ON Semiconductor®

# Initial Product/Process Change Notification

Document # : IPCN21653X
Issue Date: 4 March 2017

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|---|---|
| **Title of Change:** | Planned capacity expansion for eFuse DFN packages, assembly and test in ON Semiconductor's factory in Tarlac, Philippines and assembly in UTAC, Thailand. |
| **Proposed first ship date for Tarlac Test:** | 30 June 2017 |
| **Proposed first ship date for Tarlac Assembly:** | 29 December 2017 |
| **Proposed first ship date for UTAC Assembly:** | 31 August 2017 |
| **Contact information:** | Contact your local ON Semiconductor Sales Office or <ed.pope@onsemi.com> |
| **Samples:** | Samples should be available after completion of qualification.<br>Contact your local ON Semiconductor Sales Office. |
| **Type of notification:** | This is an Initial Product/Process Change Notification (IPCN) sent to customers. IPCNs are issued at least 30 days prior to the issuance of the Final Change Notice (FPCN). An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.<br>The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact <PCN.Support@onsemi.com>. |
| **Change Part Identification:** | DC will identify the supply site |
| **Change category:** | ☐ Wafer Fab Change ☒ Assembly Change ☒ Test Change ☐ Other _____ |

**Change Sub-Category(s):**

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

**Sites Affected:**

☐ All site(s) ☐ not applicable
☒ ON Semiconductor site(s) : ON Tarlac City, Philippines
☒ External Foundry/Subcon site(s) UTAC Thai Limited

**Description and Purpose:**

ON Semiconductor is pleased to announce additional capacity expansion for assembly and test at ON Semiconductor's factory in Tarlac, Philippines and assembly in UTAC, Thailand.

The Final PCN will detail any lead frame, plating, epoxy, or mold compound changes. There will be no changes to the die or Data Sheet specifications. Existing assembly and test capacity will continue to be available from ON Semiconductor's current factory at Seremban, Malaysia.

| | Before Change | After Change |
|---|---|---|
| | **Description** | **Description** |
| Lead Frame | Ag Plated L/F DFN3030 | Per FPCN |
| epoxy | DA AB 841LMISR4 CON | Per FPCN |
| Mold Compound | MC SU EMEG760 | Per FPCN |
| Wire | 1 mil Au | 1 mil Au (No change) |
| Die | CZ4 FAB, no change | CZ4 FAB, no change |

**Qualification Plan for Assembly:**

| Test | Specification | Condition | Interval | Lots | Units/Lot |
|---|---|---|---|---|---|
| HTOL | JESD22-A108 | Ta=125°C, 100% rated Vcc | 1008 hrs | 3 | 77 |
| HTRB | JESD22-A108 | Ta=125°C, 100% rated Vcc | 1008 hrs | 3 | 77 |
| HTSL | JESD22-A103 | Ta=150°C | 1008 hrs | 3 | 77 |
| TC | JESD22-A104 | Ta= -55°C to +150°C | 1008 cycles | 3 | 77 |
| HAST | JESD22-A110 | 130°C, 85% RH, 18.8psig, bias | 96 hrs | 3 | 77 |
| uHAST | JESD22-A118 | 130°C, 85% RH, 18.8psig, unbiased | 96 hrs | 3 | 77 |
| PC | J-STD-020 JESD-A113 | MSL 1 @ 260°C | - - - | 320x3 | - - - |
| RSH | JESD22-B106 | Ta = 265°C, 10 Sec | - - - | 3 | 10 |
| SD | JSTD002 | Ta = 245°C, 10 Sec | - - - | 3 | 15 |

Estimated date for Tarlac Test Qualification completion: 30 Jun 2017
Estimated date for Tarlac Assembly Qualification: 29 Dec 2017
Estimated date for UTAC Assembly Qualification: 31 Aug 2017

**List of affected Standard Parts:**

| Part Number | Qualification Vehicle |
|---|---|
| NIS5132MN1TXG | NIS5132MN1TXG |
| NIS5132MN2TXG | |
| NIS5132MN3TXG | |
| NIS5135MN1TXG | |
| NIS5135MN2TXG | |
| NIS5135MN4TXG | |