

Product Change Notice (PCN)

Subject: Add Alternate Assembly Location and Change Material Sets on TSOP-44

Publication Date: 5/11/2021

Effective Date: 8/11/2021

Revision Description:

Initial Release

Description of Change:

Renesas is adding Greatek, Taiwan as an alternate assembly location for TSOP-44 package. Presently, Greatek is the qualified assembly location for Renesas. The current assembly location for the impacted package is at OSET, Taiwan. 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.

In addition, the material sets namely die attach and mold compound used at the current assembly OSET will be changed to new materials as shown in the below table as a result of OSET standardize the materials used on all TSOP-44 package.

There will be no changes in moisture sensitive level resulted from the above mentioned two changes.

Material Sets	Existing Assembly OSET, Taiwan Current materials	Existing Assembly OSET, Taiwan New materials	Alternate Assembly Greatek, Taiwan
Die Attach	EN4900GC	CRM-1076W-A	EN4900GC
Bonding Wire	Gold wire	Gold wire	Gold wire
Mold Compound	G700LK	G631LT	G700SLA

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 “GR” denotes Greatek, Taiwan and new material used are traceabled from the assembly lot#.

Qualification Status: Completed. Refer Appendix A
Sample Availability Date: 7/15/2021
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

Appendix A - Qualification Results – Add Greatek Taiwan as alternate assembly

Affected Package: TSOP-44

Qual Vehicle: TSOP-44

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
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 3, 260°C	0/25	0/25	-

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

Appendix A - Qualification Results – Change material sets at OSET Taiwan

Affected Package: TSOP-44

Qual Vehicle: TSOP-44

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
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 3, 260°C	0/25	0/25	-

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

Appendix B – Affected Product List

71V416S10PHG	71V424L12PHGI	71V016SA10PHG8	71V416L12PHG/3247
71V416S15PHG18	71V424S12PHG8	71V016SA10PHGI	71V416L12PHG8
71V416S15PHG8	71V424S12PHGI	71V016SA10PHGI8	71V416L12PHGI
71V416S15PHGI	71V424S12PHGI8	71V016SA12PHG	71V416L12PHGI8
71V416S15PHGI8	71V424S15PHG	71V016SA12PHG5	71V416L15PHG
71V424L10PHG	71V424S15PHG8	71V016SA12PHG8	71V416L15PHG8
71V424L10PHG8	71V424S15PHGI	71V016SA12PHGI	71V416L15PHGI
71V424L10PHGI	71V424S15PHGI8	71V016SA12PHGI8	71V416L15PHGI5
71V424L10PHGI8	71V424Y5S15PHG	71V016SA10PHG	71V416L12PHG
71V416S15PHG1	71V424S12PHG	71016S20PHGI8	71V416L10PHGI8
71V416S15PHG	71V424S10PHGI8	71016S12PHG8	71V016SA15PHGI8
71V416S10PHG8	71V424L12PHGI8	71016S15PHG	71V016SA20PHG
71V416S10PHGI	71V424L15PHG	71016S15PHG8	71V016SA20PHG8
71V416S10PHGI8	71V424L15PHG8	71016S15PHGI	71V016SA20PHGI
71V416S12PHG	71V424L15PHGI	71016S15PHGI8	71V016SA20PHGI8
71V416S12PHG/3211	71V424L15PHGI8	71016S20PHG	71V416L10PHG
71V416S12PHG8	71V424S10PHG	71016S20PHG8	71V416L10PHG8
71V416S12PHGI	71V424S10PHG8	71016S20PHGI	71V416L10PHGI
71V416S12PHGI8	71V424S10PHGI	71V016SA15PHG	71V416L15PHGI8
71V424L12PHG	71V424Y5S15PHG8	71V016SA15PHG8	
71V424L12PHG8	71016S12PHG	71V016SA15PHGI	