Product Change Notification: MFOL-02DMUQ298

Date:

29-Sep-2026

Product Category:

Capacitive Touch Sensors, Closed Fan Controllers, Current And Power Measurement Ics, USB Port Power Controller

Notification Subject:

CCB 8504 Final Notice: Qualification of MTAI as an additional assembly site for EMC2305-1-AP-TR, EMC2113-1-AP-TR, CAP1126-1-AP-TR, CAP1166-1-BP-TR, CAP1128-1-BP-TR, UCS2113-2-V/G4, UCS2113-1-V/G4, UCS2113T-2-V/G4, UCS2113T-1-V/G4, EMC1704-2-AP-TR catalog part numbers (CPN) available in 16L VQFN (4x4x1.0mm) and 20L QFN (4x4x0.9mm) packages.

Affected CPNs:

MFOL-02DMUQ298_Affected_CPN_09292026.pdf
MFOL-02DMUQ298_Affected_CPN_09292026.csv

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 an additional assembly site for EMC2305-1-AP-TR, EMC2113-1-AP-TR, CAP1126-1-AP-TR, CAP1166-1-BP-TR, CAP1128-1-BP-TR, UCS2113-2-V/G4, UCS2113-1-V/G4, UCS2113T-2-V/G4, UCS2113T-1-V/G4, EMC1704-2-AP-TR catalog part numbers (CPN) available in 16L VQFN (4x4x1.0mm) and 20L QFN (4x4x0.9mm) packages.

Pre and Post Summary Changes:

	Pre Change	**Post Change**		**Change (Yes/No)**
Assembly Site	ASE Inc. (ASEK)	ASE Inc. (ASEK)	Microchip Technology Thailand	Yes

					(HQ) (MTAI)	
Wire Material	Au	CuPdAu	Au	CuPdAu	CuPdAu	Yes
Die Attach Material	EN-4900F (PFAS free)		EN-4900F (PFAS free)		QMI519 (PFAS free)	Yes
Molding Compound Material	G631H		G631H		G700LTD	Yes
Lead-Frame Material	A194		A194		A194	No
Lead-Frame Paddle Size	110 x 110 mils		110 x 110 mils		114 x 114 mils	Yes
Lead-Frame Lead-Lock	No		No		Yes	Yes
Lead-Frame Design	See 'Pre and Post Change Summary' attachment for comparison.					Yes

Impacts to Datasheet: None

Change Impact: None

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

Change Implementation Status: In Progress

Estimated First Ship Date: 28 October 2026 (date code: 2644)

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

Timetable Summary:

	September 2026					**October 2026**			
Work Week	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.
Note: This is a qualification by similarity (QBS) to CCB# 4724 and CCB# 7028.

Revision History: September 29, 2026: Issued final notification.

Note: The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable product.

Attachments:

PCN_MFOL-02DMUQ298_Pre and Post_Change_Summary.pdf
PCN_MFOL-02DMUQ298_Qual Report_CCB4724.pdf
PCN_MFOL-02DMUQ298_Qual Report_CCB7028.pdf

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

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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.

MFOL-02DMUQ298 - CCB 8504 Final Notice: Qualification of MTAI as an additional assembly site for EMC2305-1-AP-TR, EMC2113-1-AP-TR, CAP1126-1-AP-TR, CAP1166-1-BP-TR, CAP1128-1-BP-TR, UCS2113-2-V/G4, UCS2113-1-V/G4, UCS2113T-2-V/G4, UCS2113T-1-V/G4, EMC1704-2-AP-TR catalog part numbers (CPN) available in 16L VQFN (4x4x1.0mm) and 20L QFN (4x4x0.9mm) packages.

Affected Catalog Part Numbers (CPN):

EMC2305-1-AP-TR

EMC2113-1-AP-TR

CAP1126-1-AP-TR

CAP1166-1-BP-TR

CAP1128-1-BP-TR

UCS2113-2-V/G4

UCS2113-1-V/G4

UCS2113T-2-V/G4

UCS2113T-1-V/G4

EMC1704-2-AP-TR

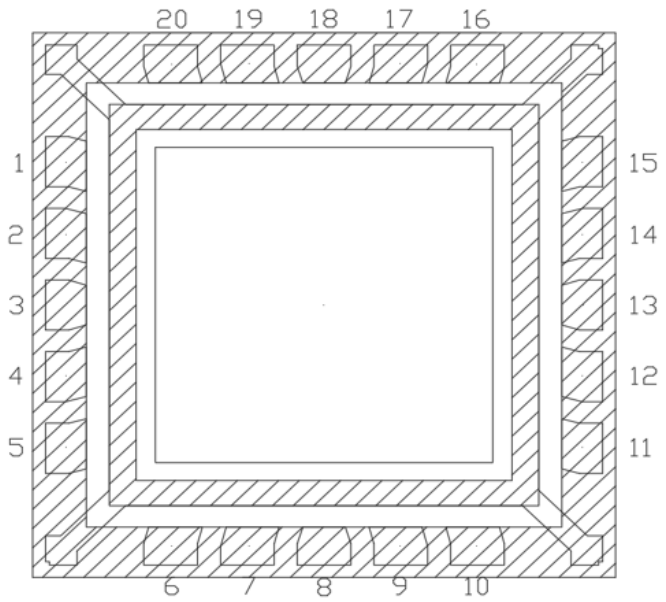
CCB 8504
Pre and Post Change Summary
PCN #: MFOL-02DMUQ298

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SMART | CONNECTED | SECURE

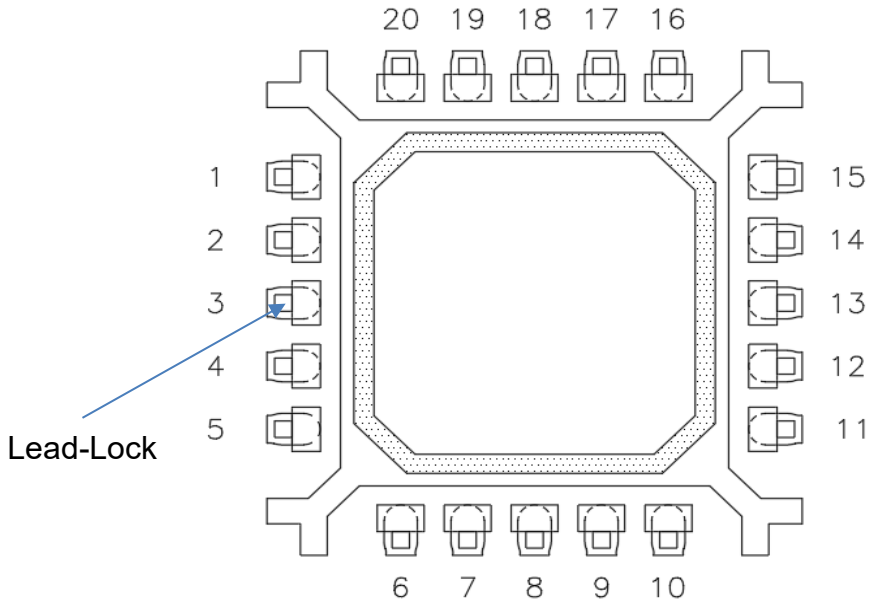
Pre and Post Change Summary Comparison

ASEK



Lead Frame Material	A194
Lead-Frame Paddle Size	110 x 110 mils
Lead-Frame Lead-Lock	No

MTAI



Lead Frame Material	A194
Lead-Frame Paddle Size	114 x 114 mils
Lead-Frame Lead-Lock	Yes, Locking holes

Note: Not to scale

Note 1: Mold compound materials fills the lead lock hole, which provides improved protection against moisture penetration along the edge of the leads (pins) of the package.



Qualification Report Summary
RELIABILITY LABORATORY

PCN #: MFOL-02DMUQ298

Date:

January 24, 2022

Qualification of MTAI as an additional assembly site for EMC2305-1-AP-TR, EMC2113-1-AP-TR, CAP1126-1-AP-TR, CAP1166-1-BP-TR, CAP1128-1-BP-TR, UCS2113-2-V/G4, UCS2113-1-V/G4, UCS2113T-2-V/G4, UCS2113T-1-V/G4, EMC1704-2-AP-TR catalog part numbers (CPN) available in 16L VQFN (4x4x1.0mm) and 20L QFN (4x4x0.9mm) packages. This is a Q006 Grade 1 Qualification.

PACKAGE QUALIFICATION REPORT

Purpose:

Qualification of MTAI as an additional assembly site for EMC2305-1-AP-TR, EMC2113-1-AP-TR, CAP1126-1-AP-TR, CAP1166-1-BP-TR, CAP1128-1-BP-TR, UCS2113-2-V/G4, UCS2113-1-V/G4, UCS2113T-2-V/G4, UCS2113T-1-V/G4, EMC1704-2-AP-TR catalog part numbers (CPN) available in 16L VQFN (4x4x1.0mm) and 20L QFN (4x4x0.9mm) packages. This is a Q006 Grade 1 Qualification.

CN:	ES362938
QUAL ID:	R2100942
QUAL ID Rev.:	A
MP CODE:	TAV047NDCVBA
Part No.:	OS81212AF-B2B-010300-VAO
Bonding No.:	BD-000026 Rev. 02
CCB No.:	4724

Lead Frame

Paddle Size:	217 x 217 mils
Material:	A194
DAP Surface Prep:	Double ring
Process:	Etched
Lead Lock:	No
Part Number:	10105604
Lead Plating:	Matte Sn

Bond Wire

Wire:	CuPdAu wire

Die Attach Material

Epoxy:	3280

Mold Compound

Mold Compound:	G700LTD

Package

Type:	56L VQFN-WFS
Package Size:	8 x 8 x 0.9 mm

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI222400568.000	TC11921475959.100	2136D5C
MTAI222400781.000	TC11921475959.100	2136DK1
MTAI222400791.000	TC11921475959.100	2136DKB

Result: **Pass**

Conclusion:

56L QFN-WFS (8x8x0.9 mm) assembled by MTAI 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-020E standard.

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-020E	135	0/135	Pass	
Precondition Prior Perform Reliability Tests (At MSL Level 1)	**Electrical Test:** +25°C, 125°C and -45°C **System:** ULTRAFLEX_12 Bake 150°C, 24 hrs **System:** CHINEE 85°C/85%RH Moisture Soak 168 hrs. **System:** TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max **System:** Vitronics Soltec MR1243 **Electrical Test:** +25°C and 125°C **System:** ULTRAFLEX_12	JESD22-A113	693(0)	693 693 693 693 0/693	Pass	Good Devices
	Stress Condition: -65°C to +150°C, 500 Cycles **System:** TABAI ESPEC TSA-70H **Electrical Test:** +125°C **System:** ULTRAFLEX_12	JESD22-A104	231(0)	0/231	Pass	Parts had been pre-conditioned at 260°C
	Wire Pull (>2.50 grams)		45(0)	0/45	Pass	
TEMP CYCLE	Bond Shear (>12.60 grams)		3(0)	0/3	Pass	1 Wire/ lot
	Stress Condition: -65°C to +150°C, 1000 Cycles **System:** TABAI ESPEC TSA-70H **Electrical Test:** +125°C **System:** ULTRAFLEX_12		231(0)	0/231	Pass	Parts had been pre-conditioned at 260°C
	Wire Pull (>2.50 grams)		45(0)	0/45	Pass	
	Bond Shear (>12.60 grams)		3(0)	0/3	Pass	1 Wire/ lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
	Stress Condition: +130°C/85%RH, 96 hrs. **Bias Volt:** 1.8 Volts, 3.3 Volts **System:** HAST 6000X **Electrical Test:** +25°C and 125°C **System:** ULTRAFLEX_12	JESD22-A110	231(0)	0/231	Pass	Parts had been pre-conditioned at 260°C, 77 units / lot
	Wire Pull (>2.50 grams)		45(0)	0/45	Pass	
HAST	Bond Shear (>12.60 grams)		3(0)	0/3	Pass	1Wire/ lot
	Stress Condition: +130°C/85%RH, 192 hrs. **Bias Volt:** 1.8 Volts, 3.3 Volts **System:** HAST 6000X **Electrical Test:** +25°C and 125°C **System:** ULTRAFLEX_12		231(0)	0/231	Pass	
	Wire Pull (>2.50 grams)		45(0)	0/45	Pass	
	Bond Shear (>12.60 grams)		3(0)	0/3	Pass	1 Wire/ lot
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **System:** HAST 6000X **Electrical Test:** +25°C **System:** ULTRAFLEX_12	JESD22-A118	231(0)	0/231	Pass	Parts had been pre-conditioned at 260°C, 77 units / lot
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 500 hrs **System:** SHEL LAB **Electrical Test:** +25°C and 125°C **System:** ULTRAFLEX_12	JESD22-A103	135(0)	0/135	Pass	45 units / lot
	Stress Condition: Bake 175°C, 1000 hrs **System:** SHEL LAB **Electrical Test:** +25°C and 125°C **System:** ULTRAFLEX_12		135(0)	0/135	Pass	
Bond Strength Data Assembly	Wire Pull (> 2.50 grams)	Mil. Std. 883-2011	30(0)	0/30	Pass	
	Bond Shear (>15.00 grams)	CDF-AEC-Q100-001	30(0)	0/30	Pass	



Qualification Report Summary

RELIABILITY LABORATORY

PCN #: MFOL-02DMUQ298

Date:

December 3, 2024

Qualification of MTAI as an additional assembly site for EMC2305-1-AP-TR, EMC2113-1-AP-TR, CAP1126-1-AP-TR, CAP1166-1-BP-TR, CAP1128-1-BP-TR, UCS2113-2-V/G4, UCS2113-1-V/G4, UCS2113T-2-V/G4, UCS2113T-1-V/G4, EMC1704-2-AP-TR catalog part numbers (CPN) available in 16L VQFN (4x4x1.0mm) and 20L QFN (4x4x0.9mm) packages. This is a Q006 Grade 2 qualification.

PACKAGE QUALIFICATION REPORT

Purpose:

Qualification of MTAI as an additional assembly site for EMC2305-1-AP-TR, EMC2113-1-AP-TR, CAP1126-1-AP-TR, CAP1166-1-BP-TR, CAP1128-1-BP-TR, UCS2113-2-V/G4, UCS2113-1-V/G4, UCS2113T-2-V/G4, UCS2113T-1-V/G4, EMC1704-2-AP-TR catalog part numbers (CPN) available in 16L VQFN (4x4x1.0mm) and 20L QFN (4x4x0.9mm) packages. This is a Q006 Grade 2 qualification.

CN:	E000235827
QUAL ID:	R2400901
QUAL ID Rev.:	B
MP CODE:	XA8011R4XA0C
Part No.:	LAN9252/ML
Bonding No.:	BD-002483 Rev. 01
CCB No.:	7028

Lead Frame

Paddle Size:	244 x 244 mils
Material:	A194
DAP Surface Prep:	Ag ring plated
Treatment:	Roughening
Process:	Etched
Lead Lock:	No
Part Number:	10106416
Lead Plating:	Matte Sn

Bond Wire

Wire:	CuPdAu wire

Die Attach Material

Epoxy:	QMI519

Mold Compound

Mold Compound:	G700LTD

Package

Type:	64L QFN
Package Size:	9 x 9 mm

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI251301704.000	TC14923292824.500	2426QU0
MTAI251301823.000	TC14923292824.500	2426RR4
MTAI251301829.000	TC14923292824.500	2426RSB

Result: **Pass**

Conclusion:

64L QFN (9x9 mm) assembled by MTAI 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-020E standard.

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-020E	135(0)	0/135	Pass	
	Electrical Test: +25°C, 85°C and 105°C **System:** EX_DIGITAL	JESD22-A113	693(0)	0/693	Pass	Good Devices
	Bake 150°C, 24 hrs **System:** CHINEE		693		Pass	
Precondition Prior Perform Reliability Tests (At MSL Level 1)	85°C/85%RH Moisture Soak 168 hrs. **System:** TABAI ESPEC Model PR-3SPH		693		Pass	
	3x Convection-Reflow 265°C max **System:** Vitronics Soltec MR1243		693		Pass	
	Electrical Test: +25°C, 85°C, and 105°C **System:** EX_DIGITAL		693	0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
	Stress Condition: -55°C to +125°C, 1000 Cycles **System:** VOTSCH **Electrical Test:** +25°C, 85°C, and 105°C **System:** EX_DIGITAL	JESD22-A104	231(0)	0/231	Pass	Parts had been pre-conditioned at 260°C
Temp Cycle	**Bond Strength:** Wire Pull (>3.00 grams)		45(0)	0/45	Pass	
	Bond Shear (>8.00 grams)		3(0)	0/3	Pass	1 Wire/ lot
	Stress Condition: -55°C to +125°C, 2000 Cycles **System:** VOTSCH **Electrical Test:** +25°C, 85°C, and 105°C **System:** EX_DIGITAL		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>3.00 grams)		45(0)	0/45	Pass	
	Bond Shear (>8.00 grams)		3(0)	0/3	Pass	1 Wire/ lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
	Stress Condition: +130°C/85%RH, 96 hrs. **Bias Volt:** PS1=1.2 Volts; PS3=3.3 Volts **System:** HAST 6000X **Electrical Test:** +25°C, 85°C, and 105°C **System:** EX_DIGITAL	JESD22-A110	231(0)	0/231	Pass	Parts had been pre-conditioned at 260°C; 77 units / lot
HAST	**Bond Strength:** Wire Pull (>3.00 grams)		45(0)	0/45	Pass	
	Bond Shear (>8.00 grams)		3(0)	0/3	Pass	1Wire/ lot
	Stress Condition: +130°C/85%RH, 192 hrs. **Bias Volt:** PS1=1.2 Volts; PS3=3.3 Volts **System:** HAST 6000X **Electrical Test:** +25°C, 85°C, and 105°C **System:** EX_DIGITAL		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>3.00 grams)		45(0)	0/45	Pass	
	Bond Shear (>8.00 grams)		3(0)	0/3	Pass	1 Wire/ lot
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **System:** HAST 6000X **Electrical Test:** +25°C **System:** EX_DIGITAL	JESD22-A118	231(0)	0/231	Pass	Parts had been pre-conditioned at 260°C; 77 units / lot
High Temperature	**Stress Condition:** Bake 150°C, 500 hrs **System:** CHINEE **Electrical Test:** +25°C, 85°C, and 105°C **System:** EX_DIGITAL	JESD22-A103	135(0)	0/135	Pass	45 units / lot
Storage Life	**Stress Condition:** Bake 150°C, 1000 hrs **System:** CHINEE **Electrical Test:** +25°C, 85°C, and 105°C **System:** EX_DIGITAL		135(0)	0/135	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Bond Strength Data Assembly	Wire Pull (> 3.00 grams)	Mil. Std. 883-2011	30(0)	0/30	Pass	
	Bond Shear (>8.00 grams)	CDF-AEC-Q100-001	30(0)	0/30	Pass	