Product Change Notification / GBNG-28IJEQ202

Date:

03-May-2022

Product Category:

USB Security Controllers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4840 Final Notice: Qualification of UTL3 as an additional assembly site for selected SMSC SEC1110 device families available in 16L QFN (5x5x0.9mm) package.

Affected CPNs:

GBNG-28IJEQ202_Affected_CPN_05032022.pdf
GBNG-28IJEQ202_Affected_CPN_05032022.csv

Notification Text:

PCN Status: Final Notification

PCN Type: Manufacturing Change

Microchip Parts Affected: Please open one of the files found in the Affected CPNs section.
Note: For your convenience Microchip includes identical files in two formats (.pdf and .xls)

Description of Change: Qualification of UTL3 as an additional assembly site for selected SMSC SEC1110 device families available in 16L QFN (5x5x0.9mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change

Assembly Site	UTAC Thai Limited (UTL-1) LTD. (NSEB)	UTAC Thai Limited (UTL-1) LTD. (NSEB)	UTAC Thai Limited (UTL-3) (UTL3)
Wire material	CuPdAu	CuPdAu	CuPdAu
Die attach material	8600	8600	8600
Molding compound material	G700LTD	G700LTD	G700LTD
Lead frame material	EFTEC64T	EFTEC64T	EFTEC64T

Impacts to Data Sheet: None

Change Impact None

Reason for Change: To improve on-time delivery performance by qualifying UTL3 as an additional assembly site.

Change Implementation Status: In Progress

Estimated First Ship Date: June 15, 2022 (date code: 2225)

Note: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Time Table Summary:

	September 2021						**May 2022**				**June 2022**				
Workweek	36	37	38	39	40	>	19	20	21	22	23	24	25	26	27
Initial PCN Issue Date					X										
Qual Report Availability							X								
Final PCN Issue Date							X								
Estimated First Ship Date													X		

Method to Identify Change: Traceability code

Qualification Report: Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History: September 29, 2021: Issued initial notification.
May 3, 2022: Issued final notification. Updated affected CPN list and timetable summary. Attached qualification report.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachments:

PCN_GBNG-28IJEQ202 Qual Report.pdf

Please contact your local Microchip sales office with questions or concerns regarding this notification.

Terms and Conditions:

If you wish to receive Microchip PCNs via email please register for our PCN email service at our PCN home page select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the PCN FAQ section.

If you wish to change your PCN profile, including opt out, please go to the PCN home page select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

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QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN#: GBNG-28IJEQ202

Date:
April 25, 2022

Qualification of UTL3 as an additional assembly site for selected SMSC SEC1110 device families available in 16L QFN (5x5x0.9mm) package.

PACKAGE QUALIFICATION REPORT

Purpose	Qualification of UTL3 as an additional assembly site for selected SMSC SEC1110 device families available in 16L QFN (5x5x0.9mm) package.
CN	ES363567
QUAL ID	R2101052 Rev A
MP CODE	XA602SUKXC01
Part No.	SEC1110-1100A5
Bonding No.	A-058858 Rev. A
CCB#	4840
Package	
Type	16L QFN
Package size	5 x 5 x 0.9 mm
Lead Frame	
Paddle size	138 x 138 mils
Material	EFTEC64T
Surface	Ag Ring
Process	Etched
Lead Lock	Dimple
Part Number	FR1091
Material	
Epoxy	8600
Wire	CuPdAu wire
Mold Compound	G700LTD
Plating Composition	Matte Tin

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
NSEB222600407.000	TC14922196403.600	213815V
NSEB222600408.000	TC14922196403.600	213816A
NSEB222600409.000	TC14922196403.600	213816B

Result ☒ Pass ☐ Fail ☐ ____________________

16L QFN (5x5x0.9 mm) assembled by NSEB pass reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 3 at 260°C reflow temperature per IPC/JEDEC J-STD-020E standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Precondition Prior Perform Reliability Tests (At MSL Level 3)	**Electrical Test:** +25°C and 85°C System: EX_DIGITAL	JESD22-A113	693(0)	693		Good Devices
	Bake 150°C, 24 hrs System: CHINEE	JIP/ IPC/JEDEC J-STD-020E		693		
	30°C/60%RH Moisture Soak 192 hrs. System: TABAI ESPEC Model PR-3SPH			693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			693		
	Electrical Test: +25°C and 85°C System: EX_DIGITAL			0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	**Stress Condition:** -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +85°C System: EX_DIGITAL		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (> 2.00 grams)		15 (0)	0/15	Pass	
	Bond Shear (> 10.00 grams)		15 (0)	0/15	Pass	
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: EX_DIGITAL		231(0)	0/231	Pass	77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 5.5 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C and 85°C System: EX_DIGITAL		231(0)	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 150°C, 1008 hrs System: SHEL LAB	JESD22-A103		135		45 units / lot
	Electrical Test: +25°C and 85°C System: EX_DIGITAL		135(0)	0/135	Pass	
Physical Dimensions	Physical Dimension, 10 units from 1 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (> 2.00 grams)	Mil. Std. 883-2011	30 (0) Wires	0/30	Pass	
	Bond Shear (> 5.00 grams)	CDF-AEC-Q100-001	30 (0) bonds	0/30	Pass	

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Affected Catalog Part Numbers(CPN)

SEC1110-A5-02NC
SEC1110-A5-02
SEC1110-A5-02G1
SEC1110-A5-03G1
SEC1110-A5-04G1
SEC1110I-A5-02
SEC1110I-A5-02G1
SEC1110-A5-02NC-TR
SEC1110-A5-02-TR
SEC1110-1100A5
SEC1110I-A5-02-TR