

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.

	Current Assembly		Alternate Assembly	
Material Set / 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	

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

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

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

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



7005L15JG	7133LA25JGI8	RC21008B001GND#KB0	RC21008BXXXGND#BB0
7005L20JGI	7133SA35JG	RC21008B059GND#BB0	RC21008BXXXGND#KB0
7005L20JGI8	7133SA55JG	RC21008B059GND#KB0	RC26108AXXXGND#BB0
7006L20JGI	7133SA70JG	RC21008B085GND#BB0	RC26108AXXXGND#KB0
7006L20JGI8	7143LA20JG	RC21008B085GND#KB0	RC31008B000GND#BB0
7007L15JG	7143LA20JG8	RC21008B105GND#BB0	RC31008B000GND#KB0
7007L15JG8	RC19004A100GNL#BB0	RC21008B105GND#KB0	RC31008B001GND#BB0
7007L20JGI	RC19004A100GNL#KB0	RC21008B110GND#BB0	RC31008B001GND#KB0
7007L20JGI8	RC19004AGNL#BB0	RC21008B110GND#KB0	RC31008B158GND#BB0
70V05L15JG	RC19004AGNL#KB0	RC21008B111GND#BB0	RC31008B158GND#KB0
7133LA20JG	RC21008B000GND#BB0	RC21008B111GND#KB0	RC31008BXXXGND#BB0
7133LA20JG8	RC21008B000GND#KB0	RC21008B172GND#BB0	RC31008BXXXGND#KB0
7133LA25JGI	RC21008B001GND#BB0	RC21008B172GND#KB0	

Appendix B – Affected Product List