



Final Product/Process Change Notification

Document #:FPCN24469X

Issue Date:01 Jun 2022

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|--|--|
| Title of Change: | Lead frame material change and supplier change from HIRAI (etched lead frame) to MHSP (stamped lead frame) for TMPIM CIB and CIP products. |
| Proposed First Ship date: | 08 Sep 2022 or earlier if approved by customer |
| Contact Information: | Contact your local onsemi Sales Office or NorlailiHanim.Nordin@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 Byeongyeop.Lee@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: | Changed material will be identified by date code. |
| Change Category: | Assembly Change |
| Change Sub-Category(s): | Lead frame supplier change. Material change from C1020-1/2H (etched lead frame) to PMC90 (stamped lead frame) |

Sites Affected:

| onsemi Sites | External Foundry/Subcon Sites |
|----------------|-------------------------------|
| onsemi Vietnam | None |

Description and Purpose:

This FPCN is to inform customers about the qualification of MHSP stamped lead frame. Stamped lead frame has same design, thickness and measurement with etched lead frame. Lead frame material change from C1020-1/2H to PMC90.

The affected assembly site is onsemi Vietnam.

Upon depleting etched lead frame, onsemi Vietnam will use stamped lead frame for TMPIM module production. Products have been qualified to industrial requirements.

| | Before Change Description | After Change Description |
|------------|---|--|
| Lead Frame | Etched lead frame (fabrication method) from Hirai (supplier). Lead frame material C1020-1/2H. | Stamped lead frame (fabrication method) form MHSP (supplier). Lead frame material PMC90. |

No product marking change. Traceability as per date code of implementation.



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Reliability Data Summary:

QV DEVICE NAME NXH50C120L2C2ESG

RMS: 82002

PACKAGE: DIP26/CIB

| Test | Specification | Condition | Interval | Results (MHSP) |
|------|----------------------------------|---|--------------------|----------------|
| TC | JESD22-A104 cond. G, soak mode 4 | Ta= -40°C to +125°C, Temperature soak = 30 min, Transition time = 20 min max , Mandatory 100cyc | 107, 500, 1000 cyc | 0/12 |

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 |
|-------------------|-----------------------|
| NXH50C120L2C2ES1G | NXH50C120L2C2ESG |
| NXH35C120L2C2S1G | NXH50C120L2C2ESG |
| NXH50C120L2C2ESG | NXH50C120L2C2ESG |
| NXH35C120L2C2ESG | NXH50C120L2C2ESG |
| NXH35C120L2C2SG | NXH50C120L2C2ESG |
| NXH25C120L2C2SG | NXH50C120L2C2ESG |
| NXH50M65L4C2SG | NXH50C120L2C2ESG |
| NXH50M65L4C2ESG | NXH50C120L2C2ESG |

Appendix A: Changed Products**PCN#: FPCN24469X**
Issue Date: May 31, 2022

| Product | Customer Part Number | Qualification Vehicle | New Part Number | Replacement Supplier |
|------------------|----------------------|-----------------------|-----------------|----------------------|
| NXH50C120L2C2ESG | | NXH50C120L2C2ESG | | |
| NXH35C120L2C2ESG | | NXH50C120L2C2ESG | | |
| NXH35C120L2C2SG | | NXH50C120L2C2ESG | | |
| NXH50M65L4C2SG | | NXH50C120L2C2ESG | | |
| NXH50M65L4C2ESG | | NXH50C120L2C2ESG | | |