



## Product Change Notification - GBNG-24YEZN050

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**Date:**

27 Mar 2020

**Product Category:**

Ethernet Switches

**Affected CPNs:****Notification subject:**

CCB 3090.001 Final Notice: Qualification of ASE as a new assembly site for selected Micrel KSZ8864CNxxx device family available in 64L VQFN (8X8X0.9mm) package using gold (Au) bond wire.

**Notification text:****PCN Status:**

Final notification

**PCN Type:**

Manufacturing Change

**Microchip Parts Affected:**

Please open one of the icons found in the Affected CPNs section above.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls).

**Description of Change:**

Qualification of ASE as a new assembly site for selected Micrel KSZ8864CNxxx device family available in 64L VQFN (8X8X0.9mm) package using gold (Au) bond wire.

**Pre Change:**

Assembled at OSE assembly site.

**Post Change:**

Assembled at ASE assembly site.

**Pre and Post Change Summary:**

	Pre Change	Post Change
<b>Assembly Site</b>	Orient Semiconductor Electronics, Ltd (OSE)	ASE Inc. (ASE)
<b>Wire material</b>	Ag	Au
<b>Die attach material</b>	CRM-1076WA	EN4900
<b>Molding compound material</b>	G700L	G631H
<b>Lead frame material</b>	C194	C194

**Impacts to Data Sheet:**

None

**Change Impact:**

None

**Reason for Change:**

To improve manufacturability by qualifying ASE as a new assembly site.

**Change Implementation Status:**

In Progress

**Estimated First Ship Date:**

May 29, 2020 (date code: 2022)



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

**Time Table Summary:**

Workweek	March 2020					-->	May 2020			
	10	11	12	13	14		19	20	21	22
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:**

**March 27, 2020:** Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on May 29, 2020.

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

**Attachment(s):**

[PCN GBNG-24YEZN050 Qual Report.pdf](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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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)

KSZ8864CNXCA

KSZ8864CNXC

KSZ8864CNXIA

KSZ8864CNXI

KSZ8864CNXCA-TR

KSZ8864CNXC-TR

KSZ8864CNXIA-TR

KSZ8864CNXI-TR



**MICROCHIP**

## **QUALIFICATION REPORT SUMMARY**

**PCN#: GBNG-24YEZN050**

**Date:  
June 6, 2018**

**Qualification of ASE as a new assembly site for selected  
Micrel KSZ8864CNXxx device family available in 64L VQFN  
(8X8X0.9mm) package using gold (Au) bond wire.**

**Purpose: Qualification of ASE as a new assembly site for selected Micrel KSZ8864CNXxx device family available in 64L VQFN (8X8X0.9mm) package using gold (Au) bond wire.**

**I. Summary:**

In keeping with guidelines established in Microchip specification QCI-39000, three different assembly lots were used in the qualification VQFN 8x8x.09 mm-64L with Au wires package for XKBB1 products at ASE (ASEK) Kaohsiung, Taiwan.

**II. Conclusion:**

Base on the passing results, VQFN 8x8x.09 mm, 64L for XKBB1 product is released to production.

**III. Device Description:**

Device	KSZ8864CNXCA
Document Control	ML# 052018000H
Document Revision	A
CCB No	3090 and 3090.001

**IV. Package Information**

Package Type	VQFN-64L
Package Body Size	8x8 x 0.9 mm
MP Codes	XKBB11Q6AA03

**V. Package Material**

<b>Lead frame</b>	
Part number	A24662-0
Paddle size	4.60 mm X 4.60 mm
Material	C-194
<b>Wire:</b>	
Material	Au
<b>Die Attach Epoxy:</b>	
Part Number	EN-4900F
Conductive	Yes
<b>Mold Compound:</b>	
Part Number	EME-G631H
<b>Lead Finish</b>	Matte Tin

**VI. Manufacturing Information**

Assembly Lot No.	Trade Code
ASE183100106.000	1743K0P
ASE183100107.000	1743K0Q
ASE183100108.000	1743K0R

**VII. Qualification Material:**

Test Lot	Lot 1	Lot 2	Lot 3
DEVICE	KSZ8864CNXCA	KSZ8864CNXCA	KSZ8864CNXCA
WAFER LOT	DU02917461813.200	DU02917461813.200	DU02917461813.200
ASSEMBLY LOT	ASE183100106.000	ASE183100107.000	ASE183100108.000
PACKAGE	VQFN-64L	VQFN-64L	VQFN-64L
QUAL TESTS	HAST, UHAST, TCY, HTSL	HAST, UHAST, TCY	HAST, UHAST, TCY

**VIII. Qualification Data:****Package Preconditioning**

Test Method/ Condition	JEDEC J-STD-020D and JESD22-A113F MSL Level 3 soak and 260oC peak Reflow Temperature
<b>Lot #</b>	<b>Results (Fail/Pass)</b>
Lot 1	0/260
Lot 2	0/260
Lot 3	0/260

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

**Unbiased HAST**

Test Method/ Condition	JESD22-A118, Ta = +130oC/85%RH, 96 HRS
<b>Lot #</b>	<b>Results (Fail/Pass)</b>
Lot 1	0/82
Lot 2	0/82
Lot 3	0/82

Pre and Post testing was conducted at +25°C

**HAST (Highly Accelerated Temperature and Humidity Stress Test)**

Test Method/ Condition	JESD22-A110, Ta = +130oC/85%RH,VCC, 96 HRS
<b>Lot #</b>	<b>Results (Fail/Pass)</b>
Lot 1	0/82
Lot 2	0/82
Lot 3	0/82

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

### TEMP CYCLE

Test Method/ Condition	JESD22-A104, Ta = -65°C / +150°C , 500 cycles
<b>Lot #</b>	<b>Results (Fail/Pass)</b>
Lot 1	0/82
Lot 2	0/82
Lot 3	0/82

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

### High Temperature Storage Life

Test Method/ Condition	JESD22-A103 , Ta = +150°C, 1000 hrs
<b>Lot #</b>	<b>Results (Fail/Pass)</b>
Lot 1	0/82

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

### Wire Bond Pull

Test Method/ Condition	Mil. Std 883, Method 2011
<b>Lot #</b>	<b>Results (Fail/Pass)</b>
Lot 1	0/200 wires
Lot 2	0/200 wires
Lot 3	0/200 wires

### Wire Ball Shear

Test Method/ Condition	AEC-Q100-001
<b>Lot #</b>	<b>Results (Fail/Pass)</b>
Lot 1	0/100 balls
Lot 2	0/100 balls
Lot 3	0/100 balls

### Solderability

Test Method/ Condition	Mil. Std 883, Method 2011
<b>Lot #</b>	<b>Results (Fail/Pass)</b>
Lot 1	0/22 Done at ASE
Lot 2	0/22 Done at ASE
Lot 3	0/22 Done at ASE

### Physical Dimension:

<b>Lot #</b>	<b>Results (Fail/Pass)</b>
Lot 1	0/10 Done at ASE
Lot 2	0/10 Done at ASE
Lot 3	0/10 Done at ASE