Product Change Notification - IIRA-29UYPT414

Date: 04 Nov 2014

Product Category:

Notification subject: CCB 1375 Final Notice: Qualification of all EcqoLogic products in the 16L QFN (4x4) package at NSEB (UTL) assembly site and changes to marking, packing & catalog part number (CPN) convention.

Notification text:

PCN Status:

Final notification

Microchip Parts Affected:

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

PCN_IIRA-29UYPT414_Affected_CPN.xls

PCN_IIRA-29UYPT414_Affected_CPN.pdf

Description of Changes:

1. Qualification of NSEB (UTL) assembly site in 16L QFN (4x4) package.
2. Change package top marking.
3. Change tube length.
4. Change stopper color.

5. Change base quantity multiple (BQM).
6. Change catalog part number (CPN) convention.

Pre Change:

1. UNIS assembly site.
2. See attached pre and post drawings.
3. See attached pre and post changes.
4. See attached pre and post changes.
5. See attached pre and post changes.
6. See attached affected CPN list.

Post Change:

1. NSEB (UTL) assembly site.
2. See attached pre and post drawings.
3. See attached pre and post changes.
4. See attached pre and post changes.
5. See attached pre and post changes.
6. See attached affected CPN list.

Impacts to Data Sheet:

None

Reason for Change:

To improve manufacturability as part of the integration of EcqoLogic and Microchip.

Change Implementation Status:

Complete

Estimated First Ship Dates:

February 10, 2014 (date code 1407): CPN convention and BQM will change.

November 30, 2014 (date code 1448): Products will ship from NSEB (UTL) assembly site and package top marking, tube length & stopper color will change.

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, device package marking, shipping label

Revision History:

February 6, 2014: Issued initial notification.

November 4, 2014: Issued final notification. Attached the qualification report. Revised the estimated first ship date for products that will be shipped from NSEB (UTL) assembly site from September 15, 2014 to November 30, 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-29UYPT414_Qual Report.pdf PCN_IIRA-29UYPT414_Affected CPN.pdf PCN_IIRA-29UYPT414_Affected CPN.xls

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

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PCN_IIRA-29UYPT414	
CATALOG_PART_NBR PARTS AFFECTED AND CONVENTION PRE CHANGE	**CATALOG_PART_NBR CONVENTION POST CHANGE**
EQCO2754.2	No Change
EQCO30R5.D	No Change
EQCO30R5.D SS	No Change
EQCO30R5.D	EQCO30R5.D-TRAY
EQCO30T5.2	No Change
EQCO30T5.2	EQCO30T5.2-TRAY
EQCO31R20.3	No Change
EQCO31R20.3	EQCO31R20.3-TRAY
EQCO31T20.3	No Change
EQCO31T20.3	EQCO31T20.3-TRAY
EQCO400T8	No Change
EQCO5000.3	No Change
EQCO5000.3	EQCO5000.3-TRAY
EQCO62R20.3	No Change
ECQO62R20.3	EQCO62R20.3-TRAY
ECQO62T20.3	No Change
EQCO62T20.3	EQCO62T20.3-TRAY
EQCO850SC.1	No Change
EQCO850SC.1	EQCO850SC.1-TRAY
EQCO850SC.2	No Change
EQCO850SC.2	EQCO850SC.2-TRAY
EQCO850SC.3 rest	EQCO850SC.3-HS
EQCO850SC.3 rest	EQCO850SC.3-HS-TRAY
EQCO850SC.3 IP	EQCO850SC.3
EQCO850SC.3 IP	EQCO850SC.3-TRAY
EQCO875SC.2	No Change
EQCO875SC.2	EQCO875SC.2-TRAY
EQCO875SC.3 IP	EQCO875SC.3
EQCO875SC.3 rest	EQCO875SC.3-HS
EQCO875SC.3 rest	EQCO875SC.3-HS-TRAY
EQCO875SC.3 IP	EQCO875SC.3-TRAY
EQCO FastECoax7501.1	EQCO-FastECoax7501.1
EQCO FastECoax7501.2	EQCO-FastECoax7501.2
EQCO-FW5001	No Change
EQCO-FW7501	No Change
EQCO-SDI-30-7502	EQCO-SDI-30-7502
Ethernet Overcoax Module RACK	Ethernet_Overcoax_Module_RACK
Gigabit Ethernet SFP	Gigabit_Ethernet_SFP
CoaXPress Transmitter EVB	EVB-DBSUB1584
CoaXPress Receiver EVB	EVB-DBSUB1586

QUALIFICATION REPORT
RELIABILITY LABORATORY

PCN #: IIRA-29UYPT414

Date
October 20, 2014

Qualification of all EcqoLogic products in the 16L QFN (4x4) package at NSEB (UTL) assembly site and changes to marking, packing & catalog part number (CPN) convention.

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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of all EcqoLogic products in the 16L QFN (4x4) package at NSEB (UTL) assembly site and changes to marking, packing & catalog part number (CPN) convention.
CN	BC140448
QUAL ID	Q14055
MP CODE	XAB0178EXDD0
Part No.	EQCO62T20.3
Bonding No.	BDE-002587 Rev. 4
CCB No.:	1375

<u>Package</u>

Type	16L VQFN
Package size	4x4x0.9 mm
Die thickness	11 mils
Die size	46.5 x 31.4 mils

<u>Lead Frame</u>

Paddle size	89 x 89 mils
Material	PPF NiPdAu
Surface	Ag plating on leads only
Process	Stamp
Lead Lock	No
Part Number	FR0914

<u>Die attach material</u>

Epoxy	8200T (Henkel)
Wire	Au wire
Mold Compound	G770HCD /Sumitomo (Japan)
Plating Composition	PPF NiPdAu

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
NSEB150100341.000	U08D914466233.300	14142TH
NSEB150100342.000	U08D914466233.300	14142TK
NSEB150100343.000	U08D914466233.300	14142TM

Result [X] Pass [ ] Fail [ ] ____________________

16L VQFN (4x4x0.9 mm)assembled by UTL (NSEB) 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 20, 2014 **(Sr. Reliability Engineer)**

(Mr.Udom Suksansakul)

Approved By:____________________**Date:** October 20, 2014 **(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 85°C System: Post test at BELGIUM	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 85°C System: Post test at BELGIUM			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 **Electrical Test :**+85°C System: Post test at BELGIUM	JESD22-A104	231(0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X **Electrical Test :**+25°C System: Post test at BELGIUM	JESD22-A118	231(0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 1.3 Volts System: HAST 6000X **Electrical Test :**+25°C and 85°C System: Post test at BELGIUM	JESD22-A110	231(0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs System: SHEL LAB **Electrical Test :**+25°C and 85°C System: Post test at BELGIUM	JESD22-A103	45(0)	45 0/45	Pass	45 units

PACKAGE QUALIFICATION REPORT						
Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Solderability Temp 215°C	**Steam Aging:** Temp 93°C,1Hrs 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	
Solderability Temp 245°C	**Steam Aging:** Temp 93°C,1Hrs 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	
Physical Dimensions	Physical Dimension, 30 units from 1 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (> 4.0 grams)	M2011	30 (0) Wires	0/30	Pass	
	Bond Shear (18.00 grams)	JESD22-B116	30 (0) bonds	0/30	Pass	