ON Semiconductor

# Final Product/Process Change Notification

Document # : FPCN20415X
Issue Date: 18 June 2015

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|---|---|
| **Title of Change:** | Transfer of LQFP/ TQFP 7x7 to 12x12 mm body size with Matte tin lead finish to Amkor Philippines (P1) due to Amkor Korea (K1) Closure |
| **Proposed first ship date:** | 25 September 2015 |
| **Contact information:** | Contact your local ON Semiconductor Sales Office |
| **Samples:** | Contact your local ON Semiconductor Sales Office |
| **Additional Reliability Data:** | Contact your local ON Semiconductor Sales |
| **Type of notification:** | This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change.<br>ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact <PCN.Support@onsemi.com>. |
| **Change Part Identification:** | Affected products will be identified by date code following the Assembly location code of new site as 'L'. |

**Change category(s):**

☐ Wafer Fab Change
☐ Assembly Change
☐ Test Change
☒ Manufacturing Site Change/Addition
☐ Manufacturing Process Change
☐ Material Change
☐ Product specific change
☐ Datasheet/Product Doc change
☐ Shipping/Packaging/Marking
☐ Other: _____

| **Sites Affected:** | Site 1 | Site 2 |
|---|---|---|
| ☐ All site(s) ☐ not applicable<br>☐ ON Semiconductor site(s) :<br>☒ External Foundry/Subcon site(s): | Amkor Technology Korea K1 | Amkor Technology Philippines P1 |

**Description and Purpose:**

Amkor is closing the Korea K1 Plant per type of package. Assembly manufacturing operations for all Leadframe products now assembled in K1 will need to move to Philippines, P1 Plant.

K1 bill of materials and process will be supported in P1 with the exception of the following item:

- Lasermark process will be done after lead plating/ post plate bake for matte tin lead finish and trim process for NiPdAu lead finish.

Summarize on the table below are the packages for transfer and its equivalent bill of materials:

| BOM for Matte tin Lead Finish | ATK1 | | ATP1 | | Remarks |
|---|---|---|---|---|---|
| Body Size | 7x7<br>10x10 | 12x12 | 7x7<br>10x10 | 12x12 | |
| Leadframe | VHDLF | HDLF | VHDLF | HDLF | No Change |
| Epoxy | 3230 | 3230 | 3230 | 3230 | No Change |
| Mold compound | G700L | G700L | G700L | G700L | No Change |

**Reliability Data Summary:**

Qual Vehicle
0PICA-001

| Test | Conditions | Interval | Results |
|---|---|---|---|
| Temperature Cycling (TC) | - 65°C to 150°C | 500 cycles | 0/240 |
| High Temperature Storage (HTS) | 150° | 504, 1008 hrs | 0/240 |
| Unbiased Highly Accelerated Stress Test (UHAST) | 130°C / 85% RH | 96 hrs | 0/240 |
| Temperature Humidity Bias (THB) | 85°C / 85% RH | 96 hrs | 0/240 |
| High Temperature Operating Life (HTOL) | 125°C | 504, 1008 hrs | 0/210 |

Qual Vehicle
20892-001

| Test | Conditions | Interval | Results |
|---|---|---|---|
| Temperature Cycling (TC) | - 65°C to 150°C | 500 cycles | 0/240 |
| High Temperature Bake | 150° | 504, 1008 hrs | 0/240 |
| Unbiased Highly Accelerated Stress Test (UHAST) | 130°C / 85% RH | 96 hrs | 0/240 |
| Temperature Humidity Bias (THB) | 85°C / 85% RH | 96 hrs | 0/240 |
| High Temperature Operating Life (HTOL) | 125°C | 504, 1008 hrs | 0/210 |

*For more details on the qualification and reliability result, please contact ONSEMI Sales Office.*

**Electrical Characteristic Summary:**

Electrical characteristics are not impacted

**List of affected Standard Parts:**

| | | |
|---|---|---|
| A5191HRTLG-XTD | AMIS-49200-XTD | LC898201TA-NH |
| A5191HRTLG-XTP | AMIS-49200-XTP | LV8747TA-NH |
| ADM1026JSTZ-REEL | LC87F5864CUTG2H | |