



## Final Product/Process Change Notification

Document #:FPCN24212X

Issue Date:21 Jan 2022

|                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                  |                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Title of Change:</b>                                                                                                                                                                                                                                                   | NCP4305 SOIC full turnkey qualification in HANA                                                                                                                                                                                                                                                                                                                  |                                                                          |
| <b>Proposed First Ship date:</b>                                                                                                                                                                                                                                          | 28 Apr 2022 or earlier if approved by customer                                                                                                                                                                                                                                                                                                                   |                                                                          |
| <b>Contact Information:</b>                                                                                                                                                                                                                                               | Contact your local onsemi Sales Office or <a href="mailto:PetrCDC.Valek@onsemi.com">PetrCDC.Valek@onsemi.com</a>                                                                                                                                                                                                                                                 |                                                                          |
| <b>PCN Samples Contact:</b>                                                                                                                                                                                                                                               | Contact your local onsemi Sales Office.<br>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.<br>Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.                                                |                                                                          |
| <b>Additional Reliability Data:</b>                                                                                                                                                                                                                                       | Contact your local onsemi Sales Office or <a href="mailto:Chiolo.Basa@onsemi.com">Chiolo.Basa@onsemi.com</a>                                                                                                                                                                                                                                                     |                                                                          |
| <b>Type of Notification:</b>                                                                                                                                                                                                                                              | This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change.<br>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 <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a> |                                                                          |
| <b>Marking of Parts/ Traceability of Change:</b>                                                                                                                                                                                                                          | Change can be traced through the assembly trace code. The trace code marking on Line 2 is of the form ALYW, where A = Assembly location, L = Wafer Lot ID and YW is a 2-digit date code. Product marked with "H" as the assembly location will be from HANA.                                                                                                     |                                                                          |
| <b>Change Category:</b>                                                                                                                                                                                                                                                   | Assembly Change, Test Change                                                                                                                                                                                                                                                                                                                                     |                                                                          |
| <b>Change Sub-Category(s):</b>                                                                                                                                                                                                                                            | Manufacturing Site Addition                                                                                                                                                                                                                                                                                                                                      |                                                                          |
| <b>Sites Affected:</b>                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                  |                                                                          |
| <b>onsemi Sites</b>                                                                                                                                                                                                                                                       | <b>External Foundry/Subcon Sites</b>                                                                                                                                                                                                                                                                                                                             |                                                                          |
| None                                                                                                                                                                                                                                                                      | HANA Semiconductor, Thailand                                                                                                                                                                                                                                                                                                                                     |                                                                          |
| <b>Description and Purpose:</b>                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                  |                                                                          |
| onsemi would like to inform its customers of qualifying the NCP4305 family of products for assembly and testing at HANA, Thailand. At the expiry of this FPCN, product may be sourced from either its current site, OSPI (onsemi Carmona, Philippines) or HANA, Thailand. |                                                                                                                                                                                                                                                                                                                                                                  |                                                                          |
|                                                                                                                                                                                                                                                                           | <b>Before Change Description</b>                                                                                                                                                                                                                                                                                                                                 | <b>After Change Description</b>                                          |
| LeadFrame                                                                                                                                                                                                                                                                 | LeadFrame AG CU 0.090 X0.090                                                                                                                                                                                                                                                                                                                                     | LeadFrame AG CU 0.090 X0.090 /<br>SOIC 8L 90X90 UHD CU-AG RT SINGLE RING |
| Die Attach                                                                                                                                                                                                                                                                | Sumitomo CRM-1191A                                                                                                                                                                                                                                                                                                                                               | Sumitomo CRM-1191A / EN4900LC-18                                         |
| Bond Wire                                                                                                                                                                                                                                                                 | Au 1mils                                                                                                                                                                                                                                                                                                                                                         | Au 1mils / CuPdAu 1mils                                                  |
| Mold Compound                                                                                                                                                                                                                                                             | MC EME G600                                                                                                                                                                                                                                                                                                                                                      | MC EME G600 / CV8214C                                                    |
| Assembly Site                                                                                                                                                                                                                                                             | onsemi Carmona, Philippines                                                                                                                                                                                                                                                                                                                                      | onsemi Carmona, Philippines / HANA                                       |
|                                                                                                                                                                                                                                                                           | <b>onsemi Carmona, Philippines</b>                                                                                                                                                                                                                                                                                                                               | <b>HANA</b>                                                              |
| Product marking change                                                                                                                                                                                                                                                    | Trace Code Line 2: P(LYW)                                                                                                                                                                                                                                                                                                                                        | H(LYW)                                                                   |
| Please see the datasheet for more information on trace code Nomenclature.                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                  |                                                                          |



## Final Product/Process Change Notification

Document #:FPCN24212X

Issue Date:21 Jan 2022

### Reliability Data Summary:

**QV DEVICE NAME:** NCP4305ADR2G

**RMS:** 078397

**PACKAGE:** SOIC 8

| Test  | Specification               | Condition                         | Interval | Results |
|-------|-----------------------------|-----------------------------------|----------|---------|
| HTSL  | JESD22-A103                 | Ta= 150°C                         | 1008 hrs | 0/231   |
| TC    | JESD22-A104                 | Ta= -65°C to + 150°C              | 1000 cyc | 0/231   |
| HAST  | JESD22-A110                 | 130°C, 85% RH, 18.8psig, bias     | 192 hrs  | 0/231   |
| uHAST | JESD22-A118                 | 130°C, 85% RH, 18.8psig, unbiased | 96 hrs   | 0/231   |
| PC    | J-STD-020 JESD-A113         | MSL 3 @ 260°C                     |          | 0/693   |
| SD    | JSTD002                     | Ta = 245°C, 10 sec                |          | 0/45    |
| PD    | JESD22-B100 and JESD22-B108 | Per Case Outline                  |          | 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 |
|--------------|-----------------------|
| NCP4305DDR2G | NCP4305ADR2G          |

---

**Appendix A: Changed Products**

**PCN#: FPCN24212X**  
**Issue Date: Jan 21, 2022**

---



---

| Product      | Customer Part Number | Qualification Vehicle | New Part Number | Replacement Supplier |
|--------------|----------------------|-----------------------|-----------------|----------------------|
| NCP4305DDR2G |                      | NCP4305ADR2G          | NA              |                      |