



FINAL PRODUCT/PROCESS CHANGE NOTIFICATIONGeneric Copy

26 May 2008**SUBJECT: ON Semiconductor Final Product/Process Change Notification #16121****TITLE: Qualification of UAT for Bumped Products****PROPOSED FIRST SHIP DATE: 26 Aug 2008****AFFECTED CHANGE CATEGORY(S): Sub-Contractor Assembly 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:

This is a Final PCN announcing that ON Semiconductor has successfully qualified the UAT facility in Ipoh, Malaysia as an additional source for bump processing of micro-bump devices including NCP2890AFCT2G, NCP2820FCT1G, NCP2820FCT2G, and NCP2990FCT2G.

UAT is certified ISO 9001:2000, QS 9000:1998, ISO 14001:2004 and ISO/TS 16949: 2002.

Qualification of UAT represents a manufacturing capacity expansion. Upon expiration of this notification, affected devices may be supplied from any of the qualified facilities (ASE-Kaoshiung, Taiwan; Flip Chip International, Phoenix, Arizona; or UAT, Ipoh, Malaysia).

This does not require a change in the wafer/die source. As such, device performance and functionality will remain unchanged. Devices will continue to meet all data book specifications and reliability will continue to meet or exceed ON Semiconductor standards.

**Final Product/Process Change Notification #16121****RELIABILITY DATA SUMMARY:**

UAT qualification was achieved based on the following qualification test results. Note that the NCP2890AFCT2G was used as the qualification vehicle. All other affected devices use the same case outline, have the same die size and the same number of bumps, and are qualified by similarity to the NCP2890 device.

Reliability Test Results:

Test	Conditions	Results
Temperature Cycle	-45C to +125C; 500 cycles 3 lots @ 80u each	0 rejects / 240
Bump Shear Test	AEC-Q100-001 3 lots / 2 wafers / 5 die per wafer	0 rejects / 5
Destructive Physical Analysis	ON Semi spec 1 lot @ 2u	0 rejects / 2

ELECTRICAL CHARACTERISTIC SUMMARY:

Electrical characterization at 3 temperatures was performed on 2 lots bumped at UAT. No changes in performance as compared to existing production material were observed.

CHANGED PART IDENTIFICATION:

Devices are marked with 2 lines of marking. The first character of the 2nd line indicates the bump factory. Devices will be marked with the 2nd line first character as shown below:

Line 1 = XXX where XXX = device-specific code as indicated on the product data sheet.

Line 2 = bYWW where

b = "U" for UAT-bumped product

"Z" for ASE-bumped product

"F" for FCI-bumped product

YWW = Year and Work Week

AFFECTED DEVICE LIST

NCP2820FCT1G
NCP2820FCT2G
NCP2890AFCT2G
NCP2990FCT2G