



FINAL PRODUCT/PROCESS CHANGE NOTIFICATIONGeneric Copy

25-Nov-2008**SUBJECT: ON Semiconductor Final Product/Process Change Notification #16181****TITLE: Capacity Expansion Qualification of ON Semiconductor Gresham Wafer Fab for NCP2990FCT2G****PROPOSED FIRST SHIP DATE: 25-Feb-2009****AFFECTED CHANGE CATEGORY(S): ON Semi Fab Site / Subcontractor Fab Site****AFFECTED PRODUCT DIVISION(S): Digital Consumer Group****FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**Contact your local ON Semiconductor Sales Office or Todd Manes <todd.manes@onsemi.com>**SAMPLES:** Contact your local ON Semiconductor Sales Office or Todd Manes <todd.manes@onsemi.com>**ADDITIONAL RELIABILITY DATA:** AvailableContact your local ON Semiconductor Sales Office or Edmond Gallard <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 your local ON Semiconductor Sales Office.

DESCRIPTION AND PURPOSE:

ON Semiconductor is pleased to announce a capacity expansion qualification for NCP2990FCT2G.

This device is currently qualified at the XFAB wafer foundry facility in Lubbock, Texas (USA) and is now also qualified at ON Semiconductor's Gresham wafer fabrication facility located in Gresham, Oregon (USA). Upon expiration (or approval) of this Final PCN, devices may be supplied by either wafer fabrication facility.

The Gresham wafer fab is compliant to ISO9001:2000, ISO/TS16949:2002, and ISO14001:2004.


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The NCP2990FCT2G currently runs on XFAB's 0.6um BiCMOS process and is now also qualified to run at Gresham on the 0.25um "ONC25" process.

Device performance is the same for the XFAB and Gresham-sourced devices.

The NCP2990FCT2G 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.

RELIABILITY DATA SUMMARY:

The Gresham-sourced NCP2990FCT2G has been qualified based on the following test results:

Reliability Test Results:

| Test | Conditions | Results |
|--|---|----------------------------------|
| High Temp Op Life (NCP2890AFCT2G) | Ta = 135C (1008 hours) | 0/80 (x 3 lots) |
| High Temp Op Life (NCP2990FCT2G) | Ta = 135C (168 hours) | 0/80 (x 1 lot) |
| Early Life Failure Rate (NCP2890AFCT2G) | Ta = 135C (48 hours) | 0/480 (x 3 lots) |
| Early Life Failure Rate (NCP2990FCT2G) | Ta = 135C (48 hours) | 0/500 (x 1 lot) |
| High Temp Storage Life (NCP2890AFCT2G) | Ta = 150C (1008 hours) | 0/80 (x 3 lots) |
| Temperature Cycle (NCP2890AFCT2G) | Ta = -40C to +125C (500cyc) | 0/80 (x 3 lots) |
| Unbiased HAST (NCP2890AFCT2G) | Ta = 131C (96 hours) | 0/80 (x 3 lots) |
| PC+SAT (NCP2890AFCT2G) | MSL1 @ 260C | 0/5 (x 3 lots) |
| Latch-Up (NCP2990FCT2G) | Class II / 85C (100mA) | 0/3 (x 1 lot) |
| ESD (NCP2990FCT2G) | HBM (8kV) MM (250V) | 0/3 (x 2 lots) 0/3 (x 2 lots) |
| Electrical Distribution (NCP2990FCT2G) | -40C / +25C / +85C Critical Parameters, Cpk>1.67 | Pass - 2 lots |
| Bump Shear | Min spec = 213g | Pass – 2 lots (Cpk>2) |

**Final Product/Process Change Notification #16181****ELECTRICAL CHARACTERISTIC SUMMARY:**

Electrical characterization test data has been obtained on 2 lots of Gresham NCP2990FCT2G. No significant changes in part performance as compared to the existing XFAB-sourced product were observed. Cpk's of all critical parameters are greater than 1.67. Data may be provided upon request.

CHANGED PART IDENTIFICATION:

Date codes are laser scribed on each NCP2990FCT2G device. Devices with laser-scribed date codes of 0848 or later may be sourced from either wafer fab.

AFFECTED DEVICE LIST

NCP2990FCT2G