



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

13 May 2008

SUBJECT: ON Semiconductor Initial Product/Process Change Notification #16116

**TITLE: Capacity Expansion Qualification of ON Semiconductor Gresham Wafer Fab for Devices
Currently Fabricated at XFAB Wafer Foundries**

PROPOSED FIRST SHIP DATE: 13 Sep 2008

AFFECTED CHANGE CATEGORY: ON Semi Fab Site / Subcontractor Fab Site

AFFECTED PRODUCT DIVISION: Digital Consumer Group, Computing Products Group

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Todd Manes <todd.manes@onsemi.com>

NOTIFICATION TYPE:

Initial Product/Process Change Notification (IPCEN)

First change notification sent to customers. IPCENs are issued at least 120 days prior to implementation of the change. An IPCEN is advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.

The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCEN).

This IPCEN notification will be followed by a Final Product/Process Change Notification (FPCEN) at least 90 days prior to implementation of the change.

DESCRIPTION AND PURPOSE:

ON Semiconductor is pleased to announce a capacity expansion qualification for devices currently fabricated at the XFAB wafer foundries.

Products currently qualified at the XFAB wafer foundry facilities (located in Erfurt, Germany and Lubbock, Texas) will now also be qualified at ON Semiconductor's Gresham wafer fabrication facility located in Gresham, Oregon. Upon expiration of the associated Final PCN(s), devices may be supplied from either the XFAB foundries or the Gresham fab.

The Gresham wafer fab is ISO9001:2000 compliant. The products currently run on XFAB's 0.6um BiCMOS process. Devices will be qualified to run at Gresham on the 0.25um "ONC25" process. Device performance will be the same among the qualified facilities for each device family. All devices will continue to be assembled and tested in existing, qualified locations. No changes to packaging will occur as a result of this foundry expansion qualification.

**Initial Product/Process Change Notification #16116****QUALIFICATION PLAN:**

Full qualification testing will be performed as appropriate on each device family. Reliability testing may include the following (depending upon package and device-specific requirements):

Test

High Temp Op Life (HTOL)
High Temp Storage Life (HTSL)
Early Life Failure Rate (ELFR)
Pre-Conditioning (PC)
PC + Autoclave(PC+AC)
 for packaged parts
PC + Highly Accelerated Stress Test (PC+HAST)
PC + Unbiased HAST (PC+UHAST)
PC + Temp Cycle (PC+TC)
 for packaged parts
 for bumped parts

ESD

Latch Up
PC + SAT
Wire Bond Shear/ Bump Shear
Wire Bond Pull
Electrical Distribution

Conditions

150C / 504 hrs
150C / 1000 hrs
150C/ 48 hrs
MSL 1

121C/115psig / 96 hrs
131C/85%RH/96 hrs/Bias
130C/85%RH/96 hrs/No bias

-65C/+150C/500 cyc
-40C/+125C/500 cyc

Human Body Model /
Machine Model
Dynamic Latch Up
MSL 1 preconditioning
 AEC-Q100-001
AEC-Mil-Std-883 Meth 2011
On Semi spec

Qualifications at the Gresham wafer fab will include a full set of reliability testing for the first devices to be qualified there. When sufficient qualification data has been gathered, future product qualifications will reuse qualification data as appropriate.



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AFFECTED DEVICE LIST:

PART

NCP1521ASNT1G
NCP1521BMUTBG
NCP1521BSNT1G
NCP1522BMUTBG
NCP1522BSNT1G
NCP1529ASNT1G
NCP1529MUTBG
NCP1532MUAATXG
NCP2820AFCT2G
NCP2820FCT1G
NCP2820FCT2G
NCP2820MUTBG
NCP2890AFCT2G
NCP2890DMR2G
NCP2892AFCT2G
NCP2892BFCT2G
NCP2990FCT2G
NCP4894DMR2G
NCP4894FCT1G
NCP4894MNR2G