

Product Change Notification - CYER-09EMYS877

Date: 23 Aug 2013

Product Category: 16-bit Microcontrollers and Digital Signal Controllers; 8-bit Microcontrollers

Notification subject: CCB 1155.09 Initial Notification: Qualification of selected products available in the 40L PDIP and 28L PDIP packages with palladium coated copper (PdCu) bond wire at MTAI assembly site.

Notification text: **PCN Status:**
Initial notification

Microchip Parts Affected:

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

PCN_CYER-09EMYS877_Affected_CPN.xls

PCN_CYER-09EMYS877_Affected_CPN.pdf

Description of Change:

Qualification of selected products available in the 40L PDIP and 28L PDIP packages with palladium coated copper (PdCu) bond wire at MTAI 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:

October 18, 2013 (Date code: 1342)

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 23, 2013: Initial notification issue date.

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-09EMYS877_Affected CPN.pdf](#) [PCN_CYER-09EMYS877_Qual Plan.pdf](#) [PCN_CYER-09EMYS877_Affected CPN.xlsx](#)

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

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PCN_CYER-09EMYS877
CATALOG_PART_NBR
DSPIC30F3011-20E/P
DSPIC30F3011-20I/P
DSPIC30F3011-30I/P
DSPIC30F3014-20E/P
DSPIC30F3014-20I/P
DSPIC30F3014-30I/P
DSPIC30F4011-20E/P
DSPIC30F4011-20I/P
DSPIC30F4011-30I/P
DSPIC30F4013-20E/P
DSPIC30F4013-20I/P
DSPIC30F4013-30I/P
PIC16C64A-04/P
PIC16C64A-04I/P
PIC16C64A-04I/P053
PIC16C64A-10/P
PIC16C64A-20/P
PIC16C64A-20I/P
PIC16C65A-04/P
PIC16C65A-10/P
PIC16C65A-20/P
PIC16C65A-20I/P
PIC16C65B-04/P
PIC16C65B-04I/P
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PIC16C65B-20I/P
PIC16C662-04I/P
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PIC16F74-I/P4AP
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CF775-04/P
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PIC16C57C-04E/P
PIC16C57C-04I/P
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PIC16C57C-04I/P077
PIC16C57C-20/P
PIC16C57C-20I/P
PIC16C57C-40/P
PIC16C622-ME
PIC16C711-ME/P
PIC16C715-ME/P
PIC16F57-E/P
PIC16F57-E/PG
PIC16F57-I/P
PIC16F57-I/P022
PIC16F57-I/P032
PIC16F57-I/P033
PIC16F57-I/P034
PIC16F57-I/P037
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PIC16F57-I/PG
PIC16LC55A-04/P
PIC16LC55A-04I/P
PIC16LC57C-04/P
PIC16LC57C-04I/P



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QUALIFICATION PLAN

PCN #: CYER-09EMYS877

**Date:
Jun 19, 2013**

Qualification of selected products available in the 40L PDIP package with palladium coated copper (PdCu) bond wire at MTAI assembly site. The 28L PDIP package will qualify by similarity at MTAI assembly site.

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Purpose: _____ Qualification of selected products available in the 40L PDIP package with palladium coated copper (PdCu) bond wire at MTAI assembly site. The 28L PDIP package will qualify by similarity at MTAI assembly site.

MP code: _____ C5AL27S2XREL

Part No.: _____ PIC18F448

BD No: _____ BDM-000353 rev.A

CCB No: _____ 1155.09

Package:

Type _____ 40L PDIP

Width or Size _____ 600 mil

Die thickness: _____ 15 mils

Die size: _____ 152.7 x 243.6 mils

Lead frame:

Paddle size: _____ 300 x 300

Material _____ CDA194

Surface _____ Ag plate

Process _____ Stamp

Lead Lock _____ No

Part Number _____ 10104009

Wire:

Material _____ PdCu

Die Attach Epoxy:

Part Number _____ CRM-1064L

Conductive _____ Yes

Mold Compound: _____ GE-800

Lead finish _____ Matte tin

Reliability Test plan: _____ See attached, STD Package Reliability Test plan on each package.

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	30 bonds from a minimum of 5 devices.
HTSL (High Temp Storage Life)	+175 C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at +25C and hot temp.	45	5	1	50	0	10	Must be in progress at time of package release to production, but completion is not required for release to production. For hot temp testing, pre/post test 1 lot at 85°C and 125°C (if applicable)
HAST	+130°C/85% RH for 96 hours. Electrical test pre and post stress at +25°C and hot temp.	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning. For hot temp testing, pre/post test 1 lot at 85°C and 125°C (if applicable)
Unbiased HAST	+130°C/85% RH for 96 hrs or	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	-65°C to +150°C for 500 cycles. Electrical test pre and post stress at hot temp; 3 gram force WBP, on 5 devices from 1 lot, test follow ing Temp Cycle stress.	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning. For hot temp testing, pre/post test 1 lot at 85°C and 125°C (if applicable).