



Product Change Notification / NTDO-27IGXA459

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**Date:**

31-Oct-2022

**Product Category:**

Memory

**PCN Type:**

Manufacturing Change

**Notification Subject:**

CCB 4649.001 Final Notice: Qualification of MMT as an additional assembly site for selected 24LC256T, 24AA256T and 24FC256T device families available in 8L TDFN (2x3x0.8mm) package.

**Affected CPNs:**

[NTDO-27IGXA459\\_Affected\\_CPN\\_10312022.pdf](#)  
[NTDO-27IGXA459\\_Affected\\_CPN\\_10312022.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 MMT as an additional assembly site for selected 24LC256T, 24AA256T and 24FC256T device families available in 8L TDFN (2x3x0.8mm) package.

**Pre and Post Change Summary:**

	Pre Change	Post Change	
Assembly Site	UTAC Thai	UTAC Thai Limited	Microchip Technology

	Limited (UTL-3)	(UTL-3)	Thailand (Branch) (MMT)
Wire Material	Au	Au	CuPdAu
Die Attach Material	8600	8600	3280
Molding Compound Material	G700LTD	G700LTD	G700LTD
Lead-Frame Material	C194	C194	A194
Lead-Frame Paddle Size	83 x 71 mils	83 x 71 mils	83 x 71 mils
DAP Surface Prep	PPF	PPF	PPF

Note:\*C194, A194 or CDA194 Lead frame material are the same, it is just a MCHP internal labelling difference.

**Impacts to Data Sheet:**None

**Change Impact:**None

**Reason for Change:**To improve productivity by qualifying MMT as an additional assembly site.

**Change Implementation Status:**In Progress

**Estimated First Ship Date:**December 12, 2022 (date code: 2251)

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

**Time Table Summary:**

	October 2022					>	December 2022				
Workweek	4 1	4 2	4 3	4 4	4 5		4 9	5 0	5 1	5 2	5 3
Final PCN Issue Date					x						
Qual Report Availability									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 31, 2022: 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\\_NTDO-27IGXA459\\_Pre and Post Change Summary.pdf](#)  
[PCN\\_NTDO-27IGXA459\\_Qual\\_Report.pdf](#)

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

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**MICROCHIP**

**QUALIFICATION REPORT SUMMARY**  
RELIABILITY LABORATORY

**PCN #: NTDO-27IGXA459**

**Date:**  
**December 14, 2021**

**Qualification of MMT as an additional assembly site for selected 24LC256T, 24AA256T and 24FC256T available in 8L TDFN (2x3x0.8mm) package. This is a qualification by similarity (QBS).**



## MICROCHIP PACKAGE QUALIFICATION REPORT

**Purpose** Qualification of MMT as an additional assembly site for selected 24LC256T, 24AA256T and 24FC256T available in 8L TDFN (2x3x0.8mm) package. This is a qualification by similarity (QBS).

**CN** ES357884  
**QUAL ID** R2100865 Rev A  
**MP CODE** 66829Y5QXD00  
**Part No.** 24CS512T-E/MNY  
**Bonding No.** BDE-006797 Rev. 01  
**CCB** 4649 and 4649.001

### Package

**Type** 8L TDFN  
**Package size** 2x3x0.8 mm

### Lead Frame

**Paddle size** 83 x 71 mils  
**Material** A194  
**Surface** PPF  
**Process** Etched  
**Lead Lock** No  
**Part Number** 10100853

### Material

**Epoxy** 3280  
**Wire** CuPdAu  
**Mold Compound** G700LTD  
**Plating Composition** NiPdAu



# MICROCHIP PACKAGE QUALIFICATION REPORT

## Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-220902227.000	U08D921058103.200	2121TME
MMT-220902225.000	U08D921058103.200	2121QBE
MMT-220902226.000	U08D921058103.200	2121T0H

**Result**       Pass       Fail       \_\_\_\_\_

8L TDFN (2x3x0.8 mm) assembled by MMT 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/S S	Result	Remarks
<b>Precondition Prior Perform Reliability Tests (At MSL Level 1)</b>	<b>Electrical Test:</b> +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22- A113	693(0)	693		Good Devices
	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  <b>Electrical Test:</b> +25°C, 85°C and 125°C  System: NEXTEST_PT	JIP/ IPC/JEDEC J-STD-020E		693  693  693	0/69 3  Pass	
<b>Temp Cycle</b>	<b>Stress Condition:</b> -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H <b>Electrical Test:</b> +85°C and 125°C System: NEXTEST_PT	JESD22- A104	231(0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
	<b>Stress Condition:</b> -65°C to +150°C, 1000 Cycles System: TABAI ESPEC TSA-70H <b>Electrical Test:</b> +85°C and 125°C System: NEXTEST_PT		231(0)	231 0/231	Pass	
	<b>Bond Strength:</b> Wire Pull (> 2.5 grams) Bond Shear (>15.00 grams)		15 (0) 15 (0)	0/15 0/15	Pass Pass	
<b>UNBIASED- HAST</b>	<b>Stress Condition:</b> +130°C/85%RH, 96 hrs. System: HAST 6000X <b>Electrical Test:</b> +25°C System: NEXTEST_PT	JESD22- A118	231(0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
	<b>Stress Condition:</b> +130°C/85%RH, 192 hrs. System: HAST 6000X <b>Electrical Test:</b> + 25°C System: NEXTEST_PT		231(0)	231 0/231	Pass	
<b>HAST</b>	<b>Stress Condition:</b> +130°C/85%RH, 96 hrs. <b>Bias Volt:</b> 5.0 Volts System: HAST 6000X <b>Electrical Test:</b> +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22- A110	231(0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
	<b>Stress Condition:</b> +130°C/85%RH, 192 hrs. <b>Bias Volt:</b> 5.0 Volts System: HAST 6000X <b>Electrical Test:</b> +25°C, 85°C and 125°C System: NEXTEST_PT		231(0)	231 0/231	Pass	

# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
<b>High Temperature Storage Life</b>	<b>Stress Condition:</b> Bake 175°C, 504 hrs System: SHEL LAB	JESD22-A103		45		45 units
	<b>Electrical Test:</b> +25°C, 85°C and 125°C System: NEXTEST_PT		45(0)	0/45	Pass	
<b>Solderability Temp 215°C</b>	<b>Steam Aging:</b> Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.215°C Solder material: SnPb Sn63, Pb37 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD-002	22 (0)	22 22 0/22	Pass	
<b>Solderability Temp 245°C</b>	<b>Steam Aging:</b> 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	
<b>Bond Line Thickness</b>	Bond Line Thickness	SPI-45528	15(0)	15(0)	Pass	5 units / lot
<b>Wire sweep</b>	Wire sweep Inspection 15 Wires / lot	-	45(0) Wires	0/45	Pass	
<b>Physical Dimensions</b>	Physical Dimension, 10 units from 1 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
<b>Bond Strength Data Assembly</b>	Wire Pull (> 2.50 grams)	Mil. Std. 883-2011	30 (0) Wires	0/30	Pass	
	Bond Shear (> 12.60 grams)	CDF-AEC-Q100-001	30 (0) bonds	0/30	Pass	



**CCB 4649.001**  
**Pre and Post Change Summary**  
**PCN #: NTDO-27IGXA459**



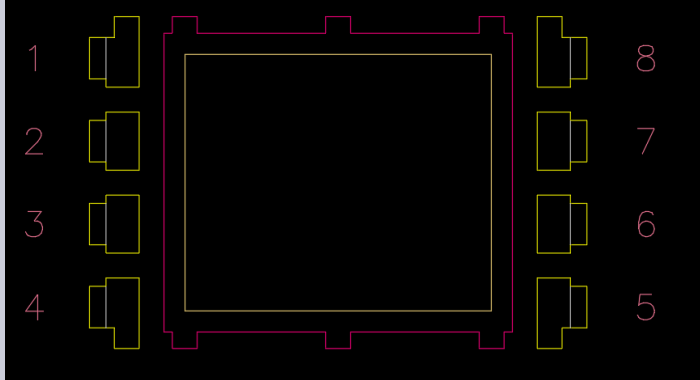
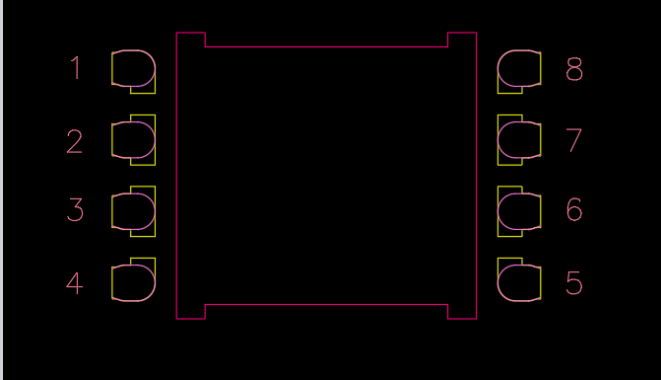
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# LEAD FRAME COMPARISON

	UTL3	MMT
Lead-Frame		
Lead-Frame Material	C194	A194
Lead-Frame Paddle Size	83 x 71 mils	83 x 71 mils
DAP Surface Prep	PPF	PPF

*Note: \*C194, A194 or CDA194 Lead frame material are the same, it is just a MCHP internal labelling difference.*

NTDO-27IGXA459 - CC 24AA256T and 24FC256T device families available in 8L TDFN (2x3x0.8mm) pack

Affected Catalog Part Numbers(CPN)

24LC256T-I/MNY

24AA256T-I/MNY

24FC256T-I/MNY

24LC256T-E/MNY

24AA256T-E/MNY