

## Product Change Notice (PCN)

**Subject:** Add Alternate Substrate Supplier for Select CABGA and FCBGA Packages

**Publication Date:** 6/25/2020

**Effective Date:** 9/25/2020

**Revision Description:**

Initial Release

**Description of Change:**

Renesas is adding UMTC, Taiwan as an alternate substrate supplier for package CABGA-96, CABGA-196, FCBGA-345 and FCBGA-576.

The current substrate supplier is Kinsus, Taiwan.

The material comparison of the current and the alternate substrate supplier are as shown in the below table. There will be no change in the moisture sensitive level.

Descriptions	Existing Supplier Kinsus Taiwan				New Supplier UMTC Taiwan			
	HMG576	BFG96	HLG345	BCG196	HMG576	BFG96	HLG345	BCG196
Substrate Structure	3/2/3	4 Layer	3/2/3	4 Layer	3/2/3	4 Layer	3/2/3	4 Layer
Bottom Solder Mask Layer	Taiyo PSR4000 AUS703-140Ps	Taiyo PSR4000 AUS308	Taiyo PSR4000 AUS703-140Ps	Taiyo PSR4000 AUS308	Taiyo PSR4000 AUS703-140Ps	Taiyo PSR4000 AUS308	Taiyo PSR4000 AUS703-140Ps	Taiyo PSR4000 AUS308
Build up	ABF GX13	GHPL830NX-A	ABF GX13	GHPL830NX-A	ABF GX13	GHPL830NX-A	ABF GX13	GHPL830NX-A
Core Layer	E679FGBR or E679FGR	HL832-NX-A	E700GR	HL832-NX-A	E679FGBR or E679FGR	HL832-NX-A	E700GR	HL832-NX-A

**Affected Product List:** Refer Appendix B.

**Reason for Change:**

To provide second source and flexibility of supply.

**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:**

Date code

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

**Sample Availability Date:** 7/20/2020

**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:** CABGA-96, CABGA-196, FCBGA-345 and FCBGA-576

**Qual Vehicle:** FCBGA-576

**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 - 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
Physical Dimensions	JESD22-B100	0/30	0/30	0/30
Die Shear Test	MIL-STD-883 (Method 2019)	0/5	0/5	0/5
Moisture Sensitivity Level, MSL	J-STD-20 / MSL 4, 245 °C	0/25	0/25	-

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

**Appendix B – Affected Product List**

74SSTUBF32866BBFG	89HPES5T5ZBBCG8	89HPES8T5AZBBCG8	89HT0832PGZCHLG18
74SSTUBF32866BBFG8	89HPES5T5ZBBCGI	89HPES8T5AZBBCGI	89HT0832PZCHLG
80HCPS1432CHMG	89HPES5T5ZBBCGI8	89HPES8T5AZBBCGI8	89HT0832PZCHLG8
80HCPS1432CHMG/AL	89HPES6T5ZBBCG	89HT0832PGHLG	89HT0832PZCHLGI
80HCPS1432CHMGI	89HPES6T5ZBBCG8	89HT0832PGHLGI	89HT0832PZCHLG18
80HCPS1432CHMH	89HPES6T5ZBBCGI	89HT0832PGZCHLG	
80HCPS1432CHMHI	89HPES6T5ZBBCGI8	89HT0832PGZCHLG8	
89HPES5T5ZBBCG	89HPES8T5AZBBCG	89HT0832PGZCHLGI	