



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

18-Dec-2008

SUBJECT: ON Semiconductor Initial Product/Process Change Notification #16173

TITLE: Additional SO8 Capacity for Digital & Consumer Products

PROPOSED FIRST SHIP DATE: 16-Apr-2009

AFFECTED CHANGE CATEGORY: ON Semiconductor Assembly& Test Site

AFFECTED PRODUCT DIVISION: Digital Consumer Group

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or JR Cabagui <jr.cabagui@onsemi.com>

NOTIFICATION TYPE:

Initial Product/Process Change Notification (IPCN)

First change notification sent to customers. IPCNs are issued at least 120 days prior to implementation of the change. An IPCN 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 (FPCN).

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

DESCRIPTION AND PURPOSE:

ON Semiconductor is pleased to announce the addition of assembly and test manufacturing capacity for their SO8 product lines. This will be accomplished by qualifying these devices at an internal manufacturing site in Carmona, Philippines. The Carmona facility currently assembles and tests the SO8 package for other ON Semi product lines. In addition to this internal manufacturing site, ON Semiconductor may continue to manufacture SO8 products at their external subcontractors: UNISEM in Indonesia.

The bill of materials for the products assembled at the Carmona facility will remain identical to the that assembled at the external subcontractor. This includes the external mold compound. As a result, no device parameter changes are planned. The electrical parameters and datasheet will remain unchanged.

The Final Test of the devices assembled at the Carmona facility will be performed within the same facility. This testing will be performed on similar final product testers. The test hardware will be duplicated, as well as the test software – as can be accommodated by the versions of the testers used.

**Initial Product/Process Change Notification #16173**

A study will be performed to determine the equivalency of the testing performed at the Carmona facility to that performed at the external facility.

In parallel to the effort described above, an additional effort will be undertaken to explore copper bond (CU) bond wires for the affected device list contained within this notification. Depending on the timing and results of the CU bond wire reliability tests, the appropriate bond wire implementation (CU or AU) will be announced in the Final Product Change Notification (FPCN)

QUALIFICATION PLAN:**Qual Vehicles**

- NIS5112D1R2G
- SIS5142D2R2G
- NUD4001DR2G

Reliability Tests (for each qual vehicle)

- SAT (MSL 3) - 3 assembly lots, 5 units/lot, MSL assessment to define the MSL level before reliability tests – (include Pre/Post CSAM analysis)
- PC(MSL 3) - AC 96hrs, 3 assembly lots, 80 units/lot
- PC(MSL 3) - TC 1000cyys, 3 assembly lots, 80 units/lot
- PC(MSL 3) - HAST 96hrs, 3 assembly lots, 80 units/lot
- 504HTOL - 3 assembly lots, 80 units/lot

Assembly Related tests (for each qual vehicle)

- Wire Pull
- Die Shear
- Solderability
- Physical Dimension
- Electrical Characterization



Initial Product/Process Change Notification #16173

AFFECTED DEVICE LIST:

NUD4001DR2
NUD4001DR2G
NUD4011DR2
NUD4011DR2G
NIS5112D1R2G
NIS5112D2R2G
SIS5142D2R2G