

Product Change Notice (PCN)

Subject: Notice of Change of Lead Frame for RA6M2/RA6M3/S3A3/S5D5/S5D9 Series LFQFP Package Products

Publication Date: 5/27/2025

Effective Date: 9/1/2025

Revision Description: Initial release

Description of Change:

Applicable products: RA Family RA6M2/RA6M3 Series and SYNERGY Family S3A3/S5D5/S5D9 LFQFP-144 pin products.

The back-end factory: Renesas Semiconductor (Beijing) Co., Ltd

Changes: The lead frame will be changed.

Affected Product List:

Refer to the Product List in the appendix below.

Reason for Change:

To ensure a stable supply.

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

This change will not affect fitting, form, function, quality, and reliability.

Product Identification:

Our production history data can be queried by using the trace code of the product.

Qualification Status:

Completed. Please contact Renesas sales, distributor, or agency.

Sample Availability Date: 9/1/2025

Any requests for samples must be received by 6/30/2025.

Please contact Renesas sales, distributor, or agency.

Device Material Declaration:

Please contact our sales representatives or distributors.

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 your Renesas sales representative.

Appendix: Product List

No.	Part Number	Package Type	No. of Pins
1	R7FA6M2AD3CFB#AA0	LFQFP	144
2	R7FA6M2AD3CFB#BA0	LFQFP	144
3	R7FA6M2AF3CFB#AA0	LFQFP	144
4	R7FA6M2AF3CFB#BA0	LFQFP	144
5	R7FA6M3AF3CFB#AA0	LFQFP	144
6	R7FA6M3AF3CFB#BA0	LFQFP	144
7	R7FA6M3AF3CFB#HA0	LFQFP	144
8	R7FA6M3AH3CFB#AA0	LFQFP	144
9	R7FA6M3AH3CFB#BA0	LFQFP	144
10	R7FS3A37A3A01CFB#AA0	LFQFP	144
11	R7FS3A37A3A01CFB#BA0	LFQFP	144
12	R7FS5D57A3A01CFB#AA1	LFQFP	144
13	R7FS5D57A3A01CFB#BA1	LFQFP	144
14	R7FS5D57C3A01CFB#AA1	LFQFP	144
15	R7FS5D57C3A01CFB#BA1	LFQFP	144
16	R7FS5D57C3A01CFB#HA1	LFQFP	144
17	R7FS5D97C3A01CFB#AA0	LFQFP	144
18	R7FS5D97C3A01CFB#BA0	LFQFP	144
19	R7FS5D97E3A01CFB#AA0	LFQFP	144
20	R7FS5D97E3A01CFB#BA0	LFQFP	144

• Appendix

1. Overview of Changed Materials

Item	Before Change	After Change	Note
Assembly factory	Renesas Semiconductor (Beijing) Co., Ltd		--
Final test factory			--
Lead frame	Lead frame A	Lead frame B (However, the material is same)	--
	Die bond	No change	--
	Mold resin (resin materials)	No change	--
Package	Outline	No change	--
Marking	Font	No change	--

* There will be no impact on product's reliability and specification.

2. 4M changing points (Modification and addition of assembly process members)

Item	Check result	Judgement
Machine	It is the same as the current product.	No risk
Method	It is the same as the current product.	No risk
Man	It is the same as the current product.	No risk
Material	We will only use certified materials. We have also conducted reliability tests equivalent to those of current products for finished products. We have confirmed that there is no problem.	No risk

3. Reliability Test Results

Test Items	Test Conditions	ResultsFailure/Size
High Temperature Operating Life(HTOL)	Ta=125 °C, <u>Vccmax</u> , 1000 hrs	0/22
High Temperature Storage Life(HTSL)	Ta=150 °C, 1000 hrs	0/22
Temperature Humidity bias(THB) (*1)	Ta=85 °C, RH=85 %, <u>Vccmax</u> , 1000 hrs	0/22
Temperature Cycling(TC) (*1)	Ta=-65 °C to 150 °C , 300 cycles	0/22
Latch-Up(LU)	Pulse Current Injection, I=+/-150 mA	0/3
Electrostatic discharge(ESD-HBM)	1.5 kΩ, 100 pF, +/-2000 V, 1 time	0/3
Electrostatic discharge(ESD-CDM)	+/-500V,1time	0/3
Solderability(SD)	245 °C, 5 s, Solder coverage ≥95 %	0/5
Resistance to Soldering Heat(PC)	MSL3(Moisture Sensitivity Level 3)	0/22

*1) Preprocessing of MSL3 was applied to THB and TC.

- It is tested to confirm that all the samples are satisfied with an individual product specification.
- Basically qualification tests were performed using a representative product with the same wafer process and the same package structure .