



Initial Product/Process Change Notification

Document #: IPCN24861X

Issue Date: 29 Sep 2022

Title of Change:	NCP1615/NCP1616 re-design from Dual die co-pack (VHVIC3 + ONC25HV) to Single die solution (ONBCD25-UH7)
Proposed First Ship date:	01 Apr 2023 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Jiri.Konarik@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:	Labels on boxes and reels will show "Diffused In: JP" for product produced out of Aizu, Japan. There is no changes to the marking of the actual units.
Change Category:	Wafer Fab Change
Change Sub-Category(s):	Datasheet/Product Doc change, Manufacturing Site Transfer, Design change

Sites Affected:

onsemi Sites

onsemi Aizu, Japan

External Foundry/Subcon Sites

None

Description and Purpose:

onsemi would like to inform its customers of a design change to the NCP1615/NCP1616 family of products which are listed in the List of Affected Parts below. This is re-design change from actual dual die co-package solution to single die device solution. Actual VHVIC3 and ONC25HV technologies produced in Gresham, US will be replaced by ONBCD25-UH7 produced in AIZU, Japan.

This design change is intended to improve the overall yield of the product and stabilize our ability to effectively provide product to our customers. While there will be some datasheet changes associated with this that are unavoidable, the product is expected to be a drop-in replacement to the existing design. Customers are highly recommended to request samples to validate any changes. We will not be able to accept any rejections of the FPCN when it is released, as we will not be able to maintain the original product and have to convert to the new design.

	From	To
Data sheet	Rev 8	Rev 9
Wafer Fab Site	Gresham, US	AIZU, Japan

There are no product material changes as a result of this change.

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



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Qualification Plan:

QV DEVICE NAME: NCP1615C4DR2G

RMS#: 83464G

PACKAGE: SOIC16 AU MULT HPBF

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc, HV=700V	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
PC	J-STD-020 JESD-A113	MSL1 @ 260 °C	
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
BS	AEC-Q100-001	Cpk 1.67, 30 bonds from 5units	
BS	AEC-Q100-001	Cpk 1.67, 30 bonds from 5units, After TC500/1000 & HAST96/192	
BPS	M883 Method 2011	3gm Pull Force Min	
BPS	M883 Method 2011	3gm Pull Force Min After TC500/1000 & HTSL1008/2016 & HAST96/192	
ESD HBM	AEC-Q100-002	c = 0, Test @ R	2kV
ESD CDM	AEC-Q100-011	c = 0, Test @ R	1kV
ED	ON Data Sheet	Cpk > 1.67 Test @ R, H, C	Cpk>1.67
LU	AEC-Q100-004	Test @ EP; Test & Stress @ R	LU+>100mA LU->100mA

Estimated date for qualification completion: 1 January 2023

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
NCP1616A2DR2G	NCP1615C4DR2G
NCP1616A1DR2G	NCP1615C4DR2G
NCP1615C5DR2G	NCP1615C4DR2G
NCP1615C4DR2G	NCP1615C4DR2G

Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NCP1616A2DR2G		NCP1615C4DR2G		
NCP1616A1DR2G		NCP1615C4DR2G		