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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16568**

Generic Copy

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**Issue Date:** 17-Jan-2011

**TITLE:** Capacity expansions for SOIC08 Copper Wire Products into STARS Microelectronics, Thailand

**PROPOSED FIRST SHIP DATE:** 17-Apr-2011

**AFFECTED CHANGE CATEGORY(S):** Subcontractor Assembly Site

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local ON Semiconductor Sales Office or Shannon Riggs <[shannon.riggs@onsemi.com](mailto:shannon.riggs@onsemi.com)>

**SAMPLES:** Contact your local ON Semiconductor Sales Office or Shannon Riggs <[shannon.riggs@onsemi.com](mailto:shannon.riggs@onsemi.com)>

**ADDITIONAL RELIABILITY DATA:** Available  
Contact your local ON Semiconductor Sales Office

**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 <[quality@onsemi.com](mailto:quality@onsemi.com)>.

**DESCRIPTION AND PURPOSE:**

This notification is to announce ON Semiconductor is adding assembly manufacturing capacity for SOIC 08 products assembled with copper wire in STARS Microelectronics (Thailand) Public Company Limited. This change represents capacity expansion, and upon expiration of the PCN product may be sourced from STARS Microelectronics (Thailand) Public Company Limited, or any of the previously approved assembly suppliers.



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**RELIABILITY DATA SUMMARY:**

**Reliability Test Results:**

| Test        |                                  | Conditions                                  | Results     |
|-------------|----------------------------------|---|-------------|
| HAST        | Highly Accelerated Stress Test   | Ta=130C, RH=85%, 18.8 psig, w/ bias; 96 HRS | 0/240       |
| PC-AC/UHAST | AC/Unbiased HAST Preconditioned  | 121C/100%RH, 15 psig; 96 HRS                | 0/240       |
| PC-TC       | Temperature Cycle Preconditioned | -65/+150C; 1000 cycles                      | 0/240       |
| HTSL        | High Temperature Storage Life    | Ta=150C; 1000 HRS                           | 0/240       |
| WBS         | Wire Bond Shear                  |   | 0/150 bonds |
| WBP         | Wire Bond Pull                   |   | 0/150 bonds |

**ELECTRICAL CHARACTERISTIC SUMMARY:**

Product performance meets datasheet specifications.

**CHANGED PART IDENTIFICATION:**

Devices assembled by STARS Microelectronics will include the character 'S' as the identifier in the trace code. Upon expiration of the PCN devices may be sourced from either STARS Microelectronics, or previously qualified assembly locations. Manufacturing traceability will be maintained to allow identification of the assembly source.

As per JESD97, May 2004, section 5 the following information will be included to indicate the appropriate Pb-free 2<sup>nd</sup> level interconnect:

- Package labeling for material assembled in STARS will state 'e4', to indicate the use of precious metals, no Sn
- Package labeling for material assembled in previously qualified assembly locations will state 'e3' to indicate the use of Sn.



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**List of affected General Parts:**

**PART**

LM258DG  
LM258DR2G  
LM358DG  
LM358DR2G  
LM2904DG  
LM2904DR2G  
LM2904VDG  
LM2904VDR2G  
LM293DG  
LM293DR2G  
LM393DG  
LM393DR2G  
LM2903DG  
LM2903DR2G  
LM2903VDG  
LM2903VDR2G