

## Product Change Notice (PCN)

**Subject:** MSL Re-Classification for listed Renesas MSOP and nSOIC products

**Publication Date:** 6/17/2022

**Effective Date:** 9/15/2022

**Revision Description:**

Initial Release

**Description of Change:**

This is to inform you that Renesas will change Moisture Sensitive Level (MSL) Classification from MSL 2 and 3 to MSL 1 for listed Renesas MSOP (Mini Small Outline Package) and nSOIC (narrow Small Outline Integrated Circuit) Products.

Listed MSOP and nSOIC products will be shipped and labelled as MSL1 without Dry Pack.

**Reason for Change:**

Moisture Sensitivity Level (MSL) re-classification according to product and process's capability from Renesas subcontractor.

**Impact on fit, form, function, quality & reliability:**

The change will have no change to the assembly material sets and the peak reflow temperature. There is no impact on the form, fit, function, quality, reliability and environmental compliance of the devices.

**Product Identification:**

Product affected by this change is identifiable via Renesas's internal traceability system.

**Qualification status:** Completed, see attached

**Sample availability:** 8/1/2022

**Device material declaration:** Available upon request

**Disclaimer for sample orders :**

Due to the limited shelf life and availability of raw materials and capacity, we will not be able to offer samples for some of the products and some customers affected by the notice. For those products which we can accommodate sampling, samples will be available from August 01, 2022 onwards subject to availability. Customers can expect 1 – 2 months for sample delivery. If interested, contact Renesas Sales to determine if samples are available for your product of interest. Customer to which we cannot offer samples will be able to continue to receive our products with the current production flow.

**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.
- If customer cannot accept the PCN then customer must provide Renesas with a last time buy demand and purchase order.

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 your regional change coordinator (below)			
Americas: <a href="mailto:PCN-US@renesas.com">PCN-US@renesas.com</a>	Europe: <a href="mailto:PCN-EU@renesas.com">PCN-EU@renesas.com</a>	Japan: <a href="mailto:PCN-JP@renesas.com">PCN-JP@renesas.com</a>	Asia Pac: <a href="mailto:PCN-APAC@renesas.com">PCN-APAC@renesas.com</a>

Appendix A - Affected Products List (see attached)

**Affected Device List (MSOP Package)**

RAA7881582GSU#HB0	ISL83078EIUZA	ISL3171EIUZ-T	RAA7881562GSU#HB0	ISL3176EIUZ
RAA7881582GSU#AB0	ISL83075EIUZA-T	ISL3171EIUZ	RAA7881562GSU#AB0	ISL3173EIUZ-T
RAA7881552GSU#HB0	ISL83075EIUZA	ISL3159EIUZ-T7A	RAA7881532GSU#HB0	ISL3173EIUZ
RAA7881552GSU#AB0	ISL83072EIUZA-T	ISL3159EIUZ-T	RAA7881532GSU#AB0	ISL3170EIUZ-T
RAA7881522GSU#HB0	ISL83072EIUZA	ISL3159EIUZ	RAA7881502GSU#HB0	ISL3170EIUZ
RAA7881522GSU#AB0	ISL6840IUZ-T	ISL3159EFUZ-T7A	RAA7881502GSU#AB0	ISL3156EIUZ-T7A
ISL9007IUNZ-T	ISL6840IUZ	ISL3159EFUZ-T	ISL8484IUZ-T	ISL3156EIUZ-T
ISL9007IUNZ	ISL32601EFUZ-T7A	ISL3159EFUZ	ISL8484IUZ	ISL3156EIUZ
ISL9007IUKZ-T	ISL32601EFUZ-T	ISL3152EIUZ-T7A	ISL84524IUZ-T	ISL3153EIUZ-T7A
ISL9007IUKZ	ISL32601EFUZ	ISL3152EIUZ-T	ISL84524IUZ	ISL3153EIUZ-T
ISL9007IUJZ-T	ISL3259EIUZ-T	ISL3152EIUZ	ISL83086EIUZ-T	ISL3153EIUZ
ISL9007IUJZ	ISL3259EIUZ	ISL32603EFUZ-T7A	ISL83086EIUZ	ISL3150EIUZ-T7A
ISL9007IUFZ-T	ISL3179EIUZ-T7A	ISL32603EFUZ-T	ISL83083EIUZ-T	ISL3150EIUZ-T
ISL9007IUFZ	ISL3177EIUZ-T	ISL32603EFUZ	ISL83083EIUZ	ISL3150EIUZ
ISL83088EIUZ-T	ISL3177EIUZ	ISL3178EIUZ-T	ISL43640IUZ-T	ISL1219IUZ-T
ISL83088EIUZ	ISL3175EIUZ-T	ISL3178EIUZ	ISL43640IUZ	ISL1219IUZ
ISL83085EIUZ-T	ISL3175EIUZ	ISL3179EIUZ-T	ISL32600EFUZ-T7A	ISL6745AAUZ-TS2712
ISL83085EIUZ	ISL3174EIUZ-T	ISL3179EIUZ	ISL32600EFUZ-T	ISL6745AAUZ-T
ISL83082EIUZ-T	ISL3174EIUZ	ISL6744AAUZ-TS2705	ISL32600EFUZ	ISL6745AAUZ
ISL83082EIUZ	ISL3172EIUZ-T	ISL6744AAUZ-T	ISL3176EIUZ-T7A	ISL1209IU10Z-TK
ISL83078EIUZA-T	ISL3172EIUZ	ISL6744AAUZ	ISL3176EIUZ-T	ISL1209IU10Z

Appendix B - Affected Products List (see attached)

**Affected Device List (nSOIC Package)**

ISL12058IBZ	EL5263ISZ	EL7156CSZ	ISL28213FBZ
ISL12057IBZ	EL5172ISZ-T7A	EL8201ISZ-T7	ISL28134IBZ-T7A
ISL12058IBZ-T	EL5172ISZ-T7	EL7156CSZ-T7	ISL28134IBZ-T7
ISL12057IBZ-T	EL5172ISZ	EL7155CSZ-T7	ISL28134IBZ-T13
ISL59885ISZ-T7A	EL5166ISZ-T7	ISL28233FBZ-T7A	ISL28134IBZ
ISL59885ISZ-T13	EL5166ISZ	ISL28233FBZ-T7	ISL28118FBZ-T7A
ISL59885ISZ	EL5160ISZ-T7A	ISL28233FBZ	ISL28118FBZ-T7
ISL55001IBZ-T7A	EL5160ISZ-T7	ISL28230FBZ-T7A	ISL28118FBZ-T13
ISL55001IBZ-T7	EL5160ISZ-T13	ISL28230FBZ-T7	ISL28118FBZ
ISL4089IBZ-T7A	EL5160ISZ	ISL28230FBZ-T13	ISL28108FBZ-T7A
ISL4089IBZ-T7	EL7155CSZ-T7A	ISL28230CBZ-T7A	ISL28108FBZ-T7
ISL4089IBZ	EL7156CSZ-T7A	ISL28230CBZ-T7	ISL28108FBZ-T13
ISL28291FBZ	ISL55001IBZ	ISL28230CBZ	ISL28108FBZ
EL8201ISZ-T13	ISL59885ISZ-T7	ISL28214FBZ-T7	ISL28230FBZ
EL8201ISZ	EL7155CSZ	ISL28214FBZ-T13	
EL7155CSZ-T13	ISL55001IBZ-T13	ISL28214FBZ	
EL5263ISZ-T7	ISL28291FBZ-T7	ISL28213FBZ-T7	
EL5263ISZ-T13	EL7156CSZ-T13	ISL28213FBZ-T13	

Appendix C - Reliability Results (see attached)

Test Description	Condition	ISL3178EIUZ-T 8 LEAD MSOP 3.00mm x 3.00mm x 0.85mm	EL7155CSZ-T7 8 LEAD n-SOIC (150MIL) 4.90mm x 3.90mm x 1.75mm
Molsture Sensitlivity Classification	Level 1	N=400 Acc=0 L1 Pb-Free	N=266 Acc=0 L1 Pb-Free
Temperature Humidity Bias (THB)	1000 hours	N=371 Acc=0 L1 Pb-Free	N=371 Acc=0 L1 Pb-Free
Bias High Accelerated Stress Test (bHAST) +130°C / 85% RH	96 hours	N=462 Acc=0 L1 Pb-Free	N=156 Acc=0 L1 Pb-Free
Unbias High Accelerated Stress Test (uHAST) +130°C / 85% RH	96 hours	N=936 Acc=0 L1 Pb-Free	N=518 Acc=0 L1 Pb-Free
Hot Temperature Storage (HTS) +150°C	500 hours	N=152 Acc=0	N=152 Acc=0
	1000 hours	N=152 Acc=0	N=152 Acc=0
Temperature Cycling Test (TCT) -40°C / +125°C	1000 cycles	N=539 Acc=0 L1 Pb-Free	N=281 Acc=0 L1 Pb-Free
Temperature Cycling Test (TCT) -65°C / +150°C	500 cycles	N=993 Acc=0 L1 Pb-Free	N=154 Acc=0 L1 Pb-Free

 Qualified by Extension (QBE)

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