



Product Change Notification / CAAN-15MVPI613

Date:

07-Nov-2023

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6631 Final Notice: Qualification of United Microelectronics Corporation - Fab 8D (U08D) as new fabrication site for selected 24xx102x and AT24CM01 device families available in various packages.

Affected CPNs:

[CAAN-15MVPI613_Affected_CPN_11072023.pdf](#)
[CAAN-15MVPI613_Affected_CPN_11072023.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 United Microelectronics Corporation - Fab 8D (U08D) as new fabrication site for selected 24xx102x and AT24CM01 device families available in various packages.

Pre and Post Change Summary:

	Pre Change		Post Change
	24xx102x	AT24CM01	24xx102x & AT24CM01

Method to Identify Change:Traceability code

Qualification Report:Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History:October 18, 2023: Issued initial notification.

November 07, 2022: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on December 15, 2023.

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-15MVPI613_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.

Affected Catalog Part Numbers (CPN)

AT24CM01-SSHM-B
AT24CM01-SSHD-B
AT24CM01-SHD-B
AT24CM01-SHM-B
AT24CM01-XHM-B
AT24CM01-XHD-B
AT24CM01-SSHM-T
AT24CM01-SSHD-T
AT24CM01-SHD-T
AT24CM01-SHM-T
AT24CM01-XHM-T
AT24CM01-XHD-T
24LC1025-E/SN
24LC1025-E/SM
24LC1025-E/P
24LC1025-I/SN
24AA1025-I/SN
24FC1025-I/SN
24LC1025-I/SM
24AA1025-I/SM
24FC1025-I/SM
24LC1025-I/P
24AA1025-I/P
24FC1025-I/P
24LC1025T-I/SN
24AA1025T-I/SN
24FC1025T-I/SN
24LC1025T-I/SM
24AA1025T-I/SM
24FC1025T-I/SM
24LC1025T-E/SN
24LC1025T-E/SM
24LC1026-E/SN
24LC1026-E/SM
24LC1026-E/P
24LC1026-I/SN
24AA1026-I/SN
24FC1026-I/SN
24LC1026-I/SM
24AA1026-I/SM
24FC1026-I/SM
24LC1026-I/P
24AA1026-I/P
24FC1026-I/P
24LC1026T-I/SN
24AA1026T-I/SN

24FC1026T-I/SN

24LC1026T-I/SM

24AA1026T-I/SM

24FC1026T-I/SM

24LC1026T-E/SN

24LC1026T-E/SM



QUALIFICATION REPORT SUMMARY

PCN #: CAAN-15MVPI613

**Date:
October 19, 2023**

Qualification of United Microelectronics Corporation - Fab 8D (U08D) as new fabrication site for selected 24xx102xx and AT24CM01 device families available in various packages.

Purpose: Qualification of United Microelectronics Corporation - Fab 8D (U08D) as new fabrication site for selected 24xx102xx and AT24CM01 device families available in various packages.

CCB No: 6631

I. Summary

This report summarizes the results of the qualification stresses performed on the 6682A product. This is a 1-lot qualification considered in conjunction with qualification stress data for 66829 for evaluation by similarity.

II. Conclusion – As summarized below, all qualification tests have been successfully completed for the device Qualification of 6682A4C4XS00 (24CSM01-E/P) in 8LD .300 PDIP assembled at MMT/MTAI. This releases AT24CM01, 24CSM01, 24xx1025, & 24xx1026 as per guidelines established in Microchip specification QCI-39000, "Worldwide Quality Conformance Requirements

III. Device Description

CPN	24CSM01-E/P
MPN	6682A4C4XS00
Assembly Site	MMT
Fab Location	UMC 8D
BD number	BDE-000947-01
Package Pin Count	8
Package Group	PDIP
Package Size	300 mils
LF PN	10100801
Paddle Size	100 x 110 mil
LF Material / Surface Plating	CDA194 / Ag
Process / Lead Lock	Stamped / Yes
Die Attach	CRM-1064L
Bond Wire	CuPdAu
Mold Compound	GE800

IV. Manufacturing Information

Lot	Assembly Lot No.	Wafer Lot No.	Trace Code
1	U08D923378557.500	MMT-235100044.000 QTHW3.05E - scribe 21	2312PSV

V. Qualification Stress Results

Dynamic Life Test (DLT): Early Failure (ELFR)

Test Method	Mil-STD 883, Method 1005
Test Condition	Dynamic Bias with Continuous Read Cycling at 5.5 V / 150C. Test at +25C, -40C, +105C, +125C at 48 hours (or as specified)
Sample (required) / Size / Lot	800 / 1 lot
Results: Fail / Pass	0 / 830 Passed

- Tested at -40C, 25C, 85C, 125C.
- 625 units continued stress for the HTOL 408-hour readpoint. See below.

Dynamic Life Test (DLT): High Temperature Operating Life (HTOL)

Test Method	Microchip QCI-39000; Mil-STD 883, Method 1005
With Precondition:	
Test Condition	Precondition Write Cycle: 100 Cycles / 85°C / 5.5 V. Dynamic Bias with Continuous Read Cycling at 5.5 V / 150C. Tested at 96 and 408 hours.
Sample (required) / Size / Lot	77 / 1 lot
Results: Fail / Pass	0 / 94 Passed
Without precondition:	
Test Condition	Dynamic Bias with Continuous Read Cycling at 5.5 V / 150C. Tested at 24 and 408 hours.
Sample (required) / Size / Lot	600 / 1 lot
Results: Fail / Pass	0 / 625 Passed

- Tested at -40C, 25C, 85C, 125C after endurance precondition and at DLT readpoints.

Data Retention

Test Method	Mil-STD 883, Method 1033
Test Condition	Precondition write cycle: 100 cycles / 85 C / 5.5 V 175C bake for 504 hours. Tested at 96 and 504 hours.
Sample (required) / Size / Lot	231 / 1 lot
Results: Fail / Pass	0 / 246 Passed

- Tested at -40C, 25C, 85C, 125C after endurance precondition and at Retention readpoints.

ESD – Human Body Model (HBM)

Test Method	QCI-30510 / AEC Q100-002 (JS-001)
Test Condition	At 25C, 1 ± Pulse/Voltage at: 250V, 500V, 1kV, 2kV, 3kV, 4kV, 5kV
Required Sample Size	3 per V / 1 lot
Highest Passing Voltage	5000 V

- Tested at 25C, 85C, 125C.

ESD – Charge Device Model (CDM)

Test Method	QCI-30510 / AEC Q100-002 (JS-001 – Table 2B)
Test Condition	At 25C, 1 ± Pulse/Voltage at: 250V, 500V, 750V, 1kV, 1.5kV, 2kV
Required Sample Size / Lot	3 per V / 1 lot
Highest Passing Voltage	2000 V

- Tested at 25C, 85C, 125C.

Latch Up

Test Method	QCI-30521 / AEC Q100-004 (JESD78)
Test Condition	+25C, Itrig = 150mA, Vtrig = 5V +125C, Itrig = 150mA, Vtrig = 5V
Required Sample Size / Lot	6 per temperature / 1 lot
Results	Pass

- Tested at 25C, 85C, 125C.