

Product Change Notice (PCN)

Subject: Assembly & sorting factory addition for RL78/F23 and F24 series and HWQFN products

Publication Date: 3/21/2025

Effective Date: 8/29/2025

Revision Description: Initial Release

Description of Change:

Assembly & sorting factory addition for RL78/F23, F24 series, and 32pin HWQFN products.

Additional factory: Renesas Semiconductor KL Sdn. Bhd. (RSKL)

Existing assembly factory: Greatek Electronics Inc. (Greatek)

Existing Sorting factory: King Yuan Electronics Co., Ltd. (KYEK)

The following materials are also changed. See below for details.

[Details of change]

No	Item	Additional factory		Existing factory	
		HWQFN with Half-cut Wettable flank			
1	Assembly / Sorting factory	Assembly	Sorting	Assembly	Sorting
		RSKL	RSKL	Greatek	KYEC
2	Bonding wire material	Cu, φ23um		Cu, φ20um	
3	Lead frame	Common lead frame		individual lead frame	
4	Die attach material	Equivalent material (Ag paste)			
5	Mold resin material	Equivalent material (Resin for Cu wire)			
6	Marking specification	There are differences (Refer to the Marking)			
7	Package outline	There are differences (Refer to the Package outline)			
8	Packing	Factory standard Tape/Reel A		Base Standard Tape/Reel B	
9	Storage conditions. after opening	30°C/70%RH/ within 168hr		30°C/60%RH/ within 168hr	

Affected Product List:

Refer to "Product List" in "Appendix".

Reason for Change:

For stable supply of products

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

The change will have no impact on the fitness, function, quality and reliability of the devices.

Package Outline: Please refer to the "Appendix".

Product Identification:

There is no change in Part number.

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

Qualification Status:

4/10/2025 It will be available to provide.

Sample Availability Date:

7/18/2025 (Deadline for sample request 6/6/2025)

Device Material Declaration:

Available upon request.

Note:

1. Acknowledgement must be received by Renesas within 30 days or Renesas will consider the changes as approved.
2. If timely acknowledgement is provided by customers, then customers shall have 90 days from the date of receipt of this PCN to make any objections to this PCN. If customers fail 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 customers must provide Renesas with the last order quantity and purchase order.

For additional information regarding this notice, please contact your Renesas sales representative.

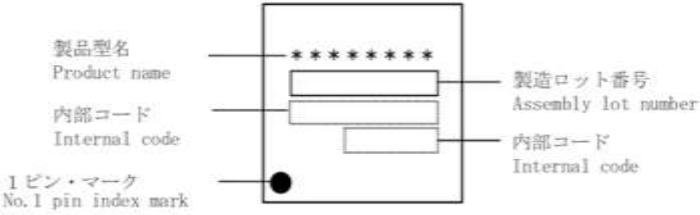
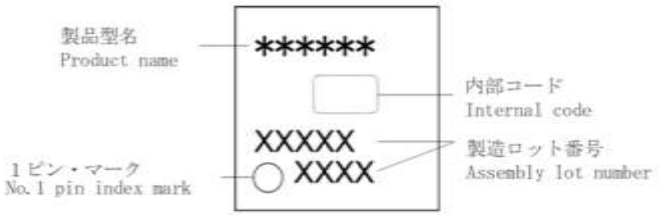
Appendix 1

■Part number specification

There is no change in Part number.

■Marking specification

Marking specifications will be changed as follows.

Additional factory	Existing factory
<p>RL78/F24,F23</p>  <p>製品型名 Product name</p> <p>*****</p> <p>製造ロット番号 Assembly lot number</p> <p>XXXXXX</p> <p>内部コード Internal code</p> <p>XXXX</p> <p>1ピン・マーク No.1 pin index mark</p> <p>●</p>	<p>RL78/F24,F23</p>  <p>製品型名 Product name</p> <p>*****</p> <p>内部コード Internal code</p> <p>XXXXXX</p> <p>製造ロット番号 Assembly lot number</p> <p>XXXX</p> <p>1ピン・マーク No.1 pin index mark</p> <p>○</p>

■Explanation of changes

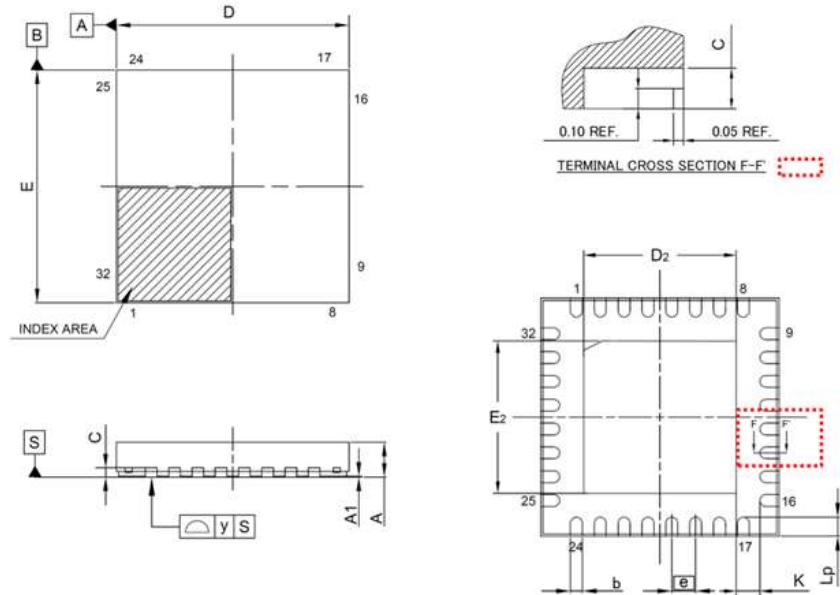
No	Material change	Explanation of changes
2	Bonding wire material	It is a proven material for automotive Cu wire products.
3	Lead frame	It is a proven material for automotive Cu wire products.
4	Die attach material	It is a proven material for automotive Cu wire products.
5	Mold resin materia	It is a proven material for automotive Cu wire products.

■Package Outline (1/2)

New

Package Drawing (Renesas Semiconductor KL Sdn.Bhd.)

Renesasコード PWQN0032KH-A

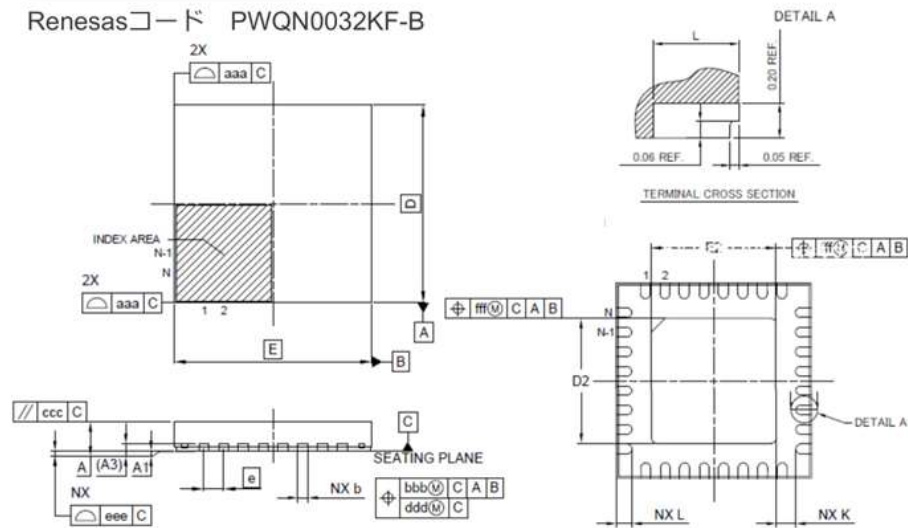


Reference Symbol	Dimension in Millimeters		
	Min.	Nom.	Max.
D	4.85	5.00	5.15
E	4.85	5.00	5.15
A	—	—	0.80
A ₁	0.00	—	0.05
b	0.18	0.25	0.30
e	0.50 BSC		
L _p	0.35	0.40	0.45
y	—	—	0.08
c	—	0.20	—
K	0.20	—	—
D ₂	—	3.20	—
E ₂	—	3.20	—

Existing factory

Package Drawing (Greatek Electronics Inc.)

Renesasコード PWQN0032KF-B



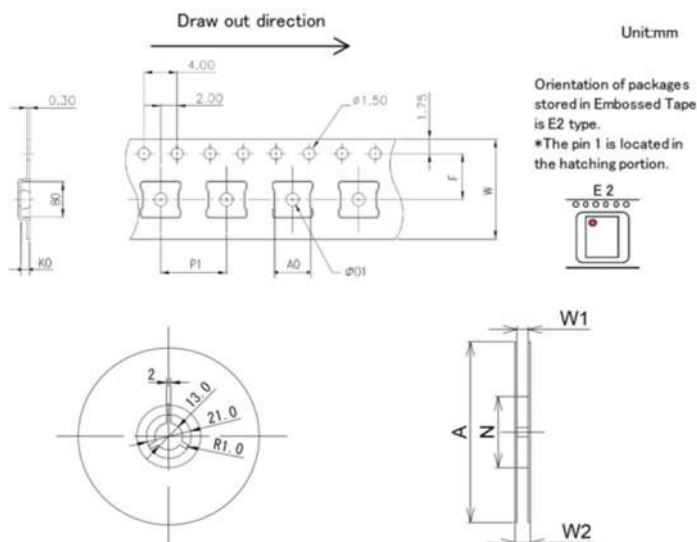
Reference Symbol	Dimension in Millimeters		
	Min.	Nom.	Max.
A	—	—	0.80
A ₁	0.00	—	0.05
A ₃	0.20 REF.		
b	0.18	0.25	0.30
D	—	5.00	—
E	—	5.00	—
e	—	0.50	—
N	32		
L	0.35	0.40	0.45
K	0.20	—	—
D ₂	3.15	3.20	3.25
E ₂	3.15	3.20	3.25
aaa	—	—	0.15
bbb	—	—	0.10
ccc	—	—	0.10
ddd	—	—	0.05
eee	—	—	0.08
fff	—	—	0.10

■Packing change (2/2)

Existing factory

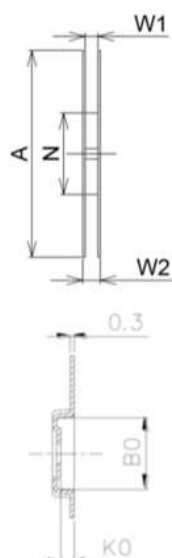
Packing Specification Tape & Reel Outline Drawing

(Greatek Electronics Inc.)



Tape Code		ECPKG0505-151
Tape Dimensions (mm)	W	12.0
	P1	8.0
	A0	5.3
	B0	5.3
	K0	1.1
	F	5.5
	D1	1.6
Reel Dimensions (mm)	A	330
	N	102
	W1	12.8
	W2	18.4
Maximum storage Pcs. IC/ Reel		2500
Material		Carbon PS
Surface resistance		$1.0 \times 10^4 \leq R < 1.0 \times 10^{11} \Omega$

Packing Specification Tape & Reel Outline Drawing (Dimension comparison)



追加拠点仕様 Additional factory			既存拠点仕様 Existing factory		
Tape Code		E12*08-B8CA	Tape Code		ECPKG0505-151
Tape Dimensions (mm)	W	12.0	Tape Dimensions (mm)	W	12.0
	P1	8.0		P1	8.0
	A0	5.3		A0	5.3
	B0	5.3		B0	5.3
	K0	1.0		K0	1.1
	F	5.5		F	5.5
Reel Dimensions (mm)	D1	1.5	Reel Dimensions (mm)	D1	1.6
	A	330		A	330
	N	100		N	102
	W1	13.5		W1	12.8
	W2	17.5		W2	18.4
Maximum storage Pcs. IC/ Reel		2500	Maximum storage Pcs. IC/ Reel		2500
Material		Carbon PS	Material		Carbon PS
Surface resistance		$1.0 \times 10^{-4} \leq R < 1.0 \times 10^{11} \Omega$	Surface resistance		$1.0 \times 10^{-4} \leq R < 1.0 \times 10^{11} \Omega$

■4M changing points

Item	Check Result	Judgement
Machine	For bonding Cu wire products, we use the same level of equipment as in our existing factory. The additional plant was also equipped with an atmosphere that is resistant to oxidation as a countermeasure against the involvement of Cu wires. In addition, we have a track record of Cu wire application products in similar products, and we have confirmed that there are no problems when starting the construction of this product.	○ No risk
Method	They are joined by the same bonding method as Au wire products.	○ No risk
Man	Authorized workers at the plant will be engaged.	○ No risk
Material	Only approved Cu wire materials are used. We apply certified materials that correspond to Cu wire products. In addition, we have also conducted reliability tests on finished products equivalent to those of current products (Au wire products) to confirm that there are no problems.	○ No risk

Appendix 2 Product List

RL78/F23 series:

Product P/N	Packing
R7F123FBG3ANP-C#AA0	Bulk (Tray)
R7F123FBG4ANP-C#AA0	Bulk (Tray)
R7F123FBG3ANP-C#BA0	Full Carton (Tray)
R7F123FBG4ANP-C#BA0	Full Carton (Tray)
R7F123FBG3ANP-C#BAQ	Full Carton (Tray)
R7F123FBG4ANP-C#BAQ	Full Carton (Tray)
R7F123FBG3ANP-C#HA0	Tape&Reel
R7F123FBG4ANP-C#HA0	Tape&Reel
R7F123FBG3ANP-C#HAQ	Tape&Reel
R7F123FBG4ANP-C#HAQ	Tape&Reel

RL78/F24 series:

Product P/N	Packing
R7F124FBJ3ANP-C#AA0	Bulk (Tray)
R7F124FBJ4ANP-C#AA0	Bulk (Tray)
R7F124FBJ3ANP-C#BA0	Full Carton (Tray)
R7F124FBJ4ANP-C#BA0	Full Carton (Tray)
R7F124FBJ3ANP-C#BAQ	Full Carton (Tray)
R7F124FBJ4ANP-C#BAQ	Full Carton (Tray)
R7F124FBJ3ANP-C#HA0	Tape&Reel
R7F124FBJ4ANP-C#HA0	Tape&Reel
R7F124FBJ3ANP-C#HAQ	Tape&Reel
R7F124FBJ4ANP-C#HAQ	Tape&Reel