



Product Change Notification / JAON-06SLTO183

Date:

14-Apr-2021

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4634 Initial Notice: Qualification of MMT as a new assembly site for selected Atmel AT28HC256x, AT28C256 and AT28BV256 device families available in 32L PLCC (11.5x14x3.37mm) package.

Affected CPNs:

[JAON-06SLTO183_Affected_CPN_04142021.pdf](#)
[JAON-06SLTO183_Affected_CPN_04142021.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 MMT as a new assembly site for selected Atmel AT28HC256x, AT28C256 and AT28BV256 device families available in 32L PLCC (11.5x14x3.37mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	Lingsen Precision Industries, LTD. (LPI)	Microchip Technology Thailand (MMT)

Wire material	Au		Au
Die attach material	CRM-1033BF		3280
Molding compound material	G600		G600
Lead frame material	C151		A194
Lead frame paddle size	225x260 mils	181x261 mils	200x365 mils
	See attached pre and post change comparison		

Impacts to Data Sheet: None.

Change Impact:None.

Reason for Change:

To improve on-time delivery performance by qualifying MMT as a new assembly site.

Change Implementation Status:In Progress

Estimated Qualification Completion Date:May 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:

Workweek	April 2021					May 2021				
	14	15	16	17	18	19	20	21	22	23
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:April 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_JAON-06SLTO183_Qual_Plan.pdf](#)

[PCN_JAON-06SLTO183_Pre and Post Change_Summary.pdf](#)

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

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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.



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QUALIFICATION PLAN SUMMARY

PCN #: JAON-06SLTO183

Date

April 01, 2021

**Qualification of MMT as a new assembly site for selected
Atmel AT28HC256x, AT28C256 and AT28BV256 device
families available in 32L PLCC (11.5x14x3.37mm) package.**

Purpose: Qualification of MMT as a new assembly site for selected Atmel AT28HC256x, AT28C256 and AT28BV256 device families available in 32L PLCC (11.5x14x3.37mm) package.

CCB No.: 4634

<u>Misc.</u>	Assembly site	MMT
	BD Number	BDM-002877/A
	MP Code (MPC)	191047P3XC01
	Part Number (CPN)	AT28HC256-90JU-600
	MSL information	MSL-2/245
	Assembly Shipping Media (T/R, Tube/Tray)	TUBE
	Base Quantity Multiple (BQM)	32
	Reliability Site	MTAI
<u>Lead-Frame</u>	Paddle size	200x365 mils
	Material	A194
	DAP Surface Prep	Ag Ring Plated
	Treatment	None
	Process	Etched
	Lead-lock	No
	Part Number	10103212
	Lead Plating	Matte Tin
	Strip Size	8.749x2.756 in.
	Strip Density	24 units/strip
<u>Bond Wire</u>	Material	Au
<u>Die Attach</u>	Part Number	3280
	Conductive	Yes
<u>MC</u>	Part Number	G600
<u>PKG</u>	PKG Type	PLCC
	Pin/Ball Count	32
	PKG width/size	11.5x14x3.37mm

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	Test Site	Special Instructions
Standard Pb-free Solderability	J-STD-002 ; 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	MTAI	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	3	15	0 fails after TC	5	MMT/MTAI	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	3	15		5	MMT/MTAI	30 bonds from a minimum of 5 devices.
Wire Sweep		5	0	3	15	0		MMT	Required for any reduction in wire bond thickness.
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MMT/ MTAI	
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 +25°C. MSL-2@245°C	231	15	3	738	0	15	MTAI	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. Electrical test pre and post stress at +25°C and hot temp.	77	5	3	246	0	10	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Unbiased HAST	+130°C/85% RH for 96 hrs. Electrical test pre and post stress at +25°C.	77	5	3	246	0	10	MTAI	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	Test Site	Special Instructions
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	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

CCB 4634
Pre and Post Change Summary
PCN # JAON-06SLTO183

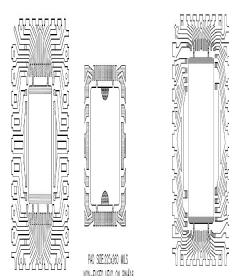
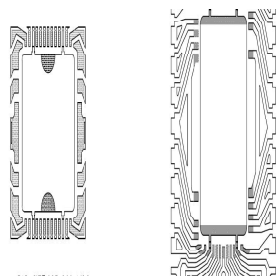
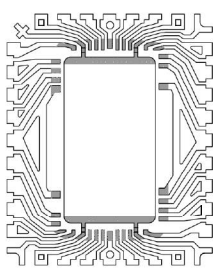


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Lead frame Comparison

Pre Change		Post Change
LPI		MMT
 <p>PAD SIZE: 145x145 MILS NON-FUSED LEAD ON PIN#16</p> <p>PAD SIZE: 145x145 MILS NON-FUSED LEAD ON PIN#16</p>	 <p>PAD SIZE: 225x290 MILS NON-FUSED LEAD ON PIN#16</p> <p>PAD SIZE: 200x365 MILS NON-FUSED LEAD ON PIN#16</p>	 <p>PAD SIZE: 200x365 MILS NON-FUSED LEAD ON PIN#16</p>

JAON-06SLTO183 - CCB 46: AT28C256 and AT28BV256 device families available in 32L PLCC (11.5x14x3.37m

Affected Catalog Part Numbers(CPN)

AT28HC256-90JU-600
AT28C256EF-15JU-795
AT28C256-15JU-043
AT28C256-15JU-323
AT28HC256-70JU
AT28HC256-90JU
AT28HC256-12JU
AT28HC256E-70JU
AT28HC256E-90JU
AT28HC256E-12JU
AT28HC256F-90JU
AT28C256-15JU
AT28C256E-15JU
AT28C256F-15JU
AT28BV256-20JU
AT28C256EF-15JU
AT28HC256-12JU-070
AT28HC256E-12JU-070
AT28C256F-15JU-T
AT28HC256-70JU-T
AT28HC256-90JU-T
AT28HC256-12JU-T
AT28HC256E-70JU-T
AT28HC256E-90JU-T
AT28HC256E-12JU-T
AT28HC256F-90JU-T
AT28C256-15JU-T
AT28C256E-15JU-T
AT28BV256-20JU-T
AT28C256EF-15JU-T