



Product Change Notification - RMES-20YFIZ783

Date:

20 May 2020

Product Category:

Memory

Affected CPNs:**Notification subject:**

CCB 3314.002 Final Notice: Qualification of MMT as a new assembly site for selected Atmel products available in 32L PLCC (11.5x14x3.37mm) package.

Notification text:**PCN Status:**

Final notification

PCN Type:

Manufacturing Change

Microchip Parts Affected:

Please open one of the icons found on 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 products available in 32L PLCC (11.5x14x3.37mm) package.

Pre Change:

Assembled at ANAP using CRM-1076E die attach and C194 lead frame material
or

Assembled at LPI using CRM-1033BF die attach and C151 lead frame material.

Post Change:

Assembled at MMT using 3280 die attach and C151 lead frame material.

Pre and Post Change Summary:

	Pre Change		Post Change
Assembly Site	Amkor Technology Philippine (P1/P2), INC. (ANAP)	Lingsen Precision Industires, LTD. (LPI)	Microchip Technology Thailand (Branch) (MMT)
Wire material	Au	Au	Au
Die attach material	CRM-1076E	CRM-1033BF	3280
Molding compound material	G600	G600	G600
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 MMT as a new assembly site.

Change Implementation Status:

In Progress

Estimated First Ship Date:



June 10, 2020 (date code: 2024)

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

Time Table Summary:

Workweek	May 2020					June 2020				
	18	19	20	21	22	23	24	25	26	27
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:

May 20, 2020: Issued final notification. Attached the qualification report. Provided estimated first ship date to be on June 10, 2020.

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_RMES-20YFIZ783_QUAL_REPORT.pdf](#)

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

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QUALIFICATION REPORT SUMMARY

PCN #: RMES-20YFIZ783

Date

April 29, 2020

Qualification of MMT as a new assembly site for selected Atmel products available in 44L PLCC (16.6x16.6x4.4mm) package. The selected products available in 32L PLCC (11.5x14x3.37mm) package will be qualify by similarity (QBS).



MICROCHIP Package Qualification Report

Purpose: Qualification of MMT as a new assembly site for selected Atmel products available in 44L PLCC (16.6x16.6x4.4mm) package. The selected products available in 32L PLCC (11.5x14x3.37mm) package will be qualify by similarity (QBS).

CCB No.: 3314 and 3314.002

<u>Miscellaneous.</u>	CN	ES184249-25334
	Assembly site	MMT
	BD Number	BDM-001711A rev. A
	MP Code (MPC)	336017T2XC01
	Part Number (CPN)	AT89C51RC-24JU
<u>Lead-Frame</u>	Paddle size	230x230 mils
	Material	CDA151
	Surface	Ag Spot plated
	Treatment	None
	Process	Stamped
	Lead-lock	No
	Part Number	10104409
	Lead Plating	Matte Tin
<u>Bond Wire</u>	Material	Au
<u>Die Attach</u>	Part Number	3280
	Conductive	Yes
<u>Mold Compound</u>	Part Number	G600
<u>PKG</u>	PKG Type	PLCC
	Pin/Ball Count	44
MSL Classification		L1/245C



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Package Qualification Report

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-190101770.000	MCSO518518266.000	1814Y4E
MMT-190101771.000	MCSO518518266.000	1814Y4G
MMT-190201173.000	MCSO518518266.000	1815Y4H

Result

Pass Fail _____

44L PLCC package for wafer mask 33601 assembled at MMT using Au wire is qualified at Moisture/ Reflow Sensitivity Classification Level 1 per IPC/JEDEC J-STD-020D standard. No delamination was observed on all the units.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
<u>Precondition Prior Perform Reliability Tests</u> (At MSL Level 1	Electrical Test: +90°C	JESD22- A113	810(0)	0/810	Passed	Good Devices
	Bake 150°C, 24 hrs System: HERAEUS		810			
	85°C/85%RH Moisture Soak 168 hrs. System: Climats Excal 5423-HE	IPC/JEDEC C J-STD- 020D	810			
	3x Convection-Reflow 245°C max System: Mancorp CR.5000F		810			
	Electrical Test: +90°C			0/810	Passed	
Temp Cycle	Stress Condition: (Standard) 65°C to +150°C, 500 Cycles System: VOTSCH VT 7012 S2	JESD22- A104	243			Parts had been pre- conditioned at 245°C
	Electrical Test: +90°C System: Maverick Tester		243(0)	0/243	Passed	
	Bond Strength: Wire Pull (> 6.00 grams) Bond Shear (>22.00 grams)		15(0)	0/15	Passed	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
UNBIASED-HAST	Stress Condition: (Standard) +130°C/85%RH, 96 hrs. System: HIRAYAMA HASTEST PC-422R8 Electrical Test: +90°C System: Maverick Tester	JESD22-A118	243			Parts had been pre-conditioned at 245°C
			243(0)	0/243	Passed	
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs System: HERAEUS Electrical Test: +90°C	JESD22-A103	54			54 units
			54(0)	54(0)	Passed	
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	Passed	
Physical Dimensions	Physical Dimension, 10 units from 3 lot	JESD22-B100/B108	30(0) Units	0/30	Passed	
Bond Strength Data Assembly	Wire Pull (> 6.00 grams)	M2011.8 MIL-STD-883	30(0) Wires	0/30	Passed	
Bond Strength Data Assembly	Bond Shear (>22.00 grams)	M2011.8 MIL-STD-883	30 (0) bonds 30 (0) bonds	0/30	Passed	

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Affected Catalog Part Numbers(CPN)

AT28C64B-15JU
AT28HC64B-70JU
AT28HC64B-90JU
AT28HC64B-12JU
AT28HC64BF-12JU
AT28BV64B-20JU
AT28C64B-15JU-235
AT28HC64BF-70JU-T
AT28HC64BF-90JU-T
AT28C64B-15JU-T
AT28HC64B-70JU-T
AT28HC64B-90JU-T
AT28HC64B-12JU-T
AT28HC64BF-12JU-T
AT28BV64B-20JU-T
AT27C010-45JU
AT27C010-70JU
AT27C010-45JU-T
AT27C010-70JU-T