



Final Product/Process Change Notification

Document #:FPCN25224ZA

Issue Date:13 Dec 2023

Title of Change:	Qualification of onsemi Aizu Japan as wafer Fab for ONC25BCD Technology for select products in NCV20074 family
Proposed Changed Material First Ship Date:	20 Jun 2024 or earlier if approved by customer
Current Material Last Order Date:	N/A <i>Orders received after the Current Material Last Order Date expiration are to be considered as orders for new changed material as described in this PCN. Orders for current (unchanged) material after this date will be per mutual agreement and current material inventory availability.</i>
Current Material Last Delivery Date:	N/A <i>The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory</i>
Product Category:	Active components – Integrated circuits
Contact information:	Contact your local onsemi Sales Office or Adrian.Croitoru@onsemi.com
PCN Samples Contact:	Contact your local onsemi Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
Sample Availability Date:	25 Sep 2023
PPAP Availability Date:	01 Dec 2023
Additional Reliability Data:	Contact your local onsemi Sales Office or Vladislav.Hrachovec@onsemi.com
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. The change will be implemented at 'Proposed Change Material First Ship Date' in compliance to J-STD-46 or ZVEI, or earlier upon customer approval, or per our signed agreements. onsemi will consider this proposed change and it's conditions acceptable, unless an inquiry is made in writing within 45 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com .
Change Category	
Category	Type of Change
Process - Wafer Production	Move of all or part of wafer fab to a different location/site/subcontractor
Equipment	Production from a new equipment/tool which uses the same basic technology (replacement equipment or extension of existing equipment pool) without change of process.
Process - Assembly	Change of wire bonding
Description and Purpose: onsemi would like to inform its customers of qualification of a wafer fabrication facility for ONBCD25 technology at onsemi Aizu, Japan together with wire conversion from 0.8mil Au to 1mil Pd-Coated Copper(PCC) for the devices listed in this FPCN. All products listed here will be sourced only from onsemi Aizu. There is no change to the orderable part number. There is no product marking change as a result of this notification.	



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NCV20074 FAMILY – Soic-14 and TSSOP-14 packages	From	To
Wafer Fab	onsemi, Gresham, Oregon (US)	onsemi, Aizu (Japan)
Bond Wire	0.8mil Au	1mil Pd-Coated Copper (PCC)

Reason / Motivation for Change:	Capacity improvement,Source/Supply/Capacity Changes,Process/Materials Change
Anticipated impact on fit, form, function, reliability, product safety or manufacturability:	<p>The device has been qualified and validated based on the same Product Specification. The device has successfully passed the qualification tests. Potential impacts can be identified, but due to testing performed by onsemi in relation to the PCN, associated risks are verified and excluded.</p> <p>No anticipated impacts.</p>

Sites Affected:	
onsemi Sites	External Foundry/Subcon Sites
onsemi Aizu, Japan	None
onsemi Carmona, Philippines	

Marking of Parts/ Traceability of Change:	Custom source information will be updated on product label. Product traceability will be identified by encoded date code.
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Reliability Data Summary:				
QV DEVICE NAME: NCV20074DR2G				
RMS #: O86850				
PACKAGE: SOIC-14				
Test	Specification	Condition	Interval	Results
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/231
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/231
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/all
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/231
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
ESD - HBM	JS-001-2017	2000V	-	pass
ESD – CDM	JS-002-2022	1000V	-	pass
LU Class II	JESD-78	100mA	-	pass
Electrical Distribution / Thermal Characterization	onsemi DataSheet	Test @ Cold & Room & Hot, Cpk ≥ 1.67	-	0/90
WBS - Wire Bond Shear	AEC-Q100-001	Cpk ≥ 1.67	-	0/30
WBP - Wire Bond Pull Strength	Mil-Std-883 Meth 2011	Cpk ≥ 1.67, 3gm Pull Force Min	-	0/30

Note: AEC-1pager is attached.

To view attachments:

1. Download pdf copy of the PCN to your computer
2. Open the downloaded pdf copy of the PCN
3. Click on the paper clip icon available on the menu provided in the left/bottom portion of the screen to reveal the Attachment field
4. Then click on the attached file.

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](#).

Current Part Number	New Part Number	Qualification Vehicle
NCV20074DR2G	NA	NCV20074DR2G
NCV20074DTBR2G	NA	NCV20074DR2G
NCV274DR2G	NA	NCV20074DR2G
NCV274DTBR2G	NA	NCV20074DR2G