



## Product Change Notification: CAAN-02LKNV587

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### Date:

05-Sep-2024

### Product Category:

Digital Temperature Sensors

### Notification Subject:

CCB 7149 Final Notice: Qualification of MTAI as a new assembly site for EMC1402-3-ACZL-TR, EMC1402-4-ACZL-TR, EMC1412-1-ACZL-TR, EMC1412-2-ACZL-TR, EMC1412-A-ACZL-TR and EMC1422-2-ACZL-TR catalog part numbers (CPN) available in 8L MSOP (3x3mm) package with Matte Tin lead finish.

### Affected CPNs:

**[CAAN-02LKNV587\\_Affected\\_CPN\\_09052024.pdf](#)**

**[CAAN-02LKNV587\\_Affected\\_CPN\\_09052024.csv](#)**

### Notification Text:

**PCN Status:**Final Notification

**PCN Type:**Manufacturing Change

**Microchip Parts Affected:**Please open one of the files found in the Affected CPNs section.  
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 EMC1402-3-ACZL-TR, EMC1402-4-ACZL-TR, EMC1412-1-ACZL-TR, EMC1412-2-ACZL-TR, EMC1412-A-ACZL-TR and EMC1422-2-ACZL-TR catalog part numbers (CPN) available in 8L MSOP (3x3mm) package with Matte Tin lead finish.

### Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	HANA Microelectronics-Chi	Microchip Technology Thailand (HQ)

	na (HANC)	(MTAI)
Wire Material	Au	Au
Die Attach Material	2200D	8390A
Molding Compound Material	KMC-3580P8	G600V
Lead-Frame Material	A194	CDA194*
Lead-Frame Paddle Size	71 x 92 mils	68 x 94 mils
Lead finish	NiPdAu	Matte tin
Moisture Sensitivity Level (MSL)	MSL 2	MSL 1
DAP Surface Prep	Ag plated	Bare Cu

*Note: \*C194, A194 or CDA194 Lead frame material are the same, it is just a MCHP internal labelling difference.*

**Impacts to Data Sheet:**None

**Change Impact:**None

**Reason for Change:**To improve on-time delivery performance by qualifying MTAI as additional assembly site.

**Change Implementation Status:**In Progress

**Estimated First Ship Date:**October 14, 2024 (date code: 2442)

Note: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

**Time Table Summary:**

	September 2024				October 2024				
Workweek	36	37	38	39	40	41	42	43	44
Qual Report Availability	x								
Final PCN Issue Date	x								
Estimated Implementation Date							x		

**Method to Identify Change:**Traceability code

**Qualification Report:**Please open the attachments included with this PCN labeled as PCN\_#\_Qual\_Report.

**Revision History:**September 05, 2024: Issued final 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\_CAAN-02LKNV587 Qual Report.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.

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Affected Catalog Part Numbers (CPN)

- EMC1402-3-ACZL-TR
- EMC1402-4-ACZL-TR
- EMC1412-1-ACZL-TR
- EMC1412-2-ACZL-TR
- EMC1412-A-ACZL-TR
- EMC1422-2-ACZL-TR



## **QUALIFICATION REPORT SUMMARY**

### **RELIABILITY LABORATORY**

**PCN#: CAAN-02LKNV587**

**Date:**  
**February 02, 2014**

**Qualification of MTAI as a new assembly site for EMC1402-3-ACZL-TR, EMC1402-4-ACZL-TR, EMC1412-1-ACZL-TR, EMC1412-2-ACZL-TR, EMC1412-A-ACZL-TR and EMC1422-2-ACZL-TR catalog part numbers (CPN) available in 8L MSOP (3x3mm) package with Matte Tin lead finish will qualify by similarity.**



**Purpose** Qualification of MTAI as a new assembly site for EMC1402-3-ACZL-TR, EMC1402-4-ACZL-TR, EMC1412-1-ACZL-TR, EMC1412-2-ACZL-TR, EMC1412-A-ACZL-TR and EMC1422-2-ACZL-TR catalog part numbers (CPN) available in 8L MSOP (3x3mm) package with Matte Tin lead finish will qualify by similarity.

**CCB No.** 1218 and 7149

**PRODUCT INFORMATION**

PACKAGE TYPE	3X3mm
LEAD COUNT	8
WAFER DIAMETER	8 inches
WAFER THICKNESS	8mils

**Material used in the Assembly:**

LEAD FRAME MATERIAL	Cu – C194 (STAMP)
LEADFRAME PLATING	Ag Single Ring + BOT
DIE ATTACH EPOXY TYPE	8390A
WIRE TYPE	Au
MOLDING COMPOUND TYPE	G600V
LEAD FINISHING COMPOSITION	Matte - Sn



## Manufacturing Information

Assembly Lot No.	Wafer Lot No.
MTAI142203501.000	GF02913353153.100
MTAI142401871.000	GF35913353234.300
MTAI142402026.000	GF35913353234.300

### Assembly Yield Report

	In	Out	Yield
MTAI142203501.000	700	700	100.00%
MTAI142401871.000	700	700	100.00%
MTAI142402026.000	700	700	100.00%

## **SUMMARY RESULT OF RELIABILITY TEST**

### **MSL LEVEL 1**

Performed RE studies on 3 qual lots 1/ Lot MTAI142401871.000 2/ Lot MTAI142402026.000 3/ Lot MTAI142203501.000					
TEST ITEM	TEST CONDITION	TEST INTERVAL	VISUAL INSPECTION	O/S & ATE TEST	RESULT
PRECONDITION TEST	JEDEC 22-A113 Level 1 85C/85%RH 3 X IR-/ 260C +5, - 0	168 HRS	LOT1: 0/240 LOT2: 0/240 LOT3: 0/240	LOT1: 0/240 LOT2: 0/240 LOT3: 0/240	PASSED
TEMPERATURE CYCLE TEST	JEDEC 22-A104 -65'C~150'C	1000 Cycles	LOT1: 0/60 LOT2: 0/60 LOT3: 0/60	LOT1: 0/60 LOT2: 0/60 LOT3: 0/60	PASSED
HIGH TEMPERATURE STORAGE TEST	JEDEC 22-A103 150°C	1000 hours	LOT1: 0/60 LOT2: 0/60 LOT3: 0/60	LOT1: 0/60 LOT2: 0/60 LOT3: 0/60	PASSED
HAST TEST ( NO BIAS )	JEDEC 22-A118 130'C/85%RH 33.5PSIA	100 Hrs	LOT1: 0/60 LOT2: 0/60 LOT3: 0/60	LOT1: 0/60 LOT2: 0/60 LOT3: 0/60	PASSED
TEMPERATURE HUMIDITY TEST ( NO BIAS )	JEDEC 22-A101 85'C/85%RH	1008 hours	LOT1: 0/60 LOT2: 0/60 LOT3: 0/60	LOT1: 0/60 LOT2: 0/60 LOT3: 0/60	PASSED