

Final Product/Process Change Notification

Document #:FPCN24526XG Issue Date:11 Apr 2024

| Title of Change: | Qualification of Altern | Qualification of Alternate Lead Frame with C7025 base material for UQFN12 1.7 x 2.0 | | |
|---|--|---|--|--|
| Proposed First Ship date: | 18 Jul 2024 or earlier i | 18 Jul 2024 or earlier if approved by customer | | |
| Contact Information: | Contact your local ons | Contact your local onsemi Sales Office or Cyrus.Velasquez@onsemi.com | | |
| PCN Samples Contact: | Sample requests are to Initial PCN or Final PCI Samples delivery timir | 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 ons | Contact your local onsemi Sales Office or Andy.Esteva@onsemi.com | | |
| Type of Notification: | days prior to impleme onsemi will consider t | 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: | Product traceability w | Product traceability will be maintained by date code | | |
| Change Category: | Assembly Change | Assembly Change | | |
| Change Sub-Category(s): | Material Change | Material Change | | |
| Sites Affected: | | | | |
| onsemi Sites | | External Foundry/Subcon Sites | | |
| onsemi Tarlac, Philippines | | None | | |

Description and Purpose:

onsemi Tarlac, Philippines is announcing the qualification of C7025 Base Material and HDS (HAESUNG DS CO., Ltd) as a new lead frame supplier for UQFN12 1.7 x 2.0 devices. This change will be implemented to mitigate supply disruption as the current supplier has ceased operation and can no longer support Last Time Buy. onsemi has a very limited supply of the current lead frame and customers are encouraged to review this change in order to minimize any potential impact to their supply chain. Once the existing inventory of the current lead frame has been depleted, onsemi will immediately implement the new lead frame. Customers not wishing to receive material assembled with the new lead frame will need to work with their local sales contact to push out orders.

| | From | То | |
|---------------------|--------------|------------|--|
| Lead frame Supplier | DCI | HDS | |
| Base Material | EFTEC64 1/2H | C7025 1/2H | |
| Plating type | PPF | PPF | |

Note: There is no product marking change as a result of this change

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Reliability Data Summary:

QV DEVICE NAME: NLVSX5004MUTAG

RMS: \$83680 PACKAGE: UQFN12

| Test | Specification | Condition | Interval | Results |
|---|------------------------|--|----------|---------|
| High Temperature Storage Life | JESD22-A103 | Ta= 150°C | 1008 hrs | 0/240 |
| Preconditioning | J-STD-020 JESD-A113 | MSL 1 @ 260°C, Pre TC, uHAST for surface mount pkgs only | | 0/480 |
| Temperature Cycling | JESD22-A104 | Ta= - 65°C to +150°C | 500 cyc | 0/240 |
| Unbiased Highly Accelerated Stress Test | JESD22-A118 | 130°C, 85% RH, 18.8psig, unbiased | 96 hrs | 0/240 |
| Resistance to Solder Heat | JESD22- B106 | Ta = 265°C, 10 sec Required for through hole devices only | | 0/30 |
| Solderability | JSTD002 | Ta = 245°C, 5 sec | | 0/45 |
| Physical Dimensions | JESD22-B120 | | | 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 <u>PCN Customized Portal</u>.

| Part Number | Qualification Vehicle |
|---------------|-----------------------|
| NLSX5004MUTAG | NLVSX5004MUTAG |

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Appendix A: Changed Products

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DIKG: DIGI-KEY

| Product | Customer Part Number | Qualification Vehicle | New Part Number | Replacement Supplier |
|---------------|----------------------|-----------------------|-----------------|----------------------|
| NLSX5004MUTAG | | NLVSX5004MUTAG | #NONE | |