RENESAS

PCN#: [EPO-EX-25-0117]

Product Change Notice (PCN)

Subject: Notice of Change of Lead Frame for RX651 Group LFQFP Package Products

Publication Date: 4/17/2025
Effective Date: 10/1/2025
Revision Description: Initial release

Description of Change:
Applicable products: RX651 Group LFQFP-100 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:
The reliability test has been completed. Please refer to the attached supplementary materials.

Sample Availability Date: 9/30/2025
Any requests for samples must be received by 7/31/2025.
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	R5F5651CDDFP#10	LFQFP	100
2	R5F5651CDDFP#30	LFQFP	100
3	R5F5651CDGFP#10	LFQFP	100
4	R5F5651CDGFP#30	LFQFP	100
5	R5F5651CHDFP#10	LFQFP	100
6	R5F5651CHDFP#30	LFQFP	100
7	R5F5651CHGFP#10	LFQFP	100
8	R5F5651CHGFP#30	LFQFP	100
9	R5F5651EDDFP#10	LFQFP	100
10	R5F5651EDDFP#30	LFQFP	100
11	R5F5651EDGFP#10	LFQFP	100
12	R5F5651EDGFP#30	LFQFP	100
13	R5F5651EHDFP#10	LFQFP	100
14	R5F5651EHDFP#30	LFQFP	100
15	R5F5651EHGFP#10	LFQFP	100
16	R5F5651EHGFP#30	LFQFP	100

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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 ℃, Vccmax, 1000 hrs	0/22
High Temperature Storage Life(HTSL)	Ta=150 ℃, 1000 hrs	0/22
Temperature Humidity bias(THB) (*1)	Ta=85 ℃, RH=85 %, Vccmax, 1000 hrs	0/22
Temperature Cycling(TC) (*1)	Ta=-65 ℃ to 150 ℃ , 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 ℃, 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 .