



Product Change Notification / ASER-24QQEH990

**Date:**

07-Jul-2021

**Product Category:**

Ethernet PHYs

**PCN Type:**

Manufacturing Change

**Notification Subject:**

CCB 4753 Final Notice: Qualification of STA as an additional assembly site for selected LAN8710Axxx device family available in 32L VQFN (5x5x0.9mm) package.

**Affected CPNs:**

[ASER-24QQEH990\\_Affected\\_CPN\\_07072021.pdf](#)  
[ASER-24QQEH990\\_Affected\\_CPN\\_07072021.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 LAN8710Axxx device family available in 32L VQFN (5x5x0.9mm) package.

**Pre and Post Change Summary:**

	Pre Change		Post Change		
<b>Assembly Site</b>	ASE Inc. (ASE)	Amkor Assembly & Test (Shanghai) Co., LTD  (ANAC)	ASE Inc. (ASE)	Amkor Assembly & Test (Shanghai) Co., LTD  (ANAC)	STATS Chippac Ltd. (STA)

<b>Wire material</b>	CuPd	CuPd	CuPd	CuPd	CuPdAu
<b>Die attach material</b>	EN-4900F	8290	EN-4900F	8290	Ablebond 8290
<b>Molding compound material</b>	G631B	G700	G631B	G700	G700E
<b>DAP Surface Prep</b>	Double Ring Plating	Ag Double Ring	Double Ring Plating	Ag Double Ring	Ring Plating
<b>Lead frame material</b>	C194	C194	C194	C194	C194
<b>Lead-lock (with locking holes)</b>	No	Yes	No	Yes	No
See Pre and Post Change Summary for comparison.					

**Impacts to Data Sheet:**None

**Change Impact:**None

**Reason for Change:**To improve on-time delivery performance by qualifying STA as an additional assembly site.

**Change Implementation Status:**In Progress

**Estimated First Ship Date:**

July 31, 2021 (date code: 2131)

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

**Time Table Summary:**

	July 2021				
	27	28	29	30	31
Workweek					
Qual Report Availability		X			
Final PCN Issue Date		X			
Estimated Implementation Date					X

**Method to Identify Change:**Traceability code

**Qualification Report:**Please open the attachments included with this PCN labeled as PCN\_#\_Qual\_Report.

**Revision History:**

**July 7, 2021:** Issued final 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\\_ASER-24QQEH990\\_Pre and Post Change Summary.pdf](#)  
[PCN\\_ASER-24QQEH990\\_Qual Report.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.

Affected Catalog Part Numbers (CPN)

LAN8710A-EZC

LAN8710A-EZK

LAN8710AI-EZK

LAN8710A-EZK-TR

LAN8710A-EZC-TR

LAN8710AI-EZK-TR

ASER-24QQEH990 - CCB 4753 Final Notice: Qualification of STA as an additional assembly site for selected LAN8710Axxx device family available in 32L VQFN (5x5x0.9mm) package.

Affected Catalog Part Numbers(CPN)

LAN8710A-EZC  
LAN8710A-EZK  
LAN8710AI-EZK  
LAN8710A-EZK-TR  
LAN8710A-EZC-TR  
LAN8710AI-EZK-TR

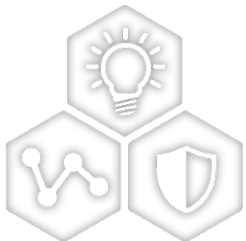
**CCB 4753**  
**Pre and Post Change Summary**  
**PCN #: ASER-24QQEH990**



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A Leading Provider of Smart, Connected and Secure Embedded Control Solutions

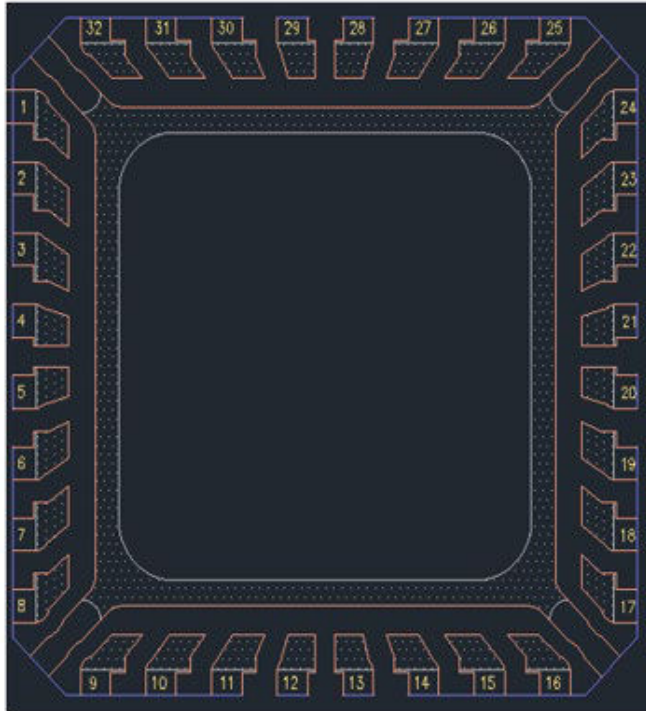
**Qualification of STA as an additional assembly site for selected LAN8710Axxx device family available in 32L VQFN (5x5x0.9mm) package.**



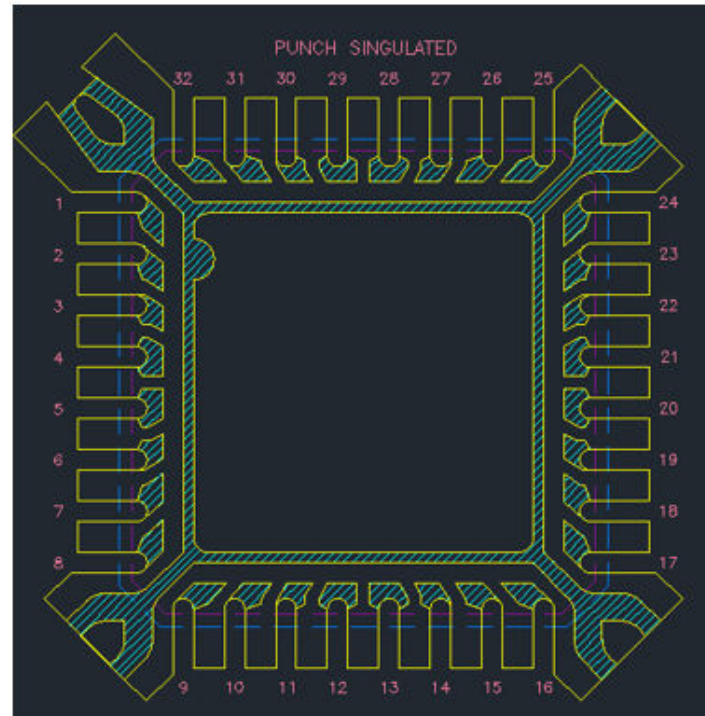
SMART | CONNECTED | SECURE

# Lead Frame Comparison Comparison

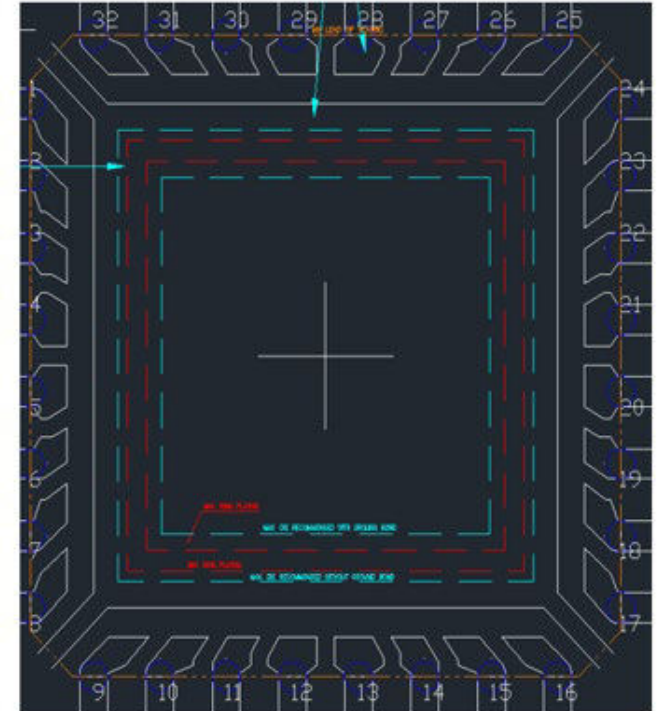
ASE



ANAC



STA





**MICROCHIP**

**QUALIFICATION REPORT SUMMARY  
RELIABILITY LABORATORY**

**PCN #: ASER-24QQEH990**

Date:  
December 27, 2011

**Qualification of STA as an additional assembly site for  
selected LAN8710Axxx device family available in 32L  
VQFN (5x5x0.9mm) package. This is a qualification by  
similarity (QBS)**



**Purpose:** Qualification of STA as an additional assembly site for selected LAN8710Axxx device family available in 32L VQFN (5x5x0.9mm) package. This is a qualification by similarity (QBS).

**CCB:** 4753

**PRODUCT INFORMATION**

PACKAGE	5X5X0.85mm (32 QE3)
WAFER LOT NO	6STG39199.1
WAFER ID	136002A2
BOND PAD SIZE	50 um
BOND PAD PITCH	43 um
UNITS PER STRIP	24X9=215
LEAD PITCH	0.5 mm
FOUNDY	CST (Fab 6)

**MATERIAL INFORMATION**

LEAD FRAME MATERIAL	C194 1/2H
LEAD FRAME PLATING	Ag (Ring plating) / Etched
LEADFRAME SIZE	3.5 X 3.5 mm
DIE ATTACH EPOXY TYPE	8290
WIRE PURITY	4N Cu + Pd Coat CLR-1
MOLDING COMPOUND TYPE	G700E
LEAD FINISHING PROCESS	Solder Plating
LEAD FINISHING COMPOSITION	Pure Tin
MARKING INK	Laser

## Assembly Process Data

Process	Test Item	Criteria	Sample Size	Failure/Tested Qty.	Remarks Pass.Fail
Wafer Saw	Topside chipping	50% max of damage the guard ring 125µm max	45 units/lot	0/45	Pass
	Backside chipping		45 units/lot	0/45	Pass
Die Attach	Epoxy Void Bond Line	10% max of die area 5-30µm	10 units/lot	0/10	Pass
			10 units/lot	0/10	Pass
Wirebond	Wirepull	2 gr. Min	17 wires/units 12 units	0/204	Pass
	Ball Shear	10 gr. Min	15 ball/units 10 units	0/150	Pass
	Loop Height	200 µm Max.	2 wires/units 10 units	0/20	Pass
	Cratering	0 defects	6 units/lot all pads	0/6	Pass
	Intermetallic Test	60% min. Coverage	6 units/lot all pads	0/6	Pass
Mold	Wiresweep	10% max of longest wire	10 units/lot	0/10	Pass
Singulation	Package Dim	5+/-0.1mm	10 readings	0/10	Pass
		5+/-0.1mm	10 readings	0/10	Pass
Plating Thickness	Thickness	10-18µm	20 readings	0/20	Pass

## SUMMARY RESULT OF RELIABILITY TEST

ITEM	CONDITION	BEFORE PRECONDITIONING		AFTER PRECONDITIONING	
		O/S TEST	SAT	O/S TEST	SAT
PRECONDITIONING	30°C / 60% RH 192 HRS, Level 3 per Jedec	0/240	0/240	0/240	0/240
TEST ITEM (With Pre-Condition)	TEST CONDITION	TEST INTERVAL		VISUAL INSPECTION	O/S TEST
TEMPERATURE CYCLE TEST	JEDEC 22-A104 -65°C~150°C	1000/1500 CYC		0/60	0/60
HIGH TEMPERATURE STORGE TEST	JEDEC 22-A103 150°C	1000/1500 HRS		0/60	0/60
HAST TEST (NO BIAS )	JEDEC 22-A118 130°C/85%RH 33.5PSIG	100/150 HRS		0/60	0/60
TEMPERATURE HUMIDITY TEST (NO BIAS )	JEDEC 22-A101 85°C/85%RH	1000/1500 HRS		0/60	0/60