Initial Product/Process Change Notification

Document #:IPCN25528X
Issue Date:16 Aug 2023

Title of Change:	SOIC16 EHDLF RPPF LF Consolidation and Migration Project
Proposed First Ship date:	07 Feb 2025 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Kiyoung.Kim@onsemi.com Dianne.Calva@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.
Type of Notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact <PCN.Support@onsemi.com>
Marking of Parts/ Traceability of Change:	Part marking shows assembly date. Assembly lot (marked on reel and shipping boxes) is traceable to Assembly BOM used.
Change Category:	Assembly Change
Change Sub-Category(s):	Material Change

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
onsemi Carmona, Philippines	None

Description and Purpose:

Change lead frame from Std RPPF Etched (Flag Size: 92x130mil) to EHDLF RPPF Stamped (Flag Size: 90x130mil).

Note:
This Change will use PCC wire on its BOM for NCP1680 only as per communicated with **IPCN25445X**

	Before Change Description	**After Change Description**
Lead Frame	Std RPPF Etched (Flag Size: 92x130mil)	EHDLF RPPF Stamped (Flag Size: 90x130mil)

There is no product marking change as a result of this change.

Qualification Plan:

QV DEVICE NAME: NCP1680AAD1R2G
RMS: O91766
PACKAGE: SOIC 16

Test	Specification	Condition	Interval
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C	
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	500 cyc
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
Solderability	JSTD002	Ta = 245°C, 5 sec	
Physical Dimensions	JESD22-B120		

QV DEVICE NAME: NCV4390DR2G
RMS: O91714
PACKAGE: SOIC 16

Test	Specification	Condition	Interval
High Temperature Storage Life	JESD22-A103	Ta= 150°C	2016 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C	
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	1000 cyc
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
Solderability	JSTD002	Ta = 245°C, 5 sec	
Physical Dimensions	JESD22-B120		

Estimated date for qualification completion: 8 March 2024

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
NCP4390DR2G	NCV4390DR2G
NCP1680AAD1R2G	NCP1680AAD1R2G
NCP1680ABD1R2G	NCP1680AAD1R2G

Appendix A: Changed Products

PCN#: IPCN25528X
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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NCP4390DR2G		NCV4390DR2G	NA	
NCP1680ABD1R2G		NCP1680AAD1R2G	NA	
NCP1680AAD1R2G		NCP1680AAD1R2G	NA	