Product Change Notification - JAON-22LAXV706

Date:	13 Oct 2015
Product Category:	Analog (Linear & Mixed Signal) AND Interface; Radio Frequency Devices; 8-bit Microcontrollers; Memory
Notification subject:	CCB 1656 and 1656.01 Final Notice: Qualification of CuPdAu bond wire in selected products of the 120K and 121K wafer technologies available in 8L SOIC package at MMT assembly site.

Notification text:

PCN Status:

Final notification

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 palladium coated copper with gold flash (CuPdAu) bond wire in selected products of the 120K and 121K wafer technologies available in 8L SOIC package at MMT assembly site.

Pre Change:
Palladium coated copper wire (PdCu)

Post Change:
Palladium coated copper wire with gold flash (CuPdAu)

Impacts to Data Sheet:
None

Reason for Change:
To improve manufacturability and qualify palladium coated copper with gold flash (CuPdAu) bond wire.

Change Implementation Status:
In Progress

Estimated First Ship Date:
November 09, 2015 (date code: 1546)

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:
June 29, 2015: Issued initial notification.
October 13, 2015: Issued final notification. Attached the qualification report. Revised the estimated first ship date from October 20, 2015 to November 9, 2015.

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_JAON-22LAXV706_Qual_Report.pdf PCN_JAON-22LAXV706_Affected_CPN.pdf PCN_JAON-22LAXV706_Affected_CPN.xls

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

Terms and Conditions:

If you wish to change your product/process change notification (PCN) profile please log on to our website at http://www.microchip.com/PCN sign into myMICROCHIP to open the myMICROCHIP home page, then select a profile option from the left navigation bar.

To opt out of future offer or information emails (other than product change notification emails), click here to go to microchipDIRECT and login, then click on the "My account" link, click on "Update profile" and un-check the box that states "Future offers or information about Microchip's products or services."

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Affected Catalog Part Numbers (CPN)

PCN_JAON-22LAXV706
CATALOG_PART_NBR
24AA02/SNRVC
24AA02-I/SNRVC
24AA02T/SNRVC
24AA02T-I/SNRVC
24AA04/SNRVC
24AA04-I/SNRVC
24AA04T/SNRVC
24AA04T-I/SNRVC
24LC01BT-I/SNA21
24LC01BT-I/SNA23
24LC01BT-I/SNRVE
24LC02B/SNRVC
24LC02B-E/SNRVC
24LC02B-I/SNRVC
24LC02BT/SNROCRVC
24LC02BT/SNRVC
24LC02BT-E/SNRVC
24LC02BT-I/SNROCRVC
24LC02BT-I/SNRVC
24LC04B/SNROCRVC
24LC04B/SNRVC
24LC04B-E/SNRVC
24LC04B-I/SNROCRVC
24LC04B-I/SNRVC
24LC04BT/SNROCRVC
24LC04BT/SNRVC
24LC04BT-E/SNRVC
24LC04BT-I/SNA29
24LC04BT-I/SNROCRVC
24LC04BT-I/SNRVC
25AA320-I/SN
25AA320T-I/SN
25AA320T-I/SNV07
25AA640-I/SN
25AA640T-I/SN
25C320/SN
25C320-E/SN
25C320-I/SN
25C320T/SN
25C320T-E/SN
25C320T-I/SN
25LC320/SN
25LC320-E/SN
25LC320-I/SN

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Affected Catalog Part Numbers (CPN)

PCN_JAON-22LAXV706
CATALOG_PART_NBR
25LC320T/SN
25LC320T-E/SN
25LC320T-I/SN
25LC640-E/SN
25LC640-I/SN
25LC640T-E/SN
25LC640T-I/SN
MCP41010-E/SN
MCP41010-I/SN
MCP41010T-E/SN
MCP41010T-I/SN
MCP6002-E/SN
MCP6002-I/SN
MCP6002T-E/SN
MCP6002T-I/SN
MCP6022-E/SN
MCP6022-I/SN
MCP6022T-E/SN
MCP6022T-I/SN
MCP602-E/SN
MCP602-I/SN
MCP602T-E/SN
MCP602T-I/SN
MCP6042-E/SN
MCP6042-I/SN
MCP6042T-E/SN
MCP6042T-I/SN
MCP6051-E/SN
MCP6051T-E/SN
MCP6052-E/SN
MCP6052T-E/SN
MCP6061-E/SN
MCP6061T-E/SN
MCP6062-E/SN
MCP6062T-E/SN
MCP6071-E/SN
MCP6071T-E/SN
MCP6072-E/SN
MCP6072T-E/SN
MCP6142-E/SN
MCP6142-I/SN
MCP6142T-E/SN
MCP6142T-I/SN
MCP6272-E/SN

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Affected Catalog Part Numbers (CPN)

PCN_JAON-22LAXV706
CATALOG_PART_NBR
MCP6272T-E/SN
MCP6282-E/SN
MCP6282T-E/SN
MCP6292-E/SN
MCP6292T-E/SN
MCP6402-E/SN
MCP6402-H/SN
MCP6402T-E/SN
MCP6402T-H/SN
MCP6407-H/SN
MCP6407T-H/SN
MCP6542-E/SN
MCP6542-I/SN
MCP6542T-E/SN
MCP6542T-I/SN
MCP6543-E/SN
MCP6543-I/SN
MCP6543T-E/SN
MCP6543T-I/SN
MCP6548-E/SN
MCP6548-I/SN
MCP6548T-E/SN
MCP6548T-I/SN
MCP6L02T-E/SN
MCP6L2T-E/SN
MCP6L72T-E/SN
MCP6L92T-E/SN
MCP6S21-I/SN
MCP6S21T-I/SN
MCP6S92-E/SN
MCP6S92T-E/SN
MCRF450TX/SN
MCRF450X/SN
PIC12C508A-04/SN
PIC12C508A-04/SN208
PIC12C508A-04E/SN
PIC12C508A-04I/SN
PIC12C508AT-04/SN
PIC12C508AT-04/SN203
PIC12C508AT-04/SN208
PIC12C508AT-04/SN219
PIC12C508AT-04E/SN
PIC12C508AT-04I/SN
PIC12C508AT-04I/SN077

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Affected Catalog Part Numbers (CPN)

PCN_JAON-22LAXV706
CATALOG_PART_NBR
PIC12C508AT-04I/SN123
PIC12C508AT-04I/SN177
PIC12C508AT-04I/SN221
PIC12C508AT-04I/SN231
PIC12C509A-04/SN
PIC12C509A-04/SN035
PIC12C509A-04E/SN
PIC12C509A-04I/SN
PIC12C509A-04I/SNC09
PIC12C509AT-04/SN
PIC12C509AT-04/SN116
PIC12C509AT-04/SN117
PIC12C509AT-04I/SN
PIC12LC508A-04/SN
PIC12LC508A-04I/SN
PIC12LC508AT-04/SN
PIC12LC508AT-04I/SN
PIC12LC508AT-04I/SN167
PIC12LC508AT-04I/SN168
PIC12LC509A-04/SN
PIC12LC509A-04I/SN
PIC12LC509AT-04/SN
PIC12LC509AT-04I/SN
PIC12LC509AT-04I/SN122
PIC12LC509AT-04I/SN126
PIC12LC509AT-04I/SNG063

QUALIFICATION REPORT
RELIABILITY LABORATORY

PCN #: JAON-22LAXV706

Date
October 01, 2015

Qualification of palladium coated copper with gold flash (CuPdAu) bond wire in selected products of the 120K and 121K wafer technologies available in 8L SOIC package at MMT assembly site.

Distribution

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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of palladium coated copper with gold flash (CuPdAu) bond wire in selected products of the 120K and 121K wafer technologies available in 8L SOIC package at MMT assembly site.
CN	BC151610
QUAL ID	Q15102
MP CODE	ABBS14C2XA00
Part No.	MCP6402-E/SN
Bonding No.	BDM-000763 Rev. B
CCB No.	1656 and 1656.01
Package	
Type	8L SOIC
Package size	150 mils
Die thickness	15 mils
Die size	32.2 x 50.4 mils
Lead Frame	
Paddle size	90 x 90 mils
Material	CDA194
Surface	Bare Cu
Process	Stamped
Lead Lock	No
Part Number	10100812
Treatment	BOT
Die attach material	
Epoxy	8390A
Wire	CuPdAu wire
Mold Compound	G600V
Plating Composition	Matte Tin

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-161700748.000	TMPE215344875.H00	15306HM
MMT-161701057.000	TMPE215344875.H00	1530D7A
MMT-161701062.000	TMPE215344875.H00	1530EQP

Result [X] Pass [ ] Fail [ ] ____________________

8L SOIC (.150”) assembled by MMT 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:** October 01, 2015 **(Sr.Reliability Engineer)**

(Mr.Thinnapol Nakkasun)

Approved By: ____________________ **Date:** October 01, 2015 **(Reliability Manager)**

(Mr. Somnuek Thongprasert)

PACKAGE QUALIFICATION REPORT

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 150°C System: ETS300	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 150°C System: ETS300			0/693	Pass	

PACKAGE QUALIFICATION REPORT						
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	JESD22-A104		231		Parts had been pre-conditioned at 260°C
	Electrical Test: + 150°C System: ETS300		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (> 3.0 grams)		15 (0)	0/15	Pass	
	Bond Shear (>20.00 grams)		15 (0)	0/15	Pass	
UNBIASED-HAST	**Stress Condition:** (Standard) +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: ETS300		231(0)	0/231	Pass	

PACKAGE QUALIFICATION REPORT						
Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
HAST	**Stress Condition:** (Standard) +130°C/85%RH, 96 hrs. **Bias Volt:** 5.0 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test:+25°C and 150°C System: ETS300		231(0)	0/231	Pass	
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 504 hrs System: SHEL LAB	JESD22-A103		45		45 units
	Electrical Test :+25°C and 150°C System: ETS300		45(0)	0/45	Pass	
Bond Strength Data Assembly	Wire Pull (>3.0 grams)	M2011	30 (0) Wires	0/30	Pass	
	Bond Shear (>20.00 grams)	JESD22 -B116	30 (0) bonds	0/30	Pass	