Product Change Notification: CENO-02BFEX661

Date:

09-Jun-2026

Product Category:

Bluetooth Module

Notification Subject:

CCB 8270 Final Notice: Qualification of U08D as a new fabrication location for Die #2 under catalog part numbers AT24C64D-XHM-T and 24AA64T-I/ST available in 8L TSSOP (4.4mm) used in the U4 component of selected RN4678, RN4678RN4678APL, BM78SPPS5MC2 and BM78SPP05MC2 device families available in 30L and 33L MODULE (12x15mm and 12x22mm) packages.

Affected CPNs:

CENO-02BFEX661_Affected_CPN_06092026.pdf
CENO-02BFEX661_Affected_CPN_06092026.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 U08D as a new fabrication location for Die #2 under catalog part numbers AT24C64D-XHM-T and 24AA64T-I/ST available in 8L TSSOP (4.4mm) used in the U4 component of selected RN4678, RN4678RN4678APL, BM78SPPS5MC2 and BM78SPP05MC2 device families available in 30L and 33L MODULE (12x15mm and 12x22mm) packages.

Pre and Post Summary Changes:

*U4 Component		Pre Change	Post Change	Change (Yes/No)
Fabrication Site	Die #1	No change in fabrication site.		No

	Die #2	Microchip Technology Tempe – Fab 2 (TMGR)	Microchip Technology Gresham – Fab 4 (GRTM)	Microchip Technology Colorado (MCSO)	United Microelectronics Corporation (Fab 8D (U08D)	Yes
Wafer Size	Die #1	No change in wafer size.				No
	Die #2	8"	8"	6"	8"	Yes

***Note:** The U4 component (AT24C64D-XHM-T and 24AA64T-I/ST) catalog part numbers has already been qualified at U08D through PCN# **NTDO-27KWWJ104**.

Impacts to Datasheet: None

Change Impact: None

Reason for Change: To improve manufacturability and on-time delivery performance by qualifying a second fabrication source at United Microelectronics Corporation (Fab 8D) (U08D) site for Die #2 used in the component U4.

Change Implementation Status: In Progress

Estimated First Ship Date: 17 July 2026 (date code: 2629)

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

Timetable Summary:

	June 2026				**July 2026**				
Work Week	23	24	25	26	27	28	29	30	31
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:

June 09, 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_CENO-02BFEX661-Pre and Post Change Summary.pdf
PCN_CENO-02BFEX661-Qualification 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.

CENO-02BFEX661 - CCB 8270 Final Notice: Qualification of U08D as a new fabrication location for Die #2 under catalog part numbers AT24C64D-XHM-T and 24AA64T-I/ST available in 8L TSSOP (4.4mm) used in the U4 component of selected RN4678, RN4678RN4678APL, BM78SPPS5MC2 and BM78SPP05MC2 device families available in 30L and 33L MODULE (12x15mm and 12x22mm) packages.

Affected Catalog Part Numbers (CPN):

RN4678APL-V/RM100

RN4678APL-V/RM111

RN4678APL-V/RM113

RN4678APL-V/RM120

RN4678APL-V/RM122

BM78SPPS5MC2-0001AA

BM78SPPS5MC2-0002AA

BM78SPPS5MC2-0004AA

BM78SPPS5MC2-0006AA

BM78SPPS5MC2-0B01AA

BM78SPPS5MC2-0B02AA

BM78SPPS5MC2-0B04AA

BM78SPPS5MC2-0B06AA

RN4678-VB/RMCER100

RN4678APL-VB/RM100

RN4678APL-VB/RM111

RN4678APL-VB/RM113

RN4678APL-VB/RM120

RN4678APL-VB/RM122

RN4678-VB/RM100

RN4678-VB/RM111

RN4678-VB/RM122

RN4678-VB/RM113

RN4678APL-VB/RM124

RN4678APL-V/RM124

RN4678-V/RM124

RN4678-V/RM100

RN4678-V/RM111

RN4678-V/RM122

RN4678-V/RM113

BM78SPP05MC2-0001AA

BM78SPP05MC2-F004AA

BM78SPP05MC2-0002AA

BM78SPP05MC2-0004AA

BM78SPP05MC2-T0A1AA

BM78SPP05MC2-F004AS

BM78SPP05MC2-0006AA

BM78SPP05MC2-T0A2AA

BM78SPP05MC2-0B01AA

BM78SPP05MC2-FB04AA

BM78SPP05MC2-0B02AA

BM78SPP05MC2-0B04AA

BM78SPP05MC2-TBA1AA

BM78SPP05MC2-FB04AS

BM78SPP05MC2-0B06AA

BM78SPP05MC2-TBA2AA

BM78SPP05MC2-CB06AA

CCB 8270

Pre and Post Change Summary

PCN #: CENO-02BFEX661

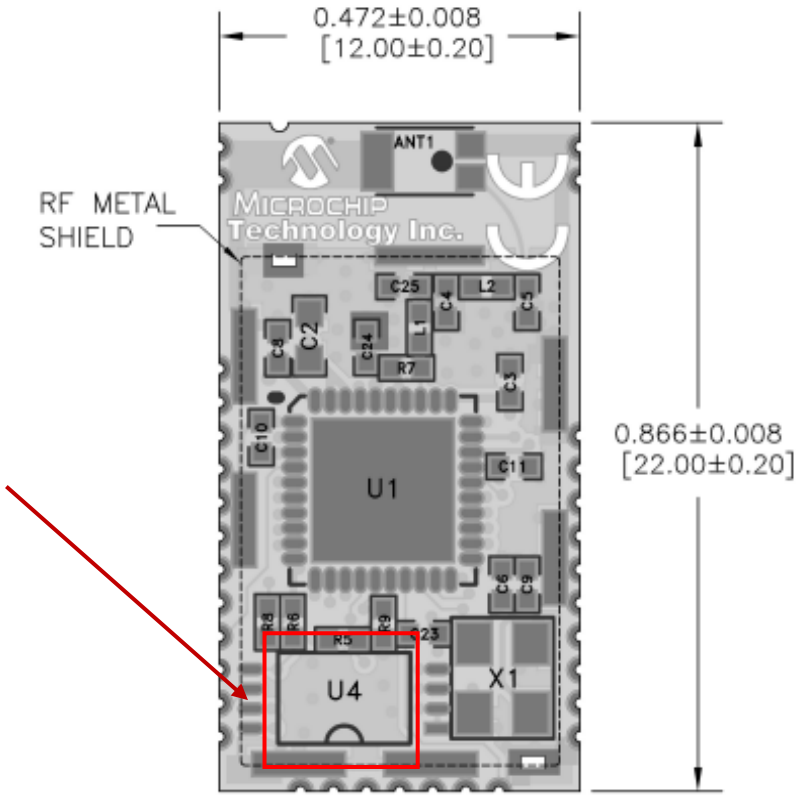
A Leading Provider of Smart, Connected and Secure Embedded Control Solutions

SMART | CONNECTED | SECURE

COMPONENT LOCATION

COMPONENT U4 - 24AA64T-I/ST / AT24C64D-XHM-T

Component U4



TOP

BOTTOM

QUALIFICATION REPORT SUMMARY

PCN#: CENO-02BFEX661

Date:
June 02, 2026

Qualification of U08D as a new fabrication site for selected products of the 24AA32A, 24AA32AF, 24LC32A, 24LC32AF, 24AA64, 24AA64F, 24FC64, 24FC64F, 24LC64, 24LC64F, AT24C32D, AT24C32E, AT24C64D and AT24C64B device families. The qualification of U08D as a new fabrication location for Die #2 under catalog part numbers AT24C64D-XHM-T and 24AA64T-I/ST available in 8L TSSOP (4.4mm) used in the U4 component of selected RN4678, RN4678RN4678APL, BM78SPPS5MC2 and BM78SPP05MC2 device families available in 30L and 33L MODULE (12x15mm and 12x22mm) packages will qualify by similarity.

MICROCHIP

PROCESS QUALIFICATION REPORT

Purpose: Qualification of U08D as a new fabrication site for selected products of the 24AA32A, 24AA32AF, 24LC32A, 24LC32AF, 24AA64, 24AA64F, 24FC64, 24FC64F, 24LC64, 24LC64F, AT24C32D, AT24C32E, AT24C64D and AT24C64B device families. The qualification of U08D as a new fabrication location for Die #2 under catalog part numbers AT24C64D-XHM-T and 24AA64T-I/ST available in 8L TSSOP (4.4mm) used in the U4 component of selected RN4678, RN4678RN4678APL, BM78SPPS5MC2 and BM78SPP05MC2 device families available in 30L and 33L MODULE (12x15mm and 12x22mm) packages will qualify by similarity.

CCB No.: 7396 (Qual Date: March 15, 2025) and 8270

Test Name/Qual Step	Details/Condition		Results
Sort Yield	CP1 @ 125C		PASSED
	CP2 @ -40C		
	CP3 @ 25C		
Final Test + Qual Baseline	FT1 @ 25C		PASSED
	QC1 @ 25C		
	QC2 @ -40C		
	QC3 @ 85C		
	QC4 @ 125C		
ESD	HBM (7KV)		PASSED
Latch Up	200mA, 25C 105mA, 125C		PASSED
ESD	CDM (2KV)		PASSED
Early Life Failure Rate (ELFR)	48hr @ 125C Sample size 800 + 25 spares		PASSED
Endurance (EDR)	100k @ 85C	Sample size 77 + 5 spares	PASSED
Dynamic Life Test (DLT)	96hr @ 125C		PASSED
	408hr @ 125C		
	1008hr @ 125C		
Endurance (EDR)	100k @ 85C	Sample size 231 + 5 spares	PASSED
Retention (RET)	96hr @ 175C		PASSED
	504hr @ 175C		

PACKAGE QUALIFICATION REPORT

Purpose	Qualification of CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound for 24AA64T-I/SN, 24LC32AT-I/SN, AT24C64D-SSHM-B, and AT24C64D-SSHM-T catalog part numbers (CPN) available in 8L SOIC (3.90mm) package will qualify by similarity (QBS). This is a Q006 Grade 1 qualification.
CN	E000143151
QUAL ID	R2300428 Rev. A
MP CODE	669014C2XA00
Part No.	25CSM01-E/SN
Bonding No.	BD-000834 Rev. 02
CCB No.	5340 (Qual Date: August 24, 2023) , 7421 and 8270

Package

Type	8L SOIC
Package size	150 mils

Lead Frame

Paddle size	95 x 155 mils
Material	C19400FH
Surface	Ring Ag
Process	Stamped
Lead Lock	Yes
Part Number	101393362
Treatment	Roughened

Material

Epoxy	AMK-EP27
Wire	CuPdAu wire
Mold Compound	AMK-MC27
Plating Composition	Matte tin

MICROCHIP

PACKAGE QUALIFICATION REPORT

Manufacturing Information:

Assembly Lot No.	Wafer Lot No.	Date Code
ANAP233300001.000	U08D923227429.110	2246TSQ
ANAP233300002.000	U08D923227429.110	2246TSR
ANAP240100200.000	U08D923227429.110	23149VD

Result [X] Pass [ ] Fail [ ] _____

8L SOIC (150 mils) assembled by ANAP 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)	IPC/JEDEC J-STD-020E	135(0)	0/135	Pass	
<u>Precondition Prior Perform Reliability Tests</u> **(At MSL Level 1)**	**Electrical Test:** +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22-A113	693(0)	0/693		Good Devices
	Bake 150°C, 24 hrs System: CHINEE			693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			693		
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		693(0)	0/693	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		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>2.50 grams) Bond Shear (>15.00 grams)		45(0)	0/45	Pass	
	Stress Condition: -65°C to +150°C, 1000 Cycles System: TABAI ESPEC TSA-70H			231		
	Electrical Test: +85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>2.50 grams) Bond Shear (>15.00 grams)		45(0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 5.6 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (>2.50 grams) Bond Shear (>15.00 grams)		45(0)	0/45	Pass	
	Stress Condition: +130°C/85%RH, 192 hrs. **Bias Volt:** 5.6 Volts System: HAST 6000X			231		
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>2.50 grams) Bond Shear (>15.00 grams)		45(0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

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_PT		231(0)	0/231	Pass	77 units / lot
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 500 hrs. System: TPS DC-166-F-ST350	JESD22-A103		135		45 units / lot
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		135(0)	0/135	Pass	
	Stress Condition: Bake 175°C, 1000 hrs. System: TPS DC-166-F-ST350			135		
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		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 22 0/22	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Physical Dimensions	Physical Dimension, 10 units / lot from 3 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (>2.50 grams)	Mil. Std. 883-2011	30(0) Wires	0/30	Pass	
	Bond Shear (>15.00 grams)	CDF-AEC-Q100-001	30(0) bonds	0/30	Pass	