Product Change Notification / ALAN-24AINW535

Date:

19-Sep-2023

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 5336 Final Notice: Qualification of MTAI as a new assembly site for SST26VF016-80-5I-S2AE and SST26VF016-80-5I-S2AE-T catalog part numbers (CPN) available in 8L SOIJ (.208in) package.

Affected CPNs:

ALAN-24AINW535_Affected_CPN_09192023.pdf
ALAN-24AINW535_Affected_CPN_09192023.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 SST26VF016-80-5I-S2AE and SST26VF016-80-5I-S2AE-T catalog part numbers (CPN) available in 8L SOIJ (.208in) package.

Pre and Post Change Summary:

	Pre Change		Post Change
Assembly Site	Greatek Electronic Inc.	Lingsen Precision Industries, LTD.	Microchip Technology Thailand

	(GTK)	(LPI)	(MTAI)
Wire Material	Au	Au	Au
Die Attach Material	8340	8340	8390A
Molding Compound Material	G600	G600	G600V
Lead-Frame Material	C194	C194	CDA194
Lead-Frame Paddle Size	140 x 160 mils	142 x 168 mils	140 x 160 mils
DAP Surface Prep	Ag spot	None	Bare Cu
MSL	3	3	1
See Pre and Post Change Summary attachment for comparison			

Impacts to Data Sheet: None

Change Impact: None

Reason for Change: To improve manufacturability and on-time delivery performance by qualifying MTAI as a new assembly site.

Change Implementation Status: Complete

Estimated First Ship Date: November 25, 2022 (date code: 2248)

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

Time Table Summary:

	November 2022					**>**	**August 2023**				
Workweek	45	46	47	48	49		35	36	37	38	39
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: November 17, 2022: Issued final notification.
September 19, 2023: Re-issued final notification. Attached the Qualification Report.

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

Attachments:

PCN_ALAN-24AINW535 Qual Report.pdf
PCN_ALAN-24AINW535_Pre and Post Change_Summary.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)

SST26VF016-80-5I-S2AE
SST26VF016-80-5I-S2AE-T

QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: ALAN-24AINW535

Date:
August 31, 2023

Qualification of MTAI as a new assembly site for SST26VF016-80-5I-S2AE and SST26VF016-80-5I-S2AE-T catalog part numbers (CPN) available in 8L SOIJ (.208in) package.

PACKAGE QUALIFICATION REPORT

Purpose	Qualification of MTAI as a new assembly site for SST26VF016-80-5I-S2AE and SST26VF016-80-5I-S2AE-T catalog part numbers (CPN) available in 8L SOIJ (.208in) package.
CN	E000147333
QUAL ID	R2300478 Rev. A
MP CODE	X02017C3XH80
Part No.	GC01912236098.110
Bonding No.	BD-001048 Rev. 02
CCB No.	5336
Package	
Type	8L SOIJ
Package size	208 mils
Lead Frame	
Paddle size	140 x 160 mils
Material	CDA194
Surface	Bare Cu
Process	Stamped
Lead Lock	No
Part Number	10100840
Treatment	Roughened
Material	
Epoxy	8390A
Wire	Au wire
Mold Compound	G600V
Plating Composition	Matte Sn

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI233402686.000	GC01912236098.110	2247M7A

Result ☒ Pass ☐ Fail ☐ ____________________

8L SOIJ (208 mils) 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
Precondition Prior Perform Reliability Tests (At MSL Level 1)	**Electrical Test:** +25°C, 85°C and -40°C System: NEXTEST_PT2	JESD22-A113	231(0)	0/231		Good Devices
	Bake 150°C, 24 hrs. System: CHINEE	JIP/ IPC/JEDEC J-STD-020E		231		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			231		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			231		
	Electrical Test: +25°C and 85°C System: NEXTEST_PT2		231(0)	0/231	Pass	

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		0/77		Parts had been pre-conditioned at 260°C
	Electrical Test: +85°C System: NEXTEST_PV2		77(0)	0/77	Pass	
			5(0) Units	0/5	Pass	
	Bond Strength: Wire Pull (>2.50 grams)		15(0)	0/15	Pass	
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		0/77		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: NEXTEST_PV2		77(0)	0/77	Pass	
			5(0) Units	0/5	Pass	
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 3.6 Volts System: HAST 6000X	JESD22-A110		0/77		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C and 85°C System: NEXTEST_PV2		77(0)	0/77	Pass	
			5(0) Units	0/5	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 504 hrs. System: SHEL LAB	JESD22-A103		0/45		45 units
	Electrical Test: +25°C and 85°C System: NEXTEST_PV2		45(0)	0/45	Pass	
Physical Dimensions	Physical Dimension, 10 units / 1 lot	JESD22-B100/B108	10(0) Units	0/10	Pass	
Bond Strength Data Assembly	Wire Pull (>2.50 grams)	Mil. Std. 883-2011	10(0) Wires	0/10	Pass	
	Bond Shear (>12.60 grams)	CDF-AEC-Q100-001	10(0) bonds	0/10	Pass	

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN# ALAN-24AINW535

Date:
December 10, 2010

Qualification of SST25VF032B-66-4C-S2AE catalog part number (CPN) available in 8L SOIJ (.208 in) package at MTAI assembly site. The qualification of MTAI as a new assembly site for SST26VF016-80-5I-S2AE and SST26VF016-80-5I-S2AE-T catalog part numbers (CPN) available in 8L SOIJ (.208in) package will qualify by similarity (QBS)

PACKAGE QUALIFICATION REPORT

Purpose	Qualification of SST25VF032B-66-4C-S2AE catalog part number (CPN) available in 8L SOIJ (.208 in) package at MTAI assembly site. The qualification of MTAI as a new assembly site for SST26VF016-80-5I-S2AE and SST26VF016-80-5I-S2AE-T catalog part numbers (CPN) available in 8L SOIJ (.208in) package will qualify by similarity (QBS).
CN	BC102473
QUAL ID	Q10094 Rev B
MP CODE	SST25VF032B
Part No.	SST25VF032B-66-4C-S2AE
Bonding No.	BDE-001251 Rev. 2.0
CCB#:	1012 and 5336
Package	
Type	8L SOIJ
Package size	208 mils
Lead Frame	
Paddle size	140 x 160 mils
Material	CDA194
Surface	Ag spot
Process	Stamped
Lead Lock	No
Part Number	10100816
Die attach material	
Epoxy	8390A
Wire	Au wire
Mold Compound	G600V
Plating Composition	Matte Tin

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.
A034602	PN50400.00.B
A034603	PN50400.00.B
A034604	PN50400.00.B

Result [x] Pass ☐ Fail ☐ — — — —

BL SOIJ (.208") assembled by MTAI pass reliability test per SSTQualification plan. This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020D standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
MSL								
MSL Level 1/260ºC	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-020D)	S12/14/16 (PDC)	66	09/23/10	10/05/10	0/66	Pass	

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
Precondition								
Electrical Test	Electrical Test :+25°C System: PK2	S12/14/16 (PDC)	1200(0)	09/22/10	09/22/10	1200		Good Devices
Temp Cycle	Stress Condition: -65°C to +150°C, 5 Cycles System : TABAI ESPEC TSA-70H	PI-91020B		09/23/10	09/23/10	1200		
Bake	Bake 150°C, 24 hrs System: CHINEE	PI-92014B		09/23/10	09/24/10	1200		
Moisture Soak	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH	PI-91173B		09/25/10	10/02/10	1200		
Convection-Reflow	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243	PI-91160B		10/02/10	10/02/10	1200		
Electrical Test	Electrical Test :+25°C System: PK2	S12/14/16 (PDC)		10/02/10	10/05/10	0/1200	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
Temp Cycle	**Stress Condition:** -65°C to +150°C, 500 Cycles System : TABAI ESPEC TSA-70H	PI-91020B		10/07/10	10/19/10	240		Parts had been pre-conditioned 80 units / lot
	Inspection: External crack inspection all units under 40X Optical magnification	QCI-33003	30(0)	10/19/10	10/19/10	0/30		
	Electrical Test: +25°C System: PK2	S12/14/16 (PDC)	240(0)	10/19/10	10/21/10	0/240	Pass	
	Stress Condition: -65°C to +150°C, 1000 Cycles System : TABAI ESPEC TSA-70H	PI-91020B		10/21/10	11/02/10	240		
	Inspection: External crack inspection all units under 40X Optical magnification	QCI-33003	30(0)	11/02/10	11/02/10	0/30		
	Electrical Test: +25°C System: PK2	S12/14/16 (PDC)	240(0)	11/02/10	11/03/10	0/240	Pass	
Pressure Cooker	**Stress Condition:** +121°C, 100% RH, 15 PSI, 168 hrs. System: HIRAYAMA TPC-422R	PI-92013B		10/07/10	10/18/10	240		Parts had been pre-conditioned
	Electrical Test: +25°C System: PK2	S12/14/16 (PDC)	240(0)	10/18/10	10/18/10	0/240	Pass	80 units / lot

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	PI-92010B		10/09/10	10/14/10	240		Parts had been pre-conditioned
	Electrical Test: +25°C System: PK2	S12/14/16 (PDC)	240(0)	10/14/10	10/16/10	0/240	Pass	80 units / lot
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	PI-91261B		10/07/10	10/12/10	240		Parts had been pre-conditioned
	Electrical Test: +25°C System: PK2	S12/14/16 (PDC)	240(0)	10/12/10	10/12/10	0/240	Pass	80 units / lot
Solderability **Temp 245°C**	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000	QCI-31003	45 (0)	10/07/10	10/08/10	45		15 units / lot
	Solder Dipping: Solder Temp.245°C Solder material: Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D			10/08/10	10/08/10	45		
	Visual Inspection: External Visual Inspection			10/08/10	10/08/10	0/45	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 150°C, 168 hrs System: CHINEE	PI-92014B S12/14/16 (PDC)		10/07/10	10/15/10	240		Parts had been pre-conditioned 80 units / 1 lot
	Electrical Test: +25°C System: PK2		240(0)	10/15/10	10/16/10	0/240	Pass	
	Stress Condition: Bake 150°C, 500 hrs System: CHINEE	PI-92014B S12/14/16 (PDC)		10/16/10	10/31/10	240		
	Electrical Test: +25°C System: PK2		240 (0)	10/31/10	11/01/10	0/240	Pass	
	Stress Condition: Bake 150°C, 1000 hrs System: CHINEE	PI-92014B S12/14/16 (PDC)		10/01/10	11/24/10	240		
	Electrical Test: +25°C System: PK2		240 (0)	11/24/10	11/24/10	0240	Pass	
Bond Strength **Data Assembly**	Bond Shear (15.00 grams)	QCI-91022	30 (0) bonds	-	-	0/30	Pass	
	Wire Pull (> 2.5 grams)		30 (0) wires	-	-	0/30	Pass	

CCB 5336

Pre and Post Change Summary

PCN# ALAN-24AINW535

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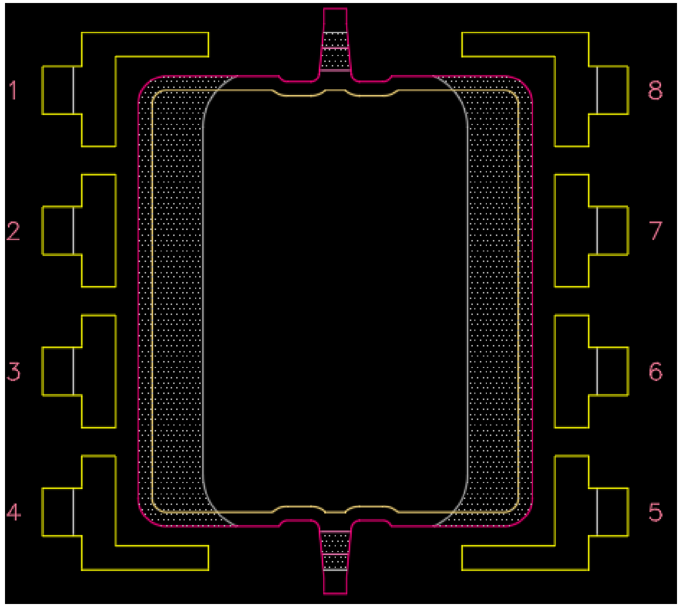
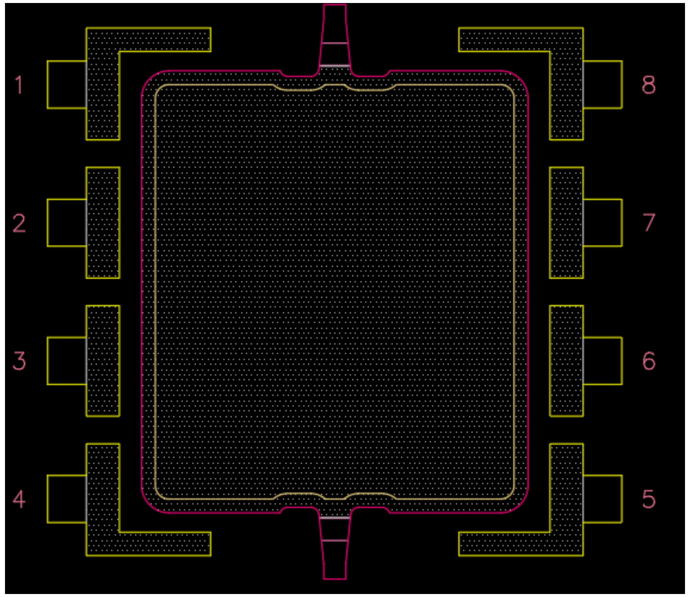
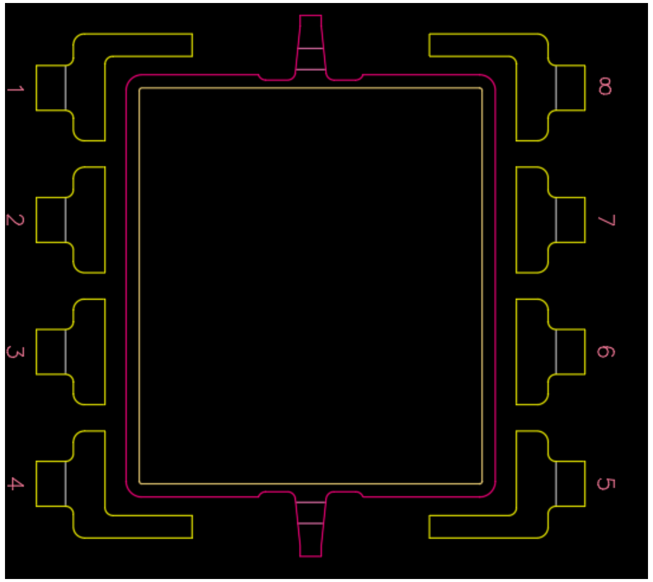
Pre and Post Change Summary

GTK	LPI	MTAI
		

*Not fit to scale