Product Change Notice (PCN)

Subject: Introduce alternate assembly facility of the listed Renesas QFN packaged products
Publication Date: 07/07/2021
Effective Date: 10/5/2021

Revision Description:
Initial Release

Description of Changes:

Alternate assembly facility of the listed Renesas 72 Leads / 10x10mm packaged products

- *UTAC Thai Ltd., Bangkok, Thailand (UTL)*

Affected Device List

ISL54105ACRZ	ISLA214P12IRZ	ISLA222P13IRZ
ISL98002CRZ-170	ISLA214P13IRZ	ISLA222P20IRZ
ISLA110P50IRZ	ISLA214P20IRZ	ISLA222P25IRZ
ISLA112P50IRZ	ISLA214P25IRZ	ISLA224P12IRZ
ISLA118P50IRZ	ISLA214P50IRZ	ISLA224P13IRZ
ISLA212P20IRZ	ISLA216P13IRZ	ISLA224P20IRZ
ISLA212P25IRZ	ISLA216P20IRZ	ISLA224P25IRZ
ISLA212P50IRZ	ISLA216P25IRZ	

Reason for Change:
This notice is to inform you that Renesas Electronics America (REA) will begin to use UTL as alternate assembly facility of the listed Renesas QFN (Quad Flat No Lead) packaged products.

The existing QFN facility STATS ChipPAC Ltd. Singapore (STS) has officially announced discontinue QFN assembly. As such, REA will discontinue the use of the existing QFN facility, STATS ChipPAC (STS) effective on July 01, 2021.

UTL is existing assembly supplier for Renesas. Adding assembly site will expand current capabilities and capacities to optimize Renesas's ability to meet customer's delivery requirements. UTL facility is ISO9001:2015 and IATF 16949:2016 certified.

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

- ✓ **Form** : Form is changed. Package Singulation process is changed from mold cavity format (punch process) to molded array (sawn process). As a result, the package outline (POD) will be changed from Trapezoidal to Parallelepiped outline. Package design has adapted the existing Package Outline Dimension (POD) as such both Punch and Sawn package with identical external dimension, pin count, package thickness. The new Parallelepiped package is robust with "customer friendly design" promote easy migration from Punch to Sawn. For detail, please refer to Appendix A. You may

contact local Sale Representative for an updated Package Outline Dimension (POD).

- ✓ **Fit :** No Change to the land pattern on the PC board.
- ✓ **Function :** Lead finish will be standardized from 100% Matte Tin (Pb free) to NiPdAu-Ag. While product which initially with Lead Finish NiPdAu-Ag, will continue to be processed as NiPdAu-Ag (**No Change**).
- ✓ **Quality & Reliability : No Change**. Pass and meet the minimum quality requirement.

The assembly qualification plan is designed using JEDEC and other applicable industry standards. A summary of the qualification plan and results are available, please refer Appendix B. The remainder of the manufacturing operations (wafer fabrication, package level electrical test, etc) will continue to be processed to previously established manufacturing flow.

Product Identification:
Product affected by this change is identifiable via Renesas's internal traceability system. In addition, product assembled at UTL may also be identified by the assembly site code (country of assembly) when marked on the devices. The site code for product assembled at

#	Assembly Site	Site Code
1	UTL	S

Customers may expect to receive product from the current facilities or UTL facilities until the existing inventory is depleted or earlier with customer's approval.

Qualification status: Completed, see attached
Sample availability: 7/31/2021
Device material declaration: Available upon request

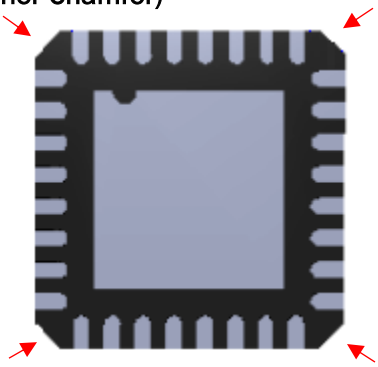
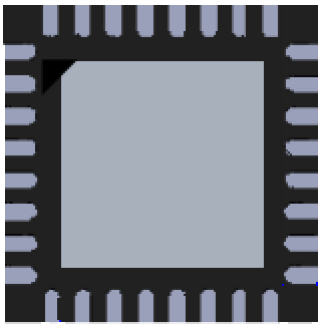
Note : Sample is available 07/31/2021 onwards, and subject to availability. Customer may expect 1 – 2 months for sample replenishment.

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.*

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: PCN-US@RENESAS.COM	Europe: PCN-EU@RENESAS.COM	Japan: PCN-JP@RENESAS.COM	Asia Pac: PCN-APAC@RENESAS.COM

Appendix A : Comparison of Package Outline Dimension (POD)

	From (assembled at STS, Singapore)	To be (assembled at UTL, Thailand)
Description	Final Package Cross Section (Trapezoidal)  Punch QFN	Final Package Cross Section (Parallelepiped)  Sawn QFN
	Final Package Bottom View (With Corner Chamfer) 	Final Package Bottom View (Without Corner Chamfer) 
Form	Change from Punch Process. As a result, Package is Trapezoidal outline with same external package dimension.	To Sawn Process As a result, Package is Parallelepiped outline with same external package dimension.
Fit	No Change to the dimension nor foot print on the PC board at Customer's application.	No Change to the dimension nor foot print on the PC board at Customer's application.
Function	Leadfinish : - Change from Pb-Free 100% Matte Tin Plate No change to the devices which originally with NiPdAu-Ag Lead Finish.	Leadfinish : - To NiPdAu-Ag, as a result of standardization.

Appendix B - Qualification Result

Test Description	Condition	ISLA214P50IRZ 72 Leads 10x10mm QFN Package
Moisture Sensitivity Classification	Level 3	N=66 Acc=0 L3 Pb-Free
Unbias High Accelerated Stress Test (uHAST) +130°C / 85% RH	96 hours	N=239 Acc=0
Hot Temperature Storage (HTS) +150°C	500 hours	N=245 Acc=0
	1000 hours	N=238 Acc=0
Temperature Cycling Test (TCT) -65°C / +150°C	500 cycles	N=240 Acc=0

Completed and Passed