



Product Change Notification / RMES-13RZIY008

Date:

14-Sep-2021

Product Category:

8-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4820 Initial Notice: Qualification of ATP7 as an additional assembly site for selected Atmel ATXMEGA32E5, ATXMEGA16E5, ATXMEGA8E5 and AT73C507 device families available in 32L UQFN (4x4x0.6mm) package.

Affected CPNs:

[RMES-13RZIY008_Affected_CPN_09142021.pdf](#)

[RMES-13RZIY008_Affected_CPN_09142021.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 ATP7 as an additional assembly site for selected Atmel ATXMEGA32E5, ATXMEGA16E5, ATXMEGA8E5 and AT73C507 device families available in 32L UQFN (4x4x0.6mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change
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Assembly Site		ASE Inc. (ASE)	ASE Inc. (ASE)	Amkor Technology Philippines (P3/P4), INC. (ATP7)
Wire material		PdCu	PdCu	CuPdAu
Die attach material	Material	FH-900	FH-900	CDF215
	Conductive	Non-conductive	Non-conductive	Conductive
Molding compound material		G631	G631	G631
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 ATP7 as an additional assembly site.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: February 2022

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:

	September 2021					>	February 2022				
Workweek	36	37	38	39	40		06	07	08	09	10
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:September 14, 2021: 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_RMES-13RZIY008_Qual_Plan.pdf](#)

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

Terms and Conditions:

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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.

RMES-13RZIY008 - CCB 4820 Initial Notice: Qualification of ATP7 as an additional assembly site for selected Atmel ATXMEGA32E5, ATXMEGA16E5, ATXMEGA8E5 and AT73C507 device families available in 32L UQFN (4x4x0.6mm) package.

Affected Catalog Part Numbers (CPN)

ATXMEGA32E5-M4U
ATXMEGA32E5-M4UR
ATXMEGA16E5-M4U
ATXMEGA16E5-M4UR
ATXMEGA8E5-M4U
ATXMEGA8E5-M4UR
AT73C507-M4UR730



MICROCHIP

QUALIFICATION PLAN SUMMARY

PCN #: RMES-13RZIY008

**Date:
September 02, 2021**

**Qualification of ATP7 as an additional assembly site for
selected Atmel ATXMEGA32E5, ATXMEGA16E5, ATXMEGA8E5
and AT73C507 device families available in 32L UQFN
(4x4x0.6mm) package.**

Purpose: Qualification of ATP7 as an additional assembly site for selected Atmel ATXMEGA32E5, ATXMEGA16E5, ATXMEGA8E5 and AT73C507 device families available in 32L UQFN (4x4x0.6mm) package.

<u>Misc.</u>	Assembly site	ATP7
	BD Number	TBD
	MP Code (MPC)	359PD7R3BC03
	Part Number (CPN)	ATXMEGA32E5-M4U
	MSL information	MSL-3 @260C
	Assembly Shipping Media (T/R, Tube/Tray)	Kostat KS-870858
	Base Quantity Multiple (BQM)	Tray - 490
	Reliability Site	MPHIL
	CCB No.	4820
<u>Lead-Frame</u>	Paddle size	118X118
	Material	C194
	DAP Surface Prep	Ring Plating
	Treatment	Roughened
	Process	Etched
	Lead-lock (With Locking Holes)	No
	Part Number	101420487
	Lead Plating	Matte Sn
	Strip Size	250 x 70mm
<u>Bond Wire</u>	Material	CuPdAu
<u>Die Attach</u>	Part Number	CDF215
	Conductive	Conductive
<u>MC</u>	Part Number	G631
<u>PKG</u>	PKG Type	UQFN
	Pin/Ball Count	32
	PKG width/size	4x4x0.6mm

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	MPHIL	MPHIL	32L UQFN	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 fails after TC	5	MPHIL	MPHIL	32L UQFN	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	MPHIL	MPHIL	32L UQFN	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	MPHIL	MPHIL	32L UQFN	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MPHIL	MPHIL	32L UQFN	
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 room temp 25°C and hot temp. MSL3 / 260c	231	15	3	738	0	15	MPHIL	MPHIL	32L UQFN	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	MPHIL	MPHIL	32L UQFN	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

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
Temp Cycle	<p>-65°C to +150°C for 500 cycles.</p> <p>Electrical test pre and post stress at hot temp; 3gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.</p> <p>Requires 2X Rel stress Testing</p>	77	5	3	246	0	15	MPHIL	MPHIL	32L UQFN	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.