



Initial Product/Process Change Notification

Document # : IPCN22725X

Issue Date: 06 June 2019

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| Title of Change: | Addition of ASMC (Advanced Semiconductor Manufacturing Corp. LTD) Shanghai, China as qualified wafer foundry facilities for ON Semiconductor of NSPU5221MUTBG product. | |
| Proposed First Ship date: | 31 January 2020 | |
| Contact Information: | Contact your local ON Semiconductor Sales Office or < Norhayati.othman@onsemi.com > | |
| Samples: | Contact your local ON Semiconductor Sales Office or < Norhayati.othman@onsemi.com > | |
| Type of Notification: | <p>This is an Initial Product/Process Change Notification (IPCN) sent to customers. 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.</p> <p>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></p> | |
| Change Part Identification: | N/A | |
| Change Category: | <input checked="" type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____ | |
| Change Sub-Category(s): | <input checked="" type="checkbox"/> Manufacturing Site Addition <input type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Site Transfer <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Other: _____ | |
| Sites Affected: | ON Semiconductor Sites: None | External Foundry/Subcon Sites: ADVANCED SEMICONDUCTOR MANUFACTURING CORP LTD |
| Description and Purpose: | | |
| <p>ON Semiconductor is notifying customers of the qualification of ASMC (Advanced Semiconductor Manufacturing Corporation Limited in Shanghai, China) as second source foundry facilities to the current ON Semiconductor ISMF fabrication facility in Seremban, Malaysia for NSPU5221MUTBG.</p> <p>The ASMC and ISMF fabrication facilities have standardized wafer process flows that are compatible in order to meet ON Semiconductor quality requirements.</p> <p>Qualification tests are designed to show that the reliability of the transferred devices will continue to meet or exceed ON Semiconductor standards.</p> | | |

**Qualification Plan:****QV Device Name:** NSPU5221MUTBG**RMS:** 59373 (SBN), 59378 (TARLAC)**Package:** UDFN6

| Test | Specification | Condition | Interval |
|-----------|--------------------------------|--|-----------|
| HTRB | JESD22-A108 | Ta = 150°C, bias= 100% of rated VRWM (Not to exceed max rated) | 1008 hrs |
| HTSL | JESD22-A103 | Ta =Max rate storage temp for device | 1008 hrs |
| PC | J STD 020 , JESD22-A113 | IR reflow at 245C or 260C (pkg dependant) | |
| HAST+PC | JESD22-A110 | Temp = 130C, 85% RH, ~ 18.8 psig, bias = 100% of rated VRWM or 100V max | 192 hrs |
| TC+PC | JESD22-A104 | Temp = -65°C to +150°C | 1000 cyc |
| UHAST+ PC | JESD22-A118 | Temp = 130C, RH=85%, ~ 18.8 psig | 96 hrs |
| IOL+PC | MIL STD750, M 1037 AEC Q101 | Ta=+25°C, deltaTj=100°C max, 2 min Ton =Toff is pkg dependent | 15000 cyc |
| RSH | JESD22-B106 | Ta=265C 10 sec dwell B106 | |
| SAT | 12MSB17722C SAT | 12MSB17722C SAT | |

List of Affected Part:

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [PCN Customized Portal](#).

| Part Number | Qualification Vehicle |
|---------------|-----------------------|
| NSPU5221MUTBG | NSPU5221MUTBG |