# Process Change Notification Form

<table>
<tr><td><b>PCN Number:</b></td><td>PCN_0299_Normandy_SCC</td></tr>
<tr><td><b>Date of Notification:</b></td><td>6/15/2010</td></tr>
<tr><td><b>Cirrus Logic P/N(s):</b></td><td>CS8952-CQZ<br>CS8952-CQZR<br>CS8952-IQZ<br>CS8952-IQZR</td></tr>
<tr><td><b>Date PCN Effective:</b></td><td>9/15/2010</td></tr>
<tr><td><b>Reason for Change:</b></td><td>☐ Design /New Rev. ☐ Fab Site ☐ Fab Process ☐ Additional Fab Source<br>☐ Assembly Site ☐ Assembly Process ☒ Additional Assembly Source<br>☐ Other (specify)</td></tr>
<tr><td><b>Description of Change:</b></td><td>☐ Fix errata ☐ Yield enhancement ☐ Fix known bug ☐ Performance Improvement<br>☒ Other<br><br>Addition of assembly site SCC.<br><br>Summary of Bill of Material Change:<br><br>
<table>
<tr><td>100LQZ</td><td>Current - SPIL</td><td>New Site - SCC</td></tr>
<tr><td>Mold Compound</td><td>Sumitomo G700</td><td>No Change</td></tr>
<tr><td>Die Attach</td><td>Sumitomo 1033BF</td><td>Ablebond 3230</td></tr>
<tr><td>Wire</td><td>1.0 mil Au</td><td>No Change</td></tr>
<tr><td>Leadframe</td><td>Cu 256 x 256 mil</td><td>No Change</td></tr>
<tr><td>Finish</td><td>Matte Sn, 100%</td><td>No Change</td></tr>
</table>
</td></tr>
<tr><td><b>Cirrus Logic P/N Change:</b></td><td>☐ Yes, New Part Number:<br>☒ No</td></tr>
<tr><td><b>Pack Mark Change:</b></td><td>☒ Yes ☐ No<br><b>If Yes, briefly explain: Two character field in Pack Mark used to denote assembly facility will change from “WA” to “BA”, signifying StatsChipPac China</b>.<br><b>Country of origin will change from Taiwan to China.</b></td></tr>
<tr><td><b>Lot Effective Date:</b></td><td>Material manufactured with date code 1035 and later.<br><i>[Contact the area sales representative for availability of samples if applicable]</i></td></tr>
<tr><td><b>Quality & Reliability impact:</b></td><td><b>***See Below***</b><br>Qualification Data: ☒ Required ☐ Not Required</td></tr>
<tr><td><b>Datasheet Change Required?</b></td><td>☐ Yes ☒ No<br>If Yes, briefly explain:</td></tr>
<tr><td><b>Software Change Required?</b></td><td>☐ Yes ☒ No<br>If Yes, briefly explain:</td></tr>
</table>

# RELIABILITY QUALIFICATION REPORT

**Report Date:** 9/30/2009

## Reliability Report: QRR090920

### Subject/Purpose:

This is to qualify the Bill Of Materials change at STATSChipPAC (China) for the Pb-free 64 lead and 100 lead LQFP packages to Sumitomo G700 mold compound and Ablebond 3230 epoxy.

### APPROVALS:

Rod Boutwell
**Reliability Engineering**

### Results:

Qualification successful.

### STATUS:

Complete - Pass

| Stress | Conditions | Method | Duration | Lot | Results (Fail/Sample) |
|---|---|---|---|---|---|
| Precondition MSL-3<br>QJ1842 (Similarity)<br>QJ1844 (Similarity)<br>QJ1845 (Similarity)<br>QJ1846<br>QJ1847<br>QJ1848<br>QJ1849<br>QJ1850 (Similarity)<br>QJ1851 (Similarity) | 24HR 125 °C Bake<br>192HR 30°C/60%RH Soak<br>3 pass 260 °C Convection reflow | JESD22-A113 | Precondition | 1 | 0/154 |
| | | | Precondition | 2 | 0/231 |
| | | | Precondition | 3 | 0/22 |
| | | | Precondition | 4 | 0/22 |
| | | | Precondition | 5 | 0/77 |
| | | | Precondition | 6 | 0/22 |
| | | | Precondition | 7 | 0/231 |
| | | | Precondition | 8 | 0/22 |
| | | | Precondition | 9 | 0/231 |

### Background Information:

**Part #:** CS8900A **Rev:** H **Fab:** MagnaChip (F) **Lead Finish:** Pb-free
**Package:** 100LQFP **Assembly:** STATSChipPAC (China)

**Prepared by:** Rod Boutwell

| Stress | Conditions | Method | Duration | Lot | Results (Fail/sample) |
|---|---|---|---|---|---|
| THB<br>QJ1794 (Similarity)<br>QJ1795 (Similarity)<br>QJ1806<br>QJ1808 (Similarity) | 85 °C<br>85 %RH<br>5.25 Volts<br>Static | JESD22-A101 | 1000 Hours | 1 | 0/77 |
| | | | 1000 Hours | 2 | 0/77 |
| | | | 1000 Hours | 3 | 0/77 |
| | 85 °C<br>85 %RH<br>5.0 Volts<br>Static | | 1000 Hours | 4 | 0/77 |
| Temperature Cycle cond. C<br>QJ1842 (Similarity)<br>QJ1844 (Similarity)<br>QJ1849<br>QJ1851 (Similarity) | -65 °C<br>+150 °C<br>air to air | JESD22-A104 | 500 Cycles | 1 | 0/77 |
| | | | 500 Cycles | 2 | 0/77 |
| | | | 500 Cycles | 3 | 0/77 |
| | | | 500 Cycles | 4 | 0/77 |
| Tomography (CSAM)<br>QJ1842 (Similarity)<br>QJ1844 (Similarity)<br>QJ1845 (Similarity)<br>QJ1846<br>QJ1848<br>QJ1849<br>QJ1850 (Similarity)<br>QJ1851 (Similarity) | | J-STD-035 | Post Temp Cycle | 1 | 0/11 |
| | | | Post Temp Cycle | 2 | 0/11 |
| | | | Post Precon | 3 | 0/22 |
| | | | Post Precon | 4 | 0/22 |
| | | | Post Precon | 5 | 0/22 |
| | | | Post Temp Cycle | 6 | 0/11 |
| | | | Post Precon | 7 | 0/22 |
| | | | Post Temp Cycle | 8 | 0/11 |

## Background Information:

**Part #:** CS8900A **Rev:** H **Fab:** MagnaChip (F) **Lead Finish:** Pb-free
**Package:** 100LQFP **Assembly:** STATSChipPAC (China)

| Stress | Conditions | Method | Duration | Lot | Results (Fail/sample) |
|---|---|---|---|---|---|
| Autoclave/PPOT<br>QJ1844 (Similarity)<br>QJ1847<br>QJ1849<br>QJ1851 (Similarity) | 121 °C<br>15 psig<br>100% R.H. | JESD22-A102 | 96 Hours | 1 | 0/77 |
| | | | 96 Hours | 2 | 0/77 |
| | | | 96 Hours | 3 | 0/77 |
| | | | 96 Hours | 4 | 0/77 |
| Solderability<br>QJ1842 (Similarity)<br>QJ1849<br>QJ1851 (Similarity) | 93 °C steam aging<br>8 Hours<br>245 °C solder bath<br>5 Seconds | JESD22-B102 | Solderability | 1 | 0/15 |
| | | | Solderability | 2 | 0/15 |
| | | | Solderability | 3 | 0/15 |
| HTSL (High Temp Storage Life)<br>QJ1842 (Similarity)<br>QJ1849<br>QJ1851 (Similarity) | 150 °C | JESD22-A103 | 500 Hours | 1 | 0/77 |
| | | | 1000 Hours | 1 | 0/77 |
| | | | 500 Hours | 2 | 0/77 |
| | | | 1000 Hours | 2 | 0/77 |
| | | | 500 Hours | 3 | 0/77 |
| | | | 1000 Hours | 3 | 0/77 |

## Background Information:

**Part #:** CS8900A **Rev:** H **Fab:** MagnaChip (F) **Lead Finish:** Pb-free
**Package:** 100LQFP **Assembly:** STATSChipPAC (China)

**Cirrus Logic PCN administrator:** ______________________________

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## Acknowledgement of Receipt of Notice:

**Does customer waive PCN Effective Date?** ☐ **YES** ☐ **NO**

**Company Name:** ____________________________________________________________________

**Name** (please print)**:** ________________________________________**Title:** ____________________________________

**Signature:** ________________________________________________**Date:** ___________________________________

***Customer Representative is to obtain the customer acknowledgement/signature and return this notification to Cirrus Logic Corp. Quality, attn: PCN administrator at fax number (512) 851-4656***

***NOTE: Lack of acknowledgement within 30 days of the date of notice, constitutes acceptance of change. (Reference JEDEC Industry Standard: JESD-46)***