Product Change Notification / ALAN-28BFQE464

Date:

17-May-2022

Product Category:

Switching Regulators

PCN Type:

Manufacturing Change

Notification Subject:

CCB 5102 Initial Notice: Qualification of CARC as new assembly site for LX7167ACLD-TR and LX7167CLD-TR catalog part numbers (CPN) available in 8L WDFN (2x2x0.8mm) package.

Affected CPNs:

ALAN-28BFQE464_Affected_CPN_05172022.pdf
ALAN-28BFQE464_Affected_CPN_05172022.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 CARC as new assembly site for LX7167ACLD-TR and LX7167CLD-TR catalog part numbers (CPN) available in 8L WDFN (2x2x0.8mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	UTAC Dongguan	Carsem (Suzhou)

		Limited ASAC (UDG)	(CARC)
Wire Material		CuPdAu	CuPdAu
Die Attach Material		8600	QMI519
Molding Compound Material		G700LTD	G770HCD
Lead-frame	Material	C194 FH	C194
	Paddle Size	43 x 69 mil	43 x 67 mil
	DAP Surface Prep	Ag	Spot Ag
	Lead-lock	No	Half-etched
	See Pre and Post change comparison.		

Impacts to Data Sheet: None

Change Impact None

Reason for Change: To improve manufacturability by qualifying a new assembly site.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: September 2022

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:

	May 2022						**September 2022**				
Workweek	19	20	21	22	23	>	36	37	38	39	40
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 17, 2022: Issued initial notice.

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

Attachments:

PCNALAN-28BFQE464 Qual Plan.pdf
PCNALAN-28BFQE464_Pre and Post Change_Summary.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.

CCB 5102

Pre and Post Change Summary

PCN# ALAN-28BFQE464

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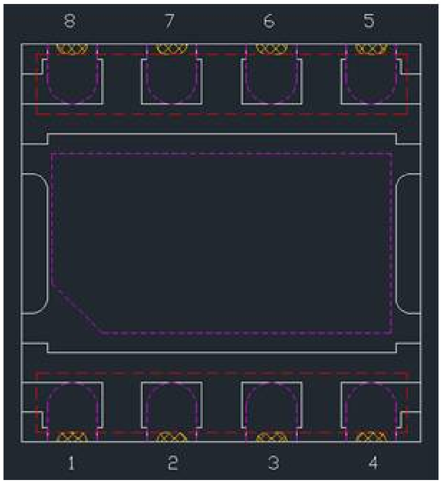
SMART | CONNECTED | SECURE

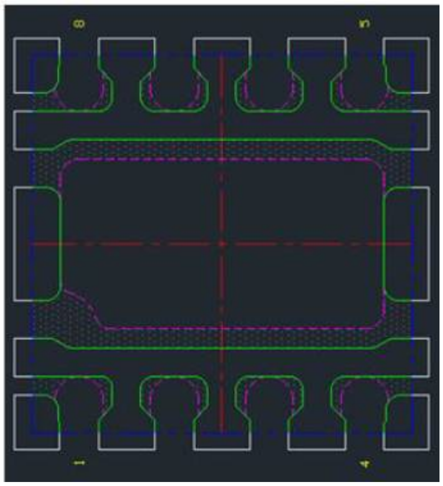
Pre and Post Change Summary

ASAC (UDG)



Material	C194 FH
Paddle Size	43 x 69 mil
DAP Surface Prep	Ag
Lead-lock	No

CARC



Material	C194
Paddle Size	43 x 67 mil
DAP Surface Prep	Spot Ag
Lead-lock	Half-etched

QUALIFICATION PLAN SUMMARY

PCN# ALAN-28BFQE464

Date:
April 28, 2022

Qualification of CARC as new assembly site for LX7167ACLD-TR and LX7167CLD-TR catalog part numbers (CPN) available in 8L WDFN (2x2x0.8mm) package.

Misc.	Assembly site	CARC
	BD Number	BD-000623 rev01
	MP Code (MPC)	U0131QNYCA01
	Part Number (CPN)	LX7167ACLD-TR
	MSL information	MSL-1@260C
	Assembly Shipping Media (T/R, Tube/Tray)	Cannister (Final shipment is T/R)
	Base Quantity Multiple (BQM)	3,000
	Reliability Site	MTAI
	CCB#	5102
Lead-Frame	Paddle size	43 x 67 mil
	Material	C194
	DAP Surface Prep	Spot Ag
	Treatment	None
	Process (Stamped/Etched)	Etched
	Lead-lock Design (Locking Hole, Half Etched, Dimple, etc.)	Half Etched
	Part Number	441959ASMC
	Lead frame Thickness	8 mils
	Lead Plating	Matte Tin
	Strip Size	240x75mm
	Strip Density	2,376 units
Bond Wire	Material	CuPdAu
Die Attach	Part Number	QMI519
	Conductive	Yes
MC	Part Number	G770HCD
PKG	PKG Type	WDFN
	Pin/Ball Count	8
	PKG width/size	2x2x0.8mm

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	REL Test Site	Special Instructions
Standard Pb-free Solderability	J-STD-002D ; Perform 8 hour steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. Standard Pb-free: Matte tin/ NiPdAu finish, SAC solder, wetting temp 245°C for both SMD & through hole packages.	22	5	1	27	> 95% lead coverage	5	MTAI	Standard Pb-free solderability is the requirement.
Backward Solderability	J-STD-002D ;Perform 8 hours steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. Backward: Matte tin/ NiPdAu finish, SnPb solder, wetting temp 215°C for SMD.	22	5	1	27	> 95% lead coverage	5	MTAI	
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0	5	CARC	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	CARC	30 bonds from a min. 5 devices.

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	REL Test Site	Special Instructions
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	CARC	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	CARC/ MTAI	
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; MSL1@ 260C	231	15	3	738	0	15	MTAI	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	+130°C/85% RH for 96 hours Electrical test pre and post stress at +25°C	77	5	3	246	0	10	MTAI	Spares should be properly identified.

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	REL Test Site	Special Instructions
UHAST	+130°C/85% RH for 96 hrs Electrical test pre and post stress at +25°C	77	5	3	246	0	10	MTAI	Spares should be properly identified.
Temp Cycle	-65°C to +150°C for 500 cycles. Electrical test pre and post stress at +25°C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	MTAI	Spares should be properly identified.

ALAN-28BFQE464 - CCB 5102 Initial Notice: Qualification of CARC as new assembly site for LX7167ACLD-TR and L

Affected Catalog Part Numbers(CPN)

LX7167ACLD-TR
LX7167CLD-TR