

Product Change Notice (PCN)

Subject: Add Alternate Assembly Locations on Select VFQFPN Packages and Transfer Assembly Location on Select PLCC Package

Publication Date: 11/20/2024

Effective Date: 2/19/2025

Revision Description:

Initial Release

Description of Change:

Renesas is adding UTL, Thailand as the alternate Assembly location in expanding the supply chain for select VFQFPN packages. The alternate assembly location is the current qualified location for Renesas.

In addition, Renesas is transferring PLCC-68 package from ATP, Philippines to MMT, Thailand due to the shutdown of production line of this package at ATP.

The material sets of the current and the alternate as well as the new assembly locations are as shown in the table below. There will be changes in the material sets, equipment models and inspection items and sampling at the alternate locations. The process flows are identical at all the qualified assembly locations.

There will be no changes in the moisture sensitive level as a result of this change.

Material Set / Assembly	Current Assembly		Alternate Assembly
	ASEC, Taiwan	GEI, Taiwan	UTL, Thailand
VFQFPN-28			
Die Attach Epoxy		EN4900GC	8600
Bonding Wire		Copper Wire	Copper Wire
Mold Compound		EME-G700HA	EME-G770HCD
VFQFPN-40			
Die Attach Epoxy	EN4900G		8600
Bonding Wire	Copper Wire		Copper Wire
Mold Compound	EME-G700LA		EME-G770HCD

Material Set / Assembly	Current Assembly	New Assembly
	ATP, Philippines	MMT, Thailand
PLCC-68		
Die Attach Epoxy	8361J	3280
Bonding Wire	Gold Wire	Gold Wire
Mold Compound	EME-G600C	EME-G600V

Affected Product List: Refer Appendix B.

Reason for Change:

The change is to create additional supplies to secure business continuity.

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

The change will have no impact on the form, fit, function, quality, reliability and environmental compliance of the products.

Product Identification:

Assembly lot# prefix denote Assembly Location

Prefix	Assembly Location
RC	ASEC Taiwan
GR	GEI Taiwan
P	ATP Philippines
U	UTL Thailand
V	MMT Thailand

Qualification Status: Completed. Refer Appendix A

Sample Availability Date: 8 weeks from sample booking date

Device Material Declaration: Available upon request

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 idt-pcn@lm.renesas.com

Appendix A - Qualification Results
Affected Package: VFQFPN-28

Qual Vehicle: VFQFPN-28

Assembly Material: As shown in page 1

Qual Plan & Results: Tests are in accordance with JEDEC47 recommended tests.

Assembly Location: UTL, Thailand

Test Descriptions	Test Method	Test Results (Rej/SS)		
		Lot 1	Lot 2	Lot 3
* Temperature Cycling (-55 °C to 125 °C, 700 cycles)	JESD22-A104	0/25	0/25	0/25
* HAST - biased (130 °C/85% RH, 96 Hrs)	JESD22-A110	0/25	0/25	0/25
High Temperature Storage Bake (150 °C, 1000 Hrs)	JESD22-A103	0/25	0/25	0/25
Ball Shear Test	JESD22-B116	0/5	0/5	0/5
Bond Pull Test	MIL-STD-883 (Method 2011)	0/5	0/5	0/5
Physical Dimensions	JESD22-B100	0/30	0/30	0/30
Solderability Test	MIL-STD-883 (Method 2003)	0/5	0/5	0/5
Moisture Sensitivity Level, MSL	J-STD-20 / MSL 1, 260 °C	0/25	0/25	0/25

*Tests were subjected to Preconditioning per JESD22-A113 prior to stress test

Affected Package: VFQFPN-40

Qual Vehicle: VFQFPN-48

Assembly Material: As shown in page 1

Qual Plan & Results: Tests are in accordance with JEDEC47 recommended tests.

Assembly Location: UTL, Thailand

Test Descriptions	Test Method	Test Results (Rej/SS)		
		Lot 1	Lot 2	Lot 3
* Temperature Cycling (-55 °C to 125 °C, 700 cycles)	JESD22-A104	0/25	0/25	0/25
* HAST - unbiased (130 °C/85% RH, 96 Hrs)	JESD22-A118	0/25	0/25	0/25
High Temperature Storage Bake (150 °C, 1000 Hrs)	JESD22-A103	0/25	0/25	0/25
Ball Shear Test	JESD22-B116	0/5	0/5	0/5
Bond Pull Test	MIL-STD-883 (Method 2011)	0/5	0/5	0/5
Physical Dimensions	JESD22-B100	0/30	0/30	0/30
Solderability Test	MIL-STD-883 (Method 2003)	0/5	0/5	0/5
Moisture Sensitivity Level, MSL	J-STD-20 / MSL 3, 260 °C	0/25	0/25	0/25

*Tests were subjected to Preconditioning per JESD22-A113 prior to stress test

Affected Package: PLCC-68

Qual Vehicle: PLCC-68

Assembly Material: As shown in page 1

Qual Plan & Results: Tests are in accordance with JEDEC47 recommended tests.

Assembly Location: MMT, Thailand

Test Descriptions	Test Method	Test Results (Rej/SS)		
		Lot 1	Lot 2	Lot 3
* Temperature Cycling (-55 °C to 125 °C, 700 cycles)	JESD22-A104	0/25	0/25	0/25
* HAST - biased (110 °C/85% RH, 96 Hrs)	JESD22-A110	0/25	0/25	0/25
* HAST - unbiased (130 °C/85% RH, 96 Hrs)	JESD22-A118	0/25	0/25	0/25
High Temperature Storage Bake (150 °C, 1000 Hrs)	JESD22-A103	0/25	0/25	0/25
Ball Shear Test	JESD22-B116	0/5	0/5	0/5
Bond Pull Test	MIL-STD-883 (Method 2011)	0/5	0/5	0/5
Physical Dimensions	JESD22-B100	0/30	0/30	0/30
Solderability Test	MIL-STD-883 (Method 2003)	0/5	0/5	0/5
Moisture Sensitivity Level, MSL	J-STD-20 / MSL 1, 260 °C	0/25	0/25	0/25

**Tests were subjected to Preconditioning per JESD22-A113 prior to stress test*

Appendix B – Affected Product List

7005L15JG	7133LA25JGI8	RC21008B001GND#KBO	RC21008BXXXGND#BBO
7005L20JGI	7133SA35JG	RC21008B059GND#BBO	RC21008BXXXGND#KBO
7005L20JGI8	7133SA55JG	RC21008B059GND#KBO	RC26108AXXXGND#BBO
7006L20JGI	7133SA70JG	RC21008B085GND#BBO	RC26108AXXXGND#KBO
7006L20JGI8	7143LA20JG	RC21008B085GND#KBO	RC31008B000GND#BBO
7007L15JG	7143LA20JG8	RC21008B105GND#BBO	RC31008B000GND#KBO
7007L15JG8	RC19004A100GNL#BBO	RC21008B105GND#KBO	RC31008B001GND#BBO
7007L20JGI	RC19004A100GNL#KBO	RC21008B110GND#BBO	RC31008B001GND#KBO
7007L20JGI8	RC19004AGNL#BBO	RC21008B110GND#KBO	RC31008B158GND#BBO
70V05L15JG	RC19004AGNL#KBO	RC21008B111GND#BBO	RC31008B158GND#KBO
7133LA20JG	RC21008B000GND#BBO	RC21008B111GND#KBO	RC31008BXXXGND#BBO
7133LA20JG8	RC21008B000GND#KBO	RC21008B172GND#BBO	RC31008BXXXGND#KBO
7133LA25JGI	RC21008B001GND#BBO	RC21008B172GND#KBO	