



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

|                                                           |                         |                                                                                                                                                                                                            |
|-----------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PCN #: <b>A1701-01</b>                                    | DATE: <b>9-Feb-2017</b> | MEANS OF DISTINGUISHING CHANGED DEVICES:<br><input type="checkbox"/> Product Mark<br><input checked="" type="checkbox"/> Back Mark<br><input type="checkbox"/> Date Code<br><input type="checkbox"/> Other |
| Product Affected: 4DB0226KA3AVG(8)<br>(built in FCCSP-53) |                         |                                                                                                                                                                                                            |
| Date Effective: <b>9-May-2017</b>                         |                         | Lot # will have:<br>"B" prefix for SCK, Korea                                                                                                                                                              |

|                                                              |                                                                                 |
|--------------------------------------------------------------|---------------------------------------------------------------------------------|
| Contact: IDT PCN DESK                                        | Attachment: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| E-mail: <a href="mailto:pcndesk@idt.com">pcndesk@idt.com</a> | Samples: Please contact your local sales representative for sample request.     |

### DESCRIPTION AND PURPOSE OF CHANGE:

|                                                        |                                                                                                                                                                                                       |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Die Technology                | This notification is to advise our customers that IDT is adding STATS ChipPAC Korea (SCK) as an alternate assembly facility for parts that are currently assembled at ASEK, Taiwan and ASECL, Taiwan. |
| <input type="checkbox"/> Wafer Fabrication Process     |                                                                                                                                                                                                       |
| <input type="checkbox"/> Assembly Process              | There is no change to the moisture performance.                                                                                                                                                       |
| <input type="checkbox"/> Equipment                     |                                                                                                                                                                                                       |
| <input type="checkbox"/> Material                      | Attachment I details the qualification results.                                                                                                                                                       |
| <input type="checkbox"/> Testing                       |                                                                                                                                                                                                       |
| <input checked="" type="checkbox"/> Manufacturing Site |                                                                                                                                                                                                       |
| <input type="checkbox"/> Data Sheet                    |                                                                                                                                                                                                       |
| <input type="checkbox"/> Other                         |                                                                                                                                                                                                       |

### 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: _____          | <input type="checkbox"/> <b>Approval for shipments prior to effective date.</b> |
| Name/Date: _____         | E-Mail Address: _____                                                           |
| Title: _____             | Phone# /Fax# : _____                                                            |
| CUSTOMER COMMENTS: _____ |                                                                                 |

### IDT ACKNOWLEDGMENT OF RECEIPT:

RECD. BY: \_\_\_\_\_ DATE: \_\_\_\_\_



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### ATTACHMENT I - PCN # : A1701-01

**PCN Type:** Manufacturing Site - Alternate 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 STATS ChipPAC Korea (SCK) as an alternate assembly facility for parts that are currently assembled at ASEK, Taiwan and ASECL, Taiwan.

The material set details of the current and alternate assembly location is as shown in Table 1.

There is no change to the moisture performance.

Table 1: Assembly Material Sets for The Existing and Alternate Assembly Location

|               | Existing Assembly<br>(ASECL, Taiwan) | Existing Assembly<br>(ASEK, Taiwan) | Alternate Assembly<br>(SCK, Korea) |
|---------------|--------------------------------------|-------------------------------------|------------------------------------|
| Die Bump      | Sn1.8Ag                              | Sn1.8Ag                             | Sn1.8Ag                            |
| Mold Compound | KE-G1250FC-20B                       | KE-G1250FC-20B                      | KEG-1250FC-K                       |
| Substrate     | ABF-GX13/E700GR core                 | ABF-GX13/E700GR core                | ABF-GX13/E700GR core               |
| Solder Balls  | Sn/Ag1.2/Cu0.50/Ni0.05               | Sn/Ag1.2/Cu0.50/Ni0.05              | Sn/Ag1.2/Cu0.50/Ni0.05             |



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### ATTACHMENT I - PCN # : A1701-01

#### Qualification Information and Qualification Data:

**Affected Packages:** FCCSP-53

**Assembly Material:** Shown on page 2 of this attachment.

**Qual Plan & Results:** Tests are in accordance with JEDEC47 recommended tests.

**Qualification Vehicle:** FCCSP-53

| Test Description                                      | Test Method                 | Test Results (Rej / SS) |       |       |
|-------------------------------------------------------|-----------------------------|-------------------------|-------|-------|
|                                                       |                             | Lot 1                   | Lot 2 | Lot 3 |
| * Temperature Cycling<br>(-55°C to 125°C, 700 cycles) | JESD22-A104                 | 0/25                    | 0/25  | 0/25  |
| * HAST - biased<br>(130 °C/85% RH, 96 Hrs)            | JESD22-A110                 | 0/25                    | 0/25  | 0/25  |
| High Temperature Storage Bake<br>(150°C, 1000 Hrs)    | JESD22-A103                 | 0/25                    | 0/25  | 0/25  |
| Solder Ball Shear Test                                | JESD22-B117                 | 0/5                     | 0/5   | 0/5   |
| Moisture Sensitivity Level, MSL                       | J-STD-20 /<br>MSL 3, 260 °C | 0/25                    | 0/25  | -     |

\* Tests were subjected to Preconditioning per JESD22-A113 prior to stress test