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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION**  
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**13-APR-2004**

**SUBJECT: ON Semiconductor Final Product/Process Change Notification #13432**

**TITLE: Addition of ON Seremban as Assembly Site for 3X3 QFN Logic Products**

**EFFECTIVE DATE: 13-Jun-2004**

**AFFECTED CHANGE CATEGORY: ON Semiconductor Assembly Site**

**AFFECTED PRODUCT DIVISION: Logic Products**

**ADDITIONAL RELIABILITY DATA:** Available  
Contact your local ON Semiconductor Sales Representative or  
Ken Fergus <RRST50@onsemi.com>

**SAMPLES:** Contact your local ON Semiconductor Sales Representative  
or Nilda Lopez <R39140@onsemi.com>

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**  
Contact Sales Representative or Nilda Lopez <R39140@onsemi.com>

**NOTIFICATION TYPE:**

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 60 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:**

ON Semiconductor is pleased to announce expanded assembly capacity for 3x3QFN Logic products utilizing the ON Seremban, Malaysia facility. ON Semiconductor will implement this increase in capacity to support rapidly growing demand for these Logic products in an effort to assure our customers of ON Semiconductor's continued commitment to assured supply, on time delivery, and continuous quality improvement. Testing of these products will be performed by ON Semiconductor in the Seremban, Malaysia facility. The affected devices are currently manufactured in ASAT, Hong Kong. After expiration of this PCN, the devices listed below may be assembled at either manufacturing location.

**Final Product/Process Change Notification #13432****RELIABILITY DATA SUMMARY:****Reliability Test Results:****3 x 3 QFN NLAS44599MN, 3 assembly lots:**

<b>Test</b>	<b>Conditions</b>	<b>Results (#fail/total SS)</b>
HTOL	TA=125 deg C, 504 hrs	0/231
HTB	TA=150 deg C, 1008 hrs	0/231
Preconditioning(PC)	MSL 1, 260 C	0/693
PC -Temp Cycle	-65/+150C for 1000 cyc	0/231
PC -Autoclave	121C/100%RH/15psig for 96hrs	0/231
PC -HAST	131C/80%RH for 96 hrs	0/231
Solder Heat	260C 10 seconds	0/90
Physical Dim.	Case Outline	0/30
Wire Pull	Per Factory	0/30, Cpk >1.33
Ball Shear	Per Factory	0/30, Cpk >1.33
Die Shear	Per Factory	0/30, Cpk >1.33
Solderability	Per Jedec	0/135

**ELECTRICAL CHARACTERISTIC SUMMARY:**

All product performance meets current datasheet specifications.

**CHANGED PART IDENTIFICATION:**Product with a date code of WW23 2004 and higher may be manufactured at either site.  
Site code traceability will continue.**AFFECTED DEVICE LIST (WITHOUT SPECIALS):****PART**NLAS44599MN  
NLAS44599MNR2  
NLAST44599MN  
NLAST44599MNR2  
NLSF302MNR2  
NLSF308MNR2  
NLSF3T125MNR2  
NLSF3T126MNR2  
NLSF595MNR2