Product Change Notification - KSRA-24TYAZ595

Date:
01 Apr 2019
Product Category:
Memory
Affected CPNs:

Notification subject:
CCB 2936, 2936.002, 2936.003 Final Notice: Qualification of MMT as a new assembly site for selected Atmel Product available in 28L and 40L PDIP package.
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 MMT as a new assembly site for selected Atmel Product available in 28L and 40L PDIP package.

Pre Change:
Assembled at ANAP assembly site using 8390A die attach, Q3-6646 die coat and CK5000A molding compound material. Assembled at LPI assembly site using CRM-1033BF die attach, Q1-4939 die coat and G600 molding compound material.
Post Change:
Assembled at MMT Assembly site using CRM-1064L die attach, Q1-4939 die coat and GE800 molding compound material.
Pre and Post Change Summary:

	Pre Change		Post Change
Assembly Site	Amkor Technology Philippine INC. (ANAP)	Lingsen Precision Industries, LTD. (LPI)*	Microchip Technology Thailand (MMT)
Wire material	Au	Au	Au
Die attach material	8390A	CRM-1033BF	CRM-1064L
Molding compound material	CK5000A	G600	GE800
Lead frame material	C194	C194	C194
Die Coat material	Q3-6646	Q1-4939	Q1-4939

Impacts to Data Sheet:
None
Change Impact:
None
Reason for Change:
To improve manufacturability by qualifying MMT assembly site as part of the Atmel and Microchip

integration.

Change Implementation Status:

In Progress

Estimated First Ship Date:

For 40L PDIP package: September 21, 2018 (date code: 1838).
For 28L PDIP package: May 01, 2019 (date code: 1918)
NOTE: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Time Table Summary:

	May 2017					🕮♋♑❒♋❖♏🖃	August 2018					September 2018				🕮♋♑❒♋❖♏🖃	May 2019				
Workweek	18	19	20	21	22		31	32	33	34	35	36	37	38	39		18	19	20	21	22
Initial PCN Issue Date					X																
Qual Report Availability										X											
Final PCN Issue Date										X											
Estimated Implementation Date														X			X*				

*For 28L PDIP package

Method to Identify Change:

Traceability code

Qualification Report:

Please open the attachments included with this PCN labeled as PCN_#_Qual Report

Revision History:

May 29, 2017: Issued initial notification.

November 07, 2017: Re-issued initial notification to update the affected parts list. Updated the pre and post change to include die coat material. Updated the qual report availability and revision of the qualification plan.

August 22, 2018: Issued final notification. Attached the Qualification Report. Added reference CCB 2936.001 and updated affected CPN list because of the update in the scope of this PCN.

April 01, 2019: Re-issued final notification. Amended reference CCB 2936.001 to CCB 2936.002 and added reference CCB 2936.003 to include selected Atmel products available in 28L PDIP package. Updated notification subject, description of change, pre and post change field and summary table and the affected CPN list in accordance with the scope.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachment(s):

PCN_KSRA-24TYAZ595_Qual_Report.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)

AT27C1024-45PU
AT27C1024-70PU
AT27C2048-90PU
AT27C256R-45PU
AT27C256R-70PU
AT27C4096-55PU
AT27C4096-90PU
AT27C512R-45PU
AT27C512R-70PU
AT28C256-15PU
AT28C64B-15PU

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QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: KSRA-24TYAZ595

Date
July 14, 2018

Qualification of MMT as a new assembly site for selected Atmel products available in 40L PDIP package. The selected Atmel products available in 28L PDIP package will qualify by similarity (QBS).

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Package Qualification Report

Purpose: Qualification of MMT as a new assembly site for selected Atmel products available in 40L PDIP package. The selected Atmel products available in 28L PDIP package will qualify by similarity (QBS).

Qual Report: QTP3429 Rev. A

CCB No.: 2936, 2936.002 and 2936.003

Misc.	Assembly site	ES185712-25386
	Assembly site	MMT
	BD Number	BDM-001317 rev D
	MP Code (MPC)	34A097S2XC01
	Part Number (CPN)	AT27C4096-90PU
Lead-Frame	Paddle size	260 x 266 mils
	Material	CDA194
	Surface	Ag Spot Plated
	Process	Stamped
	Lead-lock	Yes
	Part Number	10104004
	Lead Plating	Matte Tin
Bond Wire	Material	Au
Die Attach	Part Number	CRM-1064L
	Conductive	Yes
MC	Part Number	GE800
PKG	PKG Type	PDIP
	Pin/Ball Count	40
	PKG width/size	600 mils
Die	Die Thickness	15 mils
	Die Size	200 x 198 mils
	Die Coat	Q1-4939

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Package Qualification Report

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-190101772.000	MCSO518528565.000	1814Y4J
MMT-190101769.000	MCSO518528565.000	1814Y4C
MMT-190201172.000	MCSO518528565.000	1815Y4D

Result [X] Pass [ ] Fail [ ] ____________________

Atmel product using CSO-Fab5 wafer on 40L PDIP package at MMT using 1.2 mil Au wire is qualified per QCI-39000

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Temp Cycle	**Stress Condition:** (Standard) 65°C to +150°C, 500 Cycles System: VOTSCH VT 7012 S2	JESD22-A104	240			
	Electrical Test: +25°C , +90°C System: MAGNUM05 (Handtest)		240(0)	0/240	Pass	
	Bond Strength: Wire Pull (> 6.00 grams) Bond Shear (>22.00 grams)		15(0)	Ongoing		
UNBIASED-HAST	**Stress Condition:** (Standard) +130°C/85%RH, 96 hrs. System: HIRAYAMA HASTEST PC-422R8	JESD22-A118	240			
	Electrical Test: +25°C System: MT9510 Handler:2580		240(0)	0/240	Pass	
HAST	**Stress Condition:** (Standard) +130°C/85%RH, 96 hrs. **Bias Volt:** 5.5 Volts System: HIRAYAMA HASTEST PC-422R8	JESD22-A110	240			
	Electrical Test: +25°C , +90°C System: MT9510 Handler:2580		240(0)	0/240	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 504 hrs System: HERAEUS **Electrical Test :**+25°C , +90°C	JESD22-A103	50 50(0)	0/50	Pass	50 units
Solderability Temp 245°C	**Bake:** Temp 155°C,4Hrs System:Oven Solder Bath: Temp.245°C Solder material: SnPb Visual Inspection: External Visual Inspection	J-STD-002	15 (0)	0/15	Pass	Performed at MPHIL
Physical Dimensions	Physical Dimension, 10 units from 3 lot	JESD22-B100/B108	0/30	Pass	0/30	
Bond Strength Data Assembly	Wire Pull (> 6.00 grams)	M2011.8 MIL-STD-883	0/30	Pass	0/30	
Bond Strength Data Assembly	Bond Shear (>22.00 grams)	M2011.8 MIL-STD-883	0/30	Pass	0/30	