ON Semiconductor®

Final Product/Process Change Notification

Document # : FPCN20967Z
Issue Date: 4 June 2018

Title of Change:	Addition of ON Semiconductor Gresham, Oregon as wafer fab location for NCV70514MN005R2G (I3T50E technology), which is currently manufactured in Fab2, Oudenaarde, Belgium.
Proposed Changed Material First Ship Date:	4 June 2019 or earlier upon customer approval
Current Material Last Order Date:	NA
Current Material Last Delivery Date:	NA
Product Category:	Active components – Integrated circuits
Contact information:	Contact your local ON Semiconductor Sales Office or <Alicia.Tuckett@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification.
Sample Availability Date:	30 March 2018
PPAP Availability Date:	23 February 2018
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or Johan De Greve <Johan.DeGreve@onsemi.com>
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 12 months prior to implementation of the change or earlier upon customer approval. ON Semiconductor 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	**Type of Change**
Process – Wafer Production	New wafer diameter
Process – Wafer Production	Move of all or part of wafer fab to a different location/site/subcontractor
Process – Wafer Production	Change in process technology (e. g. process changes like lithography, etch, oxide deposition, diffusion, die back surface preparation/backgrind, ...)
Design	Design Change in Routing
Process – Assembly	Change of product marking
Equipment-Wafer Production	Production from a new equipment/tool which uses the same basic technology (replacement equipment or extension of existing equipment pool) without change of process.

Description and Purpose:

This FPCN announces the addition of ON Semiconductor Gresham, Oregon as wafer fab location (I3T technology, 200 mm fab) for NCV70514MN005R2 product, currently manufactured in Fab2, Oudenaarde, Belgium (150 mm fab). This will increase ON Semiconductor's wafer fab capacity and flexibility for this device.

For traceability, the marking of the dual-source version will be updated with a Fab indicator, "2" for Fab2 and "G" for Gresham.

	Before Change Description	After Change Description
Wafer fab location	Fab2, Oudenaarde, Belgium	Fab2, Oudenaarde, Belgium ON Gresham, Oregon, USA
Wafer Fab Process Equipment	Identical to Gresham except for: Implant: Equipment brand B Photo: Stepper Contact/Via W-fill integration: W-etchback equipment IMD/ILD: Equipment brand C	Identical to Fab2 except for: Implant: Varian or Axcelis GSD Photo: ASML I-line or Deep UV Stepper Contact/Via W-fill integration: W-CMP (Novellus) IMD/ILD: Novellus Concept Two
Wafer Diameter	Substrate: Si (100) 6"	Substrate: Si (100) 6" and Substrate: Si (100) 8"
Wafer Fab BOM	ILD: USG / BPSG	ILD: USG /BPSG/ PSG/USG
Design Change in routing	Metal Coverage: Matching sensitive circuits covered with high density of top metal.	Metal Coverage Updates: Existing metal slot size increased from 1x1 to 2x2 um; Additional metal slots added.
Part Marking	Without Fab Indicator(will be updated with Fab Indicator)	With Fab Indicator

Reason / Motivation for Change:	**Benefit of the change**: Provide additional wafer fab capacity and flexibility for manufacturing. **Risk for Late Release:** Possible supply disruptions.	
Anticipated impact on fit, form, function, reliability, product safety or manufacturability	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 ON Semiconductor in relation to the PCN, associated risks are verified and excluded. No anticipated impacts.	
Sites Affected:	ON Semiconductor Sites: ON Grehsam, Oregon	External Foundry/Subcon Sites: None
Marking of Parts/ Traceability of Change:	For Traceablity the device marking will be updated with the Fab indicator.	

Reliability Data Summary: See AEC-1 pager attached.

Electrical Characteristic Summary: Electrical characteristics are not impacted. See 3 lot CPK attached

***NOTE**: To open 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/s*

List of affected Standard Parts:

Part Number	Dual Source Part Number	Qualification Vehicle
NCV70514MN005R2G	NCV70514MN005AR2G	0C514-610

Appendix A: Changed Products

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Product	Customer Part Number	New Part Number	Qualification Vehicle
NCV70514MN005R2G		NCV70514MN005AR2G	0C514-610