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|-------------------------------------|---|---|
| <b>Title of Change:</b>             | uDFN/uQFN Back End Site and Material Change.  |   |
| <b>Proposed first ship date:</b>    | 25 April 2019   |   |
| <b>Contact information:</b>         | Contact your local ON Semiconductor Sales Office or <logic.fpcn@onsemi.com>   |   |
| <b>Samples:</b>                     | Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com><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.   |   |
| <b>Additional Reliability Data:</b> | Contact your local ON Semiconductor Sales Office or <Phine.Guevarra@onsemi.com>.  |   |
| <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>ON Semiconductor 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>  |   |
| <b>Change Part Identification:</b>  | Affected product will be marked with new plant code   |   |
| <b>Change Category:</b>             | <input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input checked="" type="checkbox"/> Test Change <input type="checkbox"/> Other _____  |   |
| <b>Change Sub-Category(s):</b>      | <input type="checkbox"/> Manufacturing Site Addition <input checked="" type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change<br><input checked="" type="checkbox"/> Manufacturing Site Transfer <input type="checkbox"/> Product specific change <input checked="" type="checkbox"/> Shipping/Packaging/Marking<br><input checked="" type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Other: _____ |   |
| <b>Sites Affected:</b>              | ON Semiconductor Sites:<br>ON Seremban, Malaysia  | External Foundry/Subcon Sites:<br>Subcon Thailand |

**Description and Purpose:**

Qualify a new subcon site to increase back end capacity. We will transfer existing assembly and test site to subcon. There is no change in form, fit and function except the marking of plant code. Materials change for before and after are stated in below table.

| Material to be changed | Before Change (Existing flow) | After Change (new flow)                 |
|------------------------|-------------------------------|---|
| Assy Site              | ON Seremban Malaysia          | Subcon Thailand                         |
| Mold Compound          | SU EMEG760                    | MOLDING COMPOUND; G700LTD               |
| Wire                   | 1.3 mil /1 mil/ 0.8 mil Au    | 1 mil / 0.8 mil Au                      |
| Lead frame             | LF PPF                        | LF PPF+RT-UPG                           |
| Die Attach             | DA AB 8006NS 10CC             | NON-CONDUCTIVE DIE ATTACH FILM; HR-5104 |

|                        | From  | To  |
|------------------------|---|---|
| Product marking change | No change in marking style, plant code is R | No change in marking style, new plant code is S |

**Reliability Data Summary:****QV DEVICE NAME: NLAS2750MUTAG****RMS: S44995****PACKAGE: uQFN 10**

| Test  | Specification       | Condition                         | Interval | Results |
|-------|---------------------|-----------------------------------|----------|---------|
| HTOL  | JESD22-A108         | Ta= 125°C                         | 2016 hrs | 0/80    |
| HTSL  | JESD22-A103         | Ta= 150°C                         | 2016 hrs | 0/80    |
| TC    | JESD22-A104         | Ta= -65°C to + 150°C              | 1000 cyc | 0/80    |
| HAST  | JESD22-A110         | 130°C, 85% RH, 18.8psig, bias     | 96 hrs   | 0/80    |
| uHAST | JESD22-A118         | 130°C, 85% RH, 18.8psig, unbiased | 96 hrs   | 0/80    |
| PC    | J-STD-020 JESD-A113 | MSL 1 @ 260°C                     |          | 0/240   |
| RSH   | JESD22- B106        | Ta = 265C, 10 sec                 |          | 0/15    |
| SD    | JSTD002             | Ta = 245C, 10 sec                 |          | 0/ 10   |

**QV DEVICE NAME: MC74LCX245MNTWG****RMS: S45208 ; S52475****PACKAGE: QFN 20**

| Test  | Specification       | Condition                         | Interval | Results |
|-------|---------------------|-----------------------------------|----------|---------|
| HTOL  | JESD22-A108         | Ta= 125°C                         | 2016 hrs | 0/80    |
| HTSL  | JESD22-A103         | Ta= 150°C                         | 2016 hrs | 0/80    |
| TC    | JESD22-A104         | Ta= -65°C to + 150°C              | 1000 cyc | 0/80    |
| HAST  | JESD22-A110         | 130°C, 85% RH, 18.8psig, bias     | 96 hrs   | 0/80    |
| uHAST | JESD22-A118         | 130°C, 85% RH, 18.8psig, unbiased | 96 hrs   | 0/80    |
| PC    | J-STD-020 JESD-A113 | MSL 1 @ 260°C                     |          | 0/240   |
| RSH   | JESD22- B106        | Ta = 265C, 10 sec                 |          | 0/15    |
| SD    | JSTD002             | Ta = 245C, 10 sec                 |          | 0/ 10   |

**QV DEVICE NAME: NLSV8T244MUTAG****RMS: S49444****PACKAGE: uDFN 20**

| Test  | Specification       | Condition                         | Interval | Results |
|-------|---------------------|-----------------------------------|----------|---------|
| HTOL  | JESD22-A108         | Ta= 125°C                         | 2016 hrs | 0/80    |
| HTSL  | JESD22-A103         | Ta= 150°C                         | 2016 hrs | 0/80    |
| TC    | JESD22-A104         | Ta= -65°C to + 150°C              | 1000 cyc | 0/80    |
| HAST  | JESD22-A110         | 130°C, 85% RH, 18.8psig, bias     | 96 hrs   | 0/80    |
| uHAST | JESD22-A118         | 130°C, 85% RH, 18.8psig, unbiased | 96 hrs   | 0/80    |
| PC    | J-STD-020 JESD-A113 | MSL 1 @ 260°C                     |          | 0/240   |
| RSH   | JESD22- B106        | Ta = 265C, 10 sec                 |          | 0/15    |
| SD    | JSTD002             | Ta = 245C, 10 sec                 |          | 0/ 10   |

**Electrical Characteristic Summary:**

No impact on electrical characteristics.



**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 |
|------------------|-----------------------|
| MC74LCX244MN2TWG | NLAS2750MUTAG         |
| NLSV4T244EMUTAG  | NLSV8T244MUTAG        |
| NLSX3014MUTAG    |                       |
| NL17SG08CMUTCG   |                       |
| NLSV1T34MUTBG    |                       |
| NLSV4T240EMUTAG  | NLSV8T244MUTAG        |
| NLSX5011MUTCG    |                       |
| NLSX5011AMUTCG   |                       |
| NLSX5011AMUTAG   |                       |
| NLSX5011AMUTBG   | MC74LCX245MNTWG       |
| MC74LVX4051MNTWG |                       |
| PCA9306AMUTCG    |                       |
| NLSF3T125MNR2G   |                       |
| PCA9306FMUTCG    |                       |
| MC74HC165AMNTWG  |                       |
| NLSF595MNR2G     |                       |
| NLSX3373MUTAG    |                       |
| MC74LCX244MNTWG  |                       |
| NLSF302MNR2G     |                       |
| MC74LCX245MNTWG  |                       |
| NLSF3T126MNR2G   |                       |
| MC74HC595AMNTWG  |                       |
| NLSF1174MNR2G    |                       |
| PCA9306FMUTAG    |                       |
| 74FST3257MNTWG   |                       |
| 7SB3257MUTCG     |                       |
| 7SB385MUTCG      |                       |
| 7WBD3125AMUTCG   |                       |
| 7WBD3126AMUTCG   |                       |
| 7WBD3305AMUTCG   |                       |
| 7WBD3306AMUTCG   |                       |
| 7WBD383AMUTCG    |                       |
| NLSF308MNR2G     |                       |



**Appendix A: Changed Products**

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| Product          | Customer Part Number | Qualification Vehicle |
|------------------|----------------------|-----------------------|
| 74FST3257MNTWG   |                      | MC74LCX245MNTWG       |
| 7SB3257MUTCG     |                      | MC74LCX245MNTWG       |
| 7SB385MUTCG      |                      | MC74LCX245MNTWG       |
| 7WBD3125AMUTCG   |                      | MC74LCX245MNTWG       |
| 7WBD3126AMUTCG   |                      | MC74LCX245MNTWG       |
| 7WBD3305AMUTCG   |                      | MC74LCX245MNTWG       |
| 7WBD3306AMUTCG   |                      | MC74LCX245MNTWG       |
| 7WBD383AMUTCG    |                      | MC74LCX245MNTWG       |
| MC74HC165AMNTWG  |                      | MC74LCX245MNTWG       |
| MC74LCX244MN2TWG |                      | NLAS2750MUTAG         |
| MC74LCX244MNTWG  |                      | MC74LCX245MNTWG       |
| MC74LCX245MNTWG  |                      | MC74LCX245MNTWG       |
| MC74LVX4051MNTWG |                      | MC74LCX245MNTWG       |
| NLSF1174MNR2G    |                      | MC74LCX245MNTWG       |
| NLSF302MNR2G     |                      | MC74LCX245MNTWG       |
| NLSF308MNR2G     |                      | MC74LCX245MNTWG       |
| NLSF3T125MNR2G   |                      | MC74LCX245MNTWG       |
| NLSF3T126MNR2G   |                      | MC74LCX245MNTWG       |
| NLSF595MNR2G     |                      | MC74LCX245MNTWG       |
| NLSV1T34MUTBG    |                      | NLSV8T244MUTAG        |
| NLSV4T240EMUTAG  |                      | NLSV8T244MUTAG        |
| NLSV4T244EMUTAG  |                      | NLSV8T244MUTAG        |
| NLSX3014MUTAG    |                      | NLSV8T244MUTAG        |
| NLSX3373MUTAG    |                      | MC74LCX245MNTWG       |
| NLSX5011AMUTAG   |                      | NLSV8T244MUTAG        |
| NLSX5011AMUTBG   |                      | NLSV8T244MUTAG        |
| NLSX5011AMUTCG   |                      | NLSV8T244MUTAG        |
| NLSX5011MUTCG    |                      | NLSV8T244MUTAG        |
| PCA9306AMUTCG    |                      | MC74LCX245MNTWG       |
| PCA9306FMUTAG    |                      | MC74LCX245MNTWG       |
| PCA9306FMUTCG    |                      | MC74LCX245MNTWG       |