

Final Product/Process Change Notification Document #:FPCN23597XC1

Issue Date:08 Dec 2021

| Title of Change: | ' | Update to FPCN23597XC – To correct the title to "Conversion of select onsemi, Czech Republic (Roznov) wafer fab technologies from 150mm to 200mm wafer diameter - MC1413 and ULN2003 families." | | |
|---|--|---|--|--|
| Proposed First Ship date: | 10 Feb 2022 or earlier | earlier if approved by customer | | |
| Contact Information: | Contact your local onse | emi Sales Office or <u>Jan.Gryzbon@onsemi.com</u> | | |
| PCN Samples Contact: | Sample requests are to Initial PCN or Final PCN Samples delivery timin | Contact your local onsemi Sales Office or < PCN.samples@onsemi.com>. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements. | | |
| Additional Reliability Data: | Contact your local onse | Contact your local onsemi Sales Office or <u>Tomas.Vajter@onsemi.com</u> | | |
| Type of Notification: | days prior to implemer onsemi will consider th | This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com | | |
| Marking of Parts/ Traceability of Change: | The affected products | The affected products will be identified with date code | | |
| Change Category: | Wafer Fab Change | Wafer Fab Change | | |
| Change Sub-Category(s): | Manufacturing Process | Manufacturing Process Change | | |
| Sites Affected: | | | | |
| onsemi Sites | | External Foundry/Subcon Sites | | |
| onsemi Roznov, Czech Republic | | None | | |

Description and Purpose:

This update notification is being issued to clarify and correct the Title from Conversion of select onsemi, Czech Republic (Roznov) wafer fab technologies from 150mm to 200mm wafer diameter - MC1413 and UNL2003 families to "Conversion of select onsemi, Czech Republic (Roznov) wafer fab technologies from 150mm to 200mm wafer diameter - MC1413 and ULN2003 families.

Reliability Data Summary:

QV DEVICE NAME: NCV1413BDR2G

RMS# 68977 DACKAGE: SOIC16

| Test | Specification | Condition Interval | | Results |
|---------|---------------------|--------------------------------|------------------------------|---------|
| HTOL | JA108 | Ta= 125°C 2016 hrs | | 0/240 |
| PC | JA112 JA113 | SMD only, Test @ 0 & EP | | 0/372 |
| SAT | | Test pre- and post- PC | | pass |
| ELFR | JA018 | TA = 125°C for 48 hrs | 48hrs | 0/2400 |
| TC | JA104 | Test @ R | Test @ R 1000cyc | |
| BS | AEC-Q100-001 | Cpk 1.33, 30 bonds from 5units | k 1.33, 30 bonds from 5units | |
| BPS | M883 Method 2011 | 3gm Pull Force Min After TC | | pass |
| ESD HBM | AEC-Q100-002 | c = 0, Test @ R | 2kV | 0/3 |
| ESD CDM | AEC-Q100-011 | c = 0, Test @ R | c = 0, Test @ R 1.5kV | |
| ED | ON Data Sheet | Cpk > 1.67 Test @ R, H, C | Cpk>1.67 | pass |

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| LU AEC-Q100-004 | Test @ EP; Test & Stress @ R | LU+>100mA LU->100mA | 0/6 |
|-----------------|------------------------------|------------------------|-----|
|-----------------|------------------------------|------------------------|-----|

Electrical Characteristics Summary:

Electrical characteristics are not impacted. All Data Sheet specifications remain the same.

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>.

| Part Number | Qualification Vehicle | |
|--------------|-----------------------|--|
| ULQ2003ADR2G | ULN2003ADR2G | |
| MC1413BDR2G | ULN2003ADR2G | |
| MC1413DR2G | ULN2003ADR2G | |
| ULN2003ADR2G | ULN2003ADR2G | |

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Appendix A: Changed Products

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| Product | Customer Part Number | Qualification Vehicle | New Part Number | Replacement Supplier | |
|--------------|----------------------|-----------------------|-----------------|----------------------|--|
| ULN2003ADR2G | | ULN2003ADR2G | NA | | |
| MC1413BDR2G | | ULN2003ADR2G | NA | | |
| ULQ2003ADR2G | | ULN2003ADR2G | NA | | |
| MC1413DR2G | | ULN2003ADR2G | NA | | |