Product Change Notification / CENO-12HYAS450

Date:

19-Dec-2022

Product Category:

Microprocessors

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6009 Initial Notice: Qualification of ASEK as an additional assembly site for selected ATSAMA5D3xx device family available in 324L LFBGA (15x15x1.4mm) package.

Affected CPNs:

CENO-12HYAS450_Affected_CPN_12192022.pdf
CENO-12HYAS450_Affected_CPN_12192022.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 ASEK as an additional assembly site for selected ATSAMA5D3xx device family available in 324L LFBGA (15x15x1.4mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change

Assembly Site	ATX Semiconductor (Shanghai) Co. Ltd (ASSH)	ATX Semiconductor (Shanghai) Co. Ltd (ASSH)	ASE Inc. (ASEK)
Wire Material	CuPd	CuPd	CuPdAu
Die Attach Material	2100AS	2100AS	2100AC
Molding Compound Material	KE-G1250LKDS	KE-G1250LKDS	KE-G1250NAS
Substrate Core Material	CCL-HL832NX	CCL-HL832NX	CCL-HL832NX(A-HS)

Impacts to Data Sheet: None

Change Impact None

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

Change Implementation Status: In Progress

Estimated Qualification Completion Date: April 2023

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 2022					**>**	**April 2023**				
Workweek	49	50	51	52	53		13	14	15	16	17
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: December 19, 2022: 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_CENO-12HYAS450_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.

Affected Catalog Part Numbers (CPN)

ATSAMA5D35A-CN
ATSAMA5D31A-CU
ATSAMA5D33A-CU
ATSAMA5D34A-CU
ATSAMA5D35A-CU
ATSAMA5D36A-CU
ATSAMA5D31A-CUC21
ATSAMA5D35A-CUC22
ATSAMA5D36A-CUC23
ATSAMA5D36A-CN
ATSAMA5D35A-CNR
ATSAMA5D36A-CNR
ATSAMA5D31A-CUR
ATSAMA5D33A-CUR
ATSAMA5D34A-CUR
ATSAMA5D35A-CUR
ATSAMA5D36A-CUR
ATSAMA5D31A-CURC21
ATSAMA5D35A-CURC22
ATSAMA5D36A-CURC23

QUALIFICATION PLAN SUMMARY

PCN #: CENO-12HYAS450

Date:
Dec 08, 2022

Qualification of ASEK as an additional assembly site for selected ATSAMA5D3xx device family available in 324L LFBGA (15x15x1.4mm) package.

Purpose: Qualification of ASEK as an additional assembly site for selected ATSAMA5D3xx device family available in 324L LFBGA (15x15x1.4mm) package.

CCB No. : 6009

Misc.	Assembly site	ASEK
	MP Code (MPC)	92A037AUBC13
	Part Number (CPN)	ATSAMA5D35A-CU
	MSL information	MSL-3 @260C
	Assembly Shipping Media (T/R, Tube/Tray)	JT1151501-01 Rev A
	Base Quantity Multiple (BQM)	126
Substrate	Core Material	CCL-HL832NX(A-HS)
	SM Material	PSR4000 AUS308
Bond Wire	Material	CuPdAu
Die Attach	Part Number	2100AC
	Conductive	Yes
MC	Part Number	KE-G1250NAS
PKG	PKG Type	LFBGA
	Pin/Ball Count	324
	PKG width/size	15x15x1.4mm
	Ball Pitch/Size	0.8mm / 0.3mm
	Solder Ball Material	SAC105

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	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.
Solder Ball Shear	JESD22B117A	5	0	3	15		5			10 balls/5 units. Parts should gone Preconditioning
Coplanarity	JESD22B108A/POD	5	0	3	15					All units
Physical Dimensions	Measure per JESD22 B100	10	0	3	30		5			
High Temperature Storage Life (HTSL)	JESD22-A103. +150°C for 1008 hours Readpoints at 0, 504, and 1008 hours. Electrical test pre and post stress at +25°C and hot temp (85°C).	45	5	1 3 (Cu wire qual)	50 150 (Cu wire qual)	0	45	MPHIL	MPHIL	Spare should be properly identified. 3 lots are required for Cu wire qual. Post-stress Electrical Test Window Time: Within 168 hours. Refer to JESD22-A103 for details.
Preconditioning - Required for surface mount devices	JESD22-A113. +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 +25°C. JESD22A113.	231	15	3	738	0	15	MPHIL	MPHIL	Spares should be properly identified. 231 parts from each lot to be used for HAST, uHAST & Temp Cycle test.

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	Special Instructions
Unbiased HAST	JESD22-A118. +110°C/85% RH for 264 hours. Electrical test pre and post stress at +25°C.	77	5	3	246	0	10	MPHIL	MPHIL	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22-A104. -55°C to +125°C for 1000 cycles Electrical test pre and post stress at hot temp (85°C). WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	30	MPHIL	MPHIL	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.