MICROCHIP

Product Change Notification: CENO-12ILED699

Date:

10-Sep-2024

Product Category:

Ethernet Switches

Notification Subject:

CCB 6730 Final Notice: Qualification of ASEM as an additional assembly site for selected KSZ8863 device family available in 48L LQFP (7x7x1.4mm) package.

Affected CPNs:

CENO-12ILED699_Affected_CPN_09102024.pdf
CENO-12ILED699_Affected_CPN_09102024.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 KSZ8863 device family available in 48L LQFP (7x7x1.4mm) package.

Pre and Post Change Summary:

**Note: Applicable for CPNs KSZ8863FLL, KSZ8863FLL-TR, KSZ8863MLL and KSZ8863RLL*

	Pre Change	Post Change

Assembly Site	ASE Inc. (ASE)	Orient Semiconductor Electronics, Ltd (OSE)	ASE Inc. (ASE)	Orient Semiconductor Electronics, Ltd (OSE)	ASE Group -Malaysia (ASEM)
Wire Material	Au	Au	Au	Au	Au
Die Attach Material	CRM-1076 WA	EN4900G	CRM-1076WA	EN4900G	YIZBOND 8143
Molding Compound Material	G631H	CEL-9200HF	G631H	CEL-9200HF	CEL 9240HF10AK -G1
Lead-Frame Material	C7025	C7025	C7025	C7025	C7025
Lead-Frame Paddle Size	197X197 mils	205X205 mils	197X197 mils	205X205 mils	205X205 mils
Lead-Lock	No	Yes	No	Yes	No

**Note: Applicable for CPNs KSZ8863FLLI, KSZ8863FLLI-TR, KSZ8863MLLI, KSZ8863MLLI-TR, KSZ8863RLLI, KSZ8863RLLI-TR, and KSZ8863RLL-TR*

	Pre Change	**Post Change**	
Assembly Site	ASE Inc. (ASE)	ASE Inc. (ASE)	ASE Group -Malaysia (ASEM)
Wire Material	Au	Au	Au
Die Attach Material	CRM-1076WA	CRM-1076WA	YIZBOND 8143
Molding Compound Material	G631H	G631H	CEL 9240HF10AK-G1
Lead-Frame Material	C7025	C7025	C7025
Lead-Frame Paddle Size	197X197 mils	197X197 mils	205X205 mils
Lead-Lock	No	No	No

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 12, 2024: Issued final notification. Attached the Qualification Report. Revised the affected parts list to remove EOL'ed CPN SPNZ801077. Revised the notification subject. 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_CENO-12ILED699_Pre and Post Change Summary.pdf
PCN_CENO-12ILED699_Qual_Report.pdf

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

Terms and Conditions:

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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)

KSZ8863FLL
KSZ8863FLLI
KSZ8863FLL-TR
KSZ8863FLLI-TR
KSZ8863MLLI
KSZ8863MLLI-TR
KSZ8863RLLI
KSZ8863RLLI-TR
KSZ8863MLL
KSZ8863RLL
KSZ8863RLL-TR

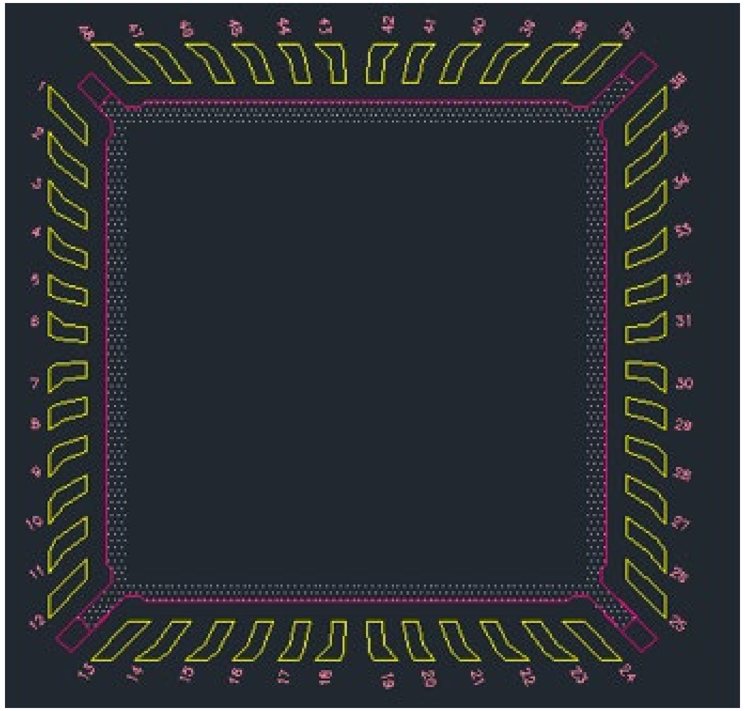
CCB 6730
Pre and Post Change Summary
PCN #: CENO-12ILED699

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

SMART | CONNECTED | SECURE

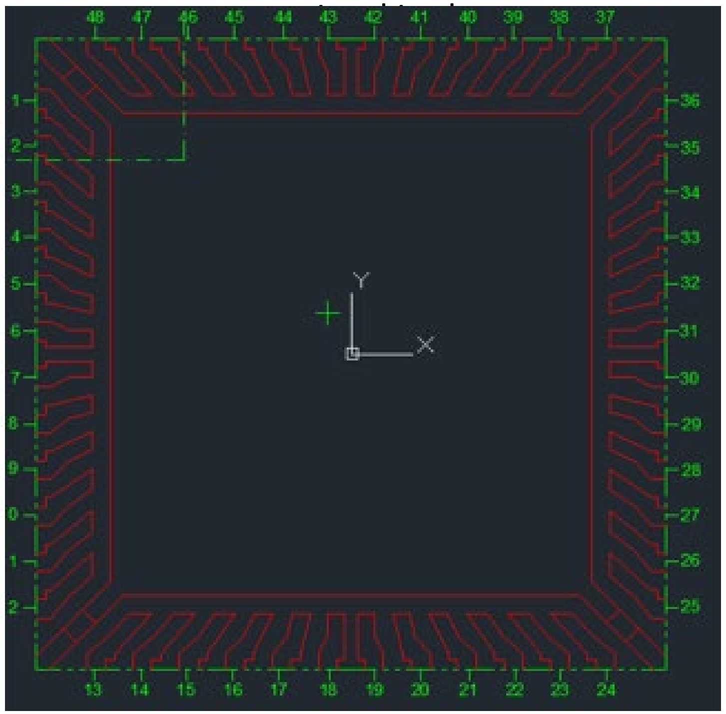
LEAD FRAME COMPARISON

ASE



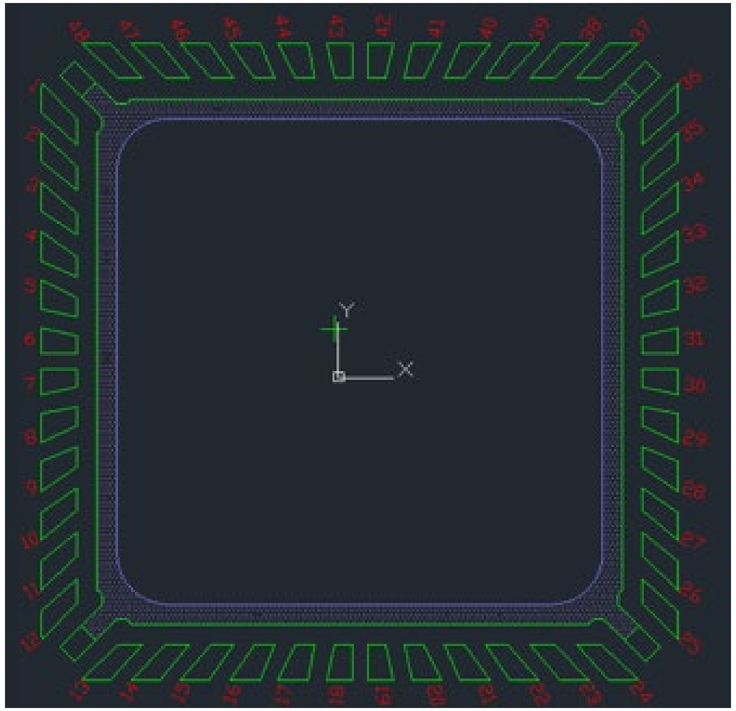
Lead frame Material	C7025
Paddle size	197X197 mils
Lead-Lock	No

OSE



Lead frame Material	C7025
Paddle size	205X205 mils
Lead-Lock	Yes

ASEM



Lead frame Material	C7025
Paddle size	205X205 mils
Lead-Lock	No

Note: Not to scale

QUALIFICATION REPORT SUMMARY

PCN#: CENO-12ILED699

Date:
August 16, 2024

Qualification of ASEM as an additional assembly site for selected KSZ8863 device family available in 48L LQFP (7x7x1.4mm) package.

Purpose: Qualification of ASEM as an additional assembly site for selected KSZ8863 device family available in 48L LQFP (7x7x1.4mm) package.

I. Summary:

The purpose of this report is to qualify Mask TKDC1 devices in 48L LQFP 7x7x1.4mm at ASEM per CCB# 6730 and following guidelines established in Microchip specification QCI-39000, “Worldwide Quality Conformance Requirements”.

Conclusion:

Based on the results, Mask TKDC1 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 as per guidelines established in Microchip specification QCI-39000, “Worldwide Quality Conformance Requirements

II. Device Description:

Device	KSZ8863FLL
Document Control Number	ML0820248466
Document Revision	A
CCB No.	6730

III. Qualification Material:

Test Lot	Lot 1	Lot 2	Lot 3
WAFER LOT	DU02924251118.100/138843	DU02924251118.100/138843	DU02924251118.100/138843
ASSEMBLY LOT	ASEM244100162.000	ASEM244100163.000	ASEM244100164.000
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

IV. Bill of Materials:

	Assembly site	ASEM
	MP Code (MPC)	TKDC11CAAA01
	Part Number (CPN)	KSZ8863FLL
Lead-Frame	**Paddle size**	205X205 mil
	Material	C7025
	Treatment	Non- Rough
	Process	Stamped
	Lead-lock	No
	Part Number	102548242100
	Lead Plating	Matte Tin
Bond Wire	**Material**	Au
Die Attach	**Part Number**	YIZBOND 8143
	Conductive	Yes
MC	**Part Number**	CEL 9240HF10AK-G1
PKG	**PKG Type**	LQFP
	MSL	3
	Pin/Ball Count	48L
	PKG width/size	7x7x1.4mm

V. 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