

Product Change Notice (PCN)

Subject: Notice of Change in Wire Materials for RX63x Group Products

Publication Date: 6/11/2025

Effective Date: 10/1/2025

Revision Description: Initial release

Description of Change:

Applicable products: RX63x Group "G" version Products. (Operating peripheral temperature :Topr = -40 to +105°C)
(RX630/631/63N/63T/63X-LQFP48/64/100/144pin)

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

Changes: Change wire material to copper wire (Cu)

Affected Product List:

Refer to the Product List in the appendix below.

Reason for Change:

To ensure a stable supply and to improve productivity.

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: 10/1/2025

Any requests for samples must be received by 8/29/2025.

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	R5F5630ADGFB#V0	LFQFP	144
2	R5F5630ADGFP#H0	LFQFP	100
3	R5F5630ADGFP#V0	LFQFP	100
4	R5F5630BDGFB#V0	LFQFP	144
5	R5F5630BDGFP#V0	LFQFP	100
6	R5F56316DGFB#V0	LFQFP	144
7	R5F56316DGFP#V0	LFQFP	100
8	R5F56316SGFB#V0	LFQFP	144
9	R5F56317DGFB#V0	LFQFP	144
10	R5F56317DGFP#V0	LFQFP	100
11	R5F56317SGFB#V0	LFQFP	144
12	R5F56318DGFB#H0	LFQFP	144
13	R5F56318DGFB#V0	LFQFP	144
14	R5F56318DGFP#H0	LFQFP	100
15	R5F56318DGFP#V0	LFQFP	100
16	R5F56318SGFB#V0	LFQFP	144
17	R5F5631ADGFB#V0	LFQFP	144
18	R5F5631ADGFP#V0	LFQFP	100
19	R5F5631BDGFB#V0	LFQFP	144
20	R5F5631BDGFP#V0	LFQFP	100
21	R5F5631DDGFB#V0	LFQFP	144
22	R5F5631DDGFP#V0	LFQFP	100
23	R5F5631EDGFB#V0	LFQFP	144
24	R5F5631EDGFP#V0	LFQFP	100
25	R5F5631FDGFB#V0	LFQFP	144
26	R5F5631FDGFP#V0	LFQFP	100
27	R5F5631GDGFB#V0	LFQFP	144
28	R5F5631GDGFP#V0	LFQFP	100
29	R5F5631JDGFB#V0	LFQFP	144
30	R5F5631JDGFP#V0	LFQFP	100
31	R5F5631KDGFB#V0	LFQFP	144
32	R5F5631KDGFP#V0	LFQFP	100
33	R5F5631MDGFL#V0	LFQFP	48
34	R5F5631MDGFM#70	LFQFP	64
35	R5F5631MDGFM#H0	LFQFP	64
36	R5F5631MDGFM#V0	LFQFP	64
37	R5F5631NDGFL#V0	LFQFP	48
38	R5F5631NDGFM#V0	LFQFP	64
39	R5F5631PDGFL#V0	LFQFP	48
40	R5F5631PDGFM#70	LFQFP	64
41	R5F5631PDGFM#H0	LFQFP	64
42	R5F5631PDGFM#V0	LFQFP	64
43	R5F5631WDGFB#V0	LFQFP	144
44	R5F5631WDGFP#V0	LFQFP	100
45	R5F5631YDGFB#V0	LFQFP	144
46	R5F5631YDGFP#H0	LFQFP	100
47	R5F5631YDGFP#V0	LFQFP	100
48	R5F563NADGFB#V0	LFQFP	144
49	R5F563NADGFP#V0	LFQFP	100
50	R5F563NBDGFB#V0	LFQFP	144
51	R5F563NBDGFP#V0	LFQFP	100
52	R5F563NDDGFB#V0	LFQFP	144
53	R5F563NDDGFP#V0	LFQFP	100
54	R5F563NEDGFB#V0	LFQFP	144
55	R5F563NEDGFP#V0	LFQFP	100
56	R5F563NFDGFB#H0	LFQFP	144
57	R5F563NFDGFB#V0	LFQFP	144
58	R5F563NFDGFP#V0	LFQFP	100
59	R5F563NFHGFB#V0	LFQFP	144

No.	Part Number	Package Type	No. of Pins
60	R5F563NFHGFP#V0	LFQFP	100
61	R5F563NKDGFB#V0	LFQFP	144
62	R5F563NKDGFP#V0	LFQFP	100
63	R5F563NWDGFB#V0	LFQFP	144
64	R5F563NWDGFP#V0	LFQFP	100
65	R5F563NWHGFB#V0	LFQFP	144
66	R5F563NWHGFP#V0	LFQFP	100
67	R5F563NYDGFB#V0	LFQFP	144
68	R5F563NYDGFP#H0	LFQFP	100
69	R5F563NYDGFP#V0	LFQFP	100
70	R5F563NYHGFB#V0	LFQFP	144
71	R5F563NYHGFP#V0	LFQFP	100
72	R5F563T4EGFL#V0	LFQFP	48
73	R5F563T4EGFL#X0	LFQFP	48
74	R5F563T4EGFM#V0	LFQFP	64
75	R5F563T4EGFM#X0	LFQFP	64
76	R5F563T5EGFL#V0	LFQFP	48
77	R5F563T5EGFL#X0	LFQFP	48
78	R5F563T5EGFM#V0	LFQFP	64
79	R5F563T5EGFM#X0	LFQFP	64
80	R5F563T6EGFL#V0	LFQFP	48
81	R5F563T6EGFL#X0	LFQFP	48
82	R5F563T6EGFM#H0	LFQFP	64
83	R5F563T6EGFM#V0	LFQFP	64
84	R5F563T6EGFM#X0	LFQFP	64
85	R5F563TBAGFB#V1	LFQFP	144
86	R5F563TBAGFP#V1	LFQFP	100
87	R5F563TBAGFP#X1	LFQFP	100
88	R5F563TBBGFB#V1	LFQFP	144
89	R5F563TBBGFP#H1	LFQFP	100
90	R5F563TBBGFP#V1	LFQFP	100
91	R5F563TCAGFB#V1	LFQFP	144
92	R5F563TCAGFP#V1	LFQFP	100
93	R5F563TCBGFB#V1	LFQFP	144
94	R5F563TCBGFP#V1	LFQFP	100
95	R5F563TEAGFB#V1	LFQFP	144
96	R5F563TEAGFP#V1	LFQFP	100
97	R5F563TEBGFB#H1	LFQFP	144
98	R5F563TEBGFB#V1	LFQFP	144
99	R5F563TEBGFP#H1	LFQFP	100
100	R5F563TEBGFP#V1	LFQFP	100

• Appendix

1. Overview of Changed Materials

Item		Before Change	After Change	Note
Assembly factory		Renesas Semiconductor (Beijing) Co., Ltd		—
Final test factory				—
Material	Wier	Gold wire (Au)	Copper wire (Cu)	—
	Lead frame	—	No change	—
	Die bond	—	No change	—
	Mold resin	—	No change	—
Package	Outline	—	No change	—
Marking	Font	—	No change	—

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, Vccmax, 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 %, Vccmax, 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)	+/-1000V,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 .