

Initial Product/Process Change Notification

Document #: IPCN21561Z Issue Date: 12 December 2016

Title of Change:	Wafer fab transfer from Fab2, Oudenaarde, Belgium to Gresham, Oregon, for product NCV9731xxx family.		
Proposed first ship date:	22 May 2018 or earlier upon customer approval.		
Contact information:	Contact your local ON Semiconductor Sales Office or Veronique Hooft < Veronique. Hooft@onsemi.com>		
Samples:	Samples will be available May 2017		
Type of notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. IPCNs are issued at least 3d days prior to the issuance of the Final Change Notice (FPCN). 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 12 months prior to implementation of the change. In case of questions, contact <pcn.support@onsemi.com>.</pcn.support@onsemi.com>		
Change Part Identification:	The OPNs and the part markings will be updated. New OPNs and Markings: NCV97310MW33AR2G - Marking: Line 1: NCV97310 Line 2: 33A NCV97310MW50AR2G - Marking: Line 1: NCV97310 Line 2: 50A NCV97311MW33AR2G - Marking: Line 1: NCV97311 Line 2: 33A NCV97311MW50AR2G - Marking: Line 1: NCV97311 Line 2: 50A		
Change category:	■ Wafer Fab Change	Test Change	
Manufacturing Site Change/Addition Material Change Material Change Shipping/Packaging/Mark		□ Datasheet/Product Doc change☑ Shipping/Packaging/Marking☑ Other: Orderable Part Number	
Sites Affected:	plicable ON Semiconductor site(s):	☐ External Foundry/Subcon site(s)	

Description and Purpose:

Fab Transfer from ON Semiconductor Oudenaarde, Belgium to ON Semiconductor Gresham, Oregon for the NCV9731xxx family.

In addition to the manufacturing site transfer, the following quality improvements have also been made:

- 1. Wettable Flank Process New leadframe and improved plating process to eliminate lead discoloration.
- 2. **Mold Compound** Change to G720 mold compound in order to improve board level reliability.
- 3. **Die Design** Addition of two resistors in order to minimize module level sleep mode quiescent current.

Benefit of the change: Provide additional wafer fab capacity for manufacturing. Implement quality improvements mentioned above. **Risk for late release**: Possible supply disruptions.

TEM001091 Rev. J Page 1 of 2



Initial Product/Process Change Notification Document #: IPCN21561Z

Issue Date: 12 December 2016

Qualification Plan:

QV DEVICE NAME: NCV97311MW50AR2G

PACKAGE: QFN32

Test	Specification	Condition	Interval
PC	JESD22 A113 J-STD-020	MSL 1 @ 260 °C	
HAST	JESD22 A110	130°C/85% RH, 18.8psi, bias	96 hrs
UHAST	JESD22 A118	130°C/85% RH, 18.8psi	96 hrs
TC	JESD22 A104	-65°C to+150°C	500 cyc
HTSL	JESD22 A103	Ta=175°C	500 hrs
HTOL	JESD22 A108	Tj=150°C, 100 % max rated Vcc	500 hrs
WBP after TC	Mil-Std-883 Method 2011	Cpk >1.67	30 bonds
ESD	AEC-Q100-002 AEC-Q100-011	Electrostatic Discharge, HBM and CDM	
LU	AEC-Q100-004	Latch-up	
ED	AEC-Q100-009	Electrical Distribution Cpk >1.67	30 units
PTC	JESD22 A105	-40°C to+125°C	1000 cyc

Estimated date for qualification completion: 28 April 2017

List of Affected Standard Parts:

Affected Part Numbers	Qualification Vehicle	
NCV97310MW33R2G NCV97310MW50R2G NCV97311MW33R2G NCV97311MW50R2G	NCV97311MW50R2G	

TEM001091 Rev. J Page 2 of 2