Product Change Notification: CAAN-30ZFJS110

Date:

01-Aug-2025

Product Category:

Ethernet Phys

Notification Subject:

CCB 7729 Final Notice: Qualification of a new lead frame with more Ag area on DAP surface prep for selected KSZ8051, KSZ8081and KSZ8091 device families available in 32L VQFN (5x5x0.9mm) package.

Affected CPNs:

CAAN-30ZFJS110_Affected_CPN_08012025.pdf
CAAN-30ZFJS110_Affected_CPN_08012025.csv

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 a new lead frame with more Ag area on DAP surface prep for selected KSZ8051, KSZ8081and KSZ8091 device families available in 32L VQFN (5x5x0.9mm) package.

Pre and Post Summary Changes:

	Pre Change	**Post Change**
Assembly Site	Microchip Technology Thailand (HQ) (MTAI)	Microchip Technology Thailand (HQ) (MTAI)
Wire Material	Au	Au
Die Attach Material	3280	3280*

Molding Compound Material	G700LTD	G700LTD
Lead-Frame Material	A194	A194
Lead-Frame DAP Surface Prep	Ag selective	Ag selective (Add more Ag area)
	See Pre and Post Change Comparison	

Note1: *The qualification of the new PFAS-free die attach material, QMI519, was officially released via PCN #**CENO-16EGCZ399**.

Impacts to Datasheet: None

Change Impact: None

Reason for Change: To improve productivity by qualifying a new lead frame design.

Change Implementation Status: In Progress

Estimated First Ship Date: 17 September 2025 (date code: 2538)

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

Timetable Summary:

	August 2025					**September 2025**				
Work Week	31	32	33	34	35	36	37	38	39	40
Final PCN Issue Date	X									
Qual Report Availability	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: August 01, 2025: Issued final notification.

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

Attachments:

PCN_CAAN-30ZFJS110_Pre and Post Change_Summary.pdf
PCN_CAAN-30ZFJS110_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.

Affected Catalog Part Numbers (CPN)

KSZ8051MNLU-TRVAO

KSZ8051MNLU-TRVAO-BW

KSZ8051MNLU-VAO

KSZ8051MNLV-TR

KSZ8051MNLV-VAO

KSZ8051RNLUB-TR-VAO

KSZ8051RNLUB-VAO

KSZ8051RNLU-TRVAO

KSZ8051RNLV

KSZ8051RNLV-TR

KSZ8051RNLV-TR-VAO

KSZ8081MNXCA

KSZ8081MNXCA-TR

KSZ8081MNXIA

KSZ8081MNXIA-TR

KSZ8081MNXIA-TR-VW

KSZ8081RNBCA-TR

KSZ8081RNBIA-TR

KSZ8091MNXCA

KSZ8091MNXCA-TR

KSZ8091MNXIA-TR

KSZ8091RNBCA

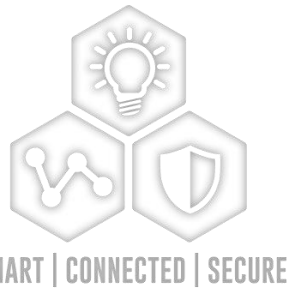
KSZ8091RNBCA-TR

KSZ8091RNBIA-TR

SPNZ801174

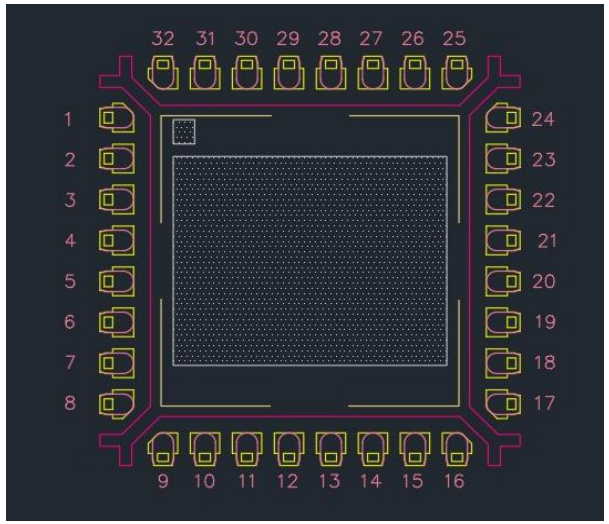
CCB 7729
Pre and Post Change Summary
PCN#: CAAN-30ZFJS110

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



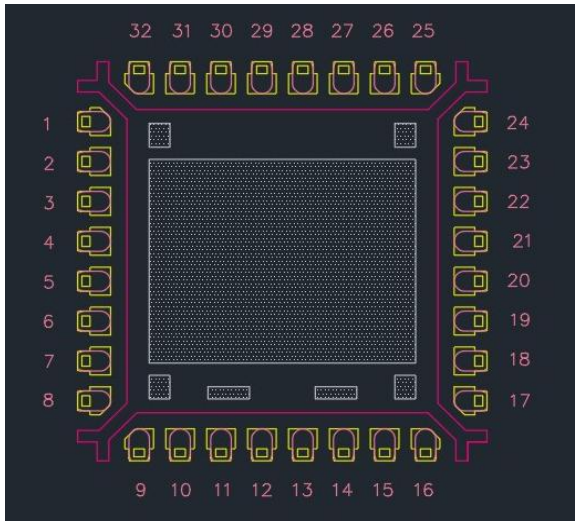
Pre and Post Change Summary

Pre Change



Lead-frame Material	A194
DAP Surface Prep	Ag selective

Post Change



Lead-frame Material	A194
DAP Surface Prep	Ag selective (Add more Ag area)

Note: Not fit to scale

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QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN#: CAAN-30ZFJS110

Date:
November 25, 2022

Qualification of a new lead frame with more Ag area on DAP surface prep for selected KSZ8081 and KSZ8091 device families available in 32L VQFN (5x5x0.9mm) package assembled at MTAI assembly site. The qualification of a new lead frame with more Ag area on DAP surface prep for selected KSZ8051, KSZ8081and KSZ8091 device families available in 32L VQFN (5x5x0.9mm) package will qualify by similarity (QBS). This is a Q100 Grade 2 qualification.

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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of a new lead frame with more Ag area on DAP surface prep for selected KSZ8081 and KSZ8091 device families available in 32L VQFN (5x5x0.9mm) package assembled at MTAI assembly site. The qualification of a new lead frame with more Ag area on DAP surface prep for selected KSZ8051, KSZ8081and KSZ8091 device families available in 32L VQFN (5x5x0.9mm) package will qualify by similarity (QBS). This is a Q100 Grade 2 qualification.
CN	E000107074
QUAL ID	R2200733 Rev. A
MP CODE	XKAA19PFAVA2
Part No.	KSZ8051MNLV-VAO
Bonding No.	BD-000677 Rev.02
CCB No.	5135 and 7729
Package	
Type	32L VQFN
Package size	5 x 5 x 0.9 mm
Lead Frame	
Paddle size	150 x 150 mils
Material	A194
Surface	Ag selective plating (Add more Ag area)
Process	Etched
Lead Lock	Yes
Part Number	10103214
Material	
Epoxy	3280
Wire	Au
Mold Compound	G700LTD
Plating Composition	Matte Sn

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PACKAGE QUALIFICATION REPORT

Manufacturing Information.

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI230601567.000	DU02922523132.430	2219PAK
MTAI230601935.000	DU02922523132.430	2219Q83
MTAI230601936.000	DU02922523132.430	2219Q8D

Result [X] Pass [ ] Fail [ ] _____

32L VQFN (5x5x0.9 mm) assembled by MTAI pass reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 2 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 2)	**Electrical Test:** +25°C, 105°C and -43°C System: Chroma / SMB600	JESD22-A113	693(0)	0/693		Good Devices
	Bake 150°C, 24 hrs System: CHINEE	JIP/ IPC/JEDEC J-STD-020E		0/693		
	85°C/60%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			0/693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			0/693		
	Electrical Test: +25°C and 105°C System: Chroma / SMB600		693(0)	0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	**Stress Condition:** -55°C to +125°C, 1000 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C and 105°C System: Chroma		231(0)	0/231	Pass	77 units / lot
	Bond Strength:		15(0)	0/15	Pass	
	Wire Pull (>2.50 grams)					
	Bond Shear (>15.00 grams)		15(0)	0/15	Pass	
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: SMB600		231(0)	0/231	Pass	77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 3.3 Volts System: HAST 6000X	JESD22-A110		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C and 105°C System: Chroma / SMB600		231(0)	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result
High Temperature Storage Life	**Stress Condition:** Bake 150°C, 500 hrs. System: SHEL LAB	JESD22-A103		0/45	
	Electrical Test: +25°C and 105°C System: Chroma / SMB600		45(0)	0/45	Pass
Bond Strength	Wire Pull (>2.50 grams)	Mil. Std. 883-2011	30(0) Wires	0/30	Pass
Data Assembly	Bond Shear (>15.00 grams)	CDF-AEC-Q100-001	30(0) bonds	0/30	Pass