

Product Change Notification - IIRA-19HYJU812

Date: 26 Mar 2014

Product Category: 16-bit Microcontrollers and Digital Signal Controllers; Analog (Linear & Mixed Signal) AND Interface; 8-bit Microcontrollers

Notification subject: CCB 1361.01 Final Notification: Qualification of palladium coated copper (PdCu) bond wire for selected products available in 28L SPDIP package at ALPH (MMT) assembly site.

Notification text: **PCN Status:**
Final notification

Microchip Parts Affected:

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

PCN_IIRA-19HYJU812_Affected_CPN.xls

PCN_IIRA-19HYJU812_Affected_CPN.pdf

Description of Change:

Qualification of palladium coated copper (PdCu) bond wire for selected products available in 28L SPDIP package at ALPH (MMT) assembly site.

NOTE: Selected products are non-automotive standalone analog and PIC MCU devices. Please review the affected CPN lists (attached) to identify the actual parts affected.

Pre Change:

Gold (Au) wire

Post Change:

Palladium coated copper (PdCu) bond wire

Impacts to Data Sheet:

None

Reason for Change:

To improve manufacturability

Change Implementation Status:

In progress

Estimated First Ship Dates:

April 10, 2014 (date code: 1415)

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:

December 26, 2013: Issued initial notification.

March 26, 2014: Issued final notification. Attached the qualification report. Revised the estimated first ship date from March 30, 2014 to April 10, 2014.

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_IIRA-19HYJU812_Affected CPN.pdf](#) [PCN_IIRA-19HYJU812_Qual Report.pdf](#) [PCN_IIRA-19HYJU812_Affected CPN.xls](#)

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

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PCN_IIRA-19HYJU812
CATALOG_PART_NBR
DSPIC30F2012-20E/SP
DSPIC30F2012-20I/SP
DSPIC30F2012-30I/SP
DSPIC33FJ06GS102A-E/SP
DSPIC33FJ06GS102A-I/SP
DSPIC33FJ06GS202A-E/SP
DSPIC33FJ06GS202A-I/SP
DSPIC33FJ09GS302-E/SP
DSPIC33FJ09GS302-I/SP
DSPIC33FJ12GP202-E/SP
DSPIC33FJ12GP202-I/SP
DSPIC33FJ12MC202-E/SP
DSPIC33FJ12MC202-I/SP
DSPIC33FJ16GP102-E/SP
DSPIC33FJ16GP102-H/SP
DSPIC33FJ16GP102-I/SP
DSPIC33FJ16MC102-E/SP
DSPIC33FJ16MC102-H/SP
DSPIC33FJ16MC102-I/SP
DSPIC33FJ32GP102-E/SP
DSPIC33FJ32GP102-I/SP
DSPIC33FJ32GP202-E/SP
DSPIC33FJ32GP202-I/SP
DSPIC33FJ32MC102-E/SP
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DSPIC33FJ32MC202-E/SP
DSPIC33FJ32MC202-I/SP
ENC28J60-I/SP
HA3089-I/SP
MCP23016-I/SP
MCP23017-E/SP
MCP23S17-E/SP
MCV28A-I/SP
PIC14000-04/SP
PIC14000-04I/SP
PIC14000-20/SP
PIC14000-20I/SP
PIC16C55A-04/SP
PIC16C55A-04I/SP
PIC16C55A-20/SP
PIC16C55A-20I/SP
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PIC16C62B-20E/SP
PIC16C62B-20I/SP
PIC16C63A-04/SP
PIC16C63A-04I/SP
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PIC16C63A-20E/SP
PIC16C63A-20I/SP
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PIC16C72A-04E/SP
PIC16C72A-04I/SP
PIC16C72A-04I/SP4AP
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PIC16CR63-04I/SP084
PIC16CR63-04I/SP085
PIC16CR72-04/SP050
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PIC16LF876-04/SP
PIC16LF876-04I/SP
PIC16LF876A-I/SP
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PIC18C242-I/SP
PIC18F2220-E/SP
PIC18F2220-I/SP
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PIC18F26J11-I/SP
PIC18F26J13-I/SP
PIC18F26J50-I/SP
PIC18F26J53-I/SP
PIC18F27J13-I/SP
PIC18F27J53-I/SP
PIC18LF2220-I/SP
PIC18LF2221-I/SP
PIC18LF2320-I/SP
PIC18LF2321-I/SP
PIC18LF2410-I/SP
PIC18LF2420-I/SP
PIC18LF2423-I/SP
PIC18LF242-I/SP
PIC18LF2450-I/SP
PIC18LF2480-I/SP
PIC18LF24J10-I/SP
PIC18LF24J11-I/SP
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PIC18LF27J13-I/SP
PIC18LF27J53-I/SP
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PIC24FJ16GA002-I/SP
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PIC24FJ64GB002-I/SP
PIC24HJ12GP202-E/SP
PIC24HJ12GP202-I/SP
PIC24HJ32GP202-E/SP
PIC24HJ32GP202-I/SP



MICROCHIP

**QUALIFICATION REPORT
RELIABILITY LABORATORY**

PCN #: IIRA-19HYJU812

Date:
March 6, 2014

**Qualification of palladium coated copper (PdCu) bond wire for
selected products available in 28L SPDIP package at ALPH (MMT)
assembly site.**

Distribution

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MICROCHIP PACKAGE QUALIFICATION REPORT

Purpose Qualification of palladium coated copper (PdCu) bond wire for selected products available in 28L SPDIP package at ALPH (MMT) assembly site.

CN BC132031

QUAL ID Q14001

MP CODE A5AF14M3XE04

Part No. PIC16F876-04E/SP

Bonding No. BDM-000418 Rev. A

CCB No. 1361.01

Package

Type 28L SPDIP

Package size 300 mils

Die thickness 15 mils

Die size 179.20 x 199.60 mils

Lead Frame

Paddle size 196 x 300 mils

Material C194

Surface Ring Ag on paddle

Process Stamped

Lead Lock No

Part Number 10102812

Treatment None

Die attach material

Epoxy CRM-1064L

Wire PdCu wire

Mold Compound GE800

Plating Composition Matte Tin



MICROCHIP PACKAGE QUALIFICATION REPORT


Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
ALPH143600398	TMPE214285700.000	134916R
ALPH143600399	TMPE214285700.000	134916W
ALPH143700054	TMPE214285700.000	1350171

Result

Pass Fail _____

28L SPDIP (.300") assembled by MMT (ALPH) pass reliability test per QCI-39000.

Prepared By:  Date: March 06, 2014 (Sr. Reliability Engineer)

(Mr. Udom Suksansakul)

Approved By:  Date: March 06, 2014 (Reliability Manager)

(Mr. Somnuek Thongprasert)

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Electrical Test	Electrical Test: +85°C and 125°C System: J750	JESD22- A113	693(0)	693		Good Devices
Temp Cycle	Stress Condition: (Standard) -65°C to +150°C, 50, 250, 500 Cycles System : TABAI ESPEC TSA-70H Electrical Test: + 85°C and 125°C System: J750 Bond Strength: Wire Pull (> 2.5 grams) Bond Shear (15.00 grams)	JESD22- A104	231(0)	0/231	Pass	Parts had been pre-conditioned at 260°C
UNBIASED-HAST	Stress Condition: (Standard) +130°C/85%RH, 96 hrs. System: HAST 6000X Electrical Test: +25°C System: J750	JESD22- A118	231(0)	0/231	Pass	Parts had been pre-conditioned at 260°C
HAST	Stress Condition: (Standard) +130°C/85%RH, 96 hrs. Bias Volt: 5.5 Volts System: HAST 6000X Electrical Test: + 25°C,85°C and 125°C System: J750	JESD22- A110	231(0)	0/231	Pass	Parts had been pre-conditioned at 260°C

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	Stress Condition: Bake 175 °C, 504 hrs System: SHEL LAB	JESD22- A103		45		45 units
	Electrical Test: +25 °C,85 °C and 125 °C System: J750		45(0)	0/45	Pass	
Bond Strength Data Assembly	Wire Pull (> 2.5 grams)	JESD22- B116	30 (0) Wires	0/30	Pass	
	Bond Shear (15.00 grams)		30 (0) bonds	0/30	Pass	