

Product Change Notice (PCN)

Subject: Add Alternate Assembly Location on Select Devices from FCCSP-240

Publication Date: 5/2/2024

Effective Date: 8/1/2024

Revision Description:

Initial Release

Description of Change:

Renesas is adding ATK, Korea as an alternate Assembly location on select devices from FCCSP-240. The alternate assembly location is the current qualified location for Renesas. The material sets of the current and the alternate assembly location are as shown in the below table. There will be changes in the material sets at the alternate location.

There will be no changes in the moisture sensitive level as a result of this change.

Material Sets	Existing Assembly ASEC, Taiwan	Alternate Assembly ATK, Korea
Die Bump	Copper Pillar 37Cu/3Ni/27SnAg	Copper Pillar 37Cu/3Ni/27SnAg
Mold Compound	EME-G311AC	EME-G355
Substrate/Supplier	GHPL830NS+SR1 (UMTC)	GHPL830NS+SR1 (SIMMTECH)
Solder Balls	0.3mm LF35	0.3mm LF35

Affected Product List: RG5R256A0COGBY#BC0, RG5R256A0COGBY#HC0, RG5R256A1COGBY#BC0 and RG5R256A1COGBY#HC0.

Reason for Change:

The change is to create dual source to secure business continuity.

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# prefix denote Assembly Location

Prefix	Assembly Location
RC	ASEC Taiwan
D	ATK Korea

Qualification Status: Completed. Refer Appendix A
Sample Availability Date: One month from customer request
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

Package Qualification Report

Date: 4/24/2024

Product : RG5R256A1C0			
Fab Base:	AC957T001-FW	Process Technology:	CLN22ULL, 1P8M
Package Types:	FCCSP 240	Fab Location:	TSMC
Qual Plan:	P23-05-002	Assembly Location:	AMKOR, KOREA

Test Description	Conditions	Sample Size	Results (rej/SS)	Comments
Temperature Cycling ¹	JESD22-A104, -55°C to +125°C, 1000 cycles	77 x 3 lots	0/77, 3 lots	Pass
Highly Accelerated Temperature and Humidity stress (Biased) ¹	JESD22-A110, +130°C, 85% R.H., V _{CCmax} , 96 hrs	77 x 3 lots	0/77, 3 lots	Pass
Unbiased Highly Accelerated Temperature and Humidity stress (Unbiased) ¹	JESD22-A118, +130°C, 85% R.H., 96 hrs	77 x 3 lots	0/77, 3 lots	Pass
High Temperature Storage Life	JESD22-A103, +150°C, 1000 hrs	77 x 3 lots	0/77, 3 lots	Pass
Physical Dimension	JESD22-B100 (Per applicable Renesas Package Outline Drawing)	30 x 3 lots	0/30, 3 lots	Pass
Solder Ball Shear	JESD22-B117	5 x 3 lots	0/5, 3 lots	Pass
Moisture Classification	J-STD-020, MSL 3	77 x 3 lots	0/77, 3 lots	Pass

Note:

1. With preconditioning per JESD22-A113, MSL3 (260°C)