



Product Change Notification - KSRA-05XGMC821

Date:

14 Aug 2019

Product Category:

Ethernet Switches; Ethernet Controllers

Affected CPNs:**Notification subject:**

CCB 3861 and 3861.001 Initial Notice: Qualification of ASE as a new assembly site for selected products available in 100L LFBGA (9x9x1.38mm and 10x10x1.42mm) packages.

Notification text:**PCN Status:**

Initial 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 products available in 100L LFBGA (9x9x1.38mm and 10x10x1.42mm) packages.

Pre Change:

Assembled at OSE assembly site using 2300 die attach, E770 molding compound materials and 25+/-10um solder mask thickness.

Post Change:

Assembled at ASE assembly site using 2100 die attach, KE-G1250NAS molding compound materials and 30 +/-10um solder mask thickness.

Pre and Post Change Summary:

		Pre Change	Post Change
Assembly Site		Orient Semiconductor Electronics, Ltd (OSE)	ASE Inc. (ASE)
Wire material		Au	Au
Die attach material		2300	2100
Molding compound material		E770	KE-G1250NAS
Substrate material	Core	HL832NX	HL832NX
	Solder Mask	AUS308	AUS308
	Solder Mask Thickness	25+/-10um	30+/-10 um
Solder Ball	100L LFBGA (10x10x1.42mm)	SAC405	SAC405



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	100L LFBGA (9x9x1.38mm)	SAC305	SAC305

Impacts to Data Sheet:

None

Change Impact:

None

Reason for Change:

To improve on time delivery performance by qualifying ASE as a new assembly site

Change Implementation Status:

In Progress

Estimated Qualification Completion Date:

October 2019

Note: Please be advised the qualification completion times may be extended because of unforeseen business conditions however implementation will not occur until after qualification has completed and a final PCN has been issued. The final PCN will include the qualification report and estimated first ship date. Also note that after the estimated first ship date guided in the final PCN customers may receive pre and post change parts.

Time Table Summary:

	August 2019					-->	October 2019				
	31	32	33	34	35		40	41	42	43	44
Initial PCN Issue Date				X							
Qual Report Availability									X		
Final PCN Issue Date									X		

Method to Identify Change:

Traceability code

Qualification Plan:

Please open the attachments included with this PCN labeled as PCN_#_Qual Plan.

Revision History:

August 14, 2019: Issued initial notification.

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_KSRA-05XGMC821_Qual_Plan.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)

KSZ8841-16MBL

KSZ8841-16MBLI

KSZ8842-16MBL

KSZ8842-16MBLI

KSZ8842-16MBLI-TR

KSZ8893MBL

KSZ8893MBLI

KSZ8893MBL-TR



QUALIFICATION PLAN SUMMARY

PCN#: KSRA-05XGMC821

**Date:
June 12, 2019**

**Qualification of ASE as a new assembly site for selected
products available in 100L LFBGA (9x9x1.38mm and
10x10x1.42mm) packages.**

Purpose: Qualification of ASE as a new assembly site for selected products available in 100L LFBGA (9x9x1.38mm and 10x10x1.42mm) packages.

CCB No.: 3861 and 3861.001

Misc.	Assembly site	ASE
	BD Number	AAH@A271170004-0
	MP Code (MPC)	TARA17AAAA02
	Part Number (CPN)	KSZ8842-16MBLI
	MSL information	MSL3 / 260
	Assembly Shipping Media (T/R, Tube/Tray)	Tray (Shinon 150°C SL-BG101024TJ-4)
	Base Quantity Multiple (BQM)	240pcs (10x24) - tray MPC 1000pcs – TR MPC
	Reliability Site	MCHP SJ Rel
Substrate	Core Material	HL832NX
	Core Thickness	200+/-30
	L1/L2 Thickness	18um
	SM Material	AUS308
	Process	Normal
	SM Thickness	30+/-10
	Part Number	1224038101 (design# A27117-0)
	Drill Size	150 (5.9mil)
	Line/Space Specs	50 (1.97mil)
Bond Wire	Material	Au
Die Attach	Part Number	2100AC
	Conductive	Yes
MC	Part Number	KE-G1250NAS
PKG	PKG Type	LFBGA
	Pin/Ball Count	100
	PKG width/size	10x10x1.42mm
	Ball Pitch/Size	1.0mm / 0.5mm
	Solder Ball Material	SAC405
Die	Die Thickness	7 mils
	Die Size	120x190mils
	Fab Process (site)	TSMC 0.15um

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5	30 bonds from a min. 5 devices.
Solder Ball Shear	JESD22B117A	5	0	3	15		5	10 balls/5 units. Parts should gone Preconditioning
High Temperature Storage Life (HTSL)	JESD22A-103. 150°C for 1008 hours. Read points at 0, 504, and 1008 hours. Electrical test pre and post stress at +25°C and hot temp.	45	5	1	50	0	45	Spare should be properly identified.
Preconditioning - Required for surface mount devices	+150°C Bake for 24 hours, moisture loading requirements per MSL level + 3X reflow at peak reflow temperature per Jedec STD-020E for package type; Electrical test pre and post stress at +25°C. JESD22A113. MSL3 260°C	231	15	3	738	0	15	Spares should be properly identified. 231 parts from each lot to be used for HAST, UHAST & Temp Cycle test.
Unbiased HAST	JESD22A110. +130°C/85% RH for 96 hours or +110°C/85% RH for 264 hours. Electrical test pre and post stress at +25°C.	77	5	3	246	0	10	Spare should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22A104. -55°C to +125°C for 1000 cycles or -65°C to +150°C for 500 cycles. Electrical test pre and post stress at hot temp. WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	30	Spare should be properly identified. Use the parts which have gone through Pre-conditioning.