Product Change Notification - CYER-22JUMC972 (Printer Friendly)

Date: 22 Oct 2013

Notification subject: CCB 1214.02 Final Notice: Qualification of 8L SOIJ package without silver plating on the paddle and without lead lock feature on lead-frame at NSEB assembly site.

Notification text:

PCN Status:
Final notification

Microchip Parts Affected:
See attachments of affected catalog part numbers (CPN) labeled as…
PCN_CYER-22JUMC972_Affected_CPN.xls
PCN_CYER-22JUMC972_Affected_CPN.pdf

Description of Change:
Qualification of 24xx1025, 24xx1026, and 24xx515 device families in the 8L SOIJ package without silver plating on the paddle and without lead lock feature on lead-frame at NSEB assembly site.

Pre Change:
Silver plated paddle and lead lock feature on lead-frame

Post Change:
Bare Cu paddle and no lead lock feature on lead-frame

Impacts to Data Sheet:
None

Reason for Change:
To improve manufacturability

Change Implementation Status:
In Progress

Estimated First Ship Date:
August 30, 2013 (date code: 1335)

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

Markings to Distinguish Revised from Unrevised Devices:
Traceability code

Revision History:
February 28, 2013: Issued initial notification.
July 31, 2013: Issued final notice. Added qualification report. Revised estimated first ship date from May 30, 2013 to August 30, 2013.
October 22, 2013: Revise the PCN and parts lists to show that only 24xx1025, 24xx1026, and 24xx515 device families are affected. Removed devices that are not part of these families.

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_CYER-22JUMC972_Affected_CPN.pdf
PCN_CYER-22JUMC972_Qual Report.pdf
PCN_CYER-22JUMC972_Affected_CPN.xls

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

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PCN_CYER-22JUMC972
CATALOG_PART_NBR
24AA1025-I/SM
24AA1025T-I/SM
24AA1026-I/SM
24AA1026T-I/SM
24AA515-I/SM
24AA515T-I/SM
24FC1025-I/SM
24FC1025T-I/SM
24FC1025T-I/SMC79
24FC1026-I/SM
24FC1026T-I/SM
24FC515-I/SM
24FC515T-I/SM
24LC1025-E/SM
24LC1025-I/SM
24LC1025T-E/SM
24LC1025T-I/SM
24LC1026-E/SM
24LC1026-I/SM
24LC1026T-E/SM
24LC1026T-I/SM
24LC515-I/SM
24LC515T-I/SM

QUALIFICATION REPORT

RELIABILITY LABORATORY

PCN #: CYER-22JUMC972

Date

July 17, 2013

: Qualification of 8L SOIJ package without silver plating on the paddle and without lead lock feature on lead-frame at NSEB assembly site.

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MICROCHIP PACKAGE QUALIFICATION REPORT

Purpose	Qualification of 8L SOIJ package without silver plating on the paddle and without lead lock feature on lead-frame at NSEB assembly site.
CN	BC130292
QUAL ID	Q13056
MP CODE	360027C3XA00
Part No.	24FC515-I/SM
Bonding No.	BDM-000297 Rev. A
CCB No.	1214.02
Package	
Type	8L SOIJ
Package size	208 mils
Die thickness	8 mils, both top and bottom die.
Die size	105.60 x 78.30 mils (Die 1)
Die size	119.20 x 143.10 mils (Die 2)
Lead Frame	
Paddle size	140 x 160 mils
Material	CDA194
Surface	Bare copper paddle
Process	Stamp
Lead Lock	No
Part Number	FD0379
Die attach material	
Epoxy	Die attach film, HS-231W
Wire	Au wire
Mold Compound	G600
Plating Composition	Matte Tin

PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Trace Code
NSEB134700750	TMPE212368158.400	1308DD5
NSEB134700751	TMPE212368158.400	1308DD8
NSEB134700752	TMPE212368158.400	1308DDA

Result [X] Pass [ ] Fail [ ] ____________________

8L SOIJ (.208") assembled by UTL (NSEB) pass reliability test per QCI-39000.This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020D standard.

Prepared By:____________________**Date:** July 17, 2013 **(Reliability Engineer)**

(Mr.Udom Suksansakul)

Approved By:____________________**Date:** July 17, 2013 **(Reliability Manager)**

(Mr. Somnuek Thongprasert)

PACKAGE QUALIFICATION REPORT

Qual Report : Q13056

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Moisture/Reflow Sensitivity Classification Test (At MSL Level 1)	85°C/ 85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243 (IPC/JEDEC J-STD-020D)	IPC/JEDEC J-STD-020D	135	0/135	Pass	

Precondition Prior Perform Reliability Tests (At MSL Level 1)	**Electrical Test :**+25°C and 85°C System: NEXTEST_PT	JESD22-A113	693(0)	693		Good Devices
	Bake 150°C, 24 hrs System: CHINEE			693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			693		
	3x Convection-Reflow 265°C max			693		
	System: Vitronics Soltec MR1243					
	Electrical Test :+25°C and 85°C System: NEXTEST_PT			0/693	Pass	

PACKAGE QUALIFICATION REPORT

Qual Report : Q13056

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	**Stress Condition:** -65°C to +150°C, 500 Cycles System : TABAI ESPEC TSA-70H Inspection: External crack inspection all units under 40X Optical magnification **Electrical Test:** + 85°C System: NEXTEST_PT	JESD22-A104	231(0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X **Electrical Test:** +25°C System: NEXTEST_PT	JESD22-A118	231(0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 5.5 Volts System: HAST 6000X **Electrical Test:**+25°C and 85°C System: NEXTEST_PT	JESD22-A110	231(0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs System: SHEL LAB **Electrical Test :**+25°C and 85°C System: NEXTEST_PT	JESD22-A103	45(0)	45 0/45	Pass	45 units

PACKAGE QUALIFICATION REPORT

Qual Report : Q13056

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Solderability **Temp 215°C**	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.215°C Solder material: SnPb Sn63,Pb37 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	JESD22-B102	22 (0)	22 22 0/22	Pass	
Solderability **Temp 245°C**	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 Solder Dipping:Solder Temp.245°C Solder material:Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	JESD22-B102	22 (0)	22 22 0/22	Pass	
Bond Strength **Data Assembly**	Wire Pull (> 4.0 grams) Bond Shear (18.00 grams)	JESD22-B116	30 (0) Wires 30 (0) bonds	0/30 0/30	Pass Pass	