



Initial Product/Process Change Notification

Document #: IPCN23840YO

Issue Date: 10 May 2021

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| Title of Change: | Bump Site Transfer from FCI to ASE-KH |
| Proposed First Ship date: | 22 Mar 2022 or earlier if approved by customer |
| Contact Information: | Contact your local ON Semiconductor Sales Office |
| PCN Samples Contact: | Contact your local ON Semiconductor Sales Office or < PCN.samples@onsemi.com >. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements. |
| Type of Notification: | 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. 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 > |
| Marking of Parts/ Traceability of Change: | Parts using the ASE-KH bump flow will be identified by a new plant code |
| Change Category: | Assembly Change, Bump Site Change |
| Change Sub-Category(s): | Manufacturing Site Transfer |

Sites Affected:

| ON Semiconductor Sites | External Foundry/Subcon Sites |
|------------------------|-------------------------------|
| None | ASEKH, Taiwan (Kaohsiung) |
| | Flipchip International, USA |

Description and Purpose:

| | Before Change Description | After Change Description |
|-----------------------|-----------------------------|---------------------------|
| Bump and Backend Site | Flipchip International, USA | ASEKH, Taiwan (Kaohsiung) |
| Structure | 2P2M | 2P2M |
| P1 Material | PBO(CRC-2348) | HD4000E |
| M1 Material | TiAlTi | Cu |
| M2 Material | AlNiVCu | Cu |
| Solderball Material | EUT | SAC405 |

**Qualification Plan:**QV DEVICE NAME: 22389-001-XDS

RMS: TBD

PACKAGE: WLCSP/FC GQFN

| Test | Specification | Condition | Interval |
|-------|---------------------|---|----------|
| HTOL | JESD22-A108 | Ta= 125°C, 100% max rated VDD | 2016 hrs |
| HTSL | JESD22-A103 | Ta= 125°C | 1008 hrs |
| ELFR | JESD22-A108 | Ta= 125°C | 24 hrs |
| TC | JESD22-A104 | Ta= -40°C to +125°C | 850 cyc |
| HAST | JESD22-A110 | 130°C, 85% RH, 18.8psig, bias max rated | 96 hrs |
| uHAST | JESD22-A118 | 130°C, 85% RH, 18.8psig, unbiased | 96 hrs |
| PC | J-STD-020 JESD-A113 | MSL 3 @ 260 °C | |

Estimated date for qualification completion: 14 Dec 2021

List of Affected Parts:

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 |
|-----------------|-----------------------|
| BR281W31A101V1G | 22389-001-XDS |



Appendix A: Changed Products

PCN#: IPCN23840YO
Issue Date: May 09, 2021

| Product | Customer Part Number | Qualification Vehicle | New Part Number | Replacement Supplier |
|-----------------|----------------------|-----------------------|-----------------|----------------------|
| BR281W31A101V1G | | 22389-001-XDS | NA | |