

PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

| | | |
|-----------------------------|-----------------------------------------------------------------------------------|--------------------------------------|
| 1.1 Company |  | STMicroelectronics International N.V |
| 1.2 PCN No. | AMS/18/10643 | |
| 1.3 Title of PCN | New set of material in Amkor Philippines for TSSOP14 and TSSOP16 packages | |
| 1.4 Product Category | See product list | |
| 1.5 Issue date | 2018-07-03 | |

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 | Lorenzo NASO |
| 2.1.2 Marketing Manager | Marcello SAN BIAGIO |
| 2.1.3 Quality Manager | Jean-Marc BUGNARD |

3. Change

| | | |
|---------------------|---------------------------------------------------------------------------------------------|---------------------------------------|
| 3.1 Category | 3.2 Type of change | 3.3 Manufacturing Location |
| Materials | Any change on substrate (part number, supplier, plant, design or composition of any layer?) | Subcontractor Amkor ATP1, Philippines |

4. Description of change

| | | |
|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| | Old | New |
| 4.1 Description | Molding compound = SUMITOMO EME-G700K Lead-frame = Original Matrix Lead-Frame (OMLF); High Density Leadframe (HDLF) | Molding compound = Sumitomo G700LS Lead-frame = eXtreme Density Lead-Frame (XDLF) |
| 4.2 Anticipated Impact on form,fit, function, quality, reliability or processability? | No impact | |

5. Reason / motivation for change

| | |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1 Motivation | New material set (molding compound) for TSSOP14 and TSSOP16 packages produced in Amkor Philippines is introduced to further improve the rationalization of our manufacturing assets and provide a better support to our customers by enhancing the manufacturing process for higher volume production. Besides, we will introduce a new lead-frame (XDLF) with higher density in order to increase our production capacity and rationalize our production tool. This change implies the phase out of the Old Lead Frame Matrix (OMLF) and High Density Lead Frame (HDLF), and it has no impact on the internal lead-frame structure. |
| 5.2 Customer Benefit | CAPACITY INCREASE |

6. Marking of parts / traceability of change

| | |
|------------------------|-------------------------|
| 6.1 Description | New finished good codes |
|------------------------|-------------------------|

7. Timing / schedule

| | |
|--------------------------------------------|--------------|
| 7.1 Date of qualification results | 2018-07-10 |
| 7.2 Intended start of delivery | 2018-10-02 |
| 7.3 Qualification sample available? | Upon Request |

8. Qualification / Validation

| | |
|------------------------|--|
| 8.1 Description | |
|------------------------|--|

| | | | |
|----------------------------------------------------|-------------|------------|--|
| 8.2 Qualification report and qualification results | In progress | Issue Date | |
|----------------------------------------------------|-------------|------------|--|

9. Attachments (additional documentations)

10643 Public product.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 |
| | L5988DTR | |
| | L6986 | |
| | L6986TR | |
| | L7987 | |
| | L7987L | |
| | L7987LTR | |
| | LED6000PHR | |
| | LED6001 | |
| | LED6001TR | |
| | STAP08DP5XTTR | |
| | STP04CM05XTTR | |
| | STP08CP05XTTR | |
| | STP08DP05XTTR | |
| LMV324IPT | LMV324IPT | |
| | TL084CPT | |
| | TSH84IPT | |



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 : New set of material in Amkor Philippines for TSSOP14 and TSSOP16 packages

PCN Reference : AMS/18/10643

Subject : Public Products List

Dear Customer,

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

| | | |
|---------------|---------------|---------------|
| L6986TR | STAP08DP5XTTR | L7987L |
| STP04CM05XTTR | L7987 | L6986 |
| STP08CP05XTTR | LED6001TR | STP08DP05XTTR |
| L7987LTR | LED6000PHR | L5988D |
| L7987TR | L5988DTR | LED6000PHTR |
| LED6001 | LMV324IPT | TL084CPT |



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