



Product Change Notification / JAON-28QFPB827

Date:

24-May-2022

Product Category:

Broadband Gateway

PCN Type:

Manufacturing Change

Notification Subject:

CCB 5014 Initial Notice: Qualification of a new die size (1.932x1.860mm) for Die #1 of selected Microsemi LE9641PQC, LE9651PQC, LE9641PQCT, and LE9651PQCT catalog part numbers (CPN) available in 48L VQFN (7x7x1.0mm) package assembled at ASEM assembly site.

Affected CPNs:

[JAON-28QFPB827_Affected_CPN_05242022.pdf](#)

[JAON-28QFPB827_Affected_CPN_05242022.csv](#)

Notification Text:

PCN Status:Initial 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 die size (1.932x1.860mm) for Die #1 of selected Microsemi LE9641PQC, LE9651PQC, LE9641PQCT, and LE9651PQCT catalog part numbers (CPN) available in 48L VQFN (7x7x1.0mm) package assembled at ASEM assembly site.

Pre and Post Change Summary:

	9	0	1	2	3	4	5	6	7
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:May 24, 2022: 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.

Attachments:

[PCN_JAON-28QFPB827_Pre and Post Change_Summary.pdf](#)

[PCN_JAON-28QFPB827_Qual_Plan.pdf](#)

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

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QUALIFICATION PLAN SUMMARY

PCN #: JAON-28QFPB827

Date:

April 20, 2022

Qualification of a new die size (1.932x1.860mm) for Die #1 of selected Microsemi LE9641PQC, LE9651PQC, LE9641PQCT, and LE9651PQCT catalog part numbers (CPN) available in 48L VQFN (7x7x1.0mm) package assembled at ASEM assembly site.

Purpose: Qualification of a new die size (1.932x1.860mm) for Die #1 of selected Microsemi LE9641PQC, LE9651PQC, LE9641PQCT, and LE9651PQCT catalog part numbers (CPN) available in 48L VQFN (7x7x1.0mm) package assembled at ASEM assembly site.

CCB No.: 5014

<u>Misc.</u>	Assembly site	ASEM
	BD Number	BD-000310-02
	MP Code (MPC)	3410X to 3413J 3411Y to 3413K
	Part Number (CPN)	Le9641
	MSL information	MSL3
	Assembly Shipping Media (T/R, Tube/Tray)	Tray and T/R
	Base Quantity Multiple (BQM)	1300
	Reliability Site	ASEM
<u>Lead-Frame</u>	Paddle size	5.9 x 5.9 mm
	Material	C194FH
	DAP Surface Prep	Selective AG Plating (Anti Tarnish & Anti EBO control)
	Treatment	No
	Process	etched
	Lead-lock	No
	Part Number	170048372135XL
	Lead Plating	Matte Sn
	Strip Size	78x258
	Strip Density	33x9 = 297
<u>Bond Wire</u>	Material	CuPdAu
<u>Die Attach</u>	Part Number	CRM1076DS
	Conductive	Yes
<u>MC</u>	Part Number	CEL-9240HF10AK-G1
<u>PKG</u>	PKG Type	VQFN
	Pin/Ball Count	48
	PKG width/size	7x7x1
	Die Size	1.932x1.860mm

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 Sweep	Max limit 15%	77	0	1	77	No shorting		Due to long wires
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.	154	15	1	169	0	15	Spares should be properly identified.



MICROCHIP

QUALIFICATION REPORT SUMMARY

PCN #: JAON-28QFPB827

**Date:
April 20, 2022**

**Qualification of ASEM for selected Microsemi products
available in 48L VQFN (7x7x1.0mm) package.**

Product Nomenclature	miSLIC™: Le9641, Le9651
Report No:	155270 (PD-000248242)

Package:	ASE Malaysia QFN
UL flammability class	UL 94 V-0
Lead Frame Material	Copper alloy
Mold Compound	CEL9240HF10AK-G1
Die Attach	CRM 1076DS
Bond Wire	CuPdAu
Lead Finish	Matte Tin (Pb Free)

RELIABILITY QUALIFICATION REPORT SUMMARY

Preconditioning Jedec Moisture Sensitivity Level 3 (30°C/60%RH/192hrs) with Pb-Free Reflow at 260°C (JEDEC J-STD-020) (Performed prior to Temperature Cycle, High Temp Storage, Unbiased-HAST, Autoclave)	0/160 (ASEM - MSL3, Ref #151245) 0/319 (ASEM - MSL3, Ref #151237, #151243) 0/450 (ASEM - MSL3, Ref Project #2018) 0/2328 (ASEM - MSL3, Ref #137968, #145713, #148338) 0/480 (UTL - MSL3, Ref #160139) 0/480 (UTL - MSL3, Ref #146107)
Temperature Cycle (JESD22-A104) (-65°C/+150°C)	0/100 (ASEM - 500 cycles, Ref #151243, #151245) 0/150 (ASEM - 500 cycles, Ref Project #2018) 0/749 (ASEM - 1000 cycles, Ref #137968, #145713, #148338) 0/480 (UTL - MSL3, Ref #160139) 0/480 (UTL - MSL3, Ref #146107)
High Temperature Storage (JESD22-A103) (150°C)	0/100 (ASEM - 500 hrs, Ref #151243, #151245) 0/150 (ASEM - 500 hrs, Ref Project #2018) 0/693 (ASEM - 1000 hrs, Ref #137968, #145713, #148338) 0/150 (UTL - MSL3, Ref #160139) 0/150 (UTL - MSL3, Ref #146107)
Autoclave (JESD22-A102) (100%R.H., 121°C)	0/100 (ASEM - 96 hrs, Ref #151243, #151245) 0/150 (ASEM - 96 hrs, Ref Project #2018) 0/699 (ASEM - 168 hrs, Ref #137968, #145713, #148338) 0/150 (UTL - 168 hrs, Ref #146107)
Unbiased HAST (JESD22-A110) (85 %R.H., 130°C)	0/150 (UTL - 168 hrs, Ref #160139)

CCB 5014
Pre and Post Change Summary
PCN#: JAON-28QFPB827

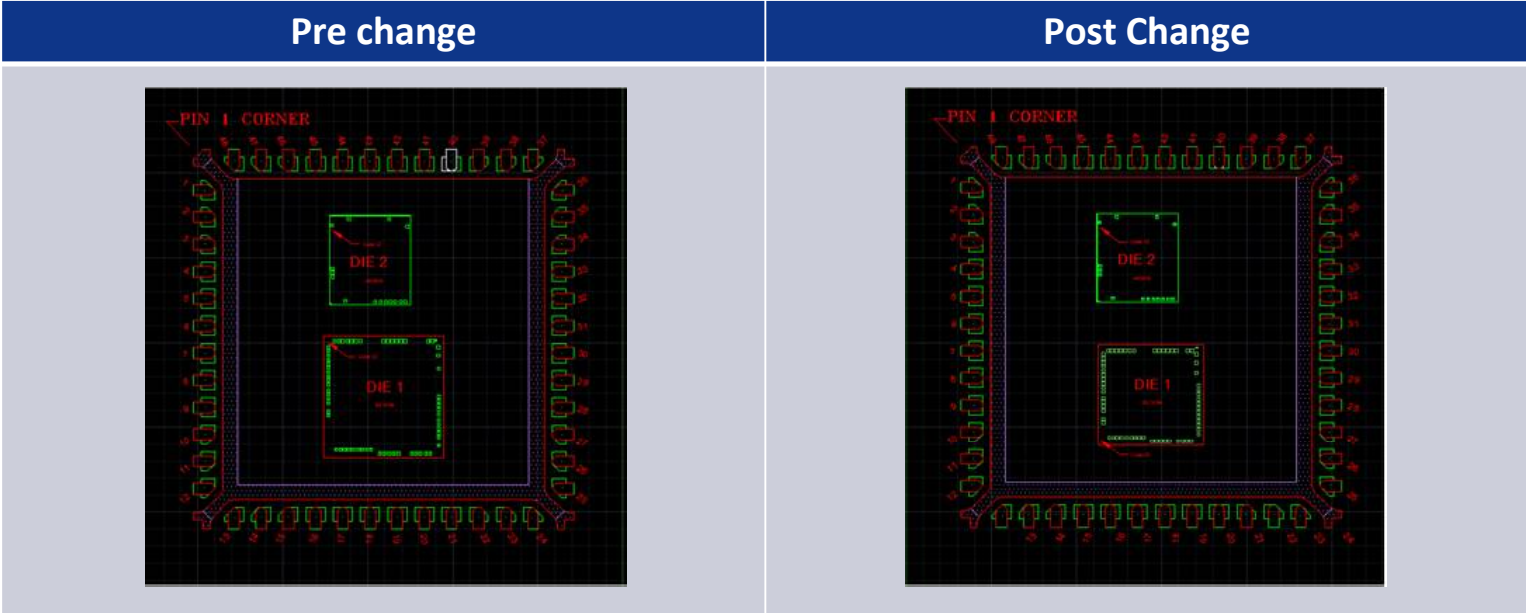


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Pre and post change comparison



Note: Not-to-scale

JAON-28QFPB827 · LE9651PQ, LE9641PQ, and LE9651PQCT catalog part numbers (CPN) available in 48L VQFN

Affected Catalog Part Numbers(CPN)

LE9641PQC
LE9651PQC
LE9641PQCT
LE9651PQCT