QUALIFICATION PLAN

PCN #: CYER-02AUJN965

Date:
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Qualification of 16b CSP packages at FCI assembly site. 8b CSP package will qualify by similarity.

Distribution

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Purpose: Qualification of 16b CSP packages at FCI assembly site. 8b CSP package will qualify by similarity.

MP code: T0005TFBXD50
Part No.: SST25VF080B-50-4I-ZCE
CCB No: 1224
Package type: 16-bump WLCSP
Wafer size: 200mm (8 inch)
Die Size: 2.63 x 2.95 mm
Bump pitch: 500 um
Bump height: 100 um

Device BOM:
Dielectric 1: PBO
RDL Metal: Sputtered Aluminum
Dielectric 2: PBO
UBM: Al/Ni/Au
Solder: SAC-351
<table>
<thead>
<tr>
<th>Test Type</th>
<th>Temperature Conditions</th>
<th>Duration</th>
<th>Weeks</th>
<th>Days</th>
<th>Hours</th>
<th>Vendor</th>
<th>Package</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Moisture Sensitivity</strong></td>
<td>150°C Bake for 24 hours, moisture loading requirements per MSL level 1, plus 3X reflow at peak reflow 260°C. Electrical test pre and post stress at 25°C.</td>
<td>234</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>0</td>
<td>15</td>
<td>MTAI 16L WLCSP Units mounted on interposer</td>
</tr>
<tr>
<td><strong>High Temperature Storage</strong></td>
<td>Continuation of testing of Moisture Sensitivity wafer. 150°C storage for 1000hrs or 175°C for 500 hours. Electrical test pre and post stress at 25°C.</td>
<td>77</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>0</td>
<td>50</td>
<td>MTAI 16L WLCSP Interposer Units</td>
</tr>
<tr>
<td><strong>Temp Cycles</strong></td>
<td>-65°C to +150°C for 500 cycles. Electrical test pre and post stress at 25°C.</td>
<td>77</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>0</td>
<td>15</td>
<td>MTAI 16-WLCSP Interposer Units</td>
</tr>
<tr>
<td><strong>Biased HAST</strong></td>
<td>110°C/85% RH for 264 hours. Electrical test pre and post stress at 25°C. Read points at 0, 96 and 264 hrs.</td>
<td>40</td>
<td>5</td>
<td>3</td>
<td>45</td>
<td>0</td>
<td>15</td>
<td>MTAI 16-WLCSP Interposer Units</td>
</tr>
<tr>
<td><strong>unBiased HAST</strong></td>
<td>110°C/85% RH for 264 hours. Electrical test pre and post stress at 25°C. Read points at 0, 96 and 264 hrs. (no bias)</td>
<td>40</td>
<td>5</td>
<td>3</td>
<td>45</td>
<td>0</td>
<td>15</td>
<td>MTAI 16-WLCSP Interposer Units</td>
</tr>
<tr>
<td><strong>High Temp Bake and Low Speed Ball Shear</strong></td>
<td>Bake conditions 150°C for 1000hrs or 175°C for 500hrs. Low speed shear per condition A or high speed shear per condition B of JESD22-B117</td>
<td>30 ball Shears from minimum of 5 devices (WLCSP Die or Wafer Level)</td>
<td>1</td>
<td>150</td>
<td>0</td>
<td>15</td>
<td>Vendor 16-WLCSP</td>
<td></td>
</tr>
</tbody>
</table>