PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: N1608-01  Date: August 18, 2016
Product Affected: 8T74S208A-01NLG8(8)

MEANS OF DISTINGUISHING CHANGED DEVICES:
☐ Product Mark  Change in ordering part#
☐ Back Mark
☐ Date Code
☐ Other

Date Effective: November 18, 2016
Contact: TSD Clock Team  Attachment: Yes
E-mail: clocks@idt.com  Samples: Samples are available now.

DESCRIPTION AND PURPOSE OF CHANGE:
☐ Die Technology
☐ Wafer Fabrication Process
☐ Assembly Process
☐ Equipment
☐ Material
☐ Testing
☐ Manufacturing Site
☐ Data Sheet
☐ Other - Die Revision Change

The device 8T74S208C-01 is a redesign of the 8T74S208A-01 that eliminates an output signal integrity issue during output enable. The redesign changed the internal timing of the output enable logic: instead of turning on outputs at the same time, the new output enable circuit turns on outputs one by one (one after the other). The increased output enable time is still within the original specification of the current 8T74S208A-01 silicon. The parameters power supply current, output power supply, propagation delay (input to any output) and output rise time are updated as a consequence of the redesign. All changed parameters are listed in the tables below.

The redesign only involved changes of metal layers (connection layers). Silicon and package technology was not modified.

IDT requests a transition from the 8T74S208A-01 to the 8T74S208C-01, alternatively, we are offering a last time buy of the 8T74S208A-01 by November 18, 2016.

RELIABILITY/QUALIFICATION SUMMARY:
There is no change in die technology/process.

CUSTOMER ACKNOWLEDGMENT OF RECEIPT:
IDT records indicate that you require written notification of this change. Please use the acknowledgement below or E-Mail to grant approval or request additional information. If IDT does not receive acknowledgement within 30 days of this notice it will be assumed that this change is acceptable.

IDT reserves the right to ship either version manufactured after the process change effective date until the inventory on the earlier version has been depleted.

Customer: ____________________________  ☐ Approval for shipments prior to effective date.
Name/Date: ____________________________  E-Mail Address: ____________________________
Title: _________________________________  Phone # /Fax #: ____________________________

CUSTOMER COMMENTS:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

IDT ACKNOWLEDGMENT OF RECEIPT:
RECD. BY: ____________________________  DATE: ____________________________
The device 8T74S208C-01 is a redesign of the 8T74S208A-01 that eliminates an output signal integrity issue during output enable. The redesign changed the internal timing of the output enable logic: instead of turning on outputs at the same time, the new output enable circuit turns on outputs one by one (one after the other). The increased output enable time is still within the original specification of the current 8T74S208A-01 silicon. The parameters power supply current, output power supply, propagation delay (input to any output) and output rise time are updated as a consequence of the redesign. All changed parameters are listed in the tables below.

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### FROM: 8T74S208A-01

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Test Conditions</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDD</td>
<td>Power Supply Current</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>mA</td>
</tr>
<tr>
<td>IDDO</td>
<td>Output Supply Current</td>
<td>All Outputs are Enabled and Terminated</td>
<td>153</td>
<td>176</td>
<td></td>
<td>mA</td>
</tr>
</tbody>
</table>

### TO: 8T74S208C-01

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Test Conditions</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDD</td>
<td>Power Supply Current</td>
<td></td>
<td>54</td>
<td>64</td>
<td></td>
<td>mA</td>
</tr>
<tr>
<td>IDDO</td>
<td>Output Supply Current</td>
<td>All Outputs are Enabled and Terminated</td>
<td>155</td>
<td>182</td>
<td></td>
<td>mA</td>
</tr>
</tbody>
</table>

### Table 1: Changes in Orderable Part#

<table>
<thead>
<tr>
<th>Old Ordering Part Number</th>
<th>New Ordering Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>8T74S208A-01NLGI</td>
<td>8T74S208C-01NLGI</td>
</tr>
<tr>
<td>8T74S208A-01NLGI8</td>
<td>8T74S208C-01NLGI8</td>
</tr>
</tbody>
</table>
### Qualification Test Plan and Result:

**Qual Vehicle:** 8T74S208C-01NLGI

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Test Method (Latest specs in effect)</th>
<th>Test Results (SS / Rej)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESD: Human Body Model @ 2000V</td>
<td>JS-001-2012</td>
<td>3/0</td>
</tr>
<tr>
<td>ESD: Charged Device Model @ 500V</td>
<td>JESD22-C101</td>
<td>3/0</td>
</tr>
<tr>
<td>Latch-up</td>
<td>JESD78</td>
<td>6/0</td>
</tr>
</tbody>
</table>