



Product Change Notification / ASER-25FYQB098

Date:

05-Feb-2021

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4397 Final Notice: Qualification of MTAI as a new assembly site for selected 24LCxxx, 24AAxxx and 24FCxxx device families available in 8L SOIC (3.90mm) package.

Affected CPNs:

[ASER-25FYQB098_Affected_CPN_02052021.pdf](#)
[ASER-25FYQB098_Affected_CPN_02052021.csv](#)

Notification Text:

PCN Status:Final notification.

PCN Type:Manufacturing Change

Microchip Parts Affected:Please open one of the icons found in the Affected CPNs section to the right.

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

Description of Change:Qualification of MTAI as a new assembly site for selected 24LCxxx, 24AAxxx and 24FCxxx device families available in 8L SOIC (3.90mm) package.

Pre Change:Assembled at NSEB using HR-5104 die attach and G600 mold compound.

Post Change:

Assembled at MTAI using 8390A or 8006NS die attach and G600V mold compound.

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	UTAC Thai Limited (UTL-1) LTD. (NSEB)	Microchip Technology Thailand (HQ) (MTAI)
Wire material	Au	Au
Die attach material	HR-5104	8390A / 8006NS
Molding compound material	G600	G600
Lead frame material	CDA194	CDA194

Impacts to Data Sheet:None

Change Impact:None

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

Change Implementation Status:In Progress or complete

Estimated First Ship Date:February 20, 2021 (date code: 2108)

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

Time Table Summary:

	February 2021			
	06	07	08	09
Workweek				
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:February 5, 2020: 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_ASER-25FYQB098_Pre and Post Change Summary.pdf](#)
[PCN_ASER-25FYQB098_Qual Report_1 of 3.pdf](#)
[PCN_ASER-25FYQB098_Qual Report_2 of 3.pdf](#)
[PCN_ASER-25FYQB098_Qual Report_3 of 3.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)

24LC1025-E/SN
24LC1025-I/SN
24AA1025-I/SN
24FC1025-I/SN
24LC1025T-I/SN
24AA1025T-I/SN
24FC1025T-I/SN
24LC1025T-E/SN
24LC1026-E/SN
24LC1026-I/SN
24AA1026-I/SN
24FC1026-I/SN
24LC1026T-I/SN
24AA1026T-I/SN
24FC1026T-I/SN
24LC1026T-E/SN

CCB 4397
Pre and Post Change Summary
PCN #: ASER-25FYQB098



A Leading Provider of Smart, Connected and Secure Embedded Control Solutions

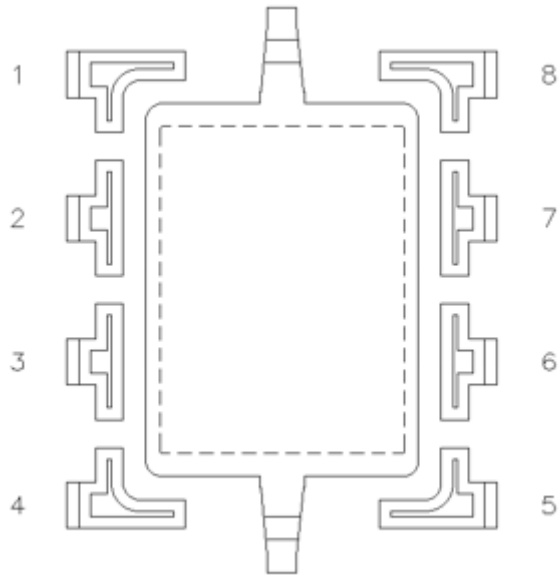
**Qualification of MTAI as a new assembly site for selected 24LCxxx,
24AAxxx and 24FCxxx device families available in 8L SOIC (3.90mm)
package.**



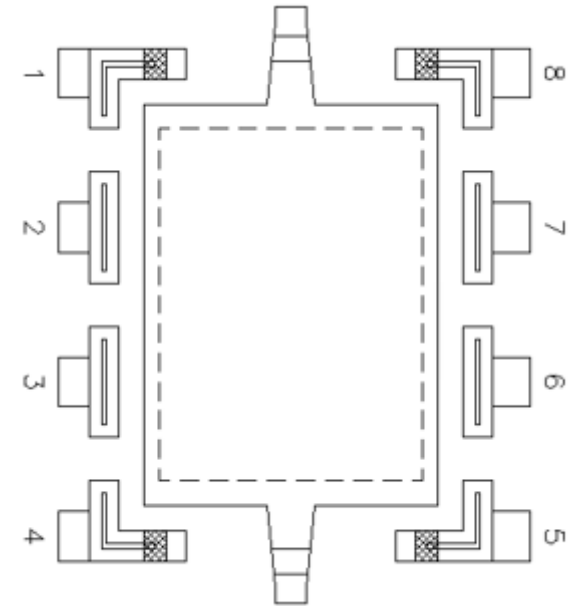
SMART | CONNECTED | SECURE

Lead frame Comparison

NSEB



MTAI





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QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: ASER-25FYQB098

Date:
October 19, 2011

Qualification of MTAI as a new assembly site for selected 24LCxxx, 24AAxxx and 24FCxxx device families available in 8L SOIC (3.90mm) package. Qualifies by similarity to CCB 1072.



MICROCHIP PACKAGE QUALIFICATION REPORT

Purpose	Qualification of MTAI as a new assembly site for selected 24LCxxx, 24AAxxx and 24FCxxx device families available in 8L SOIC (3.90mm) package.
CCB No.	1072 and 4397
CN	BC112021
QUAL ID	Q11085 Rev. A
MP CODE	360037C3XA00
Part No.	24LC1025-I/SM
Bonding No.	BDE-001603 Rev. 02
<u>Package</u>	
Type	8L SOIJ
Package size	208 mils
Spacer	75 x 94 x 8 mils
<u>Lead Frame</u>	
Paddle size	140 x 160 mils
Material	CDA194
Surface	Ag plate
Process	Stamp
Lead Lock	No
Part Number	10100816
<u>Die attach material</u>	
Epoxy	Top/ Bottom: 8390A, Spacer: 8006NS
Wire	Au wire
Mold Compound	G600
Plating Composition	Matte Tin



MICROCHIP PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI121803010	GRSM411501074.210	113193C
MTAI121803011	GRSM411501074.220	113193E
MTAI121803012	GRSM411501074.200	113193H

Result

Pass Fail _____

8L SOIJ (.208") 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-020C standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
<u>MSL</u>								
MSL Level 1/260°C	85°C/ 85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 260°C max System: Vitronics Soltec MR1243 (IPC/JEDEC J-STD-020C)	S12/14/16 (PDC)	135	08/31/11	09/11/11	0/135	Pass	
<u>Precondition</u>								
Electrical Test	Electrical Test :+25°C and 85°C System: NEXTEST_PT (Test 1 lot 125°C on MTAI121803010.000)	S12/14/16 (PDC)	693(0)	08/20/11	08/26/11	693		Good Devices
Bake	Bake 150°C, 24 hrs System: CHINEE	PI-92014B		09/01/11	09/02/11	693		
Moisture Soak	85°C/ 85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH	PI-91173B		09/02/11	09/09/11	693		
Convection-Reflow	3x Convection-Reflow 260°C max System: Vitronics Soltec MR1243	PI-91160B		09/09/11	09/09/11	693		
Electrical Test	Electrical Test :+25°C and 85°C System: NEXTEST_PT (Test 1 lot 125°C on MTAI121803010.000)	S12/14/16 (PDC)		09/10/11	09/11/11	0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
Temp Cycle	SAM Inspection: (With 1 lot SAM on MTAI121803010.000)	PI-91081	10 (0)	09/114/11	09/14/11	10		Parts had been pre-conditioned at 260°C
	Stress Condition: -65°C to +150°C, 500 Cycles System : TABAI ESPEC TSA-70H Inspection: External crack inspection all units under 40X Optical magnification	PI-91020B		09/21/11	10/05/11	231		
	SAM Inspection: (With 1 lot SAM on MTAI121803010.000)	QCI-33003	30(0)	10/05/11	10/05/11	0/30		
		PI-91081	10 (0)	10/05/11	10/11/11	10		
	Electrical Test: + 85°C System: NEXTEST_PT (Test 1 lot 125°C on MTAI121803010.000)	S12/14/16 (PDC)	231(0)	10/11/11	10/12/11	0/231	Pass	77 units / lot
	Bond Strength: Bond Shear (15.60 grams) Wire Pull (> 3 grams)	QCI-91009	5(0) Units	10/12/11	10/13/11	0/5	Pass	
		QCI-91022	15 (0) 15 (0)	10/13/11 10/13/11	10/13/11 10/13/11	0/15 0/15	Pass Pass	Wire pull & bond shear after Temp Cycle
UNBIASED-HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X	PI-91261B		09/12/11	09/16/11	231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: NEXTEST_PT	S12/14/16 (PDC)	231(0)	09/16/11	09/17/11	0/231	Pass	77 units / lot
		QCI-91009	5(0) Units	09/17/11	09/17/11	0/5	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X Electrical Test: +25°C and 85°C System: NEXTEST_PT (Test 1 lot 125°C on MTAI121803010.000)	PI-92010B		09/14/11	09/19/11	231		Parts had been pre-conditioned at 260°C
		S12/14/16 (PDC)	231(0)	09/19/11	09/20/11	0/231	Pass	77 units / lot
		QCI-91009	5(0) Units	09/20/11	09/21/11	0/5	Pass	
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs System: SHEL LAB Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT	PI-92014B S12/14/16 (PDC)	45(0)	09/01/11 09/20/11	09/20/11 09/20/11	45 0/45	Pass	45 units
Bond Strength Data Assembly	Bond Shear (15.60 grams) Wire Pull (> 3 grams)	QCI-91022	30 (0) bonds 30 (0) wires	- -	- -	0/30 0/30	Pass Pass	Wire pull & bond shear data assembly



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QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: ASER-25FYQB098

Date:
December 10, 2020

Qualification of MTAI as a new assembly site for selected 24LCxxx, 24AAxxx and 24FCxxx device families available in 8L SOIC (3.90mm) package. Qualifies by similarity to CCB 1072.



MICROCHIP PACKAGE QUALIFICATION REPORT

Purpose	Qualification of MTAI as a new assembly site for selected 24LCxxx, 24AAxxx and 24FCxxx device families available in 8L SOIC (3.90mm) package.
CCB No.	1072 and 4397
CN	ES347296
QUAL ID	R2000649 Rev. A
MP CODE	360154C2XA00
Part No.	24LC1026-E/SN
Bonding No.	BDM-002689 Rev. A
<u>Package</u>	
Type	8L SOIC
Package size	150 mils
<u>Lead Frame</u>	
Paddle size	95 x 130 mils
Material	CDA194
Surface	Bare Cu on DAP
Process	Stamped
Lead Lock	No
Part Number	10100819
Treatment	Roughened
<u>Material</u>	
Epoxy	8390A for DEDX2 / 8006NS for Spacer
Wire	Au wire
Mold Compound	G600
Plating Composition	Matte Sn



MICROCHIP PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI211903039.000	GRSM420521598.310	2032VE2
MTAI211903265.000	GRSM420521598.310	203219H
MTAI211903266.000	GRSM420521598.310	20321AB

Result

Pass Fail _____

8L SOIC 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
<u>Precondition</u> <u>Prior Perform</u> <u>Reliability Tests</u> (At MSL Level 1)	Electrical Test: +25°C and 125°C System: NESTEST_PT 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: NESTEST_PT	JESD22- A113 JIP/ IPC/JEDEC J-STD-020E	693(0)	693 693 693 693 0/693	Pass	Good Devices

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	Stress Condition: -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22- A104		231		Parts had been pre-conditioned at 260°C 77 units / lot
	Electrical Test: + 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (> 3.00 grams) Bond Shear (> 18.00 grams)		15 (0) 15 (0)	0/15 0/15	Pass Pass	
UNBIASED- HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22- A118		231		Parts had been pre-conditioned at 260°C 77 units / lot
	Electrical Test: +25°C System: NEXTEST_PT		231(0)	0/231	Pass	
Bond Strength Data Assembly	Wire Pull (> 3.00 grams)	Mil. Std. 883-2011	30 (0) Wires	0/30 Die:1 0 Die:2 0	Pass	
	Bond Shear (> 18.00 grams)	CDF-AEC- Q100-001	30 (0) bonds	0/30 Die:1 0 Die:2 0	Pass	



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Moisture Sensitivity Classification Report Summary
RELIABILITY LABORATORY

PCN #: ASER-25FYQB098

Date:
December 10, 2020

Qualification of MTAI as a new assembly site for selected 24LCxxx, 24AAxxx and 24FCxxx device families available in 8L SOIC (3.90mm) package. Qualifies by similarity to CCB 1072.



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Moisture Sensitivity Classification Report

Purpose	Qualification of MTAI as a new assembly site for selected 24LCxxx, 24AAxxx and 24FCxxx device families available in 8L SOIC (3.90mm) package.
CCB No.	1072 and 4397
CN	ES347296
QUAL ID	R2000649 Rev. A
MP CODE	360154C2XA00
Part No.	24LC1026-E/SN
Bonding No.	BDM-002689 Rev. A
<u>Package</u>	
Type	8L SOIC
Package size	150 mils
<u>Lead Frame</u>	
Paddle size	95 x 130 mils
Material	CDA194
Surface	Bare Cu on DAP
Process	Stamped
Lead Lock	No
Part Number	10100819
Treatment	Roughened
<u>Material</u>	
Epoxy	8390A for DEDX2 / 8006NS for Spacer
Wire	Au wire 0.9 mil
Mold Compound	G600
Plating Composition	Matte Sn



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Moisture Sensitivity Classification Report

Result

Pass

Fail

8L SOIC assembled by MTAI is qualified the Moisture/ Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020E standard.

Moisture Sensitivity Classification Report

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Moisture/Reflow Sensitivity Classification Test (At MSL Level 1)	Electrical Test: +25°C and 125°C System: NESTEST_PT	JESD22-A113,	135 (0)	135		Good Devices 45 units / lot
	C-SAM Inspection Focus on die surface, Lead finger, and paddle System: HITACHI (FS200)	JIP/ IPC/JEDEC J-STD-020E		135		
	Bake 150°C, 24 hrs System: CHINEE			135		
	Moisture Soak 85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			135		
	Reflow 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			135		
	Visual Inspection External visual examination under 40x Optical magnification.		135 (0)	0/135	Pass	
C-SAM Inspection Focus on die surface, Lead finger, and paddle System: HITACHI (FS200)		135 (0)	0/135	Pass		
Electrical Test: +25°C and 125°C System: NESTEST_PT				0/135	Pass	