Product Change Notification / ASER-06ZMCM207

Date:

11-Oct-2021

Product Category:

Ethernet Controllers, Ethernet Switches

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4630 Final Notice: Qualification of STA as an additional assembly site for selected LAN9303, LAN9210 and LAN9211 device families available in 56L VQFN (8x8x0.9mm) package.

Affected CPNs:

ASER-06ZMCM207_Affected_CPN_10112021.pdf
ASER-06ZMCM207_Affected_CPN_10112021.csv

Notification Text:

PCN Status: Final 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 STA as an additional assembly site for selected LAN9303, LAN9210 and LAN9211 device families available in 56L VQFN (8x8x0.9mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change	
Assembly Site	ASE Inc. (ASE)	ASE Inc. (ASE)	STATS Chippac Ltd. (STA)

Wire material	PdCu	Au	PdCu	Au	CuPdAu
Die attach material	EN-4900F		EN-4900F		8290
Molding compound material	G631B		G631B		G700E
Lead frame material	C194		C194		C194
Lead frame lead-lock	No		No		No
	See Pre and Post Change Summary for comparison.				
Lead frame paddle size	240x240 mils		240x240 mils		236x236 mils

Impacts to Data Sheet:
None

Change Impact:
None

Reason for Change:
To improve manufacturability by qualifying STA as an additional assembly site

Change Implementation Status: In Progress

Estimated First Ship Date:
October 31, 2021 (date code: 2145)

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

Due to unforeseen circumstances, that are out of Microchip's control, full qualification will be made available as soon as it is approved which may be after the estimated first ship date so that Microchip can maintain continuity of supply and not disrupt customer orders.

Time Table Summary:

	April 2021					->	October 2021					→	January 2022				
Workweek	14	15	16	17	18		41	42	43	44	45		01	02	03	04	05
Initial PCN			X														
Qual Report Availability														X			
Final PCN Issue Date								X									
Estimated Implementation Date											X						

Method to Identify Change: Traceability code

Estimated Qualification Completion Date:
January 2022

Note 1: This final PCN will be updated to include the Qualification report as soon as it is completed.
Note 2: Please be advised the qualification completion times may be extended because of unforeseen business conditions.

Revision History:
April 14, 2021: Issued initial notification.
October 11, 2021: Issued final notification. Updated the Pre Change field for wire material to include Au (gold) and corrected the Post Change for lead frame lead-lock from Yes to No. Updated the notification subject, description of change and affected CPN list to include LAN9210 and LAN9211 device families. Provided estimated first ship date to be on October 31, 2021.

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

Attachments:

PCN_ASER-06ZMCM207_Pre and Post Change Summary.pdf
PCN_ASER-06ZMCM207_Qual Plan.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.

QUALIFICATION PLAN SUMMARY

PCN#: ASER-06ZMCM207

Date
March 22, 2021

Qualification of STA as an additional assembly site for selected LAN9303, LAN9210 and LAN9211 device families available in 56L VQFN (8x8x0.9mm) package.

Purpose: Qualification of STA as an additional assembly site for selected LAN9303, LAN9210 and LAN9211 device families available in 56L VQFN (8x8x0.9mm) package.

CCB No: 4630

Misc.	Assembly site	STA
	MP Code (MPC)	TA3017RTXB0C
	Part Number (CPN)	LAN9303I-ABZJ
	MSL information	MSL-3 @260C
	Assembly Shipping Media (T/R, Tube/Tray)	UBOT Tray (UF08081.01026XB02)
	Base Quantity Multiple (BQM)	Tray - 260
	Reliability Site	MTAI
Lead-Frame	Paddle size	236X236 mils
	Material	C194
	DAP Surface Prep	Double Ring
	Treatment	Non-Rough
	Process	Etched
	Lead-lock (with locking holes)	No
	Lead Plating	Matte Sn
	Strip Size	250mmX70 mm
	Strip Density	108 units / strip
Bond Wire	Material	CuPdAu
Die Attach	Part Number	8290
	Conductive	Yes
MC	Part Number	G700E
PKG	PKG Type	VQFN
	Pin/Ball Count	56L
	PKG width/size	8X8X0.9 mm

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	ATE Test Site	REL Test Site	Pkg. Type	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	MTAI	56LVQFN	Standard Pb-free solderability is the requirement. SnPb solderability (backward solderability- SMD reflow soldering) is required for any plating related changes and highly recommended for other package BOM changes.
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0	5	MTAI	MTAI	56LVQFN	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	MTAI	MTAI	56LVQFN	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	MTAI	MTAI	56LVQFN	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MTAI	MTAI	56LVQFN	
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 at room temp 25°C and hot temp 100°C. MSL3 / 260c	231	15	3	738	0	15	MTAI	MTAI	56LVQFN	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
UHAST	+130°C/85% RH for 96 hrs or +110°C/85% RH for 264 hrs. Electrical test pre and post stress at room temp 25°C. Requires 2X Rel stress Testing	77	5	3	246	0	10	MTAI	MTAI	56LVQFN	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 100°C; 3gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress. Requires 2X Rel stress Testing	77	5	3	246	0	15	MTAI	MTAI	56LVQFN	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

CCB 4630
Pre and Post Change Summary
PCN #: ASER-06ZMCM207

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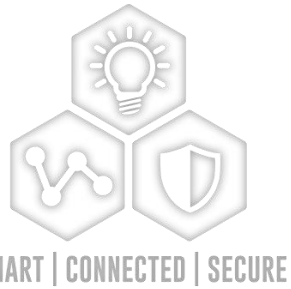
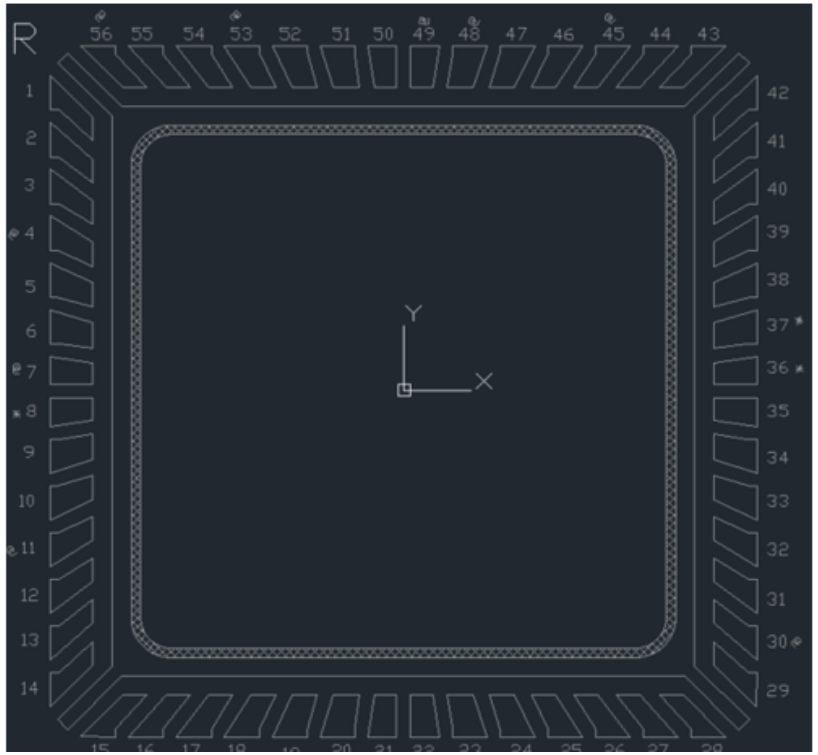
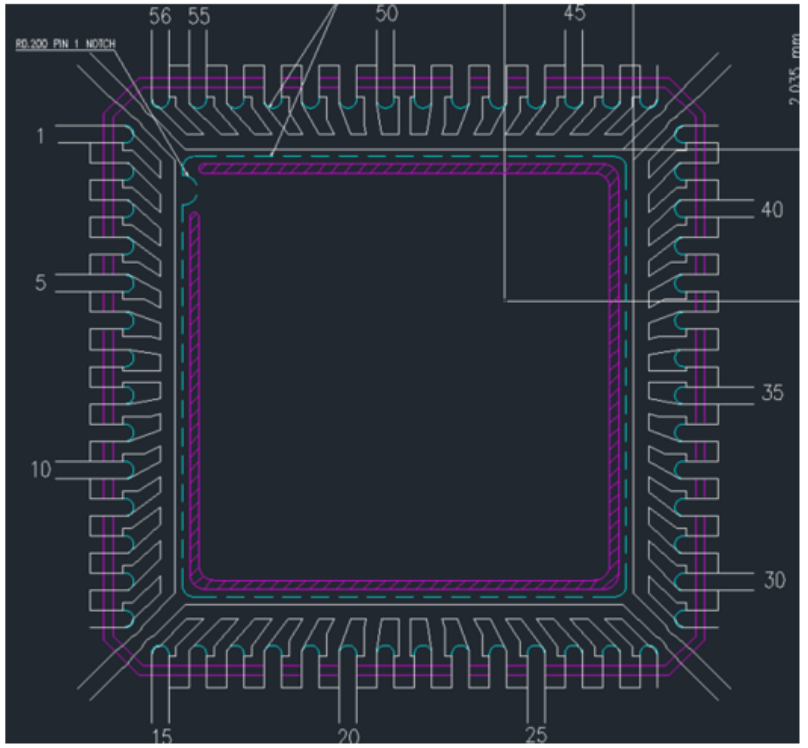


Lead frame Comparison

ASE	STA
	

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Affected Catalog Part Numbers (CPN)

LAN9303-ABZJ
LAN9303I-ABZJ
LAN9303I-ABZJ-TR
LAN9211-ABZJ
LAN9210-ABZJ