

# Final Product/Process Change Notification Document #:FPCN23658Z1 Issue Date:10 Jan 2022

| Title of Change:                           | Update of FPCN23658Z: Wafer fab transfer to onsemi Gresham, Oregon USA from onsemi Fab2, Oudenaarde, Belgium related to Fab2 sale   |  |
|--|---|--|
| Proposed Changed Material First Ship Date: | 29 Jul 2022 or earlier if approved by customer  |  |
| Current Material Last Order Date:          | 27 Aug 2021 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.   |  |
| Current Material Last Delivery Date:       | 28 Jul 2022 The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory   |  |
| Product Category:                          | Active components – Integrated circuits   |  |
| Contact information:                       | Contact your local onsemi Sales Office or Jelle.Genne@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:                  | 13 Aug 2021   |  |
| PPAP Availability Date:                    | 13 Aug 2021   |  |
| Additional Reliability Data:               | Contact your local onsemi Sales Office or Catherine.DeKeukeleire@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,  New wafer diameter  |  |
| Data Sheet                                 | Correction of data sheet / errata   |  |
| Process - Assembly                         | Change of mold compound, Change of leadframe base material, Change of product marking   |  |

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#### **Description and Purpose:**

This is an update of FPCN23658Z. These are the updates included in this FPCN document:

- Addition of Datasheet update relating to BST\_REG\_022
- Update change level category corresponding to include this Datasheet update
- Added visual represantiation of Part Marking change; Part Marking change was already included in FPCN23658Z
- Typo corrections: "Oudenaarde, Belgium" was added to Sites Affected list; Part Marking change was added to change level category

 $Wafer\ fab\ transfer\ to\ onsemi\ Gresham,\ Oregon\ USA\ from\ onsemi\ Fab2,\ Oudenaarde,\ Belgium\ related\ to\ Fab2\ sale.$ 

In addition, we move from QFN Assembly Wetable Flank processing to Step Cut processing with a new leadframe and mold compound. New OPN's will be created and the marking will have the fab indicator added. A data sheet update is also included with regards to paremeter BST\_REG\_022.

|                    | Before Change Description   | After Change Description   |  |
|--------------------|---|--|--|
| Wafer Fab Location | Fab2 Oudenaarde, Belgium  | Gresham Fab, Oregon  |  |
| Wafer Diameter     | Substrate: Si (150mm) 6"  | Substrate: Si (200mm) 8"   |  |
| Wettable flank     | SFS   | SLP  |  |
| Leadframe          | 0L703-001: LF 24L QFN5x5 MM 0.65 MM. pitch<br>0L703-002: LF 24L QFN 4X4 | 0L703-003: LF QFN 24L 149.6X149.6 AG ETCH<br>0L703-004: LF QFN24 4x4 SLP |  |
| Mold Compound      | G770HCD MOLD COMPOUND   | MC G700LTD   |  |
| Part Marking       | Without Fab Indicator   | With Fab Indicator   |  |
| Datasheet:         | Rev. 0  | Rev. 1   |  |
| ODN                | NCV78703MW0R2G  | NCV78703MW0AR2G  |  |
| OPN                | NCV78703MW1R2G  | NCV78703MW1AR2G  |  |

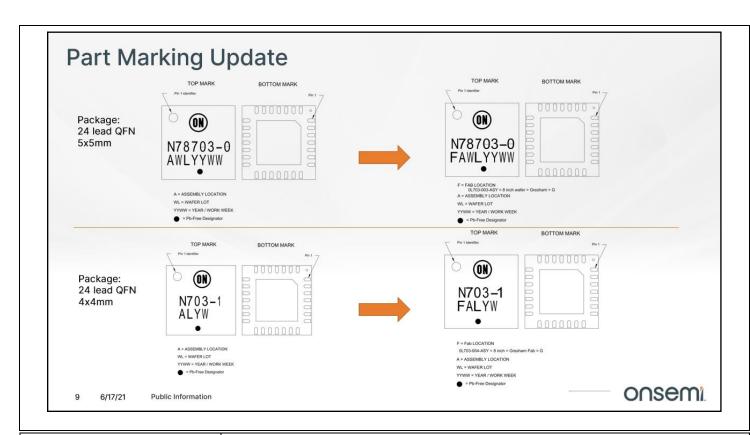
| ata Sheet Upda                  | ate          |   |      |      |      |      |   |
|---------------------------------|--------------|---|------|------|------|------|---|
| Update of datasheet             | parameter BS | ST_REG_022.                             |      |      |      |      |   |
|                                 |              |   | T    |      |      |      |   |
| Booster regulation level Rev. 0 | BST_REG_022  | [BOOST_VSETPOINT =0010110],<br>DC level | 11   | 11.5 | 12   | V    |   |
|                                 |              |   |      | 1    |      |      |   |
| Booster regulation level Rev. 1 | BST_REG_022  | [BOOST_VSETPOINT =0010110],<br>DC level | 10.8 | 11.5 | 12.2 | V    |   |
|                                 |              |   |      |      |      |      |   |
|                                 |              |   |      |      |      |      |   |
| Public Information              |              |   |      |      | O    | nser | n |

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| Reason / Motivation for Change:  | Source/Supply/Capacity Changes  |
|--|---|
| 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 onsemi in relation to the PCN, associated risks are verified and excluded.  No anticipated impacts. |
| Sites Affected:  |   |

## Sites Affected:

| onsemi Sites                  | External Foundry/Subcon Sites |  |
|-------------------------------|-------------------------------|--|
| onsemi Oudenaarde, Belgium    | UTAC, Thailand                |  |
| onsemi, Gresham United States |                               |  |

| Marking of Parts/ Traceability of Change: | Traceability guaranteed by datecode |
|---|-------------------------------------|
|---|-------------------------------------|

#### **Reliability Data Summary:**

#### 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/

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| 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 <u>PCN Customized Portal</u>.

| Current Part Number | New Part Number Qualification Vehic |           |
|---------------------|-------------------------------------|-----------|
| NCV78703MW0R2G      | NCV78703MW0AR2G                     | 0L703-600 |
| NCV78703MW1R2G      | NCV78703MW1AR2G                     | 0L703-601 |

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