## PRODUCT/PROCESS CHANGE NOTICE (PCN)

<table>
<thead>
<tr>
<th>PCN #:</th>
<th>TB1904-05</th>
<th>DATE: 13-May-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Affected:</td>
<td>F1478NLGA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F1478NLGA8</td>
<td></td>
</tr>
</tbody>
</table>

**Date Effective:** 13-Jun-2019

**Contact:** IDT PCN DESK

**E-mail:** pcndesk@idt.com

**MEANS OF DISTINGUISHING CHANGED DEVICES:**
- Product Mark
- Back Mark
- Date Code
- Other

Traceability to the test location is maintained by IDT and available on request.

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

This notification is to advise our customers that IDT is adding Sigurd, Taiwan as an alternate facility for Test process for the selective products that are presently tested in IDT Penang, Malaysia facility.

Attachment I details the change.

**RELIABILITY/QUALIFICATION SUMMARY:**

There is no expected change to the product quality or reliability performance. Please refer to Attachment I for Electrical correlation data.

**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 COMMENTS:**

**IDT ACKNOWLEDGMENT OF RECEIPT:**

RECD. BY: ____________________________  DATE: ____________________________

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*Approval for shipments prior to effective date.*

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ATTACHMENT I - PCN # : TB1904-05

PCN Type: Manufacturing Site - Alternate Test Location
Data Sheet Change: None
Detail Of Change:

This notification is to advise our customers that IDT is adding Sigurd, Taiwan as an alternate facility for Test process for the selective products that are presently tested in IDT Penang, Malaysia facility.

This change will allow IDT the flexibility to ship from either facilities and will provide the increased capacity, flexibility and shorter lead time to meet market demand.

There is no change in the Test processing flows. IDT has completed the electrical test correlation and based on the test results we do not anticipate any impact on device performance. The testing is fully compatible and transferrable between the test facilities with no change to the test coverage.

If you require samples to conduct evaluations, please contact your local sales representative to acknowledge this PCN and request samples.
**QUALIFICATION INFORMATION AND QUALIFICATION DATA:**

**ELECTRICAL TEST CORRELATION RESULTS**

Vehicle: F1478  
Sample size: 8 good and 6 reject units; 10 cycles loop test correlation

<table>
<thead>
<tr>
<th>Description</th>
<th>Existing Test (IDT, Penang)</th>
<th>Alternate Test (Sigurd, Taiwan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tester Platform</td>
<td>J750</td>
<td>Ultra Flex</td>
</tr>
<tr>
<td>Test Program</td>
<td>F1478_FT_rev0.4</td>
<td>F1478_UFlex_v1</td>
</tr>
<tr>
<td>Test Site</td>
<td>Quad Site</td>
<td>Octal Site</td>
</tr>
<tr>
<td>Test Temperature</td>
<td>Ambient</td>
<td>Ambient</td>
</tr>
<tr>
<td>Test Correlation Results</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Number of Good Units</td>
<td>8 pcs</td>
<td>8 pcs</td>
</tr>
<tr>
<td>8 good units datalog correlation</td>
<td>Passed</td>
<td>Passed</td>
</tr>
<tr>
<td>Number of Loop Test</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>8 good units datalog correlation</td>
<td>Passed</td>
<td>Passed</td>
</tr>
<tr>
<td>Number of Reject Units</td>
<td>6 pcs</td>
<td>6 pcs</td>
</tr>
<tr>
<td>6 reject units datalog correlation</td>
<td>Passed</td>
<td>Passed</td>
</tr>
</tbody>
</table>