## Product Change Notification - ASER-23MPQS728

**Date:**

27 Mar 2020

**Product Category:**

Others; USB Port Power Controller

**Affected CPNs:**

**Notification subject:**

CCB 3472.001 Initial Notice: Qualification of MTAI as a new assembly site for UCS100xxx products available in 20L QFN (4x4x0.9mm) package.

**Notification text:**

**PCN Status:**

Initial 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 MTAI as a new assembly site for UCS100xxx products available in 20L QFN (4x4x0.9mm) package.

**Pre Change:**

Assembled at ASE using EN-4900 die attach material, G631H molding compound and at MSL3.

**Post Change:**

Assembled at MTAI using 8008MD die attach material, G700LTD molding compound and at MSL1.

**Pre and Post Change Summary:**

| | Pre Change | Post Change |
|---|---|---|
| **Assembly Site** | Advanced Semiconductor Engineering Inc.<br><br>(ASE) | Microchip Technology Thailand (HQ)<br><br>(MTAI) |
| **Wire material** | CuPdAu | CuPdAu |
| **Die attach material** | EN-4900 | 8008MD |
| **Molding compound material** | G631H | G700LTD |
| **Lead frame material** | A194 | A194 |
| **Moisture Sensitivity Level (MSL)** | MSL3/260 | MSL1/260 |

**Impacts to Data Sheet:**
None.

**Change Impact:**
None.

**Reason for Change:**
To improve manufacturability by qualifying MTAI as new assembly site.

**Change Implementation Status:**
In Progress

**Estimated Qualification Completion Date:**
May 2020

Note: Please be advised the qualification completion times may be extended because of unforeseen business conditions however implementation will not occur until after qualification has completed and a final PCN has been issued. The final PCN will include the qualification report and estimated first ship date. Also note that after the estimated first ship date guided in the final PCN customers may receive pre and post change parts.

**Time Table Summary:**

| | March 2020 | | | | | --> | May 2020 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Workweek | 10 | 11 | 12 | 13 | 14 | | 18 | 19 | 20 | 21 | 22 |
| Initial PCN Issue Date | | | | X | | | | | | | |
| Qual Report Availability | | | | | | | | X | | | |
| Final PCN Issue Date | | | | | | | | X | | | |

**Method to Identify Change:**
Traceability code.

**Qualification Plan:**
Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

**Revision History:**
**March 27, 2020:** Issued initial notification.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.
**Attachment(s):**
CCB 3472.001_Qual Plan.pdf

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

**Terms and Conditions:**

If you wish to receive Microchip PCNs via email please register for our PCN email service at our

PCN home page select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the PCN FAQ section.
If you wish to change your PCN profile, including opt out, please go to the PCN home page select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

# QUALIFICATION PLAN SUMMARY

**PCN #: ASER-23MPQS728**

**Date:**
**Mar 18, 2020**

**CCB 3472.001 Initial Notice: Qualification of MTAI as a new assembly site for UCS100xxx products available in 20L QFN (4x4x0.9mm) package.**

Purpose: CCB 3472.001 Initial Notice: Qualification of MTAI as a new assembly site for UCS100xxx products available in 20L QFN (4x4x0.9mm) package.

CCB: 3472.001

| | | |
|---|---|---|
| Misc. | **Assembly site** | MTAI |
| | **BD Number** | BDM-002274 rev.A |
| | **MP Code (MPC)** | TA7017G4XA1C |
| | **Part Number (CPN)** | UCS1001-1-BP |
| | **MSL** | MSL1/260 |
| Lead-Frame | **Paddle size** | 110x110mils |
| | **Material** | A194 |
| | **Surface** | Bare Cu on DAP |
| | **Treatment** | Yes |
| | **Process** | Etched |
| | **Lead-lock** | No |
| | **Part Number** | 10102018 |
| | **Lead Plating** | Matte Tin |
| Bond Wire | **Material** | CuPdAu |
| Die Attach | **Part Number** | 8008MD |
| | **Conductive** | Yes |
| MC | **Part Number** | G700LTD |
| PKG | **PKG Type** | QFN |
| | **Pin/Ball Count** | 20 |
| | **PKG width/size** | 4x4x0.9 mm |

| 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 | 5 | 30 bonds from a min. 5 devices. |
| Wire Bond Shear - WBS | CDF-AEC-Q100-001 | 5 | 0 | 1 | 5 | 0 | 5 | 30 bonds from a min. 5 devices. |
| HTSL (High Temp Storage Life) | +175 C for 500 & 1000 hours. Electrical test pre and post stress at +25C | 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 125C |
| 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. Perform SAM analysis using the standard sample size. 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. Reliability stress point read at 96hr. Pre and post reliability stress temperatures are 25, 85 C and 125C |
| Unbiased HAST | +130°C/85% RH for 96 & 192 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 & 1000 cycles. Electrical test pre and post stress at 25C temp; 3 gram force WBP, on 5 devices from 1 lot, test following 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 |

Affected Catalog Part Numbers (CPN)

UCS1001-1-BP
UCS1001-1-BP-TR
UCS1001-2-BP
UCS1001-2-BP-TR
UCS1001-3-BP
UCS1001-3-BP-TR
UCS1001-4-BP
UCS1001-4-BP-TR
UCS1002-1-BP
UCS1002-1-BP-TR
UCS1002-2-BP
UCS1002-2-BP-TR
UCS1002-A-BP-TR
UCS1003-1-BP
UCS1003-1-BP-TR
UCS1003-2-BP
UCS1003-2-BP-TR
UCS1003-3-BP
UCS1003-3-BP-TR