



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16441A

Generic Copy

Issue Date: 13-Jul-2012

TITLE: NCP300-303 Device Families Qualification at Gresham Wafer Fab

PROPOSED FIRST SHIP DATE: 13-Oct-2012

AFFECTED CHANGE CATEGORY(S): Wafer Fab Location

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Todd.Manes@onsemi.com.

SAMPLES: Contact your local ON Semiconductor Sales Office or Shilpa.Rao@onsemi.com

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Edmond.Gallard@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>.

DESCRIPTION AND PURPOSE:

ON Semiconductor is pleased to announce a capacity expansion qualification for the NCP300, NCP301, NCP302 & NCP303 product 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 expiration (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.

The NCP300-303 families currently run on the Aizu ACMOS2 process. The same ACMOS2 process has been transferred to and successfully qualified at the Gresham wafer fab. Device performance is the same for Aizu and Gresham-sourced devices.

The NCP300-303 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.



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16441A

RELIABILITY DATA SUMMARY:

Reliability Test Results:

The Gresham-sourced NCP300-303 families have been qualified based on the following test results:

Test	Conditions	Results	Readout Temp.
High Temp Op Life			
NCP303	Tj = 125C, 1008 hours	0/80 (1 lot)	Room, Hot, Cold
	Tj = 125C, 504 hours	0/80 (1 lot)	Room, Hot
NCV8560	Tj = 125c, 1008 hours	0/84 (1 lot)	Room, Hot
NCP5208	Tj = 125C, 1008 hours	0/240 (3 lots)	Room
Early Life Failure Rate			
NCP303	Tj = 125C, 48 hours	0/800 (1 lot)	Room, Hot, Cold
NCV8560	Tj = 125C, 48 hours	0/810 (1 lot)	Room, Hot
NCP5208	Tj = 125C, 48 hours	0/800 (1 lot)	Room
Highly Accelerated Stress (w/MSL1 Pre-Conditioning)			
NCP303	Ta=131C/85% RH, 96 hours	0/84 (1 lot)	Room, Hot
NCV8560	Ta=131C/85% RH, 96 hours	0/84 (1 lot)	Room, Hot
NCP5208	Ta=131C/85% RH, 144 hours	0/240 (3 lots)	Room
Unbiased Highly Accel Stress (w/MSL1 Pre-Conditioning)			
NCP303	Ta=131C/85% RH, 96 hours	0/84 (1 lot)	Room
NCV8560	Ta=131C/85% RH, 96 hours	0/84 (1 lot)	Room
NCP5208	Ta=131C/85% RH, 144 hours	0/240 (3 lots)	Room
Temperature Cycle (w/MSL1 Pre-Conditioning)			
NCP303	-65C/+150C, 1000 cycles	0/168 (2 lots)	Room, Hot
NCV8560	-65C/+150C, 1000 cycles	0/84 (1 lot)	Room, Hot
NCP5208	-65C/+150C, 1000 cycles	0/240 (3 lots)	Room
Scan. Acoustical Tomography (w/MSL1 Pre-Conditioning)			
NCP303		0/5 (1 lot)	
NCV8560		0/5 (1 lot)	
NCP5208		0/15 (3 lots)	
High Temp Storage Life			
NCP303	Ta = 150C, 1008 hours	0/80	Room
ESD			
NCP303	HBM (3.5kV)	Pass	Room, Hot
	MM (200V)	Pass	Room, Hot
Latch Up			
NCP303	Class II / +85C (+/- 200mA)	Pass	Room, Hot



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ELECTRICAL CHARACTERISTIC SUMMARY:

Electrical characterization test data has been obtained on Gresham NCP300-303 material. No significant changes in part performance as compared to the existing Aizu-sourced product were observed. Cpk's of all critical parameters are greater than 1.67. Data may be provided upon request.

CHANGED PART IDENTIFICATION:

Devices with date codes of 2012 work week 41 or later may be sourced from either wafer Gresham or Aizu fab.

List of affected General Parts:

NCP300HSN09T1G	NCP301LSN46T1G	NCP303LSN45T1G
NCP300HSN18T1G	NCP301LSN47T1G	NCP303LSN46T1G
NCP300HSN27T1G	NCP302HSN09T1G	NCP303LSN47T1G
NCP300HSN30T1G	NCP302HSN18T1G	NCP303LSN49T1G
NCP300HSN45T1G	NCP302HSN27T1G	NCV300LSN20T1G
NCP300HSN47T1G	NCP302HSN30T1G	NCV300LSN27T1G
NCP300LSN09T1G	NCP302HSN30T1GH	NCV300LSN28T1G
NCP300LSN185T1G	NCP302HSN40T1G	NCV300LSN30T1G
NCP300LSN185T1GH	NCP302HSN45T1G	NCV300LSN36T1G
NCP300LSN18T1G	NCP302LSN09T1G	NCV301HSN27T1G
NCP300LSN20T1G	NCP302LSN15T1G	NCV301LSN12T1G
NCP300LSN20T3G	NCP302LSN18T1G	NCV301LSN16T1G
NCP300LSN25T1G	NCP302LSN20T1G	NCV301LSN20T1G
NCP300LSN27T1G	NCP302LSN27T1G	NCV301LSN22T1G
NCP300LSN28T1G	NCP302LSN30T1G	NCV301LSN25T1G
NCP300LSN30T1G	NCP302LSN30T1GH	NCV301LSN28T1G
NCP300LSN33T1G	NCP302LSN33T1G	NCV301LSN33T1G
NCP300LSN34T1G	NCP302LSN38T1G	NCV301LSN40T1G
NCP300LSN44T1G	NCP302LSN40T1G	NCV301LSN42T1G
NCP300LSN45T1G	NCP302LSN43T1G	NCV301LSN45T1G
NCP300LSN46T1G	NCP302LSN45T1G	NCV301LSN47T1G
NCP300LSN47T1G	NCP302LSN47T1G	NCV302LSN14T1G
NCP301HSN09T1G	NCP303LSN09T1G	NCV302LSN30T1G
NCP301HSN18T1G	NCP303LSN10T1G	NCV303HSN30T1G
NCP301HSN22T1G	NCP303LSN11T1G	NCV303LSN10T1G
NCP301HSN27T1G	NCP303LSN13T1G	NCV303LSN11T1G
NCP301HSN30T1G	NCP303LSN14T1G	NCV303LSN12T1G
NCP301HSN45T1G	NCP303LSN15T1G	NCV303LSN13T1G



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16441A

NCP301LSN09T1G	NCP303LSN16T1G	NCV303LSN14T1G
NCP301LSN10T1G	NCP303LSN17T1G	NCV303LSN15T1G
NCP301LSN11T1G	NCP303LSN18T1G	NCV303LSN16T1G
NCP301LSN12T1G	NCP303LSN20T1G	NCV303LSN17T1G
NCP301LSN16T1G	NCP303LSN22T1G	NCV303LSN20T1G
NCP301LSN18T1G	NCP303LSN23T1G	NCV303LSN22T1G
NCP301LSN20T1G	NCP303LSN24T1G	NCV303LSN23T1G
NCP301LSN22T1G	NCP303LSN25T1G	NCV303LSN28T1G
NCP301LSN24T1G	NCP303LSN26T1G	NCV303LSN29T1G
NCP301LSN25T1G	NCP303LSN27T1G	NCV303LSN30T1G
NCP301LSN26T1G	NCP303LSN27T1GH	NCV303LSN31T1G
NCP301LSN27T1G	NCP303LSN28T1G	NCV303LSN34T1G
NCP301LSN27T1GH	NCP303LSN29T1G	NCV303LSN36T1G
NCP301LSN28T1G	NCP303LSN30T1G	NCV303LSN40T1G
NCP301LSN30T1G	NCP303LSN30T1GH	NCV303LSN42T1G
NCP301LSN31T1G	NCP303LSN31T1G	NCV303LSN43T1G
NCP301LSN32T1G	NCP303LSN32T1G	NCV303LSN44T1G
NCP301LSN33T1G	NCP303LSN33T1G	NCV303LSN45T1G
NCP301LSN34T1G	NCP303LSN34T1G	NCV303LSN46T1G
NCP301LSN36T1G	NCP303LSN36T1G	NCV303LSN47T1G
NCP301LSN39T1G	NCP303LSN38T1G	NCV303LSN49T1G
NCP301LSN40T1G	NCP303LSN40T1G	SCY303LSN46T1G
NCP301LSN42T1G	NCP303LSN42T1G	SCYLF301LSN40T1G
NCP301LSN45T1G	NCP303LSN44T1G	