

Product Change Notification - KSRA-21IGTK891

Date: 23 Nov 2017
Product Category: Ethernet Controllers
Notification subject: CCB 3196 Initial Notice: Qualification of CEL-9750ZHF10AKL molding compound for KSZ8695 products available in 289L BGA package assembled at ASE assembly site.
Notification text: **PCN Status:**
Initial notification

PCN Type:
Manufacturing Change

Microchip Parts Affected:

Please open the attachments found in the attachments field below labeled as PCN_#_Affected_CPN.

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

Description of Change:

Qualification of CEL-9750ZHF10AKL molding compound for KSZ8695 products available in 289L BGA package assembled at ASE assembly site.

Pre Change:

Using EME-G770J Molding compound material

Post Change:

Using CEL-9750ZHF10AKL Molding compound material

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	ASE Inc. (ASE)	ASE Inc. (ASE)
Wire material	Gold (Au) Wire	Gold (Au) Wire
Die attach material	2100A	2100A
Molding compound material	EME-G770J	CEL-9750ZHF10AKL
Solder Ball Alloy	SAC105	SAC105

Impacts to Data Sheet:

None

Change Impact:

None

Reason for Change:

To improve manufacturability by qualifying CEL-9750ZHF10AKL molding compound.

Change Implementation Status:

In Progress

Estimated Qualification Completion Date:

April 2018

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:

Workweek	November 2017					-->	April 2018				
	44	45	46	47	48		14	15	16	17	18
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:
November 23, 2017: 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-21IGTK891_Affected CPN.pdf](#)
 - [PCN_KSRA-21IGTK891_Qual Plan.pdf](#)
 - [PCN_KSRA-21IGTK891_Affected CPN.xlsx](#)

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

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MICROCHIP

QUALIFICATION PLAN SUMMARY

PCN#: KSRA-21IGTK891

**Date:
November 15, 2017**

**Qualification of CEL-9750ZHF10AKL molding compound for
KSZ8695 products available in 289L BGA package assembled
at ASE assembly site.**

Purpose: Qualification of CEL-9750ZHF10AKL molding compound for KSZ8695 products available in 289L BGA package assembled at ASE assembly site.

CCB No.: 3196

MP code: TAKA11ACAA02

Part No.: KSZ8695PX-AI-1

BD No:Eng BD KSZ8695PX-AI-B

Process/CUP:0.18um TSMC no CUP

Package

Type/pin : 289 PBGA

Package Code: ACA

Die size: 6.3x6.5mm

MSL: 3

	Subcon facility	ASEKH
Substrate	Substrate number	A041950
	Laminate	CCL-HL832NX(A-EX)
	Soldermask	PSR-4000 AUS308
	Part Number	1201731111
Wire	Type	Gold wire
	Material	16000041A1
Die Attach	Type	2100A
	Part Number	1400011151
	Conductive	YES
Molding compound	Type:	CEL-9750ZHF10AKL
	Part Number	18000801J1
Ball	Alloy:	95.5Sn/4.0Ag/0.5Cu_0.6mm
	Part Number	2000087112

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	3	24	0 fails after TC	5	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	3	24		5	30 bonds from a minimum of 5 devices.
Wire Sweep		5	0	3	15	0		Required for any reduction in wire bond thickness.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	
HTSL (High Temp Storage Life)	+175 C for 504 hours Electrical test pre and post stress at +25°C	45	5	3	150	0	10	Must be in progress at time of package release to production, but completion is not required for release to production.
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-020D for package type; Electrical test pre and post stress at +25°C. MSL3 @ 260°C	231	15	3	738	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test.
Unbiased HAST	+130°C/85% RH for 96 hrs. Electrical test pre and post stress at +25°C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	-65°C to +150°C for 500 cycles Electrical test pre and post stress at hot temp 25°C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

KSRA-21IGTK891-CCB 3025 CCB 3196 Initial Notice: Qualification of CEL-9750ZHF10AKL molding compound for KSZ8695 products available in 289L BGA package assembled at ASE assembly site.

Affected Catalog Part Numbers (CPN)

PCN_KSRA-21IGTK891
CATALOG_PART_NBR
KSZ8695P
KSZ8695PI
KSZ8695PX