
|  | STM32L433VCI3  |  |
|  | STM32L433VCI6  |  |
|  | STM32L443RCI3  |  |
|  | STM32L443RCI6  |  |
|  | STM32L443VCI6  |  |
|  | STM32L451RCI6  |  |
|  | STM32L451REI6  |  |
|  | STM32L451VCI6  |  |
|  | STM32L451VEI6  |  |
|  | STM32L452RCI6  |  |
|  | STM32L452REI3  |  |
|  | STM32L452REI6  |  |
|  | STM32L452VCI6  |  |
|  | STM32L452VEI6  |  |
|  | STM32L462REI6  |  |
|  | STM32L462VEI6  |  |
|  | STM32L471QEI6  |  |
|  | STM32L471QGI6  |  |
|  | STM32L476QGI3  |  |
|  | STM32L476QGI6  |  |
|  | STM32L486QGI6  |  |
|  | STM32L496AEI6  |  |
|  | STM32L496AGI3  |  |
|  | STM32L496AGI6  |  |
|  | STM32L496AGI6P |  |
|  | STM32L496QEI6  |  |
|  | STM32L496QGI3  |  |
|  | STM32L496QGI6  |  |
|  | STM32L496QGI6P |  |
|  | STM32L4A6AGI6  |  |
|  | STM32L4A6AGI6P |  |
|  | STM32L4A6QGI6  |  |
|  | STM32L4A6QGI6P |  |
|  | STM32L4R5AGI6  |  |
|  | STM32L4R5QII6  |  |
|  | STM32L4R9AGI6  |  |
|  | STM32L4R9AII6  |  |
|  | STM32L4R9ZIJ6  |  |

|  |               |  |
|--|---------------|--|
|  | STM32L4S5QII6 |  |
|  | STM32L4S9AII6 |  |

**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



## 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 UFBGA 5X5 7x7 10x10 package products

**PCN Reference :** MDG/19/10690

**Subject :** Public Products List

Dear Customer,

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

|                 |                 |                  |
|-----------------|-----------------|------------------|
| STM32F469IIH6   | STM32F427IGH6TR | STM32L072VBI6    |
| STM32L422RBI6   | STM32L471QEI7TR | STM32F207IFH6TR  |
| STM32F446ZEJ6   | STM32F412VGH6   | STM32H743AII6    |
| STM32F412ZEJ3   | STM32L4A6QGI6P  | STM32L072RZI6DTR |
| STM32F439IIH6TR | STM32H753IIK6   | STM32F412VEH3TR  |
| STM32L462REI6   | STM32F427IGH7   | STM32F407IGH6    |
| STM32F427AIH6   | STM32F439AIH6   | STM32L452VEI6    |
| STM32F777IIK6   | STM32F410RBI6   | STM32L451VEI6    |
| STM32F469IGH6TR | STM32F429IEH6   | STM32F427IIH6    |
| STM32F427AGH6   | STM32L431RCI6   | STM32F413ZHJ6    |
| STM32F446ZEH6   | STM32F756IGK6   | STM32F723ZCI6    |
| STM32H750IBK6   | STM32F427IIH6TR | STM32F723IEK6    |
| STM32F446ZEJ6TR | STM32L431VCI6   | STM32L471ZEJ6    |
| STM32L452VEI3   | STM32L151VBH6D  | STM32F427IGH6    |
| STM32F413VHH6   | STM32F429IIH6   | STM32F417IGH6TR  |
| STM32F732IEK6   | STM32F437AIH6   | STM32F429AGH6    |
| STM32L073RZI6   | STM32F746IGK7   | STM32F407IEH6    |
| STM32H753AII6   | STM32L552QEI6P  | STM32F217IGH6    |
| STM32F401VEH6   | STM32F479IIH6   | STM32F765IGK6    |
| STM32L476ZGJ6   | STM32F411VEH6   | STM32L4S9AII6    |
| STM32F429IGH6   | STM32F401VBH6   | STM32F407IGH7    |
| STM32L151VBH6A  | STM32L496QEI6   | STM32F407IEH6TR  |
| STM32F746IGK6   | STM32F407IGH6TR | STM32F207IGH6TR  |
| STM32L4S7AII6   | STM32F413VGH6   | STM32F401VCH7    |
| STM32L552QEI6   | STM32F446ZCH6   | STM32H743IIK6    |
| STM32F765IIK6   | STM32F745IEK6   | STM32F469AGH6TR  |
| STM32F439IIH6   | STM32F723ICK6   | STM32F745IEK7    |
| STM32F767IGK6   | STM32F417IGH6   | STM32F407IEH7    |
| STM32L4R9AII6   | STM32F446ZCJ6   | STM32F207IGH7    |
| STM32F439IGH6   | STM32F439IIH7   | STM32F429AIH6    |
| STM32F469AIH6   | STM32F207IEH6   | STM32F733IEK6    |
| STM32L4R5AII6P  | STM32L072RZI6D  | STM32F207ICH6    |
| STM32L083VZI6   | STM32L152V8H6A  | STM32L072VZI6    |
| STM32F427IIH7   | STM32L4S5AII6   | STM32F446ZCH7    |
| STM32L476QGI6   | STM32L496AGI6   | STM32F437IIH6    |
| STM32L412RBI6P  | STM32L496AGI3   | STM32F437IGH6    |



## Public Products List

|                 |                 |                 |
|-----------------|-----------------|-----------------|
| STM32F413ZGJ6TR | STM32F412ZGJ6   | STM32F446ZEH7   |
| STM32F401VCH6   | STM32F429IIH6TR | STM32L486QGI6TR |
| STM32L452RCI6   | STM32L4R5QGI6TR | STM32F469IGH6   |
| STM32F207IEH6TR | STM32F407IGH6J  | STM32F413ZGJ6   |
| STM32F412ZEJ6   | STM32L152VCH6   | STM32L4R5QGI6   |
| STM32F469AGH6   | STM32F423VHH6   | STM32L072RZI6TR |
| STM32F479AIH6   | STM32F479IGH6   | STM32L471ZGJ6   |
| STM32F417IGH6W  | STM32F479AGH6   | STM32F429AGH6TR |
| STM32F437IIH6TR | STM32L072V8I6   | STM32L562QEI6Q  |
| STM32F401VDH6   | STM32F723ZEI6   | STM32F401VBH3   |
| STM32L433VCI3   | STM32L476QGI3   | STM32L486QGI6   |
| STM32F412VEH6   | STM32F767IIK6   | STM32F446ZEJ7TR |
| STM32L471QGI6   | STM32F745IGK6   | STM32F765IIK7   |
| STM32L431RBI6TR | STM32L462VEI6   | STM32L476QGI6P  |
| STM32F207IGH6J  | STM32F437AIH6TR | STM32L4R9ZGJ6   |
| STM32F745IEK7TR | STM32F745IGK6TR | STM32L4R9AGI6   |
| STM32L433RCI3   | STM32F469AEH6   | STM32L471ZEJ6TR |
| STM32L412R8I6   | STM32F207IFH6   | STM32L496AEI6   |
| STM32L151QEH6   | STM32F217IEH6   | STM32L451REI6   |
| STM32L476QEI6TR | STM32L443RCI6   | STM32L471QEI7   |
| STM32L4A6AGI6P  | STM32F469IEH6   | STM32L162VCH6TR |
| STM32F730I8K6   | STM32L073RZI6TR | STM32L452REI6   |
| STM32L496QGI6P  | STM32F446ZEH7TR | STM32L072RBI6TR |
| STM32F411VEH6TR | STM32L4A6AGI6   | STM32F777IIK7   |
| STM32L152QEH6   | STM32F417IEH6   | STM32L451VCI6   |
| STM32L4A6QGI6   | STM32L431RBI6   | STM32F722IEK6   |
| STM32L4R5AII6   | STM32F722ICK6   | STM32F410RBI3   |
| STM32L433RCI6TR | STM32L433RBI6   | STM32H743IIK6TR |
| STM32L431RBI3   | STM32L443VCI6   | STM32F733ZEI6   |
| STM32L151VCH6TR | STM32F423ZHJ6   | STM32L443RCI3   |
| STM32L072RBI6   | STM32F446ZEH6TR | STM32L452REI3   |
| STM32L4S9ZIJ6   | STM32F207IGH6   | STM32L152VBH6A  |
| STM32L4S5QII6   | STM32L4R7AII6   | STM32L433RCI6   |
| STM32L471QEI6TR | STM32L162VCH6   | STM32L476QEI6   |
| STM32L4R9ZIJ6   | STM32F412ZGJ6TR | STM32L496AGI6P  |
| STM32L072RZI6   | STM32F446ZEJ7   | STM32L462VEI6TR |
| STM32L4S5QII3P  | STM32L4R5QII6P  | STM32F427AIH6TR |
| STM32L451RCI6   | STM32L552QEI6Q  | STM32L471QEI6   |
| STM32L4R5QII6   | STM32L073VZI6   | STM32L496QGI3   |
| STM32L073VZI6TR | STM32F746IEK6   | STM32L443RCI6TR |
| STM32L433VCI6   | STM32L151V8H6A  | STM32L452VCI6   |
| STM32L412RBI6   | STM32L151VCH6   | STM32L476QGI6TR |
| STM32L496QGI6   | STM32L4R5AGI6   |                 |



### 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.