



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION
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01-Sep-2009

SUBJECT: ON Semiconductor Initial Product/Process Change Notification #16322

TITLE: Dual Sourcing at Gresham; General Sales Devices

PROPOSED FIRST SHIP DATE: 30-Dec-2009

AFFECTED CHANGE CATEGORY(S): Wafer Fab Process

AFFECTED PRODUCT DIVISION(S): Digital and Mixed Signal (DMSG)

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Eddie Glines <Eddie.Glines@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:

Introduce dual sourcing of ON part numbers:

- A5191HRTLГ-XТD (12197-507)
- A5191HRTLГ-XTP (12197-507)
- A5191HRTPG-XТD (12197-508)
- A5191HRTPG-XTP 12197-508)
- 12197-509-XТD (12197-509)
- 12197-509-XTP (12197-509)

products to the 8 inch ON Fab in Gresham, Oregon (USGR1). Currently wafer fab is only in Pocatello, Idaho (Fab 10).

Gresham, Oregon (USGR1) Quality systems certification: [ISO/TS 16949](http://www.onsemi.com/site/pdf/cert16949_philip.pdf)
(http://www.onsemi.com/site/pdf/cert16949_philip.pdf)

The qualification report of the technology in USGR1 will be available on August 31, 2009.

Preliminary expected date for samples delivery: October 4, 2009

**Initial Product/Process Change Notification #16322****QUALIFICATION PLAN:**

Component Level Tests: to be performed on stand-alone structures from three lots

- Electromigration
- Time-Dependent-Dielectric-Breakdown
- Hot Carrier Injection
- Negative Bias Temperature Instability
- Stress Migration

Product Level Tests: to be performed on a representative Product Test Vehicle (PTV)

- Early Life failure rate (ELFR) : 125°C, 48 hours on 3*800 devices
- High Temperature Operating Lifetest (HTOL) : 125°C, 1000 hours on 3*77 devices
- Biased HAST : 96 hours, 85%RH, 130°C on 3*77 devices
(devices will be preconditioned by moisture soak, solder heat application and 100 thermal cycles -55/+125°C). An alternative to this test is Temperature Humidity Bias THB (1000 hours, 85%RH, 85°C on 3*77 devices with same preconditioning)
- Autoclave (AC) : 96 hours, 100%RH, 121°C on 3*77 devices (devices will be preconditioned by moisture soak, solder heat application and 100 thermal cycles -55/+125°C). An alternative to this test is Unbiased HAST (UHST) (96 hours, 85%RH, 130°C on 3*77 devices with same preconditioning)
- Temperature Cycling (TC) : 500 cycles -65/+150°C on 3*77 devices (devices will be preconditioned by moisture soak and solder heat application)
- High Temperature Storage Life (HTSL) : 150°C, 1000 hours on 1*45 devices
- ESD and Latch-up tests

Electrical Verification

Internal product transfer according to standard product transfer procedure in document # 7500138

Global Device Transfer to Production Requirement

AFFECTED DEVICE LIST

A5191HRTLГ-XTD (12197-507)
A5191HRTLГ-XTP (12197-507)
A5191HRTPG-XTD (12197-508)
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