PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: A1603-01 (R1)       DATE: 29-Jul-2016

Product Affected: 15.0mm x 15.0mm FCBGA-196
                  24.0mm x 15.5mm FCBGA-345

Refer to Attachment II for the affected part numbers

Date Effective: 11-Jul-2016

Contact: IDT PCN DESK
E-mail: pcndesk@idt.com

MEANS OF DISTINGUISHING CHANGED DEVICES:

☐ Product Mark
☐ Back Mark
☐ Date Code
☐ Other

Assembly lot marked on the device provides traceability to the material used

Attachment: Yes ☐ No ☐

Samples: Please contact your local sales representative for sample request & availability.

DESCRIPTION AND PURPOSE OF CHANGE:

☐ Die Technology
☐ Wafer Fabrication Process
☐ Assembly Process
☐ Equipment
☐ Material
☐ Testing
☐ Manufacturing Site
☐ Data Sheet
☐ Other

Revision 1: This revised notice is to advise customers that the lid adhesive material will remain unchanged as MD140. Henkel CE-3920 is added as an alternate material.

There is no change to the moisture performance.

Attachment I details the qualification data for this change and Attachment II shows the affected list of part numbers.

RELIABILITY/QUALIFICATION SUMMARY:

Refer to qualification data shown in attachment I.

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: ____________________________
ATTACHMENT I - PCN # : A1603-01 (R1)

PCN Type: Adding Alternate Materials  
Data Sheet Change: None 
No change in moisture sensitivity level (MSL)

Detail Of Change:

Revision 1: This revised notice is to advise customers that the lid adhesive material will remain unchanged as MD140. Henkel CE-3920 is added as an alternate material.

There is no change to the moisture performance of these packages.

<table>
<thead>
<tr>
<th>Description</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lid Adhesive Material</td>
<td>MD140</td>
<td>MD140 and Henkel CE-3920</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(alternate)</td>
</tr>
</tbody>
</table>
QUALIFICATION TEST PLANS AND RESULTS:

**Qual Plan & Results:** The qualification was performed in accordance with JEDEC47 recommended tests

**Qual Vehicle:**
- 15.0mm x 15.0mm FCBGA-196 (1 lot)
- 24.0mm x 15.5mm FCBGA-345 (2 lots)

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Test Method</th>
<th>Lot 1</th>
<th>Lot 2</th>
<th>Lot 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>* HAST - Unbiased (130 °C/85% RH, 96 Hrs)</td>
<td>JESD22-A118</td>
<td>25/0</td>
<td>25/0</td>
<td>25/0</td>
</tr>
<tr>
<td>* Temperature Cycle / Condition B (-55 °C to +125 °C, 700 Cycles)</td>
<td>JESD22-A104</td>
<td>25/0</td>
<td>25/0</td>
<td>25/0</td>
</tr>
<tr>
<td>High Temp. Storage Test (150 °C, 1000 Hrs)</td>
<td>JESD22-A103</td>
<td>25/0</td>
<td>25/0</td>
<td>25/0</td>
</tr>
</tbody>
</table>

Note:
* Test requires moisture pre-conditioning sequence per JESD22-A113 prior to stress test
## ATTACHMENT II - PCN # : A1603-01 (R1)

**Affected Part Numbers**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Part Number</th>
<th>Part Number</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>89HT0816APZCBLG</td>
<td>89HT0816APZCBLGI</td>
<td>89HT0832PZCBLG</td>
<td>89HT0832PZCBLGI</td>
</tr>
<tr>
<td>89HT0816APZCBLG8</td>
<td>89HT0816APZCBLGI8</td>
<td>89HT0832PZCBLG8</td>
<td>89HT0832PZCBLGI8</td>
</tr>
</tbody>
</table>