



Product Change Notification / CAAN-12LTFU061

Date:

15-May-2024

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6577 Final Notice: Qualification of NSEB and UTL3 as additional assembly sites for selected SST25PF0xx, SST2xVF0xx, USBF1600x and USBF8100x device families available in 8L TDFN-S (6x5x0.8mm) package.

Affected CPNs:

[CAAN-12LTFU061_Affected_CPN_05152024.pdf](#)

[CAAN-12LTFU061_Affected_CPN_05152024.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 NSEB and UTL3 as additional assembly sites for selected SST25PF0xx, SST2xVF0xx, USBF1600x and USBF8100x device families available in 8L TDFN-S (6x5x0.8mm) package.

Pre and Post Change Summary:

Availability											
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:October 17, 2023: Issued initial notification.
May 15, 2024: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on May 31, 2024.

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-12LTFU061_Qual Report.pdf](#)
[PCN_CAAN-12LTFU061 Pre and Post Change Summary.pdf](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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Affected Catalog Part Numbers (CPN)

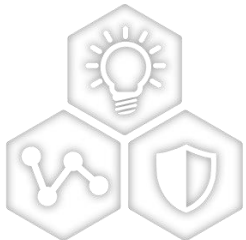
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SST25VF020B-80-4I-QAE
SST25VF020B-80-4I-QAE-T
SST25VF040B-50-4C-QAF
SST25VF040B-50-4C-QAF-T
SST25VF040B-50-4I-QAE
SST25VF040B-50-4I-QAE-T
SST25VF040B-50-4I-QAF
SST25VF040B-50-4I-QAF-T
SST25VF080B-50-4C-QAF
SST25VF080B-50-4C-QAF-T
SST25VF080B-50-4I-QAE
SST25VF080B-50-4I-QAE-T
SST25VF080B-50-4I-QAF
SST25VF080B-50-4I-QAF-T
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SST26VF016B-104I/MFA24
SST26VF016B-104I/MF-RN
SST26VF016B-104V/MF
SST26VF016B-104V/MF70SVAO
SST26VF016B-80E/MF
SST26VF016B-80E/MF70SVAO
SST26VF016BT-104I/MF
SST26VF016BT-104I/MF70SVAO
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USBF8100-E/MFVAO
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USBF8100T-E/MFVAO-GM

CCB 6577
Pre and Post Change Summary
PCN #: CAAN-12LTFU061

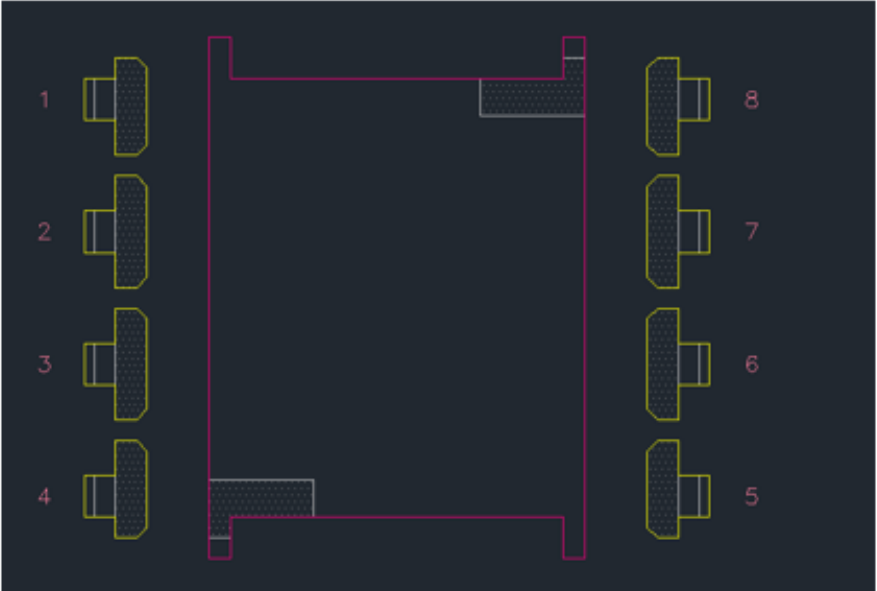
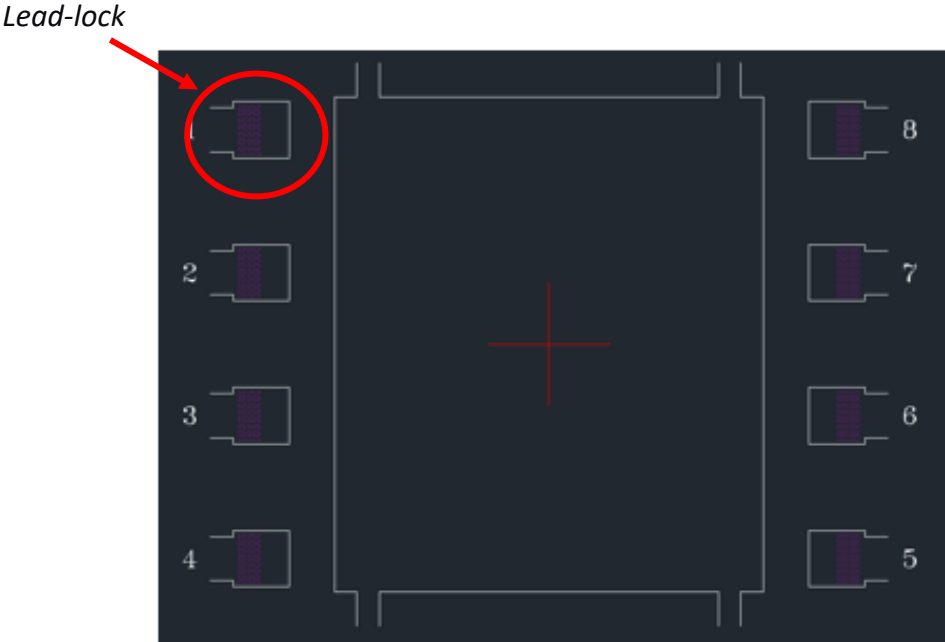


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LEAD FRAME COMPARISON

LPI	NSEB and UTL3																
																	
<i>Note: Not to scale</i> <table><tr><td>Wire Material</td><td>Au</td></tr><tr><td>Lead Frame Material</td><td>C194</td></tr><tr><td>Lead-Frame Paddle Size</td><td>142X165 mils</td></tr><tr><td>Lead-Frame Lead-Lock Design</td><td>No</td></tr></table>	Wire Material	Au	Lead Frame Material	C194	Lead-Frame Paddle Size	142X165 mils	Lead-Frame Lead-Lock Design	No	<i>Note: Not to scale</i> <table><tr><td>Wire Material</td><td>CuPdAu</td></tr><tr><td>Lead Frame Material</td><td>C194</td></tr><tr><td>Lead-Frame Paddle Size</td><td>150X173 mils</td></tr><tr><td>Lead-Frame Lead-Lock Design</td><td>Yes</td></tr></table>	Wire Material	CuPdAu	Lead Frame Material	C194	Lead-Frame Paddle Size	150X173 mils	Lead-Frame Lead-Lock Design	Yes
Wire Material	Au																
Lead Frame Material	C194																
Lead-Frame Paddle Size	142X165 mils																
Lead-Frame Lead-Lock Design	No																
Wire Material	CuPdAu																
Lead Frame Material	C194																
Lead-Frame Paddle Size	150X173 mils																
Lead-Frame Lead-Lock Design	Yes																

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



QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: CAAN-12LTFU061

Date:
April 29, 2024

**Qualification of NSEB and UTL3 as additional assembly sites
for selected SST25PF0xx, SST2xVF0xx, USBF1600x and
USBF8100x device families available in 8L TDFN-S
(6x5x0.8mm) package.**



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PACKAGE QUALIFICATION REPORT

(UTL3)

Purpose	Qualification of NSEB and UTL3 as additional assembly sites for selected SST25PF0xx, SST2xVF0xx, USBF1600x and USBF8100x device families available in 8L TDFN-S (6x5x0.8mm) package.
CN	E000200197
QUAL ID	R2400096 Rev. A
MP CODE	S01029U3XA23
Part No.	SST26VF064B-104V/MF
Bonding No.	BD-001799 Rev. 01
CCB No.	6577

Package

Type	8L TDFN-S
Package size	6 x 5 x 0.8 mm

Lead Frame

Paddle size	150 x 173 mils
Material	C194
Surface	Ag on lead only
Process	Etched
Lead Lock	Yes
Part Number	FR1341

Material

Epoxy	558-2C31
Wire	CuPdAu
Mold Compound	G700LTD
Plating Composition	Matte Sn



MICROCHIP
PACKAGE QUALIFICATION REPORT
(UTL3)

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
NSEB243500307.000	SCB1924240855.100	2348186
NSEB243600003.000	SCB1924240855.100	234918A
NSEB243600004.000	SCB1924240855.100	234918E

Result

☒

Pass

☐

Fail

☐

8L TDFN-S (6x5x0.8 mm) assembled by UTL3 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

(UTL3)

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)	IPC/JEDEC C J-STD- 020E	0135	0/135	Pass	
<u>Precondition Prior Perform Reliability Tests</u> (At MSL Level 1)	Electrical Test: +25°C, 105°C, 125°C and - 40°C System: NEXTEST_GV2X 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, 105°C and 125°C System: NEXTEST_GV2X	JESD22- A113	693(0) 693(0)	0/693 0/693	Pass Pass	Good Devices

PACKAGE QUALIFICATION REPORT

(UTL3)

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	Stress Condition: -55°C to +150°C, 1000 Cycles System: TABAI ESPEC TSA-70H Electrical Test: +105°C and 125°C System: NEXTEST_GV2X Bond Strength: Wire Pull (>3.00 grams) Bond Shear (>13.00 grams)	JESD22-A104		231		Parts had been pre-conditioned at 260°C
			231(0)	0/231	Pass	
			45 (0)	0/45	Pass	
	Stress Condition: -55°C to +150°C, 2000 Cycles System: TABAI ESPEC TSA-70H Electrical Test: +105°C and 125°C System: NEXTEST_GV2X Bond Strength: Wire Pull (>3.00 grams) Bond Shear (>13.00 grams)			231		
			231(0)	0/231	Pass	
			45 (0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

(UTL3)

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
HAST	Stress Condition: +130°C/85%RH, 96 hrs. Bias Volt: 3.6 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C, 105°C and 125°C System: NEXTEST_GV2X		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (>3.00 grams) Bond Shear (>13.00 grams)		45 (0)	0/45	Pass	
	Stress Condition: +130°C/85%RH, 192 hrs. Bias Volt: 3.6 Volts System: HAST 6000X			231		
	Electrical Test: +25°C, 105°C and 125°C System: NEXTEST_GV2X		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>3.00 grams) Bond Shear (>13.00 grams)		45 (0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

(UTL3)

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
UNBIASED-HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: NEXTEST_GV2X		231(0)	0/231	Pass	77 units / lot
	Stress Condition: +130°C/85%RH, 192 hrs. System: HAST 6000X			231		
	Electrical Test: +25°C System: NEXTEST_GV2X		231(0)	0/231	Pass	
High Temperature Storage Life	Stress Condition: Bake 175°C, 500 hrs. System: TPS Bake Oven	JESD22-A103		135		45 units / lot
	Electrical Test: +25°C System: NEXTEST_GV2X		135(0)	0/135	Pass	
	Stress Condition: Bake 175°C, 1000 hrs. System: TPS Bake Oven			135		
	Electrical Test: +25°C, 105°C and 125°C System: NEXTEST_GV2X		135(0)	0/135	Pass	
Solderability Temp 245°C	Steam Aging: Temp 93°C, 8Hrs System: SAS-3000	J-STD-002	22(0)	22		
	Solder Dipping: Solder Temp. 245°C Solder material: Pb Free Sn 95.5Ag3.9 Cu0.6			22		
	System: ERS RA 2200D Visual Inspection: External Visual Inspection			0/22	Pass	

PACKAGE QUALIFICATION REPORT

(UTL3)

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Physical Dimensions	Physical Dimension, 10 units from 1 lot	JESD22- B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (>3.00 grams)	Mil. Std. 883-2011	30 (0) Wires	0/30	Pass	
	Bond Shear (>13.00 grams)	CDF-AEC- Q100-001	30 (0) bonds	0/30	Pass	



MICROCHIP

PACKAGE QUALIFICATION REPORT

(NSEB)

Purpose	Qualification of NSEB and UTL3 as additional assembly sites for selected SST25PF0xx, SST2xVF0xx, USBF1600x and USBF8100x device families available in 8L TDFN-S (6x5x0.8mm) package.
CN	E000200197
QUAL ID	R2400102 Rev. A
MP CODE	S01029U3XA23
Part No.	SST26VF064B-104V/MF
Bonding No.	BD-001816 Rev. 01
CCB No.	6577

Package

Type	8L TDFN-S
Package size	6 x 5 x 0.8 mm

Lead Frame

Paddle size	150 x 173 mils
Material	C194
Surface	Ag on lead only
Process	Etched
Lead Lock	Yes
Part Number	FR1341

Material

Epoxy	558-2C31
Wire	CuPdAu
Mold Compound	G700LTD
Plating Composition	Matte Sn



MICROCHIP
PACKAGE QUALIFICATION REPORT
(NSEB)

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
NSEB243500306.000	SCB1924240855.100	234817V
NSEB243600001.000	SCB1924240855.100	2349181
NSEB243600002.000	SCB1924240855.100	2349182

Result ☒ Pass ☐ Fail ☐ _____

8L TDFN-S (6x5x0.8 mm) assembled by NSEB 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

(NSEB)

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)	IPC/JEDEC C J-STD- 020E	0135	0/135	Pass	
<u>Precondition Prior Perform Reliability Tests</u> (At MSL Level 1)	Electrical Test: +25°C, 105°C, 125°C and - 40°C System: NEXTEST_GV2X 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, 105°C and 125°C System: NEXTEST_GV2X	JESD22- A113	693(0) 693(0)	0/693 0/693	Pass Pass	Good Devices

PACKAGE QUALIFICATION REPORT

(NSEB)

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	Stress Condition: -55°C to +150°C, 1000 Cycles System: TABAI ESPEC TSA-70H Electrical Test: +105°C and 125°C System: NEXTEST_GV2X Bond Strength: Wire Pull (>3.00 grams) Bond Shear (>13.00 grams)	JESD22-A104		231		Parts had been pre-conditioned at 260°C
			231(0)	0/231	Pass	
			45 (0)	0/45	Pass	
	Stress Condition: -55°C to +150°C, 2000 Cycles System: TABAI ESPEC TSA-70H Electrical Test: +105°C and 125°C System: NEXTEST_GV2X Bond Strength: Wire Pull (>3.00 grams) Bond Shear (>13.00 grams)			231		
			231(0)	0/231	Pass	
			45 (0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

(NSEB)

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
HAST	Stress Condition: +130°C/85%RH, 96 hrs. Bias Volt: 3.6 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C, 105°C and 125°C System: NEXTEST_GV2X		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (>3.00 grams) Bond Shear (>13.00 grams)		45(0)	0/45	Pass	
	Stress Condition: +130°C/85%RH, 192 hrs. Bias Volt: 3.6 Volts System: HAST 6000X			231		
	Electrical Test: +25°C, 105°C and 125°C System: NEXTEST_GV2X		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>3.00 grams) Bond Shear (>13.00 grams)		45(0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

(NSEB)

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
UNBIASED- HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22- A118		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: NEXTEST_GV2X		231(0)	0/231	Pass	77 units / lot
High Temperature Storage Life	Stress Condition: Bake 175°C, 500 hrs. System: TPS Bake Oven	JESD22- A103		135		45 units / lot
	Electrical Test: +25°C System: NEXTEST_GV2X		135(0)	0/135	Pass	
	Stress Condition: Bake 175°C, 1000 hrs. System: TPS Bake Oven			135		
	Electrical Test: +25°C, 105°C and 125°C System: NEXTEST_GV2X		135(0)	0/135	Pass	
Solderability Temp 245°C	Steam Aging: Temp 93°C, 8Hrs System: SAS-3000 Solder Dipping: Solder Temp. 245°C Solder material: Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD- 002	22(0)	22		
				0/22		
				0/22	Pass	

PACKAGE QUALIFICATION REPORT
(NSEB)

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Physical Dimensions	Physical Dimension, 10 units from 1 lot	JESD22- B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (>3.00 grams)	Mil. Std. 883-2011	30 (0) Wires	0/30	Pass	
	Bond Shear (>13.00 grams)	CDF-AEC- Q100-001	30 (0) bonds	0/30	Pass	