ON Semiconductor®

Final Product/Process Change Notification

Document # : FPCN22486Z
Issue Date: 9 November 2018

Title of Change:	Addition of ON Semiconductor Gresham, Oregon as a wafer fab manufacturing location for the NCV78763MW0R2G, NCV78763MW1R2G ,NCV78763MW4R2G (I3T technology) products. Also moved from QFN Assembly Wetable Flank to Step Cut processing.
Proposed Changed Material First Ship Date:	9 November 2019 *or earlier upon customer approval*.
Product Category:	Active components – Integrated circuits
Contact information:	Contact your local ON Semiconductor Sales Office or <Robert.Bartos@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office to place sample order or <PCN.samples@onsemi.com> Sample requests are to be submitted no later than 45 days after publication of this change notification.
Sample Availability Date:	26 October 2018
PPAP Availability Date:	26 October 2018
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Geert.Gallopyn@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 subcontractor (qualification of an additional manufacturing site)
Process – Assembly	Change of lead and heat slug plating material/plating thickness (external)
Process – Assembly	Change of product marking
Process-Dry Pack Requirments Change	Change of MSL

Description and Purpose:

Addition of ON Semiconductor Gresham, Oregon as wafer fab location (I3T technology, 200 mm fab), currently manufactured in Fa b2, Oudenaarde, Belgium (150 mm fab) for NCV78763MW0R2G , NCV78763MW1R2G, NCV78763MW4R2G products. This will increase ON Semiconductor's wafer fab capacity and flexibility for this device. Also moved from QFN Assembly Wetable Flank to Step Cut processing for improved shelf life from 1 to 2 years and allow re-bake of the components when shelf life is expired. The Step Cut process provides a side filet during soldering to perform AOI (Auto Optical Inspection) required by Automotive industry. For traceability, the marking of the dual-source version will be updated with a Fab indicator, "2" for Fab2 and "G" for Gresham.

Wafer fab location	**Fab2, Oudenaarde, Belgium (Current Fab)**	**ON Gresham, Oregon, USA (Additional Fab)**	**Note**
Wafer Diameter	Substrate: Si (150mm) 6"	Substrate: Si (200mm) 8"	
Moved from QFN Assembly Wetable Flank to Step Cut processing	Electroless plated wettable flank process-MSL3	Step Cut electro plated wettable flank process-MSL1.	Step Cut electro plated wettable flank process to be used in both Fab2 and Gresham fab
MSL level	MSL3	MSL1	MSL1 will be valid for both Fab2 and Gresham material
OPN	NCV78763MW0R2G, NCV78763MW1R2G, NCV78763MW4R2G	NCV78763MW0AR2G, NCV78763MW1AR2G, NCV78763MW4AR2G	Dual sourced OPNs with "A" identification
Part Marking	Without Fab Indicator	With Fab Indicator	Fab Indicator to be updated for both Fab2 and Gresham material

Reason / Motivation for Change:	**Benefit of the change**: Provide additional wafer fab capacity and flexibility for manufacturing and as part of ONSEMI continuous improvement program, we are moving from SFS to SLP. **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 Gresham, Oregon	External Foundry/Subcon Sites: UTAC
Marking of Parts/ Traceability of Change:	For Traceablity the device marking will be updated with the Fab indicator.	

Reliability Data Summary:

Note: Qualification Report 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/s*

Electrical Characteristic Summary:

Electrical characteristics are not impacted.

List of Affected Parts:

Current Part Number	Dual Source Part Number	Qualification Vehicle
NCV78763MW0R2G	NCV78763MW0AR2G	NCV78763-DQ0 (L763_PAB) - Gresham-QFN5x5 0L763-604
NCV78763MW1R2G	NCV78763MW1AR2G	NCV78763-DQ0 (L763_PAB) - Gresham-QFN7x7 0L763-603
NCV78763MW4R2G	NCV78763MW4AR2G	NCV78763-DQ0 (L763_PAB) - Gresham-QFN5x5 (G720D) 0L763-602

Appendix A: Changed Products

Product	Customer Part Number	New Part Number	Qualification Vehicle
NCV78763MW0R2G		NCV78763MW0AR2G	0L763-604
NCV78763MW1R2G		NCV78763MW1AR2G	0L763-603
NCV78763MW4R2G		NCV78763MW4AR2G	0L763-602