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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16986**Generic Copy

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**Issue Date:** 20-Feb-2013**TITLE:** NCS2200, NCS2202 Device Families Qualification at Gresham Wafer Fab**PROPOSED FIRST SHIP DATE:** 20-May-2013**AFFECTED CHANGE CATEGORY(S):** Wafer Fab Location**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**Contact your local ON Semiconductor Sales Office or [Shannon.Riggs@onsemi.com](mailto:Shannon.Riggs@onsemi.com)**SAMPLES:** Contact your local ON Semiconductor Sales Office or [Shirley.Chang@onsemi.com](mailto:Shirley.Chang@onsemi.com)**ADDITIONAL RELIABILITY DATA:** AvailableContact your local ON Semiconductor Sales Office or [ken.fergus@onsemi.com](mailto:ken.fergus@onsemi.com)**NOTIFICATION TYPE:**

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 days prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact <[quality@onsemi.com](mailto:quality@onsemi.com)>.**DESCRIPTION AND PURPOSE:**

ON Semiconductor is pleased to announce a capacity expansion qualification for the NCS2200 and NCS2202 device families.

These device families are currently qualified at ON Semiconductor's Aizu wafer fab facility located in Aizu, Japan and are now qualified at ON Semiconductor's Gresham wafer fabrication facility located in Gresham, Oregon. Upon effectivity (or approval) of this Final PCN, devices may be supplied by either wafer fab.

The Gresham wafer fab is compliant to ISO9001:2008, ISO/TS16949:2009, and ISO14001:2004. All devices affected by this PCN are currently run on the Aizu CMOS1 process. The same CMOS1 process has been transferred to and successfully qualified at the Gresham wafer fab. No device design changes have been made. Device performance is the same for Aizu and Gresham-sourced devices.

These device families will continue to be assembled and tested in existing, qualified locations. No changes to packaging will occur as a result of this fab qualification.



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### RELIABILITY DATA SUMMARY:

#### Reliability Test Results:

The Gresham-sourced NCS2200 and NCS2202 devices have been qualified based on the successful platform qual of the AC MOS1 technology in Gresham with qual vehicles: NCP305, NCP551, NCP2860, and NCS2002.

Test	Conditions	Results
High Temp Op Life	Ta=+125C, 1008 hours	
NCP304		0/80 (1 lot)
NCP551		0/80 (1 lot)
NCP2860		0/80 (3 lots)
NCS2002		0/80 (1 lot)
Early Life Failure Rate	Ta=+125C, 48 hours	
NCP304		0/800 (1 lot)
NCP551		0/800 (1 lot)
NCS2002		0/800 (1 lot)
Highly Accelerated Stress	Ta=131C/85% RH, 96 hours	
NCP304	w/MSL1 pre-conditioning	0/80 (1 lot)
NCP551		0/80 (1 lot)
NCS2002		0/80 (1 lot)
Unbiased Highly Accel. Stress	Ta=131C/85% RH, 96 hours	
NCP304	w/MSL1 pre-conditioning	0/80 (1 lot)
NCP551		0/80 (1 lot)
NCP2860		0/80 (3 lots)
NCS2002		0/80 (1 lot)
Temperature Cycle	-65C to +150C, 500 cycles	
NCP304		0/80 (1 lot)
NCP551		0/80 (1 lot)
NCP2860		0/80 (3 lots)
NCS2002		0/80 (1 lot)
Scan. Acoustical Tomography MSL1		
NCP304		0/5 (1 lot)
NCP551		0/5 (1 lot)
NCP2860		0/5 (3 lots)
NCS2002		0/5 (1 lot)
ESD	Human Body Model	Pass 2000V (NCP304, NCP1729)
	Machine Model	Pass 200V (NCP304, NCP1729)

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Electrical characterization has been completed with no changes to the AC/DC specifications. ON Semiconductor recommends samples be obtained for application specific review. Data is available upon request.

**CHANGED PART IDENTIFICATION:**

Devices with date codes of 2013 work week 20 or later may be sourced from either wafer Gresham or Aizu fab.

**List of affected General Parts:**

NCS2200SN1T1G  
NCS2200SN1T1GH  
NCS2200SN2T1G  
NCS2200SQ1T2G  
NCS2200SQ2T2G  
NCS2200SQ2T2GH  
NCS2200SQLT1G  
NCV2200SN1T1G  
NCV2200SN2T1G  
NCV2200SQ2T2G  
NCS2202SN1T1G  
NCS2202SN1T1GH  
NCS2202SN2T1G  
NCS2202SQ1T2G  
NCS2202SQ2T2G