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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **A1902-01** DATE: **12-Mar-2019**

Product Affected: 4DB0226KB0AVG
4DB0226KB0AVG8
4DB0226KB0AVG/M
4DB0226KB0AVG8/M

Date Effective: **12-Jun-2019**

MEANS OF DISTINGUISHING CHANGED DEVICES:

- ☐ Product Mark
- ■ Back Mark
- ☐ Date Code
- ☐ Other

Lot # will have:
"RC" prefix for ASECL, Taiwan
"B" prefix for SCK, Korea
and substrate material used is traceable from lot#

Contact: IDT PCN DESK

E-mail: pcndesk@idt.com

Attachment: ■ Yes ☐ No

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

DESCRIPTION AND PURPOSE OF CHANGE:

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

This notification is to advise our customers that IDT is adding ASECL as an alternate assembly and add UMTC as alternate substrate at the existing assembly STATS ChipPAC Korea (SCK).

There is no change to the moisture performance.

Attachment I details the qualification results.

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: _____

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PRODUCT/PROCESS CHANGE NOTICE (PCN)

ATTACHMENT I - PCN # : A1902-01

PCN Type: Manufacturing Site - Alternate Assembly Location & Alternate material sets

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 ASECL as an alternate assembly and add UMTC as alternate substrate at the existing assembly STATS ChipPAC Korea (SCK).

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 (ASEK, Taiwan)	**Existing Assembly (SCK, Korea)**	**Alternate Assembly (ASECL, Taiwan)**	**Alternate Substrate (SCK, Korea)**
Die Bump	Cu/Ni/SnAg1.8 (40/3/27um)	Cu/Ni/SnAg1.8 (40/3/27um)	Cu/Ni/SnAg1.8 (40/3/27um)	Cu/Ni/SnAg1.8 (40/3/27um)
Mold Compound	EME-G311A Type C	KEG-1250FC-K	EME-G311A Type C	KEG-1250FC-K
Substrate	UMTC HL832NS/AUS410	Kinsus HL832NS/AUS410	UMTC HL832NS/AUS410	UMTC HL832NS/AUS410
Solder Balls	Sn/Ag1.2/Cu0.50/Ni0.05	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 # : A1902-01

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

(I) ASECL, Taiwan

Test Description	Test Method	Test Results (Rej / SS)		
		Lot 1	Lot 2	Lot 3
* Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0/25	0/25	0/25
* HAST - unbiased (130 °C/85% RH, 96 Hrs)	JESD22-A108	0/25	0/25	0/25
High Temperature Storage Bake (150°C, 1000 Hrs)	JESD22-A103	0/25	0/25	0/25
Moisture Sensitivity Level, MSL	J-STD-20 / MSL 3, 260 °C	0/25	0/25	0/25

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

(II) SCK, Korea

Test Description	Test Method	Test Results (Rej / SS)		
		Lot 1	Lot 2	Lot 3
* Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0/25	0/25	0/25
* HAST - unbiased (130 °C/85% RH, 96 Hrs)	JESD22-A108	0/25	0/25	0/25
High Temperature Storage Bake (150°C, 1000 Hrs)	JESD22-A103	0/25	0/25	0/25
Moisture Sensitivity Level, MSL	J-STD-20 / MSL 3, 260 °C	0/25	0/25	0/25

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