

PRODUCT / PROCESS CHANGE INFORMATION

1. PCI basic data

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|----------------------|---|--------------------------------------|
| 1.1 Company |  | STMicroelectronics International N.V |
| 1.2 PCI No. | MDG/24/14492 | |
| 1.3 Title of PCI | AMKOR ATT (Taiwan) for listed products in WLCSP Packages - Polyimide (PI) passivation layer change from version LTC9320-E07S to LTC9320-E19 | |
| 1.4 Product Category | GPM - STM32WB : STM32WB55xx - STM32U : STM32U535x & STM32U545x. CS /EEPROM : - M35Pxx-CXCST/EF - M95Pxx-IXCST/EF in WLCSP package | |
| 1.5 Issue date | 2024-04-05 | |

2. PCI Team

| | |
|---------------------------|---|
| 2.1 Contact supplier | |
| 2.1.1 Name | KRISZTINA NEMETH |
| 2.1.2 Phone | +49 89460062210 |
| 2.1.3 Email | krisztina.nemeth@st.com |
| 2.2 Change responsibility | |
| 2.2.1 Product Manager | Ricardo Antonio DE SA EARP,Marie-France FLORENTIN |
| 2.1.2 Marketing Manager | Veronique BARLATIER,Sylvain FIDELIS |
| 2.1.3 Quality Manager | Pascal NARCHE,Mickael DENAIS-ALLICHON |

3. Change

| 3.1 Category | 3.2 Type of change | 3.3 Manufacturing Location |
|--------------|--|----------------------------|
| Materials | New direct material part number (same supplier, different supplier or new supplier), Bumps | AMKOR ATT (Taiwan) |

4. Description of change

| | Old | New |
|---|---|---|
| 4.1 Description | Current Condition: LTC 9320 E07S Polymer supplier: Asian source Both of Exposure machines type Aligner and Stepper can use for PI1 and PI2 layers | New Condition: LTC 9320 E19 Polymer supplier: European source Dedicate Exposure machines type: Stepper is for PI1 and Aligner is for PI2. |
| 4.2 Anticipated Impact on form,fit, function, quality, reliability or processability? | no impact | |

5. Reason / motivation for change

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| 5.1 Motivation | <p>Fujifilm announced that passivation layer LTC-9320 E07S will be discontinued and ATT proposed using the latest version LTC-9320 E19 instead.</p> <p>The present volatile market situation impacts the chemical raw material availability. The high market demands create raw material shortages and force raw material suppliers to optimize their product portfolio.</p> <p>The present resin supplier of Fuji-LTC9320-E07S passivation layer decided to stop the production of the raw material with immediate effect under these market circumstances. This specific resin is only used in the production of LTC 9320-E07S. Consequently, LTC9320-E07S has become obsolete, the current stock is limited and will be replaced by a new LTC9320-E09 starting march 2024.</p> |
| 5.2 Customer Benefit | SERVICE CONTINUITY |

6. Marking of parts / traceability of change

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| 6.1 Description | Traceability ensured by ST internal tool and date code on the package marking. |
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7. Timing / schedule

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| 7.1 Date of qualification results | 2024-03-26 |
|-----------------------------------|------------|

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| 7.2 Intended start of delivery | 2024-04-30 |
| 7.3 Qualification sample available? | Upon Request |

| 8. Qualification / Validation | | | |
|--|---|------------|------------|
| 8.1 Description | 14492 MDG RER2114 V1 - PCI14492 - ATT WLCSP LTC9320 E19 - reliability evaluation report.pdf | | |
| 8.2 Qualification report and qualification results | Available (see attachment) | Issue Date | 2024-04-05 |

| 9. Attachments (additional documentations) | |
|---|--|
| 14492 Public product.pdf 14492 MDG RER2114 V1 - PCI14492 - ATT WLCSP LTC9320 E19 - reliability evaluation report.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 |
| | STM32WB55VGY6TR | |
| | STM32WB5MMGH6TR | |

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