

## Product Change Notice (PCN)

**Subject:** Add Alternate Assembly Locations on Select Packages

**Publication Date:** 5/14/2020

**Effective Date:** 8/14/2020

**Revision Description:**

Initial Release

**Description of Change:**

Renesas is adding UTL, Thailand and JCET, China as alternate assembly locations for select VFQFPN packages. Presently, both UTL, Thailand and JCET, China are the qualified assembly locations for Renesas. The current assembly location for the impacted VFQFPN packages is at ASE Taiwan. 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 at the alternate locations.

No change in moisture sensitive level as a result of this change.

Package	Material Sets	Existing Assembly		Alternate Assembly	
		ASECLTaiwan	ASEK Taiwan	UTL Thailand	JCET China
QFN40	Die Attach	EN4900G		8600	
	Bonding Wire	Copper wire		Copper wire	
	Mold Compound	EME-G700LA		G770HCD	
QFN24	Die Attach		EN4900F	8200T	
	Bonding Wire		Copper wire	Copper wire	
	Mold Compound		G631H	G770HCD	
QFN56	Die Attach		EN4900F	8600	EN4900GC
	Bonding Wire		Copper wire	Copper wire	Copper wire
	Mold Compound		G631H	G770HCD	CEL-9240HF

**Affected Product List:** Refer Appendix B

**Reason for Change:**

The change is for increased manufacturing capability and 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# with prefix "U" denote UTL Thailand, and prefix "JC" denote JCET China.

**Qualification Status:** Completed. Refer Appendix A

**Sample Availability Date:** 7/1/2020

**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](mailto:idt-pcn@lm.renesas.com)**

**Appendix A - Qualification Results**

**Affected Packages:** VFQFPN40, 56

**Qual Vehicle:** VFQFPN72

**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
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*

**Affected Packages:** VFQFPN24

**Qual Vehicle:** VFQFPN28

**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
Moisture Sensitivity Level, MSL	J-STD-20 / MSL 1, 260 °C	0/25	0/25	-

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

**Appendix A - Qualification Results (continued)**

**Affected Packages:** VFQFPN56

**Qual Vehicle:** VFQFPN72

**Assembly Material:** As shown in page 1

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

**Assembly Location:** JCET China

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
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*

**Appendix B – Affected Product List**

5P1103AROOTNLGI	5P49V5925BROOTNLGI	6P41501NLG	8T49N1083NLGI
5P1103AROOTNLGI8	5P49V5927AROONLGI8	6P41501NLG8	8T49N1083NLGI#
5P1105AROOTNLGI	5P49V5927AROOTNLGI	6P41561NLGI	8T49N1083NLGI8
5P1105AROOTNLGI8	5P49V5927BROONLGI8	6P41561NLGI8	8T49N2183-01NLGI
5P49V5901AROONLGI8	5P49V5927BROOTNLGI	6V40102NLGI	8T49N2183-01NLGI#
5P49V5901AROOTNLGI	5P49V5929AROONLGI8	6V40102NLGI8	8T49N2183-01NLGI8
5P49V5901BROONLGI8	5P49V5929AROOTNLGI	6V41466NDGI	8T49N285ANLGI
5P49V5901BROOTNLGI	5P49V5929BROONLGI8	6V41466NDGI8	8T49N285ANLGI8
5P49V5913AROONLGI8	5P49V5929BROOTNLGI	6V41563NLGI	8T49N287ANLGI
5P49V5913AROOTNLGI	5P49V6901AROONLGI8	6V41564NLGI	8T49N287ANLGI8
5P49V5913BROONLGI8	5P49V6901AROOTNLGI	6V41564NLGI8	9FGL0641CKILF
5P49V5913BROOTNLGI	5P49V6913AROONLGI8	6V41565NLGI	9FGL0641CKILFT
5P49V5914AROONLGI8	5P49V6913AROOTNLGI	6V41565NLGI8	9FGL0651CKILF
5P49V5914AROOTNLGI	5P49V6914AROONLGI8	6V41801BNDGI	9FGL0651CKILFT
5P49V5914BROONLGI8	5P49V6914AROOTNLGI	6V41801BNDGI8	9FGP304BKILF
5P49V5914BROOTNLGI	5P49V6965AROONLGI8	6V41803BNDGI	9FGP304BKILFT
5P49V5923AROONLGI8	5P49V6965AROOTNLGI	6V41803BNDGI8	9P40301BKILF
5P49V5923AROOTNLGI	6P40110BNLGI	6V41821BNDGI	9P40301BKILFT
5P49V5923BROONLGI8	6P40110BNLGI8	6V41821BNDGI8	DELL0651BKILF
5P49V5923BROOTNLGI	6P40110NLGI	6V41823NDGI	DELL0651BKILFT
5P49V5925AROONLGI8	6P40110NLGI8	6V41823NDGI8	
5P49V5925AROOTNLGI	6P40210NLGI	8T49N012NLGI	
5P49V5925BROONLGI8	6P40210NLGI8	8T49N012NLGI8	