



## Product Change Notification / LIAL-23USLU235

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**Date:**

12-Oct-2020

**Product Category:**

8-bit Microcontrollers, Interface- Controller Area Network (CAN), Interface- Serial Peripherals

**PCN Type:**

Manufacturing Change

**Notification Subject:**

CCB 3979 and 3979.001 Initial Notice: Qualification of QMI-519 die attach material for selected products available in 28L SOIC (.300in) and 18L SOIC (.300in) packages at MTAI assembly site

**Affected CPNs:**

[LIAL-23USLU235\\_Affected\\_CPN\\_10122020.pdf](#)  
[LIAL-23USLU235\\_Affected\\_CPN\\_10122020.csv](#)

**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

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

**Description of Change:** Qualification of QMI-519 die attach material for selected products available in 28L SOIC (.300in) and 18L SOIC (.300in) packages at MTAI assembly site

**Pre Change:**

Using 3280 die attach material

**Post Change:**



|            |  |  |  |  |  |  |  |  |  |  |
|------------|--|--|--|--|--|--|--|--|--|--|
| Issue Date |  |  |  |  |  |  |  |  |  |  |
|------------|--|--|--|--|--|--|--|--|--|--|

**Method to Identify Change:** Traceability code

**Qualification Plan:** Please open the attachments included with this PCN labeled as PCN\_#\_Qual\_Plan

**Revision History:** **October 12, 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.

## Attachments:

[PCN\\_LIAL-23USLU235\\_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.

Affected Catalog Part Numbers (CPN)

PIC16CR54CT-20/SO012  
CF745-04/SO  
PIC16LC54C-04/SO  
PIC16C54C-04/SO  
PIC16C54C-20/SO  
PIC16C54C-40/SO  
PIC16C54C-04/SOC04  
PIC16C54C-20E/SO  
PIC16LC54C-04I/SO  
PIC16C54C-04I/SO  
PIC16C54C-20I/SO  
PIC16C54CT-20/SO068  
PIC16LC54CT-04/SO150  
PIC16C54CT-04/SO  
PIC16C54CT-04I/SO104  
PIC16C54CT-04I/SO  
MCP23008-E/SO  
MCP23008T-E/SO  
MCP23S08-E/SO  
MCP23S08T-E/SO  
MCP23017-E/SO  
MCP23017T-E/SO  
MCP23S17-E/SO  
MCP23S17T-E/SO  
MCP2515-E/SO  
MCP2515-E/SORB2  
MCP2515-E/SORB4  
MCP2515-I/SO  
MCP2515-I/SORB2  
MCP2515-I/SORB4  
MCP2515T-I/SO  
MCP2515T-I/SORB2  
MCP2515T-I/SORB4  
MCP2515T-E/SO  
MCP2515T-E/SORB2  
MCP2515T-E/SORB4  
PIC16F54-E/SO  
PIC16F54-I/SO023  
PIC16F54-I/SO043  
PIC16F54-I/SO  
PIC16F54T-I/SO036  
PIC16F54T-I/SO042  
PIC16F54T-I/SO043  
PIC16F54T-I/SO  
PIC16F54T-E/SO040  
PIC16F57-E/SO

PIC16F57-I/SO  
MCV28A-I/SO  
PIC16F57T-I/SO028  
PIC16F57T-I/SO  
PIC16F57T-E/SO  
PIC16F570-I/SO  
PIC16F716-E/SO  
PIC16F716-I/SO  
PIC16F716T-I/SO048  
PIC16F716T-I/SO061  
PIC16F716T-I/SO  
PIC16F716T-E/SO  
MCP23018-E/SO  
MCP23018T-E/SO  
MCP23S18-E/SO  
MCP23S18T-E/SO  
PIC16LF1902-I/SO  
PIC16LF1903-I/SO  
PIC16F723A-E/SO  
PIC16F723A-I/SO  
PIC16F723AT-I/SO  
PIC16F722A-E/SO  
PIC16F722A-I/SO  
PIC16F722AT-I/SO  
PIC16LF723A-E/SO  
PIC16LF723A-I/SO  
PIC16LF722A-E/SO  
PIC16LF722A-I/SO



## **QUALIFICATION PLAN SUMMARY**

**PCN#: LIAL-23USLU235**

**Date**  
**September 17, 2020**

**Qualification of QMI-519 die attach material for selected products available in 28L SOIC (.300in) and 18L SOIC (.300in) packages at MTAI assembly site**

**Purpose:** Qualification of QMI-519 die attach material for selected products available in 28L SOIC (.300in) and 18L SOIC (.300in) packages at MTAI assembly site

|                             |                          |                   |
|-----------------------------|--------------------------|-------------------|
| <b><u>Miscellaneous</u></b> | <b>Assembly site</b>     | MTAI              |
|                             | <b>BD Number</b>         | BDM-001843/D      |
|                             | <b>MP Code (MPC)</b>     | LEAN14N3XB04      |
|                             | <b>Part Number (CPN)</b> | PIC16F723A-E/SO   |
|                             | <b>CCB</b>               | 3979 and 3979.001 |
| <b><u>Lead-Frame</u></b>    | <b>Paddle size</b>       | 200x240mils       |
|                             | <b>Material</b>          | C194              |
|                             | <b>Surface</b>           | Bare Cu on DAP    |
|                             | <b>Treatment</b>         | Yes               |
|                             | <b>Process</b>           | Stamped           |
|                             | <b>Lead-lock</b>         | Yes               |
|                             | <b>Part Number</b>       | 10102807          |
|                             | <b>Lead Plating</b>      | Matte Tin         |
| <b><u>Bond Wire</u></b>     | <b>Material</b>          | CuPdAu            |
|                             | <b>Wire Diameter</b>     | 0.8 mil           |
| <b><u>Die Attach</u></b>    | <b>Part Number</b>       | QMI-519           |
|                             | <b>Conductive</b>        | Yes               |
| <b><u>Mold Compound</u></b> | <b>Part Number</b>       | G600              |
| <b><u>PKG</u></b>           | <b>PKG Type</b>          | SOIC              |
|                             | <b>Pin/Ball Count</b>    | 28                |
|                             | <b>PKG width/size</b>    | 300 mils          |

| 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 min. 5 devices.       |
| Wire Bond Shear - WBS                                | CDF-AEC-Q100-001   | 5           | 0  | 1           | 5           | 0                | 5              | 30 bonds from a min. 5 devices.       |
| 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.<br>MSL-1 @ 260°C   | 231         | 15   | 3           | 738         | 0                | 15             | Spares should be properly identified. |
| HAST   | +130°C/85% RH for 96 & 192 hours. Electrical test pre and post stress at +25°C and hot temp.   | 77          | 5  | 3           | 246         | 0                | 10             | Spares should be properly identified. |
| 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. |
| 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. |