



Final Product/Process Change Notification

Document #:FPCN25224XA

Issue Date:12 Oct 2023

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|---|--|-----------------------------|
| Title of Change: | Qualification of onsemi Aizu Japan as wafer Fab for ONC25BCD Technology for select products in NCS20074 family | |
| Proposed First Ship date: | 19 Jan 2024 or earlier if approved by customer | |
| Contact Information: | Contact your local onsemi Sales Office or Adrian.Croitoru@onsemi.com | |
| PCN Samples Contact: | Contact your local onsemi Sales Office. 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. | |
| Additional Reliability Data: | Contact your local onsemi Sales Office or Vladislav.Hrachovec@onsemi.com | |
| 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. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com | |
| Marking of Parts/ Traceability of Change: | Custom source information will be updated on product label. Product traceability will be identified by encoded date code. | |
| Change Category: | Wafer Fab Change, Assembly Change, Back Grinding site change | |
| Change Sub-Category(s): | Manufacturing Site Addition, Material Change | |
| Sites Affected: | | |
| onsemi Sites | External Foundry/Subcon Sites | |
| onsemi Aizu, Japan | None | |
| onsemi Carmona, Philippines | | |
| onsemi, ISMF Malaysia | | |
| Description and Purpose: | | |
| onsemi would like to inform its customers of qualification of a wafer fabrication facility for ONBCD25 technology at onsemi Aizu, Japan together with Back Grinding site transfer to onsemi ISMF, and wire conversion from 0.8mil Au to 1mil Pd-Coated Copper(PCC) for the devices listed in this FPCN. All products listed here will be sourced only from onsemi Aizu. There is no change to the orderable part number. There is no product marking change as a result of this notification. | | |
| NCS20074 FAMILY – Soic-14 and TSSOP-14 packages | From | To |
| Wafer Fab | onsemi, Gresham, Oregon (US) | onsemi, Aizu (Japan) |
| Back Grinding | onsemi, Gresham, Oregon (US) | onsemi, ISMF Seremban |
| Bond Wire | 0.8mil Au | 1mil Pd-Coated Copper (PCC) |



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Reliability Data Summary:

QV DEVICE NAME: NCS20074DR2G

RMS #: 086850

PACKAGE: SOIC-14

| Test | Specification | Condition | Interval | Results |
|--|-----------------------|--|----------|---------|
| High Temperature Operating Life | JESD22-A108 | Ta=125°C, 100 % max rated Vcc | 1008 hrs | 0/231 |
| High Temperature Storage Life | JESD22-A103 | Ta= 150°C | 1008 hrs | 0/231 |
| Preconditioning | J-STD-020 JESD-A113 | MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only | | 0/all |
| Temperature Cycling | JESD22-A104 | Ta= -65°C to +150°C | 1000 cyc | 0/231 |
| Highly Accelerated Stress Test | JESD22-A110 | 130°C, 85% RH, 18.8psig, bias | 96 hrs | 0/231 |
| Unbiased Highly Accelerated Stress Test | JESD22-A118 | 130°C, 85% RH, 18.8psig, unbiased | 96 hrs | 0/231 |
| ESD - HBM | JS-001-2017 | 2000V | - | pass |
| ESD – CDM | JS-002-2022 | 1000V | - | pass |
| LU Class II | JESD-78 | 100mA | - | pass |
| Electrical Distribution / Thermal Characterization | onsemi DataSheet | Test @ Cold & Room & Hot, Cpk ≥ 1.67 | - | 0/90 |
| WBS - Wire Bond Shear | AEC-Q100-001 | Cpk ≥ 1.67 | - | 0/30 |
| WBP - Wire Bond Pull Strength | Mil-Std-883 Meth 2011 | Cpk ≥ 1.67, 3gm Pull Force Min | - | 0/30 |

Electrical Characteristics Summary:

Electrical characteristics are not impacted.

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 |
|----------------|-----------------------|
| NCS20074DR2G | NCS20074DR2G |
| NCS20074DTBR2G | NCS20074DR2G |
| TLV274DR2G | NCS20074DR2G |
| TLV274DTBR2G | NCS20074DR2G |

Appendix A: Changed Products

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DIKG: DIGI-KEY

| Product | Customer Part Number | Qualification Vehicle | New Part Number | Replacement Supplier |
|----------------|----------------------|-----------------------|-----------------|----------------------|
| NCS20074DR2G | | NCS20074DR2G | NA | |
| TLV274DR2G | | NCS20074DR2G | NA | |
| TLV274DTBR2G | | NCS20074DR2G | NA | |
| NCS20074DTBR2G | | NCS20074DR2G | NA | |