


**PRODUCT / PROCESS CHANGE NOTIFICATION**

**1. PCN basic data**

|                      |   |                                      |
|----------------------|---|--------------------------------------|
| 1.1 Company          |  | STMicroelectronics International N.V |
| 1.2 PCN No.          | MDG/22/13205  |                                      |
| 1.3 Title of PCN     | TPM VFQFPN32 – Molding resin upgrade to ULA                                       |                                      |
| 1.4 Product Category | VFQFPN32 package for product lines ST33TPHF20, ST33TPHF2E, ST33TPHF2X             |                                      |
| 1.5 Issue date       | 2022-01-19  |                                      |

**2. PCN Team**

|                                  |                         |
|----------------------------------|-------------------------|
| <b>2.1 Contact supplier</b>      |                         |
| 2.1.1 Name                       | NEMETH KRISZTINA        |
| 2.1.2 Phone                      | +49 89460062210         |
| 2.1.3 Email                      | krisztina.nemeth@st.com |
| <b>2.2 Change responsibility</b> |                         |
| 2.2.1 Product Manager            | Marie-France FLORENTIN  |
| 2.1.2 Marketing Manager          | Denis FARISON           |
| 2.1.3 Quality Manager            | Mickael DENAIS-ALLICHON |

**3. Change**

|                          |                    |                            |
|--------------------------|--------------------|----------------------------|
| 3.1 Category             | 3.2 Type of change | 3.3 Manufacturing Location |
| General Product & Design | (Not Defined)      | Amkor ATP3                 |

**4. Description of change**

|  | Old  | New  |
|--|--|--|
| 4.1 Description  | The reference of the resin qualified is "Hitachi CEL 9220 HF13".   | In order to meet reliability requirements for industrial and communication equipments, the resin used in the VFQFPN32 package for product lines ST33TPHF20, ST33TPHF2E, ST33TPHF2X will be modified to include a ULA resin. The reference of the ULA resin that will be qualified is "Sumitomo EME-G700SY" |
| 4.2 Anticipated Impact on form, fit, function, quality, reliability or processability? | Impact on reliability.<br>- Form: no impact (no change for visual appearance including colour, marking, surface finish)<br>- Fit: no impact (no change for external dimensions and tolerances)<br>- Function: no impact (no change for electrical, environmental, mechanical, thermal performance characteristics) |  |

**5. Reason / motivation for change**

|                      |  |
|----------------------|--|
| 5.1 Motivation       | The FIT (failure in time) related to alpha particle will be decreased by a factor 10 with the ULA resin. |
| 5.2 Customer Benefit | QUALITY IMPROVEMENT  |

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

|                 |  |
|-----------------|--|
| 6.1 Description | A new Finished Good codification will be created. This Finished Good codification is present on the label. |
|-----------------|--|

**7. Timing / schedule**

|                                     |              |
|-------------------------------------|--------------|
| 7.1 Date of qualification results   | 2022-09-05   |
| 7.2 Intended start of delivery      | 2023-01-08   |
| 7.3 Qualification sample available? | Upon Request |

**8. Qualification / Validation**

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

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

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| <b>9. Attachments (additional documentations)</b> |
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| 13205 Public product.pdf<br>13205 PCN TPM VFQFPN32 - Molding resin upgrade to ULA v1.0.pdf |
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|                           |
|---------------------------|
| <b>10. Affected parts</b> |
|---------------------------|

| 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  |
|                         | ST33HTPH2X32AHD5        |                          |

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