





Integrated Device Technology, Inc.  
6024 Silver Creek Valley Road, San Jose, CA - 95138

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT I - PCN # : A1312-09

**PCN Type:** Alternate Bump and Assembly Location

**Data Sheet Change:** None

No change in moisture sensitivity level (MSL)

#### Detail Of Change:

This notification is to advise our customers that IDT is adding Amkor, Taiwan as an alternate bump and assembly facility.

The material sets used at Amkor, Taiwan are qualified IDT materials.

There is no change to the moisture performance of these packages using the assembly material sets as listed in the below table.



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Table 1: Assembly Material Sets for the Existing Assembly & Alternate Assembly

| Package Type | Material Set / Assembly     | Existing            | Add                 |
|--------------|-----------------------------|---------------------|---------------------|
|              |                             | ASEK, Taiwan        | Amkor, Taiwan       |
| BR400, BR784 | Heat spreader thermo grease | SE4450              | DCL 5               |
|              | Adhesive                    | AA01                | MD140               |
|              | Die bump                    | 63Sn37Pb            | 63Sn37Pb            |
|              | Underfill                   | UH12                | NAU-27              |
|              | Substrate                   | ABF GX13/ E679 core | ABF GX13/ E679 core |
|              | Solder balls                | Sn96.5/Ag3.0/Cu0.5  | Sn96.5/Ag3.0/Cu0.5  |
| HR400        | Heat spreader thermo grease | SE4450              | SHA-1               |
|              | Adhesive                    | SE4450              | DCL-4               |
|              | Die bump                    | 63Sn37Pb            | 63Sn37Pb            |
|              | Underfill                   | UH12                | NAU-27              |
|              | Substrate                   | ABF GX13/ E679 core | ABF GX13/ E679 core |
|              | Solder balls                | Sn96.5/Ag3.0/Cu0.5  | Sn96.5/Ag3.0/Cu0.5  |
| HM784        | Heat spreader thermo grease | N/A                 | N/A                 |
|              | Adhesive                    | N/A                 | N/A                 |
|              | Die bump                    | 63Sn37Pb            | 63Sn37Pb            |
|              | Underfill                   | UH12                | NAU-27              |
|              | Substrate                   | ABF GX13/ E679 core | ABF GX13/ E679 core |
|              | Solder balls                | Sn63/Pb37           | Sn63/Pb37           |
| RM400, RM784 | Heat spreader thermo grease | N/A                 | N/A                 |
|              | Adhesive                    | N/A                 | N/A                 |
|              | Die bump                    | 63Sn37Pb            | 63Sn37Pb            |
|              | Underfill                   | UH12                | NAU-27              |
|              | Substrate                   | ABF GX13/ E679 core | ABF GX13/ E679 core |
|              | Solder balls                | Sn96.5/Ag3.0/Cu0.5  | Sn96.5/Ag3.0/Cu0.5  |



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**Qualification Test Plans and Results :**

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

**Qual Vehicle:** 29.0mm x 29.0mm FCBGA-784 (3 lots)

| Test Description   | Test Method       | Test Results (SS / Rej) |       |       |
|--|-------------------|-------------------------|-------|-------|
|  |                   | Lot 1                   | Lot 2 | Lot 3 |
| * Temperature Humidity Biased (85 °C/85% RH, 1000 Hrs)         | JESD22-A101       | 25/0                    | 25/0  | 25/0  |
| * Temperature Cycle / Condition B (-55 °C to +125 °C, 700 Cyc) | JESD22-A104       | 30/0                    | 30/0  | 30/0  |
| High Temp. Storage Test (150 °C, 1000 Hrs)                     | JESD22-A103       | 30/0                    | 30/0  | 30/0  |
| Solder Ball Shear Test (1000 Hrs)                              | JESD22-B117       | 10/0                    | -     | -     |
| External Visual Inspection                                     | JESD22-B101       | 25/0                    | -     | -     |
| X-ray Examination  | IDT Spec MAC-3012 | 45/0                    | -     | -     |

Note:

\* Test requires moisture pre-conditioning sequence per JESD22-A113 prior to stress test



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### ATTACHMENT II - PCN # : A1312-09

#### Affected Part Numbers

| Part Number     | Part Number     | Part Number     | Part Number     |
|-----------------|-----------------|-----------------|-----------------|
| 80HCPS1616CHR   | 80HCPS1848CBRI  | 80HSPS1616CHR   | 80HVPS1616CBRI  |
| 80HCPS1616CHR8  | 80HCPS1848CBRI8 | 80HSPS1616CHR8  | 80HVPS1616CBRI8 |
| 80HCPS1616CHRI  | 80HCPS1848CHM   | 80HSPS1616CHRI  | 80HVPS1616RM    |
| 80HCPS1616CHRI8 | 80HCPS1848CHM8  | 80HSPS1616CHRI8 | 80HVPS1616RM8   |
| 80HCPS1616CRM   | 80HCPS1848CHMI  | 80HSPS1616CRM   | 80HVPS1616RMI   |
| 80HCPS1616CRM8  | 80HCPS1848CHMI8 | 80HSPS1616CRM8  | 80HVPS1616RMI8  |
| 80HCPS1616CRMI  | 80HCPS1848CRM   | 80HSPS1616CRMI  | 80HVPS1848CRM   |
| 80HCPS1616CRMI8 | 80HCPS1848CRM8  | 80HSPS1616CRMI8 | 80HVPS1848CRM8  |
| 80HCPS1848CBR   | 80HCPS1848CRMI  | 80HVPS1616CBR   | 80HVPS1848CRMI  |
| 80HCPS1848CBR8  | 80HCPS1848CRMI8 | 80HVPS1616CBR8  | 80HVPS1848CRMI8 |