

Product Advisory (PA)

Subject: Add Additional Manufacturing Locations on FCQFN28 and FCQFN36

Publication Date: 9/15/2021

Effective Date: 12/7/2021

Revision Description:

Revision 2 is to update qualification results of package FCQFN28 assembled at the alternate assembly, ASEC that is completed successfully. In addition, this revision corrects the typo on the lead frame material type for FCQFN28 at GEI from Shinko C194 to Shinko C7025.

Description of Change:

Renesas is adding alternate manufacturing locations for these products to allow manufacturing flexibility and dual source. The alternate locations, ASEC and Greatek are the current Renesas qualified manufacturing locations.

There will be no change in the moisture sensitive level.

Package/ Device	Material Sets	Existing Assembly		Alternate Assembly	
		GEI Taiwan	ASEC Taiwan	GEI Taiwan	ASEC Taiwan
FCQFN36 P8900	Lead Frame	Shinko C194			Shinko C7025
	Bump Stack Up	37/Cu/3Ni/35SnAg			37/Cu/3Ni/35SnAg
	Mold Compound	EME-G631B			EME-G700LA-LF
FCQFN36 P8910	Lead Frame		Shinko C7025	Shinko C194	
	Bump Stack Up		37/Cu/3Ni/35SnAg	37/Cu/3Ni/35SnAg	
	Mold Compound		EME-G700LA-LF	EME-G631B	
FCQFN28 P8911 P8912	Lead Frame	Shinko C7025			Shinko C7025
	Bump Stack Up	37/Cu/3Ni/35SnAg			37/Cu/3Ni/35SnAg
	Mold Compound	EME-G631B			EME-G700LA-LF

Affected Product List: Refer Appendix B.

Reason for Change:

To provide manufacturing flexibility and dual source.

Impact on Fit, Form, Function, Quality & Reliability:

The change will have no impact on the form, fit, function, quality and reliability.

Product Identification:

Assembly lot# prefix where GR denotes GEI and RC denotes ASEC.

Qualification Status: Refer Appendix A.

Sample Availability Date: 8/6/2021

Device Material Declaration: Available upon request.

Questions or requests pertaining to this change notice, including additional data or samples, must be sent to Renesas within 30 days of the publication date.

For additional information regarding this notice, please contact idt-pcn@lm.renesas.com

Appendix A - Qualification Results

Affected Packages: FCQFN36

Qual Vehicle: FCQFN36, P8900

Assembly Material: As shown in page 1

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

Assembly Location: GEI, Taiwan

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
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*

Affected Packages: FCQFN36

Qual Vehicle: FCQFN36, P8900

Assembly Material: As shown in page 1

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

Assembly Location: ASEC, Taiwan

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
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*

Affected Packages: FCQFN28

Qual Vehicle: FCQFN28, P8911

Assembly Material: As shown in page 1

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

Assembly Location: ASEC, Taiwan

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
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

P8900-AoA001FNG	P8900-YoZ001FNG8	P8900-Z1Z001FNG8	P8910-ZoZ003FNG8
P8900-AoA001FNG8	P8900-YoZ001NBG	P8900-Z1Z002FNG8	P8910-Z1Z001FNG
P8900-AoA001NBG	P8900-YoZ002FNG	P8900-Z2D003FNG	P8910-Z1Z001FNG8
P8900-AoA001NBG8	P8900-YoZ002FNG8	P8900-Z2D003FNG8	P8911-YoB001FNG
P8900-AoA002FNG	P8900-YoZ002NBG	P8900-Z2D004FNG	P8911-YoB001FNG8
P8900-AoA002FNG8	P8900-Y1D003FNG	P8900-Z2D004FNG8	P8911-YoZ001FNG
P8900-AoA002NBG	P8900-Y1D003FNG8	P8900-Z2D104FNG	P8911-YoZ001FNG8
P8900-AoA002NBG8	P8900-Y1D004FNG	P8900-Z2D104FNG8	P8911-YoZ001FNG8/D
P8900-REVENTON	P8900-Y1D004FNG8	P8900-Z2Z003FNG	P8911-YoZ001FNG8/H
P8900-REVENTON2	P8900-Y1D005FNG	P8900-Z2Z003FNG8	P8911-YoZ0R1FNG
P8900-VEYRON	P8900-Y1D005FNG8	P8900-Z2Z004FNG	P8911-YoZ0R1FNG8
P8900-XoD001FNG	P8900-Y1Z003FNG	P8900-Z2Z004FNG8	P8911-YoZ901FNG
P8900-XoD001FNG8	P8900-Y1Z003FNG8	P8900-Z2Z005FNG	P8911-YoZ901FNG8
P8900-XoD002FNG	P8900-Y1Z004FNG	P8910-XoZ001FNG	P8911-YoZ901FNG8/D
P8900-XoD002FNG8	P8900-Y1Z004FNG8	P8910-XoZ001FNG8	P8911-YoZ901FNG8/H
P8900-XoZ001FNG	P8900-Y1Z005FNG	P8910-XoZ002FNG	P8911-ZoZ001FNG
P8900-XoZ001FNG8	P8900-Y1Z005FNG8	P8910-XoZ002FNG8	P8911-ZoZ001FNG8
P8900-XoZ002FNG	P8900-ZoZ001FNG	P8910-YoZ001FNG	P8911-ZoZ002FNG
P8900-XoZ002FNG8	P8900-ZoZ001FNG8	P8910-YoZ001FNG8	P8911-ZoZ002FNG8
P8900-YoB001FNG	P8900-ZoZ001NBG8	P8910-ZoZ001FNG	P8912-ZoZ001FNG
P8900-YoB001FNG8	P8900-ZoZ002FNG	P8910-ZoZ001FNG8	P8912-ZoZ001FNG8
P8900-YoD001FNG	P8900-ZoZ002FNG8	P8910-ZoZ002FNG	P8912-Z1Z001FNG
P8900-YoD001FNG8	P8900-ZoZ002NBG	P8910-ZoZ002FNG8	P8912-Z1Z001FNG8
P8900-YoZ001FNG	P8900-ZoZ002NBG8	P8910-ZoZ003FNG	