

Product Change Notice (PCN)

Subject: Transfer of back-end (assembly) site for general-purpose linear IC products (TSSOP package)

Publication Date: 7/1/2026

Effective Date: 4/1/2027

Revision Description:

Initial Release

Description of Change:

The back-end (assembly) site will be transferred.

Product group: Operational amplifier ICs, Comparator ICs

Target package: TSSOP8 and TSSOP14

Since the plating and wire specifications are different, the part number will be changed.

Item	Before Transfer	After Transfer
Assembly site	RSK: Renesas Semiconductor (Kedah) Sdn. Bhd. (Malaysia)	GTK: Greatek Electronics Inc. (Taiwan)
Final Test and Packing site	RSK	RSK (No Change)

Affected Product List:

Refer to the appendix for applicable products and alternative part numbers.

Reason for Change:

To ensure stable supply and enhance competitiveness, Renesas back-end manufacturing factories are pursuing productivity improvements through process standardization, automation, and specialization. As part of this initiative, RSK will become a manufacturing site dedicated to final test and packing and will no longer be able to continue the assembly process, so the back-end (assembly) site will be transferred to GTK.

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

Form: Refer to "Package Drawing" in "Appendix".

There is no impact on fit, function, quality, or reliability.

Product Identification:

Production sites can be identified by the labels (reels, packaging boxes).

Qualification Status: Completed, refer to "Reliability Test Results" in "Appendix".

Please request the test results for high quality level products and AEC-Q100 separately.

Sample Availability Date: Now available

The sample acceptance deadline is 12/28/2026.

Device Material Declaration: Please contact your sales representative.

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

Difference in Specification:

Item	Before Transfer	After Transfer
Package Drawing	RSK Standard	GTK Standard
Recommended Foot Patterns	-	No change
Lead Frame Material	Cu-based A※	Cu-based B※
Resin	Epoxy resin A※	Epoxy resin B※
Plating	Sn-Bi	Pure Sn
Wire	Au	Cu
Part Number	UPCxxxGR-9LG-Ex -A	UPCxxxGR-9LG-Ex-AT (Add "T" at the end)
	REAxxxxGSP#GC0	REAxxxxGSP#GAA (Change the last two characters)
	REAxxxxJSP#GC1	REAxxxxJSP#GAB (Change the last two characters)

※Factory-certified materials.

There are differences in materials, but there is no change in reliability or characteristics.

Product List

No	Part Number: Before Transfer	Part Number: After Transfer
1	REAC1251GSP#GC0	REAC1251GSP#GAA
2	REAC1251JSP#GC0	REAC1251JSP#GAA
3	REAC1251JSP#GC1	REAC1251JSP#GAB
4	REAC1251JSP#HC0	REAC1251JSP#HAA
5	REAC1251JSP#HC1	REAC1251JSP#HAB
6	REAC1251JSP#HC4	REAC1251JSP#HAE
7	READ2303GSP#GC0	READ2303GSP#GAA
8	READ2304GSP#GC0	READ2304GSP#GAA
9	READ2353JSP#GC1	READ2353JSP#GAB
10	READ2354JSP#GC1	READ2354JSP#GAB
11	READ2606GSP#GC0	READ2606GSP#GAA
12	READ2656JSP#GC1	READ2656JSP#GAB
13	READ2656JSP#HC1	READ2656JSP#HAB
14	READ4303GSP#GC0	READ4303GSP#GAA
15	READ4304GSP#GC0	READ4304GSP#GAA
16	READ4353JSP#GC1	READ4353JSP#GAB
17	READ4354JSP#GC1	READ4354JSP#GAB
18	READ4606GSP#GC0	READ4606GSP#GAA
19	READ4656JSP#GC1	READ4656JSP#GAB
20	READ4656JSP#HC1	READ4656JSP#HAB
21	UPC1251AGR(20)-9LG-E1-A	UPC1251AGR(20)-9LG-E1-AT
22	UPC1251AGR(20)-9LG-E2-A	UPC1251AGR(20)-9LG-E2-AT

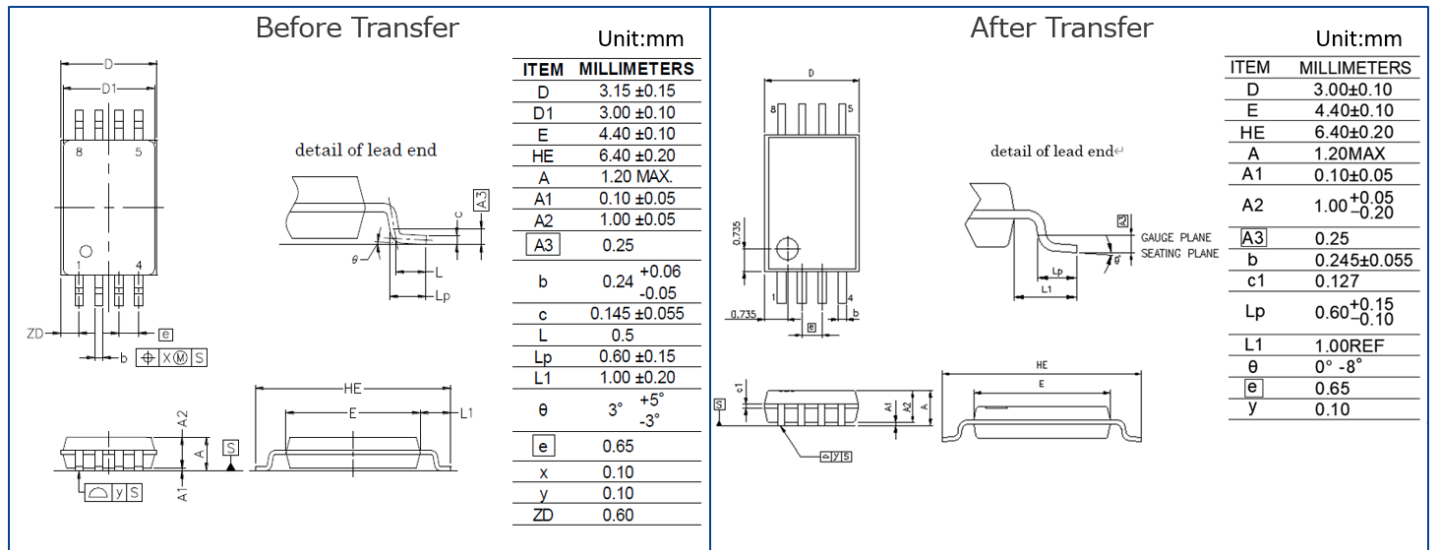
23	UPC1251AGR(63)-9LG-E2-A	UPC1251AGR(63)-9LG-E2-AT
24	UPC1251GR(20)-9LG-E1-A	UPC1251GR(20)-9LG-E1-AT
25	UPC1251GR(20)-9LG-E2-A	UPC1251GR(20)-9LG-E2-AT
26	UPC1251GR(21)-9LG-E1-A	UPC1251GR(21)-9LG-E1-AT
27	UPC1251GR(21)-9LG-E2-A	UPC1251GR(21)-9LG-E2-AT
28	UPC1251GR(25)-9LG-E1-A	UPC1251GR(25)-9LG-E1-AT
29	UPC1251GR(5)-9LG-E1-A	UPC1251GR(5)-9LG-E1-AT
30	UPC1251GR(63)-9LG-E1-A	UPC1251GR(63)-9LG-E1-AT
31	UPC1251GR(63)-9LG-E2-A	UPC1251GR(63)-9LG-E2-AT
32	UPC1251GR-9LG-E1-A	UPC1251GR-9LG-E1-AT
33	UPC1251GR-9LG-E2-A	UPC1251GR-9LG-E2-AT
34	UPC177GR(20)-9LG-E1-A	UPC177GR(20)-9LG-E1-AT
35	UPC177GR(20)-9LG-E2-A	UPC177GR(20)-9LG-E2-AT
36	UPC177GR(21)-9LG-E1-A	UPC177GR(21)-9LG-E1-AT
37	UPC177GR(21)-9LG-E2-A	UPC177GR(21)-9LG-E2-AT
38	UPC177GR(25)-9LG-E1-A	UPC177GR(25)-9LG-E1-AT
39	UPC177GR(27)-9LG-E1-A	UPC177GR(27)-9LG-E1-AT
40	UPC177GR(30)-9LG-E2-A	UPC177GR(30)-9LG-E2-AT
41	UPC177GR-9LG-E1-A	UPC177GR-9LG-E1-AT
42	UPC177GR-9LG-E2-A	UPC177GR-9LG-E2-AT
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44	UPC277GR(20)-9LG-E2-A	UPC277GR(20)-9LG-E2-AT
45	UPC277GR(21)-9LG-E1-A	UPC277GR(21)-9LG-E1-AT
46	UPC277GR(21)-9LG-E2-A	UPC277GR(21)-9LG-E2-AT
47	UPC277GR(25)-9LG-E2-A	UPC277GR(25)-9LG-E2-AT
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53	UPC324GR-9LG-E1-A	UPC324GR-9LG-E1-AT
54	UPC324GR-9LG-E2-A	UPC324GR-9LG-E2-AT
55	UPC339GR-9LG-E1-A	UPC339GR-9LG-E1-AT
56	UPC339GR-9LG-E2-A	UPC339GR-9LG-E2-AT
57	UPC358GR(5)-9LG-E1-A	UPC358GR(5)-9LG-E1-AT
58	UPC358GR-9LG-E1-A	UPC358GR-9LG-E1-AT
59	UPC358GR-9LG-E2-A	UPC358GR-9LG-E2-AT
60	UPC393GR(5)-9LG-E1-A	UPC393GR(5)-9LG-E1-AT
61	UPC393GR-9LG-E1-A	UPC393GR-9LG-E1-AT
62	UPC393GR-9LG-E2-A	UPC393GR-9LG-E2-AT
63	UPC451AGR(20)-9LG-E1-A	UPC451AGR(20)-9LG-E1-AT

64	UPC451AGR(20)-9LG-E2-A	UPC451AGR(20)-9LG-E2-AT
65	UPC451GR(20)-9LG-E1-A	UPC451GR(20)-9LG-E1-AT
66	UPC451GR(20)-9LG-E2-A	UPC451GR(20)-9LG-E2-AT
67	UPC451GR(21)-9LG-E1-A	UPC451GR(21)-9LG-E1-AT
68	UPC451GR(25)-9LG-E1-A	UPC451GR(25)-9LG-E1-AT
69	UPC451GR(25)-9LG-E2-A	UPC451GR(25)-9LG-E2-AT
70	UPC451GR(28)-9LG-E1-A	UPC451GR(28)-9LG-E1-AT
71	UPC451GR(30)-9LG-E2-A	UPC451GR(30)-9LG-E2-AT
72	UPC451GR(5)-9LG-E1-A	UPC451GR(5)-9LG-E1-AT
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74	UPC451GR(63)-9LG-E2-A	UPC451GR(63)-9LG-E2-AT
75	UPC451GR-9LG-E1-A	UPC451GR-9LG-E1-AT
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78	UPC4570GR(20)-9LG-E1-A	UPC4570GR(20)-9LG-E1-AT
79	UPC4570GR-9LG-E1-A	UPC4570GR-9LG-E1-AT
80	UPC4570GR-9LG-E2-A	UPC4570GR-9LG-E2-AT
81	UPC4574GR-9LG-E1-A	UPC4574GR-9LG-E1-AT
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93	UPC842GR-9LG-E2-A	UPC842GR-9LG-E2-AT
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96	UPC844GR(21)-9LG-E1-A	UPC844GR(21)-9LG-E1-AT
97	UPC844GR(21)-9LG-E2-A	UPC844GR(21)-9LG-E2-AT
98	UPC844GR(29)-9LG-E1-A	UPC844GR(29)-9LG-E1-AT
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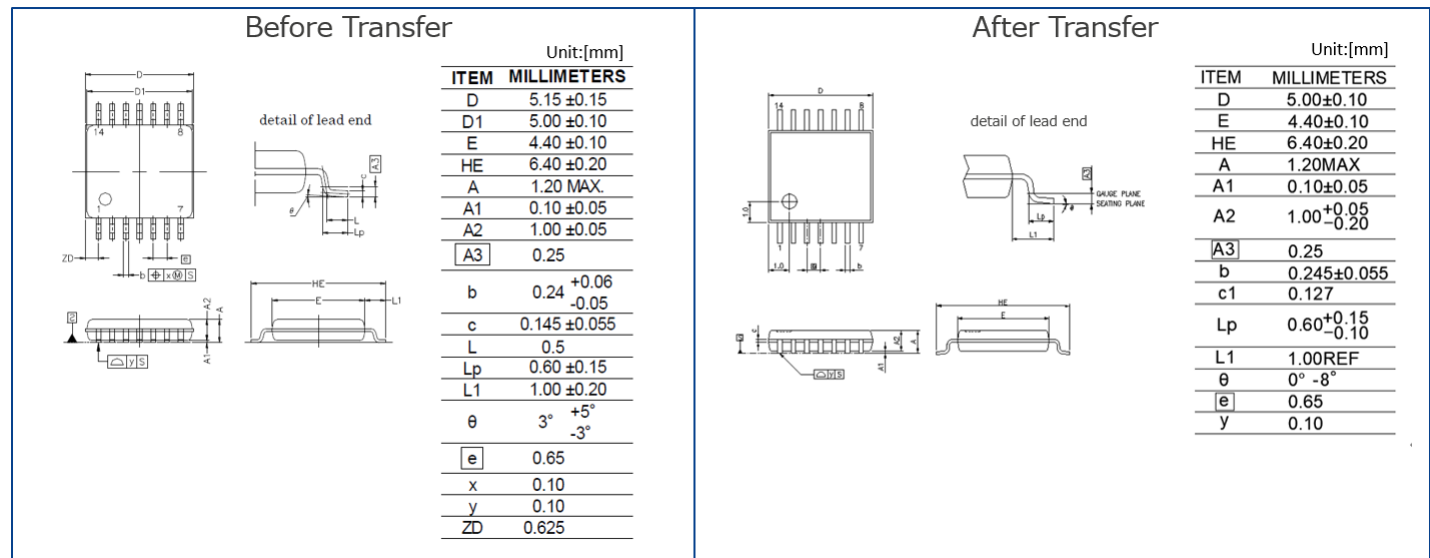
Package Drawing

The package is the same size and there is no change in our recommended foot patterns.

TSSOP8



TSSOP14



Marking Specification

Examples of products that begin with UPC

The mark drawing will be changed due to the addition of internal management code, but there are no changes to the mark information other than the internal management code.

	Before Transfer	After Transfer
TSSOP-8	Surface Diagram of a TSSOP-8 package marking. It shows a rectangular package with pins on the top and bottom. The marking is as follows: Product name code '842', Assembly lot number 'xxx', Trace code 'xxx', and Rank classification '21'.	Surface Diagram of a TSSOP-8 package marking after transfer. It shows the same package with an additional 'Internal Management Code' 'xxxx' added to the left of the assembly lot number. The other markings remain the same: Product name code '842', Assembly lot number 'xxx', Trace code 'xxx', and Rank classification '21'.
TSSOP-14	Surface Diagram of a TSSOP-14 package marking. It shows a rectangular package with pins on the top and bottom. The marking is as follows: Product name code '844', Assembly lot number 'xxx', Trace code 'xxx', and Rank classification '21'.	Surface Diagram of a TSSOP-14 package marking after transfer. It shows the same package with an additional 'Internal Management Code' 'xxxx' added to the left of the assembly lot number. The other markings remain the same: Product name code '844', Assembly lot number 'xxx', Trace code 'xxx', and Rank classification '21'.

Examples of products starting with REAx

The mark drawing will be changed due to the addition of internal management code, but there are no changes to the mark information other than the internal management code. Some products will have changes to the mark of the Rank classification due to the part number change.

	Before Transfer	After Transfer
TSSOP-8	Surface Diagram of a TSSOP-8 package marking. It shows a rectangular package with pins on the top and bottom. The marking is as follows: Product name code '2354', Assembly lot number 'xxx', Trace code 'xxx', and Rank classification '1'.	Surface Diagram of a TSSOP-8 package marking after transfer. It shows the same package with an additional 'Internal Management Code' 'xxxx' added to the left of the assembly lot number. The other markings remain the same: Product name code '2354', Assembly lot number 'xxx', Trace code 'xxx', and Rank classification 'B'.
TSSOP-14	Surface Diagram of a TSSOP-14 package marking. It shows a rectangular package with pins on the top and bottom. The marking is as follows: Product name code '4656', Assembly lot number 'xxx', Trace code 'xxx', and Rank classification 'J1'.	Surface Diagram of a TSSOP-14 package marking after transfer. It shows the same package with an additional 'Internal Management Code' 'xxxx' added to the left of the assembly lot number. The other markings remain the same: Product name code '4656', Assembly lot number 'xxx', Trace code 'xxx', and Rank classification 'JB'.

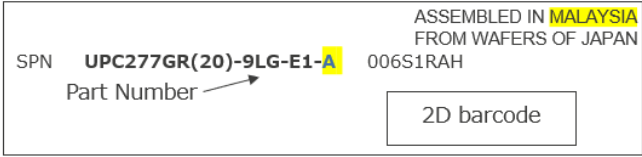
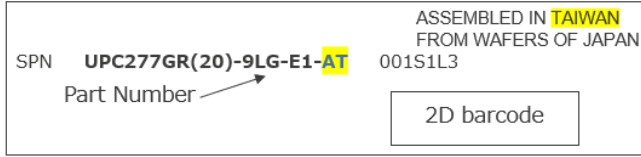
Label Specification

The production sites before and after the transfer can be identified by the Part Number and country of manufacture indicated on the label.

Examples of products that begin with UPC

Item	Before Transfer	After Transfer
End of Part Number:	A	→ AT

Label is image.

Before Transfer	After Transfer
 SPN UPC277GR(20)-9LG-E1-A 006S1RAH Part Number → 2D barcode ASSEMBLED IN MALAYSIA FROM WAFERS OF JAPAN	 SPN UPC277GR(20)-9LG-E1-AT 001S1L3 Part Number → 2D barcode ASSEMBLED IN TAIWAN FROM WAFERS OF JAPAN

Examples of products starting with REAx

Item	Before Transfer	After Transfer
End of Part Number:	C0 →	AA
	C1 →	AB

Label is image.

Before Transfer	After Transfer
 SPN REAC1251GSP GCOLW01000 Part Number → 2D barcode ASSEMBLED IN MALAYSIA FROM WAFERS OF JAPAN	 SPN REAC1251GSP GAAQ901000 Part Number → 2D barcode ASSEMBLED IN TAIWAN FROM WAFERS OF JAPAN

4M Changing Points

There are no quality concerns because standard specifications that have been mass-produced at the transfer site are used.

Item	Check Result	Judgement
Man	Conducted by workers who have received work training A work certification system has been introduced.	No Risk
Machine	Using equipment with a proven track record of mass production Using the same equipment as TSSOP products that have been mass-produced	No Risk
Material	Using materials with a proven track record of mass production Lead-frame material with a proven track record of mass production (Cu-based Lead frame, Cu wire, Pure Sn plating)	No Risk
Method	Using the transfer site's standard production flow The standard production flow as TSSOP products that have been mass-produced	No Risk

Reliability Test Results

Test Items	Reference	Test Conditions	Results Failure/Size	Comments
High Temperature Operating Life (HTOL)	JESD22-A108, JESD85	Ta=125C, 1000 hrs	0/22	
High Temperature Storage Life (HTSL)	JESD22-A103	Ta=150C, 1000 hrs	0/22	
Human Body Model ESD (ESD-HBM)	JS-001	1.5 kΩ, 100 pF, +/-1000 V, 1 time	0/3	
Charged Device Model ESD (ESD-CDM)	JS-002	+/-500V,1time	0/3	
Temperature Humidity bias (THB)	JESD22-A101	Ta=85C, RH=85 %, 1000 hrs	0/22	*1
Temperature Cycling (TC)	JESD22-A104	Ta=-65C to 150C , 200 cycles	0/22	*1
Solderability (SD)	J-STD-002	245C, 5 s, Solder coverage ≥95 %	0/22	
Resistance to Soldering Heat (PC)	JESD22-A113, J-STD-020	MSL1(Moisture Sensitivity Level 1)	0/22	
Estimated Failure Rate	—	Estimated failure rate: 15FIT Ta= 55C, Ea= 0.7eV, C.L.= 60%		

*1 With preconditioning per JESD22-A113, MSL 1

•It is tested to confirm that all the samples are satisfied with an individual product specification.

Note :

Basically qualification tests were performed using a representative product with the same wafer process and the same package structure .