

Product Change Notice (PCN)

Subject: Add JCET, China as an Alternate Assembly Location on Select VFQFPN Packages

Publication Date: 10/7/2024

Effective Date: 1/6/2025

Revision Description:

Initial Release

Description of Change:

Renesas is adding JCET, China as an alternate Assembly location in expanding the supply chain for select VFQFPN packages. The alternate assembly location is 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 due to this change.

Material Set / Assembly	Existing Assembly		Alternate Assembly
	ASEC, Taiwan	GEI, Taiwan	JCET, China
VFQFPN-16			
Die Attach Epoxy	EN4900GC	CRM-1076DJ-G	EN-4900GC
Bonding Wire	Copper Wire	Copper Wire	Copper Wire
Mold Compound	EME-G700LA	EME-G700HA	EME-G700LA
VFQFPN-20			
Die Attach Epoxy	ATB-125		IDU5C3-25E
Bonding Wire	Copper Wire		Copper Wire
Mold Compound	EME-G700LA		EME-G700LA
VFQFPN-24			
Die Attach Epoxy	EN4900G	EN4900GC	EN-4900GC
Bonding Wire	Copper Wire	Copper Wire	Copper Wire
Mold Compound	EME-G700LA	EME-G700HA	EME-G700LA
VFQFPN-64			
Die Attach Epoxy	EN4900G	CRM-1076DJ-G	EN-4900GC
Bonding Wire	Copper Wire	Copper Wire	Copper Wire
Mold Compound	EME-G700LA	EME-G700HA	EME-G631

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

Assembly Lot# Prefix	Assembly Location	Existing/Alternate Location
RC	ASEC Taiwan	Existing Assembly
GR	GEI Taiwan	Existing Assembly
JC	JCET China	Alternate Assembly

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-16, 24

Qual Vehicle: VFQFPN-24

Assembly Material: As shown in page 1

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

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
Bond 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-20

Qual Vehicle: VFQFPN-20

Assembly Material: As shown in page 1

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

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
Bond 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-64

Qual Vehicle: VFQFPN-64

Assembly Material: As shown in page 1

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

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
* 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
Bond 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*

Appendix B – Affected Product List

5L35021B-000NDGI	5L35021B-619NDGI8	5P35021B-142NDGI8	5P35021B-166NDGI
5L35021B-000NDGI8	5L35021B-ENGNDGI	5P35021B-143NDGI	5P35021B-166NDGI8
5L35021B-001NDGI	5L35021BNDGI	5P35021B-143NDGI8	5P35021B-300NDGI
5L35021B-001NDGI8	5L35021BNDGI8	5P35021B-144NDGI	5P35021B-300NDGI8
5L35021B-101NDGI	5L35021BROOTNDGI	5P35021B-144NDGI8	5P35021B-301NDGI
5L35021B-101NDGI8	5L35021BROOTNDGI8	5P35021B-145NDGI	5P35021B-301NDGI8
5L35021B-102NDGI	5P35021B-000NDGI	5P35021B-145NDGI8	5P35021B-602NDGI
5L35021B-102NDGI8	5P35021B-000NDGI8	5P35021B-146NDGI	5P35021B-602NDGI8
5L35021B-103NDGI	5P35021B-001NDGI	5P35021B-146NDGI8	5P35021B-608NDGI
5L35021B-103NDGI8	5P35021B-001NDGI8	5P35021B-148NDGI	5P35021B-608NDGI8
5L35021B-104NDGI	5P35021B-003NDGI	5P35021B-148NDGI8	5P35021B-612NDGI
5L35021B-104NDGI8	5P35021B-003NDGI8	5P35021B-150NDGI	5P35021B-612NDGI8
5L35021B-600NDGI	5P35021B-108NDGI	5P35021B-150NDGI8	5P35021B-615NDGI
5L35021B-600NDGI8	5P35021B-108NDGI8	5P35021B-151NDGI	5P35021B-615NDGI8
5L35021B-601NDGI	5P35021B-112NDGI	5P35021B-151NDGI8	5P35021B-616NDGI
5L35021B-601NDGI8	5P35021B-112NDGI8	5P35021B-152NDGI	5P35021B-616NDGI8
5L35021B-602NDGI	5P35021B-113NDGI	5P35021B-152NDGI8	5P35021B-617NDGI
5L35021B-602NDGI8	5P35021B-113NDGI8	5P35021B-154NDGI	5P35021B-617NDGI8
5L35021B-603NDGI	5P35021B-119NDGI	5P35021B-154NDGI8	5P35021B-618NDGI
5L35021B-603NDGI8	5P35021B-119NDGI8	5P35021B-155NDGI	5P35021B-618NDGI8
5L35021B-604NDGI	5P35021B-122NDGI	5P35021B-155NDGI8	5P35021B-619NDGI
5L35021B-604NDGI8	5P35021B-122NDGI8	5P35021B-156NDGI	5P35021B-619NDGI8
5L35021B-605NDGI	5P35021B-124NDGI	5P35021B-156NDGI8	5P35021B-620NDGI
5L35021B-605NDGI8	5P35021B-124NDGI8	5P35021B-157NDGI	5P35021B-620NDGI8
5L35021B-606NDGI	5P35021B-129NDGI	5P35021B-157NDGI8	5P35021B-621NDGI
5L35021B-606NDGI8	5P35021B-129NDGI8	5P35021B-158NDGI	5P35021B-621NDGI8
5L35021B-607NDGI	5P35021B-132NDGI	5P35021B-158NDGI8	5P35021B-752NDGI
5L35021B-607NDGI8	5P35021B-132NDGI8	5P35021B-159NDGI	5P35021B-752NDGI8
5L35021B-611NDGI	5P35021B-134NDGI	5P35021B-159NDGI8	5P35021B-755NDGI
5L35021B-611NDGI8	5P35021B-134NDGI8	5P35021B-160NDGI	5P35021B-755NDGI8
5L35021B-613NDGI	5P35021B-135NDGI	5P35021B-160NDGI8	5P35021B-756NDGI
5L35021B-613NDGI8	5P35021B-135NDGI8	5P35021B-161NDGI	5P35021B-756NDGI8
5L35021B-614NDGI	5P35021B-138NDGI	5P35021B-161NDGI8	5P35021B-757NDGI
5L35021B-614NDGI8	5P35021B-138NDGI8	5P35021B-162NDGI	5P35021B-757NDGI8
5L35021B-615NDGI	5P35021B-139NDGI	5P35021B-162NDGI8	5P35021B-758NDGI8
5L35021B-615NDGI8	5P35021B-139NDGI8	5P35021B-163NDGI	5P35021B-759NDGI
5L35021B-617NDGI	5P35021B-140NDGI	5P35021B-163NDGI8	5P35021B-760NDGI
5L35021B-617NDGI8	5P35021B-140NDGI8	5P35021B-164NDGI	5P35021B-761NDGI
5L35021B-618NDGI	5P35021B-141NDGI	5P35021B-164NDGI8	5P35021B-761NDGI8
5L35021B-618NDGI8	5P35021B-141NDGI8	5P35021B-165NDGI	5P35021B-762NDGI
5L35021B-619NDGI	5P35021B-142NDGI	5P35021B-165NDGI8	5P35021B-763NDGI

5P35021B-764NDGI	5P35021B-776NDGI	8P34S2108-1NLGI8	8V79S683NLGI8
5P35021B-764NDGI8	5P35021B-780NDGI	8V41NS0412NLGI	F1420NLGK
5P35021B-765NDGI	5P35021B-780NDGI8	8V41NS0412NLGI8	F1420NLGK8
5P35021B-765NDGI8	5P35021B-784NDGI	8V49NS0312NLGI	F1421NLGK
5P35021B-766NDGI	5P35021B-784NDGI8	8V49NS0312NLGI8	F1421NLGK8
5P35021B-766NDGI8	5P35021B-ENGNDGI	8V49NS1412NLGI	F2932NBGP
5P35021B-768NDGI	5P35021BROOTNDGI	8V49NS1412NLGI8	F2932NBGP8
5P35021B-768NDGI8	5P35021BROOTNDGI8	8V49NS4812NLGI	RC18016AGN1#BB0
5P35021B-774NDGI	6P41765NDGI	8V49NS4812NLGI#	RC18016AGN1#KB0
5P35021B-774NDGI8	6P41765NDGI8	8V49NS4812NLGI8	
5P35021B-775NDGI	8P34S2108-1NLGI	8V79S683NLGI	
5P35021B-775NDGI8	8P34S2108-1NLGI/W	8V79S683NLGI/W	