

Product Change Notice (PCN)

Subject: Add Alternate Assembly Location on Select VFQFPN Package

Publication Date: 12/18/2024

Effective Date: 3/17/2025

Revision Description:

Initial Release

Description of Change:

Renesas is adding UTL, Thailand as the alternate Assembly location in creating dual source supply chain for select VFQFPN package. The alternate assembly location is the current qualified location for Renesas. The current assembly location is at GEI, Taiwan (Greatek).

The material sets of the current and the alternate assembly location 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 location. The process flows are identical at all the qualified assembly locations.

There will be no changes in the moisture sensitive level because of this change.

Material Sets	Existing Assembly (GEI, Taiwan)	Alternate Assembly (UTL, Thailand)
Die Attach Epoxy	EN4900GC	Henkel 8600
Bonding Wire	Copper wire	Copper wire
Mold Compound	EME-G700H	EME-G770HCD

Affected Product List: Refer Appendix B.

Reason for Change:

The change is to create dual source 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
GR	GEI Taiwan
U	UTL 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 - unbiased (130 °C/85% RH, 96 Hrs)	JESD22-A118	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

Appendix B – Affected Product List

RG3M47B12B1GNL#BB0

RG3M47B12B1GNL#KB0

RG3M48B12B1GNL#BB0

RG3M48B12B1GNL#KB0

RG3M87B12B1GNL#BB0

RG3M87B12B1GNL#KB0

RG3M88B12B1GNL#BB0

RG3M88B12B1GNL#KB0