

Product Change Notification - JAON-16UWYU638

Date: 21 Sep 2015

Product Category:

Notification subject: CCB 1747 Initial Notice: Qualification of non-conductive die attach epoxy 8900NC for selected products available in 8L SOIC package at MTAI assembly site.

Notification text:

PCN Status:

Initial notification

Microchip Parts Affected:

Please open the attachments found in the attachments field below labeled as PCN_#_Affected_CPN.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls).

Description of Change:

Qualification of non-conductive die attach epoxy 8900NC for selected products available in 8L SOIC package at MTAI assembly site.

Pre Change:

Using conductive die attach epoxy 8390A.

Post Change:

Using non-conductive die attach epoxy 8900NC.

Impacts to Data Sheet:

None

Reason for Change:

To improve manufacturability by qualifying non-conductive die attach epoxy 8900NC at MTAI assembly site.

Change Implementation Status:

In Progress

Estimated First Ship Date:

November 30, 2015 (date code: 1549)

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:

September 21, 2015: Issued initial notification.

The change described in this P_{CN} does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachment(s):

[PCN_JAON-16UWYU638_Qual_Plan.pdf](#) [PCN_JAON-16UWYU638_Affected_CPN.pdf](#) [PCN_JAON-16UWYU638_Affected_CPN.xls](#)

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-16UWYU638 |
| CATALOG_PART_NBR |
| MCP1406-E/SN |
| MCP1406T-E/SN |
| MCP1407-E/SN |
| MCP1407T-E/SN |
| MCP1407T-E/SNVAO |
| TC1410COA |
| TC1410COA713 |
| TC1410EOA |
| TC1410EOA713 |
| TC1410NCOA |
| TC1410NCOA713 |
| TC1410NEOA |
| TC1410NEOA713 |
| TC1411COA |
| TC1411COA713 |
| TC1411EOA |
| TC1411EOA713 |
| TC1411NCOA |
| TC1411NCOA713 |
| TC1411NEOA |
| TC1411NEOA713 |
| TC1411NVOA |
| TC1411NVOA713 |
| TC1411VOA |
| TC1411VOA713 |
| TC1412COA |
| TC1412COA713 |
| TC1412EOA |
| TC1412EOA713 |
| TC1412NCOA |
| TC1412NCOA713 |
| TC1412NEOA |
| TC1412NEOA713 |
| TC1413COA |
| TC1413COA713 |
| TC1413EOA |
| TC1413EOA713 |
| TC1413NCOA |
| TC1413NCOA713 |
| TC1413NEOA |
| TC1413NEOA713 |
| TC429EOA |
| TC429EOA713 |
| TC4420COA |
| TC4420COA713 |

| |
|-------------------|
| TC4420EOA |
| TC4420EOA713 |
| TC4420VOA |
| TC4420VOA713 |
| TC4421AVOA |
| TC4421AVOA713 |
| TC4421AVOA713-VAO |
| TC4422AVOA |
| TC4422AVOA713 |
| TC4422AVOA713-V01 |
| TC4429COA |
| TC4429COA713 |
| TC4429EOA |
| TC4429EOA713 |
| TC4429EOAAAC |
| TC4429VOA |
| TC4429VOA713 |
| TC4431COA |
| TC4431COA713 |
| TC4431EOA |
| TC4431EOA713 |
| TC4431EOA713-V01 |
| TC4431VOA |
| TC4431VOA713 |
| TC4432COA |
| TC4432COA713 |
| TC4432EOA |
| TC4432EOA713 |
| TC4432EOA713-V01 |
| TC4432VOA |
| TC4432VOA713 |
| TC4451VOA |
| TC4451VOA713 |
| TC4451VOA713-V01 |
| TC4452VOA |
| TC4452VOA713 |



MICROCHIP

QUALIFICATION PLAN

PCN #: JAON-16UWYU638

Date
Sep 09, 2015

**Qualification of non-conductive die attach epoxy 8900NC for
selected products available in 8L SOIC package at MTAI
assembly site.**

Distribution

Surasit P.
Mitchell R.
Wichai K.
Atthapong W.

G. Perzanowski.
F.Chen
O. Baltazar
Chaweng W.

Microchip Technology (Thailand) Co., Ltd.
14 Moo 1 T. Wangtakien A. Muangchacherngsao,
Chacherngsao, Thailand, 24000
Tel. (6638) 857119-45, 857311-19 ext. 1231
Fax (6638) 857149-50

Purpose: _____ Qualification of non-conductive die attach epoxy
8900NC for selected products available in 8L SOIC
package at MTAI assembly site.

MP code: _____ Y2AK1BC2XA00

Part No.: _____ TC4420EOA

BD No: _____ BDE-003137 rev.01

CCB No.: _____ 1747

Package:

Type _____ 8L SOIC

Width or Size _____ 0.150"

Die thickness: _____ 15 mils

Die size: _____ 79.1 x 75.0 mils

Lead frame:

Paddle size: _____ 95 x 158 mils

Material _____ CDA194

Surface _____ Ag spot plated

Process _____ Stamped

Lead Lock _____ No

Part Number _____ 10100807

Treatment _____ None

Wire:

Material _____ Au

Die Attach Epoxy:

Part Number _____ 8900NC

Conductive _____ No

Mold Compound: _____ G600V

| 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. |
| External Visual | Mil. Std. 883-2009/2010 | All devices prior to submission for qualification testing | 0 | 3 | ALL | 0 | 5 | |
| 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. (1 lot to be tested at 125°C) | 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. |
| Preconditioning - Required for surface mount devices | +150°C Bake for 24 hours, moisture loading requirements per MSL level + 3X reflow at peak reflow temperature per Jedec-STD-020D for package type; Electrical test pre and post stress at +25°C. MSL-1 @ 260°C | 231 | 15 | 3 | 738 | 0 | 15 | Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test. |
| HAST | +130°C/85% RH for 96 hours. Electrical test pre and post stress at +25°C and hot temp. (1 lot to be tested at 125°C) | 77 | 5 | 3 | 246 | 0 | 10 | Spares should be properly identified. Use the parts which have gone through Pre-conditioning. |
| Unbiased HAST | +130°C/85% RH for 96 hrs. Electrical test pre and post stress at +25°C | 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 following Temp Cycle stress. (1 lot to be tested at 125°C) | 77 | 5 | 3 | 246 | 0 | 15 | Spares should be properly identified. Use the parts which have gone through Pre-conditioning. |