

Product Change Notification / JAON-08IMNP537

Date:

14-Dec-2020

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4404 Initial Notice: Qualification of ASSH as a new assembly site for 24LC512, 24AA512 and 24FC512 device families available in 8L TSSOP package.

Affected CPNs:

JAON-08IMNP537_Affected_CPN_12142020.pdf JAON-08IMNP537_Affected_CPN_12142020.csv

Notification Text:

PCN Status: Initial 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 ASSH as a new assembly site for 24LC512, 24AA512 and 24FC512 device families available in 8L TSSOP package.

Pre Change:

Assembled at ANAP using gold (Au) bond wire, 8290 die attach, G700A mold compound and C7025 lead frame material with Matte Tin (Sn) plating and Ag Spot DAP Surface Prep plating orAssembled at MMT using gold (Au) bond wire, 2200D die attach, G600V mold compound and C7025 lead frame material with Matte Tin (Sn) plating and Ag Spot DAP Surface Prep plating orAssembled at NSEB using gold (Au) bond wire, 2200D die attach, G600 mold compound and C7025 lead frame material with Matte Tin (Sn) plating and Ag Spot DAP Surface Prep plating orAssembled at NSEB using gold (Au) bond wire, 2200D die attach, G600 mold compound and C7025 lead frame material with Matte Tin (Sn) plating and Ag Spot DAP Surface Prep plating.

Post Change:

Assembled at ASSH using palladium coated copper (PdCu) bond wire, EN-4900G die attach, G700LY mold compound and C7025 lead frame material with Ru-PPF plating and Ru-PPF DAP Surface Prep plating.

Pre and Post Change Summary:

		Post Change		
Assembly Site	Amkor Technology Philippine (P1/P2), INC.(ANAP)	Microchip Technology Thailand (Branch) (MMT)	UTAC Thai Limited (UTL-1) LTD. (NSEB)	ASE Advanced Semiconductor (Shanghai) Co., Ltd. (ASSH)
Wire material	Au	Au	Au	PdCu
Die attach material	Die attach material 8290		2200D	EN-4900G
Molding compound material	ound material G700A		G600	G700LY
Lead frame material	Lead frame material C7025		C7025	C7025
Lead Plating Finish	Matte Tin	Matte Sn	Matte Sn	Ru-PPF
Lead Frame Lead Lock	No	No	No	Yes
Lead Frame DAP Surface Prep	Ag Spot	Ag Spot	Ag Spot	Ru-PPF

Impacts to Data Sheet: None

Change Impact:None

Reason for Change: To improve productivity by qualifying ASSH as a new assembly site.

Change Implementation Status: In Progress

Estimated Qualification Completion Date January 2021

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:

	December 2020					January 2021				
Workweek	4	5	5	5	5	0	0	0	04	05
	9	0	1	2	3	1	2	3		
Initial PCN Issue Date			х							
Qual Report									v	
Availability									×	
Final PCN Issue Date									х	

Method to Identify Change: Traceability code

Qualification Plan Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

Revision History:December 14, 2020: 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-08IMNP537_Qual_Plan.pdf PCN_JAON-08IMNP537_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 <u>receive Microchip PCNs via email</u> 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 <u>change your PCN profile</u>, <u>including opt out</u>, please go to the <u>PCN home page</u> select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections. JAON-08IMNP537 - CCB 4404 Initial Notice: Qualification of ASSH as a new assembly site for 24LC512, 24AA512 and 24FC512 device families available in 8L TSSOP package.

Affected Catalog Part Numbers (CPN)

24LC512-I/ST 24AA512-I/ST 24FC512-I/ST 24LC512T-I/ST 24AA512T-I/ST 24FC512T-I/ST

CCB 4404

Pre and Post Change Summary PCN #: JAON-08IMNP537



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Lead frame Comparison







QUALIFICATION PLAN SUMMARY

PCN #: JAON-08IMNP537

Date October 09, 2020

Qualification of ASSH as a new assembly site for 24LC512, 24AA512 and 24FC512 device families available in 8L TSSOP package.

Purpose:	Qualifica 24AA512 package	tion of ASSH as a new assembly site for 24LC512, 2 and 24FC512 device families available in 8L TSSOP
CCB No.:	4404	
Package:		
Туре		8L TSSOP
Width or Size		_ 4.4 mm
Leadframe:		
Material		C7025
Surface treatment	t	Roughening
Paddle size		_ 126 x 87 mils
Process		_ Stamped
Solder Plating:		
Material		NiPdAu
<u>Wire:</u>		
Material		PdCu
Die Attach Film:		
Part Number		EN-4900G
Conductive		Yes
Mold Compound:		
Туре		G700LY

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Cty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5	30 bonds from a min. 5 devices.
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-020D for package type. MSL-1 @ 260°C	231	15	3	738	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test.
HAST	+130°C/85% RH for 96 hours or 110°C/85%RH for 264 hours. Electrical test pre and post stress at +25°C and hot temp.	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Unbiased HAST	+130°C/85% RH for 96 hrs or +110°C/85% RH for 264 hrs. Electrical test pre and post stress at +25°C	77	5	3	246	0	10	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; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.