Product Change Notification - KSRA-23FDQF538

Date: 15 Nov 2017

Product Category: Memory

Notification subject: CCB 3156 and CCB 3166 Final Notice: Qualification of MMT as a new assembly site for selected Atmel Products available in 8L and 40L PDIP package.

Notification text:

PCN Status:
Final notification

PCN Type:
Manufacturing Change

Microchip Parts Affected:
Please open the attachments found in the attachments field below labeled as PCN_#_Affected_CPN.

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 Products available in 8L and 40L PDIP package.

Pre Change:
Assembled at ANAP Assembly site using 8390A die attach material, and CK5000A molding compound material

Post Change:
Assembled at MMT Assembly site using CRM-1064L die attach material, and GE800 molding compound material

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	Amkor Technology Philippine INC.(ANAP) Assembly Site	Microchip Technology Thailand (MMT) Assembly Site
Wire material	Au Wire	Au Wire
Die attach material	8390A	CRM-1064L
Molding compound material	CK5000A	GE800
Lead frame material	C194	C194

Impacts to Data Sheet:
None

Change Impact:
None

Reason for Change:
To improve manufacturability by qualifying MMT as a new assembly site

Change Implementation Status:
In Progress

Estimated First Ship Date:
December 15, 2017 (datecode: 1750)

NOTE: Please be advised that after the estimated first ship date customers may receive pre and post change parts

Time Table Summary:

	November 2017					December 2017			
Workweek	44	45	46	47	48	49	50	51	52
Qual Report Availability			X						
Final PCN Issue Date			X						
Estimated Implementation Date							X		

Method to Identify Change:
Traceability code

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

Revision History:
November 15, 2017: Issued final notification.

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-23FDQF538_Affected_CPN.pdf
PCN_KSRA-23FDQF538_Qual Report.pdf
PCN_KSRA-23FDQF538_Affected_CPN.xlsx

Please contact your local Microchip sales office with questions or concerns regarding this notification.

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Affected Catalog Part Numbers (CPN)

PCN_KSRA-23FDQF538
CATALOG_PART_NBR
AT24C02C-PUM
AT24C04C-PUM
AT24C08C-PUM
AT24C16C-PUM
AT93C46D-PU
AT93C46D-PUAW
AT93C46E-BPU
AT93C46E-PU
ATMEGA1284P-PU
ATMEGA1284-PU

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QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: KSRA-23FDQF538

Date
August 22, 2017

Qualification of MMT as a new assembly site for selected Atmel Products available in 40L PDIP package. The selected products available in 8L PDIP package will qualify by similarity.

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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 products available in 8L PDIP package will qualify by similarity.

CN	ES103401
QUAL ID	QTP3104
MP CODE	354527S2XA01
Part No.	ATMEGA1284P-PU
CCB No.	3166 and 3156
Package	
Type	40L PDIP
Package size	600 mils
Die thickness	15 mils
Die size	200.0x167.0 mils
Lead Frame	
Paddle size	260x266 mils
Material	A194
Surface	Ag Spot Plated
Process	Stamped
Lead Lock	Yes
Part Number	10104004
Treatment	None
Material	
Epoxy	CRM-1064L
Wire	Au
Mold Compound	GE800
Plating Composition	Matte Tin

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-181000279.000	MCSO518080266.000	1722H71
MMT-181000280.000	MCSO518080266.000	1722H72
MMT-181000281.000	MCSO518080266.000	1722H73

Result [X] Pass [ ] Fail [ ] ____________________

Atmel's 35452 device using Au wire on 40L PDIP assembled by MMT (ALPH) pass reliability test per QCI-39000 which was conducted at MPHL rel lab.

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: + 85°C System: MT9320 Handler:0202		240	0/240	Passed	
	Bond Strength: Wire Pull (> 2.50 grams) Bond Shear (>15.00 grams)		15(0)	0/15	Passed	
UNBIASED-HAST	**Stress Condition:** (Standard) +130°C/85%RH, 96 hrs. System: HIRAYAMA HASTEST PC-422R8	JESD22-A118		238		
	Electrical Test: +85°C System: MT9320 Handler: 0202		238	0/238	Passed	
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:+85°C System: MT9320 Handler:0202		240	0/240	Passed	
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 504 hrs System: HERAEUS	JESD22-A103		50		45 units
	Electrical Test :+85°C System: MT9320 Handler:0202		50(0)	0/50	Pass	
Bond Strength	Wire Pull (> 2.50 grams)	M2011.8	30 (0) Wires	0/30	Pass	
Data Assembly	Bond Shear (>15.00 grams)	MIL-STD-883	30 (0) bonds	0/30	Pass	