

## Product Change Notice (PCN)

**Subject:** Add Alternate Assembly Location on Select Package

**Publication Date:** 12/7/2020

**Effective Date:** 3/7/2021

**Revision Description:**

Initial Release

**Description of Change:**

Renesas is adding Carsem, Malaysia as an alternate assembly location for select VFQFPN package. Presently, Carsem is a qualified assembly location for Renesas. The current assembly location for the impacted VFQFPN package is at JCET, China. The material sets of the current and the alternate assembly location are as shown in the below table. There will be changes in the material sets at the alternate location.

There will be no changes in moisture sensitive level as a result of this change.

Package	Material Sets	Existing Assembly JCET, China	Alternate Assembly Carsem, Malaysia
QFN16	Die Attach	ATROX 800HT5	EN4900GC & AAM800- HT2V
	Bonding Wire	Gold wire	Gold wire
	Mold Compound	EME-G700LA	EME-G770HCD

**Affected Product List:** F1473NLGA, F1473NLGA8, F1478NLGA, F1478NLGA8

**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 "MS" denote Carsem Malaysia.

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

**Sample Availability Date:** 1/27/2021

**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 Package:** VFQFPN16

**Qual Vehicle:** VFQFPN16

**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
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
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*