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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16437**Generic Copy

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**Issue Date:** 12 Mar 2010**TITLE:** NCP1595/A PRODUCT TRANSFER TO GRESHAM FAB**PROPOSED FIRST SHIP DATE:** 12 Jun 2010**AFFECTED CHANGE CATEGORY(S):** Wafer FAB Transfer**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local ON Semiconductor Sales Office or &lt;paul.mcdevitt@onsemi.com&gt;

**SAMPLES:** Contact your local ON Semiconductor Sales Office**ADDITIONAL RELIABILITY DATA:** Available upon request.

Contact your local ON Semiconductor Sales Office or &lt;nicky.siu@onsemi.com&gt;

**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 &lt;quality@onsemi.com&gt;.

**DESCRIPTION AND PURPOSE:**The purpose of this final PCN is to notify customers of the qualification and transfer of NCP1595/A from the 0.8  $\mu\text{m}$  PS5LV process in the ON Piestany, Slovakia fab to 0.25  $\mu\text{m}$  ONC25 wafer technology located at ON Semiconductor's wafer fabrication facilities in Gresham, Oregon.

The data below is initial data. An update notification will be issued when final reliability data is available (prior to expiration of FPCN).



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### RELIABILITY DATA SUMMARY:

#### Initial Reliability Test Results:

| Test                                                      | Conditions/Sample Size                             | Results                               |
|-----------------------------------------------------------|----------------------------------------------------|---------------------------------------|
| High Temp. Operating Life Test (HTOL) Ta=125C JESD22-A108 | 168 hrs, 80 units/lot, 1 wafer lot                 | PASS                                  |
| ESD- Human Body Model (HBM) JESD22-A114                   | 3 units/V level, 1 wafer lot                       | PASS Class 1C                         |
| ESD- Machine Model (MM) JESD22-A115                       | 3 units/V level, 1 wafer lot                       | PASS Class A                          |
| Electrical Characterization (ED)                          | Ta= -40°C, 25°C, 85°C<br>30 units/lot, 1 wafer lot | See Electrical Characteristic Summary |

### ELECTRICAL CHARACTERISTIC SUMMARY:

The table below highlights the differences in electrical characteristics between the Piestany NCP1595A and the Gresham NCP1595A:

| PARAMETER                                             | PIESTANY                                     | GRESHAM                                        |
|-------------------------------------------------------|----------------------------------------------|------------------------------------------------|
| UVLO Hysteresis                                       | TYP – 180mV                                  | TYP – 275mV                                    |
| VCC Quiescent Current                                 | TYP – 900uA                                  | TYP – 1.7mA<br>MAX – 2.0mA                     |
| VCCP Quiescent Current                                | TYP – 10uA                                   | TYP – 25uA                                     |
| Vin Shutdown Supply Current                           | TYP – 1.5uA<br>MAX – 3.0uA                   | TYP – 1.8uA<br>MAX – 3.0uA                     |
| Maximum Controllable Duty Cycle                       | MAX – 100%                                   | MIN – 83%<br>TYP – 85%                         |
| Minimum ON Time                                       | TYP – 100nS                                  | TYP – 50nS                                     |
| Pulse-by-Pulse Current Limit                          | MIN – 2.0A<br>TYP – 2.5A                     | MIN – 2.7A<br>TYP – 3.9A<br>MAX – 4.3A         |
| Oscillator Frequency                                  | MIN – 0.8MHz<br>TYP – 1.0MHz<br>MAX – 1.2MHz | MIN – 0.87MHz<br>TYP – 1.0MHz<br>MAX – 1.13MHz |
| High Side MOSFET On Resistance                        | TYP – 0.2Ohms<br>MAX – 0.3Ohms               | TYP – 0.14Ohms<br>MAX – 0.2Ohms                |
| Low Side MOSFET On Resistance                         | TYP – 0.15Ohms<br>MAX – 0.22Ohms             | TYP – 0.09Ohms<br>MAX – 0.125Ohms              |
| EN High Threshold                                     | MIN – 1.8V                                   | MIN – 1.4V                                     |
| Thermal Shutdown Threshold                            | TYP – 160C                                   | TYP – 185C                                     |
| Thermal Shutdown Hysteresis                           | TYP – 30C                                    | TYP – 40C                                      |
| Absolute Maximum Rating Power Supply Pin (4,5) to GND | ABS MAX - 7.0V                               | ABS MAX - 6.5V                                 |
| Absolute Maximum Rating LX to GND                     | ABS MAX - 6.5V<br>ABS MIN - -0.3V            | ABS MAX - Vin+0.3V<br>ABS MIN - -0.6V          |
| Absolute Maximum Rating All other Pins (pins 1,6)     | ABS MAX - 6.5V                               | ABS MAX - 6.0V                                 |



**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16437**

**CHANGED PART IDENTIFICATION:**

Changed Part Identification (Date Code Marking) will be available in update notification (prior to expiration of FPCN).

**List of affected General Parts:**

**PART**

NCP1595AMNR2G

NCP1595AMNTWG

NCP1595MNR2G

NCP1595MNT2G