



Product Change Notification / JAON-17JQE576

Date:

18-Nov-2020

Product Category:

Ethernet PHYs

PCN Type:

Manufacturing Change

Notification Subject:

CCB 2519.001 Final Notice: Qualification of ANAC as an additional assembly site for selected LAN8710xx and LAN8720xx device families available in 32L VQFN (5x5x0.9mm) and 24L VQFN (4x4x0.9mm) packages.

Affected CPNs:

[JAON-17JQE576_Affected_CPN_11182020.pdf](#)

[JAON-17JQE576_Affected_CPN_11182020.csv](#)

Notification Text:

PCN Status: Final notification

PCN Type: Manufacturing Change

Microchip Parts Affected: Please open one of the icons found in the Affected CPNs section above.

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

Description of Change: Qualification of ANAC as an additional assembly site for selected LAN8710xx and LAN8720xx device families available in 32L VQFN (5x5x0.9mm) and 24L VQFN (4x4x0.9mm) packages.

Pre Change:

Assembled at ASE using EN-4900F die attach and G631B mold compound material.

Post Change:

Assembled at ASE using EN-4900F die attach and G631B mold compound material or assembled at ANAC using 8290 die

attach and G700 mold compound material

Pre and Post Change Summary:

	Pre Change	Post Change	
Assembly Site	ASE Inc. (ASE)	ASE Inc. (ASE)	Amkor Assembly & Test (Shanghai) Co., LTD (ANAC)
Wire material	PdCu	PdCu	PdCu
Die attach material	EN-4900F	EN-4900F	8290
Molding compound material	G631B	G631B	G700
Lead frame material	C194	C194	C194

Impacts to Data Sheet: None.

Change Impact:None.

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

Change Implementation Status:In Progress

Estimated First Ship Date:December 20, 2020 (date code: 2052)

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

Time Table Summary:

	November 2020				December 2020				
Workweek	45	46	47	48	49	50	51	52	53
Qual Report Availability			X						
Final PCN Issue Date			X						
Estimated First Ship 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:**November 18, 2020:** Issued final notification. Attached the qualification report. Provided estimated first ship date to be on December 20, 2020.

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-17JQE576_Qual_Report.pdf](#)

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

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Affected Catalog Part Numbers (CPN)

LAN8720A-CP

LAN8710A-EZC

LAN8710A-EZK

LAN8720AI-CP

LAN8710AI-EZK

LAN8720A-CP-TR

LAN8710A-EZK-TR

LAN8710A-EZC-TR

LAN8720AI-CP-TR

LAN8710AI-EZK-TR



QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: JAON-17JQJE576

Date:
August 18, 2016

Qualification of ANAC as an additional assembly site for selected products available in 36L VQFN (6x6x0.9mm) package. The qualification of ANAC as an additional assembly site for selected LAN8710xx and LAN8720xx device families available in 32L VQFN (5x5x0.9mm) and 24L VQFN (4x4x0.9mm) packages will qualify by similarity (QBS).



Purpose: Qualification of ANAC as an additional assembly site for selected products available in 36L VQFN (6x6x0.9mm) package. The qualification of ANAC as an additional assembly site for selected LAN8710xx and LAN8720xx device families available in 32L VQFN (5x5x0.9mm) and 24L VQFN (4x4x0.9mm) packages will qualify by similarity (QBS).

QUAL ID: QAR2016-009

CCB No.: 2519 and 2519.001

PRODUCT INFORMATION

PACKAGE TYPE	VQFN (PUNCH)
PACKAGE LEAD COUNT	36 (6x6x0.9mm)
TERMINAL PITCH	0.5mm
PACKAGE CODE	RPX

MATERIALS USED IN ASSEMBLY:

LEADFRAME PART NUMBER	101343095
LEADFRAME MATERIAL	C194 (ETCHED)
LEADFRAME INTERNAL PLATING	DOUBLE RING
LEADFRAME SURFACE	NO TREATMENT
LEADFRAME PAD	3.90 x 3.90 mm
LEADFRAME SIZE	250 X 70mm (VHDLF)
LEADLOCK	NO
LEADFRAME THICKNESS	0.20mm
UNITS PER L/F STRIP	168 (24X7)
DIE ATTACH EPOXY TYPE	8290
EPOXY – CONDUCTIVE	YES
WIRE TYPE	PdCu
DOWNBOND	YES
MOLDING COMPOUND TYPE	G700
LEAD FINISH PROCESS	Matte Sn
MARKING	LASER



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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot (Test)	Wafer Lot	MARKING /Date Code
ANAC170300034.000	7MCM42406.000 wafer 24 / GF07916422407.100	USB2512B D1615-A2P10 615YKYA ATC-CN
ANAC170300035.000	7MCM42406.000 wafer 24 / GF07916422407.100	USB2512B D1615-A2P10 615YM3A ATC-CN
ANAC170300036.000	7MCM42406.000 wafer 24 / GF07916422407.100	USB2512B D1615-A2P10 615YM8A ATC-CN

Result



Pass



Fail



The 36L QFN (6x6x0.9mm) package using ALS Leadframe with PdCu wire, assembled by ANAC Pass Reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 3 at 260°C reflow temperature per IPC/JEDEC J-STD-020D standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Moisture/Reflow Sensitivity Classification Test (At MSL Level 3)	30°C/ 60%RH	IPC/	240	0/240	Pass	LOT 1
	Moisture Soak 192 hrs.	JEDEC	240	0/240	Pass	LOT 2
	(IPC/JEDEC J-STD-020D)	J-STD-020D	240	0/240	Pass	LOT 3

<u>Precondition Prior Perform Reliability Tests</u> (At MSL Level 3)	Electrical Test: +85°C	JESD22- A113	240 (0)	240	PASS	Good Devices
	SAT		Lot 1	240		
	Bake 125°C, 24hrs			240		
	85°C/85%RH Moisture Soak 192hrs			240		
	3x Convection-Reflow 260°C			240		
	SAT			240		
	Electrical Test : +85°C			240	PASS	

<u>Precondition Prior</u> <u>Perform Reliability</u> <u>Tests</u> (At MSL Level 3)	Electrical Test: +85°C	JESD22-A113	240 (0) Lot 2	240	PASS	Good Devices
	SAT			240		
	Bake 125°C, 24hrs			240		
	30°C/60%RH Moisture Soak 192hrs			240		
	3x Convection-Reflow 260°C			240		
	SAT			240		
	Electrical Test : +85°C			240	PASS	

<u>Precondition Prior</u> <u>Perform Reliability</u> <u>Tests</u> (At MSL Level 3)	Electrical Test: +85°C	JESD22-A113	240 (0) Lot 3	240	PASS	Good Devices
	SAT			240		
	Bake 125°C, 24hrs			240		
	30°C/60%RH Moisture Soak 192hrs			240		
	3x Convection-Reflow 260°C			240		
	SAT			240		
	Electrical Test : +85°C			240	PASS	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	Stress Condition: -65°C to +150°C, 1000x Electrical Test: +85°C	JESD22-A104	231 (0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
BHAST	Stress Condition: +130°C/85%RH, 192hrs Electrical Test: +85°C	JESD22-A110	231 (0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C units / lot
uHAST	Stress Condition: +130°C/85%RH, 192hrs Electrical Test: +85°C	JESD22-A110	231 (0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
High Temperatu re Storage Life	Stress Condition: Bake +150°C, 1008hrs Electrical Test : +85°C	JESD22-A103	231 (0)	231 0/231	Pass	Parts had no pre-conditioned 77 units / lot