

Product Change Notice (PCN)

Subject: Add Alternate Assembly Locations on Select VFQFPN Packages

Publication Date: 10/23/2023

Effective Date: 1/22/2024

Revision Description:

Initial Release

Description of Change:

Renesas is adding Unisem, Malaysia and Carsem, Malaysia as the alternate Assembly location for 9DBL0252CKILFT (VFQFPN-24) and 9ZXL1251EKILFT (VFQFPN-64) respectively in expanding the supply chain. Both the alternate assembly locations are the current qualified location for Renesas. The material sets of the current and the alternate assembly locations are as shown in the below table. 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 as a result of this change.

VFQFPN-24	Existing	Alternate
Material Set / Assembly	GEI, Taiwan	Unisem, Malaysia
Die Attach Epoxy	EN4900GC	EN-4900GC
Bonding Wire	Copper Wire	Copper Wire
Mold Compound	EME-G700HA	EME-G770HJ

VFQFPN-64	Existing				Alternate
Material Set / Assembly	ASEK, Taiwan	ASECL, Taiwan	GEI, Taiwan	JCET, China	Carsem, Malaysia
Die Attach Epoxy	EN4900F	EN4900G	CRM-1076DJ-G	EN-4900GC	QMI519
Bonding Wire	Copper Wire	Copper Wire	Copper Wire	Copper Wire	Copper Wire
Mold Compound	EME-G631H	EME-G700LA	EME-G700HA	CEL-9240HF	EME-G770HCD

Affected Product List: 9DBL0252CKILF, 9DBL0252CKILFT, 9ZXL1251EKILF, 9ZXL1251EKILFT.

Reason for Change:

The change is to create additional supply 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
R	ASEK Taiwan
RC	ASEC Taiwan
GR	GEI Taiwan
Z	Unisem Malaysia
JC	JCET China
MS	Carsem, Malaysia

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-24

Qual Vehicle: VFQFPN-24

Assembly Material: As shown in page 1

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

Assembly Location: Unisem, Malaysia

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	-

Affected Package: VFQFPN-64

Qual Vehicle: VFQFPN-64

Assembly Material: As shown in page 1

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

Assembly Location: Carsem, Malaysia

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 3, 260 °C	0/25	0/25	-

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