



## Product Change Notification - LIAL-19RTVJ812

---

**Date:**

09 Jul 2018

**Product Category:**

Memory; Real-Time Clock/Calendar

**Affected CPNs:****Notification subject:**

CCB 3230 Final Notice: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire in selected products of the 160K wafer technology available in 8L MSOP package at MTAI assembly site.

**Notification text:****PCN Status:**

Final notification.

**PCN Type:**

Manufacturing Change

**Microchip Parts Affected:**

Please open one of the icons found in the Affected CPNs section above.

**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 160K wafer technology available in 8L MSOP package at MTAI assembly site.

**Pre Change:**

Using gold (Au) bond wire

**Post Change:**

Using palladium coated copper with gold flash(CuPdAu) bond wire.

**Pre and Post Change Summary:**

	Pre Change	Post Change
<b>Assembly Site</b>	Microchip Technology Thailand (HQ) (MTAI)	Microchip Technology Thailand (HQ) (MTAI)
<b>Wire material</b>	Au	CuPdAu
<b>Die attach material</b>	8390A	8390A
<b>Molding compound material</b>	G600V	G600V
<b>Lead frame material</b>	C194	C194

**Impacts to Data Sheet:**

None

**Change Impact:**

None

**Reason for Change:**

To improve on-time delivery performance by qualifying palladium coated copper with gold flash (CuPdAu) bond wire.

**Change Implementation Status:**

In Progress

**Estimated First Ship Date:**

July 27, 2018 (date code: 1830)



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

**Time Table Summary:**

Workweek	April 2018					-->	June 2018					July 2018				
	14	15	16	17	18		22	23	24	25	26	27	28	29	30	31
Initial PCN Issue Date				X												
Qual Report Availability										X						
Final PCN Issue Date Estimated										X						
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:**

**April 23, 2018:** Issued initial notification.

**June 27, 2018:** Issued final notification. Attached the Qualification Report and provided estimated first ship date to be on July 27, 2018.

**July 09, 2018:** Re-issued final notification to correct the attached Qualification report.

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\\_LIAL-19RTVJ812\\_Qual\\_Report.pdf](#)

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."



**MICROCHIP**

# **QUALIFICATION REPORT SUMMARY**

## **RELIABILITY LABORATORY**

**PCN #: LIAL-19RTVJ812**

**Date**

**June 11, 2018**

**Qualification of palladium coated copper with gold flash (CuPdAu) bond wire in selected products of the 160K wafer technology available in 8L MSOP package at MTAI assembly site.**





**MICROCHIP**

**PACKAGE QUALIFICATION REPORT**

**Manufacturing Information**

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI184503725.000	GRSM 418163911.E00	18053UC
MTAI184504109.000	GRSM 418163911.E00	18056P5
MTAI184504110.000	GRSM 418163911.E00	18056P9

**Result**

Pass     Fail     \_\_\_\_\_

8L MSOP assembled by MTAI 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.

# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
<b>Moisture/Reflow Sensitivity Classification Test (At MSL Level 1)</b>	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	
<b><u>Precondition Prior Perform Reliability Tests</u></b> (At MSL Level 1)	<b>Electrical Test</b> :+25°C,85°C and 125°C System: NEXTEST_PT  Bake 150°C, 24hrs System: CHINEE  85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH  3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243  <b>Electrical Test</b> :+25°C,85°C and 125°C System: NEXTEST_PT	JESD22-A113	693(0)	693  693  693  0/693	Pass	Good Devices
<b>Temp Cycle</b>	<b>Stress Condition:</b> -65°C to +150°C, 500 Cycles System : TABAI ESPEC TSA-70H  <b>Electrical Test:</b> + 85°C and 125°C System: NEXTEST_PT  <b>Bond Strength:</b> Wire Pull (> 2.5 grams) Bond Shear (>15.00 grams)	JESD22-A104	231(0)  15 (0)  15 (0)	231  0/231  0/15  0/15	Pass  Pass  Pass	Parts had been pre-conditioned at 260°C 77 units / lot
<b>UNBIASED-HAST</b>	<b>Stress Condition:</b> +130°C/85%RH, 96 hrs. System: HAST 6000X  <b>Electrical Test:</b> +25°C System: NEXTEST_PT	JESD22-A118	231(0)	231  0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
<b>HAST</b>	<b>Stress Condition:</b> +130°C/85%RH, 96 hrs. <b>Bias Volt:</b> 5.0 Volts System: HAST 6000X  <b>Electrical Test:</b> + 25°C ,85°C and 125°C System: NEXTEST_PT	JESD22-A110	231(0)	231  0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot

# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
<b>High Temperature Storage Life</b>	<b>Stress Condition:</b> Bake 175°C, 504 hrs System: SHEL LAB	JESD22-A103		45		45 units
	<b>Electrical Test :</b> +25°C ,85°C and 125°C System: NEXTEST_PT		45(0)	0/45	Pass	
<b>Solderability Temp 215°C</b>	<b>Steam Aging:</b> 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	JESD22B-102E	22 (0)	22  22  0/22	Pass	
<b>Solderability Temp 245°C</b>	<b>Steam Aging:</b> 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	JESD22B-102E	22 (0)	22  22  0/22	Pass	
<b>Bond Strength Data Assembly</b>	Wire Pull (> 2.5 grams)	M2011	30 (0) Wires	0/30	Pass	
	Bond Shear (>15.00 grams)	JESD22-B116	30 (0) bonds	0/30	Pass	

LIAL-19RTVJ812 - CCB 3230 Final Notice: Qualification of palladium coated copper with gold flash (CuPd)

Affected Catalog Part Numbers(CPN)

- 11AA010-I/MS
- 11AA010T-I/MS
- 11AA020-I/MS
- 11AA020T-I/MS
- 11AA040-I/MS
- 11AA040T-I/MS
- 11AA080-I/MS
- 11AA080T-I/MS
- 11AA160-I/MS
- 11AA160T-I/MS
- 11AA161-I/MS
- 11AA161T-I/MS
- 11LC010-E/MS
- 11LC010-I/MS
- 11LC010T-E/MS
- 11LC010T-I/MS
- 11LC020-E/MS
- 11LC020-I/MS
- 11LC020T-E/MS
- 11LC020T-I/MS
- 11LC040-E/MS
- 11LC040-I/MS
- 11LC040T-E/MS
- 11LC040T-I/MS
- 11LC080-E/MS
- 11LC080-I/MS
- 11LC080T-E/MS
- 11LC080T-I/MS
- 11LC160-E/MS
- 11LC160-I/MS
- 11LC160T-E/MS
- 11LC160T-I/MS
- 11LC161-E/MS
- 11LC161-I/MS
- 11LC161T-E/MS
- 11LC161T-I/MS
- 24AA014H-I/MS
- 24AA014HT-I/MS
- 24AA014-I/MS
- 24AA014T-I/MS
- 24AA01H-I/MS
- 24AA01HT-I/MS



24AA01-I/MS  
24AA01T-I/MS  
24AA024H-I/MS  
24AA024HT-I/MS  
24AA024-I/MS  
24AA024T-I/MS  
24AA025-I/MS  
24AA025T-I/MS  
24AA02H-I/MS  
24AA02HT-I/MS  
24AA02-I/MS  
24AA02-I/MSB31  
24AA02T-I/MS  
24AA02T-I/MSB31  
24AA52-I/MS  
24AA52T-I/MS  
24C01C-E/MS  
24C01C-I/MS  
24C01CT-E/MS  
24C01CT-I/MS  
24C02C-E/MS  
24C02C-I/MS  
24C02CT-E/MS  
24C02CT-I/MS  
24LC014-E/MS  
24LC014H-E/MS  
24LC014H-I/MS  
24LC014HT-E/MS  
24LC014HT-I/MS  
24LC014-I/MS  
24LC014T-E/MS  
24LC014T-I/MS  
24LC01B-E/MS  
24LC01BH-E/MS  
24LC01BH-I/MS  
24LC01BHT-E/MS  
24LC01BHT-I/MS  
24LC01B-I/MS  
24LC01BT-E/MS  
24LC01BT-I/MS  
24LC024-E/MS  
24LC024H-E/MS  
24LC024H-I/MS  
24LC024HT-E/MS  
24LC024HT-I/MS  
24LC024-I/MS  
24LC024T-E/MS

24LC024T-I/MS  
24LC025-E/MS  
24LC025-I/MS  
24LC025T-E/MS  
24LC025T-I/MS  
24LC02B-E/MS  
24LC02BH-E/MS  
24LC02BH-I/MS  
24LC02BHT-E/MS  
24LC02BHT-I/MS  
24LC02B-I/MS  
24LC02BT-E/MS  
24LC02BT-I/MS  
24LCS52-I/MS  
24LCS52T-I/MS  
24VL014/MS  
24VL014H/MS  
24VL014HT/MS  
24VL014T/MS  
24VL024/MS  
24VL024H/MS  
24VL024HT/MS  
24VL024T/MS  
24VL025/MS  
24VL025T/MS  
34AA02-E/MS  
34AA02-I/MS  
34AA02T-E/MS  
34AA02T-I/MS  
34LC02-E/MS  
34LC02-I/MS  
34LC02T-E/MS  
34LC02T-I/MS  
34VL02/MS  
34VL02T/MS  
MCP79400-I/MS  
MCP79400T-I/MS  
MCP79401-I/MS  
MCP79401T-I/MS  
MCP79402-I/MS  
MCP79402T-I/MS  
MCP7940M-I/MS  
MCP7940MT-I/MS  
MCP7940N-E/MS  
MCP7940N-I/MS  
MCP7940NT-E/MS  
MCP7940NT-I/MS

MCP79410-I/MS  
MCP79410T-I/MS  
MCP79411-I/MS  
MCP79411T-I/MS  
MCP79412-I/MS  
MCP79412T-I/MS