

Product Change Notification - JAON-27WIZT300

Date: 12 Jan 2015

Product Category: Memory; Analog (Linear & Mixed Signal) AND Interface; Radio Frequency Devices; 8-bit Microcontrollers

Notification subject: CCB 1444.01 Final Notice: Qualification of palladium coated copper (PdCu) bond wire in selected products of the 90K, 120K, and 121K technologies available in 8L SOIC package at MMT assembly site.

Notification text:

PCN Status:

Final notification

Microchip Parts Affected:

See attachments of affected catalog part numbers (CPN) labeled as...

PCN_JAON-27WIZT300_Affected_CPN.xls

PCN_JAON-27WIZT300_Affected_CPN.pdf

Description of Change:

Qualification of palladium coated copper (PdCu) bond wire in selected products of the 90K, 120K, and 121K technologies available in 8L SOIC package at MMT assembly site.

Impacts to Data Sheet:

None

Reason for Change:

To improve manufacturability by qualifying PdCu wire at MMT assembly site.

Change Implementation Status:

In Progress

Estimated First Ship Date:

February 16, 2015 (date code: 1508)

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:

August 18, 2014: Issued initial notification.

January 12, 2015: Issued final notification. Attached the qualification report. Revised the estimated first ship date from November 10, 2014 to February 16, 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-27WIZT300_Qual_Report.pdf](#) [PCN_JAON-27WIZT300_Affected_CPN.pdf](#)
[PCN_JAON-27WIZT300_Affected_CPN.xlsx](#)

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."

PCN_JAON-27WIZT300
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
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
MCP6061-E/SN
MCP6061T-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
MCP6271-E/SN
MCP6271T-E/SN
MCP6272-E/SN
MCP6272T-E/SN
MCP6273-E/SN
MCP6273T-E/SN
MCP6281-E/SN
MCP6281T-E/SN
MCP6282-E/SN
MCP6282T-E/SN
MCP6283-E/SN
MCP6283T-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
MCP6541-E/SN
MCP6541-I/SN
MCP6541T-E/SN
MCP6541T-I/SN
MCP6542-E/SN
MCP6542-I/SN
MCP6542T-E/SN
MCP6542T-I/SN
MCP6546-E/SN
MCP6546-I/SN
MCP6546T-E/SN
MCP6546T-I/SN
MCP6L02T-E/SN
MCP6L2T-E/SN
MCP6L71T-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
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-04E/SN
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



MICROCHIP

**QUALIFICATION REPORT
RELIABILITY LABORATORY**

PCN #: JAON-27WIZT300

**Date
January 06, 2015**

**Qualification of palladium coated copper (PdCu) bond wire in
selected products of the 90K, 120K, and 121K technologies
available in 8L SOIC package at MMT assembly site.**

Distribution

Somnuek T.
V.Danginis
Wichai K.
Arnel M.
Oliver B.
Sombat K.

Rangsun K.
A. Navarro
J. Fernandez
S. Kelsall
S. Iliev

Microchip Technology (Thailand) Co., Ltd.
14 Moo 1 T.Wangtakien A. Muangchacherngsao,
Chacherngsao, Thailand, 24000
Tel. (+66 38) 857119-45, 857311-19 ext. 1231
Fax (+66 38) 857149-50



MICROCHIP PACKAGE QUALIFICATION REPORT

Purpose	Qualification of palladium coated copper (PdCu) bond wire in selected products of the 90K, 120K, and 121K technologies available in 8L SOIC package at MMT assembly site.
CN	BC141911
QUAL ID	Q14165
MP CODE	ABBS14C2XA00
Part No.	MCP6402-E/SN
Bonding No.	BDM-000536 Rev. A
CCB No.	1444.01
<u>Package</u>	
Type	8L SOIC
Package size	150 mils
Die thickness	15 mils
Die size	32.2 x 50.4 mils
<u>Lead Frame</u>	
Paddle size	90 x 90 mils
Material	CDA194
Surface	Bare Cu
Process	Stamped
Lead Lock	No
Part Number	10100812
Treatment	BOT
<u>Die attach material</u>	
Epoxy	8390A
Wire	PdCu
Mold Compound	G600V
Plating Composition	Matte Tin



MICROCHIP PACKAGE QUALIFICATION REPORT

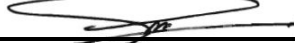
Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-153300241.000	TMPE215197954.500	1446UQE
MMT-153300469.000	TMPE215197954.500	1446UQE
MMT-153300470.000	TMPE215197954.500	1446237

Result

Pass Fail _____

8L SOIC (.150") assembled by MMT (ALPH) 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: January 06, 2015 (Sr. Reliability Engineer)

(Mr. Udom Suksansakul)

Approved By:  Date: January 06, 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 C 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	Pass	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 System: Vitronics Soltec MR1243			693		
	Electrical Test :+25°C and 150°C System: ETS300			0/693		

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 : TABAI ESPEC TSA-70H	JESD22- A104		77		Parts had been pre-conditioned at 260°C
	Electrical Test: + 150°C System: ETS300		77(0)	0/77	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		77		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: ETS300		77(0)	0/77	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 Electrical Test: +25°C and 150°C System: ETS300	JESD22- A110	77(0)	77 0/77	Pass	Parts had been pre-conditioned at 260°C
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs System: SHEL LAB Electrical Test: +25°C and 150°C System: ETS300	JESD22- A103	45(0)	45 0/45	Pass	
Bond Strength Data Assembly	Wire Pull (> 3.0 grams) Bond Shear (>20.00 grams)	M2011 JESD22- B116	30 (0) Wires 30 (0) bonds	0/30 0/30	Pass Pass	