Product Change Notification: CAAN-13UUGL810

Date:

09-Sep-2024

Product Category:

Ethernet PHYs

Notification Subject:

CCB 6729 Final Notice: Qualification of ASEM as an additional assembly site for selected KSZ8001 and KSZ8721 device families available in 48L LQFP (7x7x1.4mm) package.

Affected CPNs:

CAAN-13UUGL810_Affected_CPN_09092024.pdf
CAAN-13UUGL810_Affected_CPN_09092024.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 ASEM as an additional assembly site for selected KSZ8001 and KSZ8721 device families available in 48L LQFP (7x7x1.4mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change	
Assembly Site	Orient Semiconductor Electronics, Ltd (OSE)	Orient Semiconductor Electronics, Ltd (OSE)	ASE Group - Malaysia (ASEM)
Wire Material	Au	Au	Au

Die Attach Material	1	8340	8340	3230
	2	QMI-550	QMI-550	HR-5104T-25
Molding Compound Material		CEL9200HF	CEL9200HF	CEL 9240HF10AK-G1
Lead-Frame Material		C7025	C7025	C7025
Lead-Frame Paddle Size		160x160 mil	160x160 mil	150X150 mil
DAP Surface Prep		Double Ring Plating	Double Ring Plating	Ring plating
Lead-frame Design		See Pre and Post Change attachment for lead frame comparison.		

Impacts to Data Sheet: None

Change Impact None

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

Change Implementation Status: In Progress

Estimated First Ship Date: October 11, 2024 (date code: 2441)

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

Time Table Summary:

	December 2023					**>**	**September 2024**					**October 2024**			
Workweek	48	49	50	51	52		36	37	38	39	40	41	42	43	44
Initial PCN Issue Date			x												
Qual Report Availability								x							
Final PCN Issue Date								x							
Estimated Implementation 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: December 15, 2023: Issued initial notification.
September 09, 2024: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on October 11, 2024.

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

Attachments:

PCN_CAAN-13UUGL810_Pre and Post Change Summary.pdf
PCN_CAAN-13UUGL810_Qualification_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.

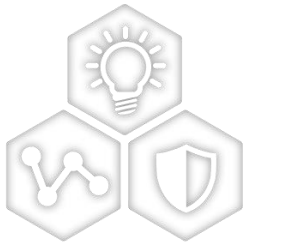
If you wish to change your PCN profile, including opt out, please go to the **PCN home page** select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

Affected Catalog Part Numbers (CPN)

KSZ8001L
KSZ8001LI
KSZ8001L-TR
KSZ8001LI-TR
KSZ8721BL
KSZ8721BLI
KSZ8721BL-TR
KSZ8721BLI-TR
KSZ8721CL
KSZ8721CL-TR

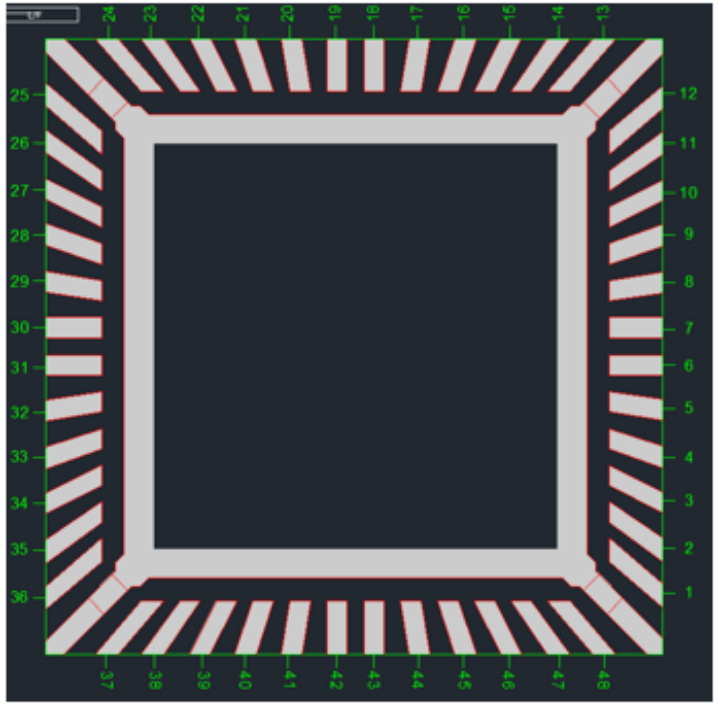
CCB 6729
Pre and Post Change Summary
PCN #: CAAN-13UUGL810

A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



LEAD FRAME COMPARISON

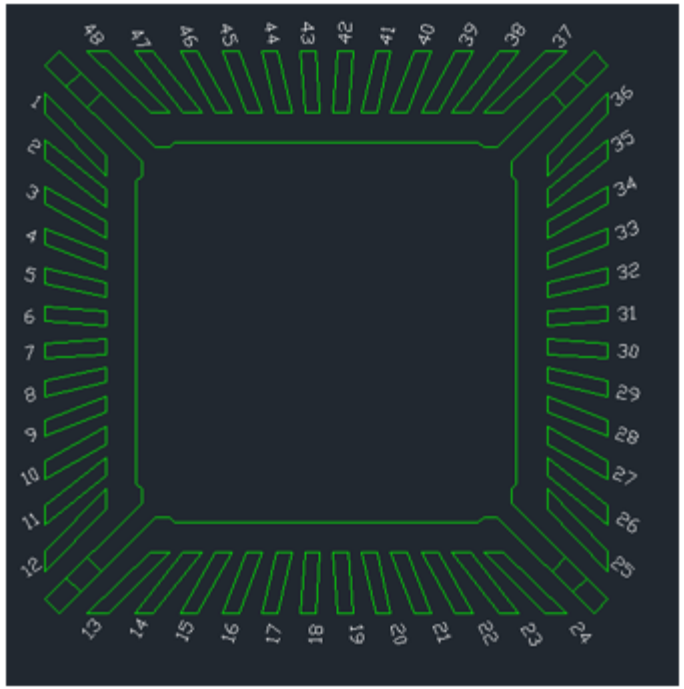
OSE



Note: Not to scale

Wire Material	Au
Lead Frame Material	C7025
Lead-Frame Paddle Size	160x160 mil

ASEM



Note: Not to scale

Wire Material	Au
Lead Frame Material	C7025
Lead-Frame Paddle Size	150X150 mil

QUALIFICATION REPORT SUMMARY

Date:
August 16, 2024

Qualification of ASEM as an additional assembly site for selected KSZ8001 and KSZ8721 device families available in 48L LQFP (7x7x1.4mm) package.

Purpose: Qualification of ASEM as an additional assembly site for selected KSZ8001 and KSZ8721 device families available in 48L LQFP (7x7x1.4mm) package.

Summary: The purpose of this report is to qualify Mask 36063 devices in 48L LQFP 7x7x1.4mm at ASEM per CCB# 6729 and following guidelines established in Microchip specification QCI-39000, “Worldwide Quality Conformance Requirements”.

Conclusion: Based on the results, Mask 36063 in 48L LQFP 7x7x1.4mm package at ASEM complies with the reliability guidelines implemented in the qualification plan. Therefore, this package can be released to production.

I. Device Description:

Device	KSZ8721BLI
Document Control Number	ML0820242962
Document Revision	A
CCB No.:	6729

II. Qualification Material:

TEST LOT	LOT 1	LOT 2	LOT 3
WAFER LOT	TC03924324439.100/C19A95.00	TC03924324439.100/C19A95.00	TC03924324439.100/C19A95.00
ASSEMBLY LOT	ASEM244100159.000	ASEM244100160.000	ASEM244100161.000
PACKAGE	48L LQFP 7x7x1.4mm	48L LQFP 7x7x1.4mm	48L LQFP 7x7x1.4mm
QUAL TESTS	PRECOND, HTSL, HAST, UHAST, TC	PRECOND, HAST, UHAST, TC	PRECOND, HAST, UHAST, TC

III. Bill of Materials:

Misc.	**Assembly site**	ASEM
	MP Code (MPC)	360637CAAA01
	Part Number (CPN)	KSZ8721BLI
Lead-Frame	**Paddle size**	150X150
	Material	C7025
	Treatment	Non- Rough
	Process	Etched
	Lead-lock	No
	Part Number	102548404100
	Lead Plating	Matte Tin
Bond Wire	**Material**	Au
Die 1 Attach	**Part Number**	ABLEBOND 3230
	Conductive	Yes
Die 2 Attach	**Part Number**	HR-5104T-25
	Conductive	No
MC	**Part Number**	CEL 9240HF10AK-G1
PKG	**PKG Type**	LQFP
	MSL	3
	Pin/Ball Count	48L
	PKG width/size	7x7x1.4mm

IV. Qualification Data:

Package Preconditioning

Test Method/Condition	JEDEC J-STD-020D and JESD22-A113F, MSL Level 3 soak and 260^{O}C peak Reflow Temperature
Lot #	Results (Fail/Pass)
Lot 1	0/255, Pass
Lot 2	0/255, Pass
Lot 3	0/255, Pass

Post testing was conducted at +25◦C, +85◦C

HAST (Highly Accelerated Temperature and Humidity Stress Test)

Test Method/Condition	JESD22-A110, Vin = +3.3V, Ta = +130^{O}C/85%RH, 96 HRS Min SS = 77 units
Lot #	Results (Fail/Pass)
Lot 1	0/82 (Pass)
Lot 2	0/82 (Pass)
Lot 3	0/82 (Pass)

Pre and Post testing was conducted at +25◦C, +85◦C

UNBIASED HAST

Test Method/Condition	JESD22-A118, Ta = +130^{O}C/85%RH, 96HRS Min SS = 77 units
Lot #	Results (Fail/Pass)
Lot 1	0/82 (Pass)
Lot 2	0/82 (Pass)
Lot 3	0/82 (Pass)

Pre and Post testing was conducted at +25◦C

Temperature Cycling

Test Method/Condition	JESD22-A104, Ta = -65^{O}C/+150 ^{O}C, 500 CYC Min SS = 77 units
Lot #	Results (Fail/Pass)
Lot 1	0/82, WPS after TCY: 0/5 (Pass)
Lot 2	0/82 (Pass)
Lot 3	0/82 (Pass)

Pre and Post testing was conducted at +25◦C, +85◦C

High Temperature Storage Life

Test Method/Condition	JESD22-A103, Ta = +175 ^{O}C, 504HRS Min SS = 45 units
Lot #	Results (Fail/Pass)
Lot 1	0/50 (Pass)

Pre and Post testing was conducted at +25◦C, +85◦C