

## Product Change Notice (PCN)

**Subject:** Add SCK, Korea as Alternate Assembly Location with Simmtech Substrate

**Publication Date:** 11/4/2020

**Effective Date:** 12/4/2020

**Revision Description:**

Initial Release

**Description of Change:**

Renesas is adding SCK, Korea as an alternate Assembly Location with Simmtech substrate for select products.

The current assembly locations are ASEC, Taiwan and Amkor, Korea with UMTC substrate.

The material sets of the current and the alternate assembly locations are as shown in the below table. There are changes in the material sets including the substrate material supplier. It is crucial to qualify an alternate substrate supplier, Simmtech as a result of the operation of the UMTC SY factory has been halted due to the recent massive fire. The operation may not resume in near term.

There will be no change in the moisture sensitive level.

Material Sets	Existing Assembly ASEC, Taiwan	Existing Assembly Amkor, Korea	Alternate Assembly SCK, Korea
Die Bump	Copper Pillar 40Cu/3Ni/27SnAg	Copper Pillar 40Cu/3Ni/27SnAg	Copper Pillar 40Cu/3Ni/27SnAg
Mold Compound	EME-G311A Type C	MUF-32	KE-G1250FC-K
Substrate/Supplier	HL832NS-E GHPL830NS+AUS410 (UMTC)	HL832NS-E GHPL830NS+AUS410 (UMTC)	HL832NS-E GHPL830NS+AUS410 (SIMMTECH)
Solder Balls	0.3mm LF35	0.3mm LF35	0.3mm LF35

**Affected Product List:** 4DB0232KD1AVG, 4DB0232KD1AVG8, 4DB0232KD1AVG/M, 4DB0232KD1AVG8/M

**Reason for Change:**

To provide increased capacity and second source.

**Impact on Fit, Form, Function, Quality & Reliability:**

The change will have no impact on the form, fit, function, quality, reliability and environmental compliance of the products.

**Product Identification:**

Assembly lot# with prefix B denotes lot assembled in SCK, Korea.

**Qualification Status:** Completed successfully. Refer Appendix A

**Sample Availability Date:** 11/15/2020

**Device Material Declaration:** Available upon request

**Note:**

1. Acknowledgement must be received by Renesas within 30 days or Renesas will consider the change as approved.
2. If timely acknowledgement is provided by Customer, then Customer shall have 90 days from the date of receipt of this PCN to make any objections to this PCN. If Customer fails to make objections to this PCN within 90 days of the receipt of the PCN then Renesas will consider the PCN changes as approved.
3. If customer cannot accept the PCN then customer must provide Renesas with a last time buy demand and purchase order.

**For additional information regarding this notice, please contact [idt-pcn@lm.renesas.com](mailto:idt-pcn@lm.renesas.com)**

**Appendix A - Qualification Results**

**Affected Packages:** FCCSP-53

**Qual Vehicle:** FCCSP-53

**Assembly Material:** As shown in page 1

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

Test Descriptions	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 - biased (130 °C/85% RH, 96 Hrs)	JESD22-A110	0/25	0/25	0/25
* HAST - unbiased (130 °C/85% RH, 96 Hrs)	JESD22-A118	0/25	0/25	0/25
High Temperature Storage Bake (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 / MSL 3, 260 °C	0/25	0/25	-

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