Product Change Notification / MFOL-28NMYX712

Date:

12-Dec-2022

Product Category:

Interface- Controller Area Network (CAN)

PCN Type:

Manufacturing Change

Notification Subject:

CCB 5167 Final Notice: Qualification of MMT as an additional assembly site for selected MCP2561 and MCP2562 device families available in 8L DFN (3x3x0.9mm) package.

Affected CPNs:

MFOL-28NMYX712_Affected_CPN_12122022.pdf
MFOL-28NMYX712_Affected_CPN_12122022.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 MCP2561 and MCP2562 device families available in 8L DFN (3x3x0.9mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change

Assembly Site	UTAC Thai Limited (UTL-1) LTD. (NSEB)	UTAC Thai Limited (UTL-1) LTD. (NSEB)	Microchip Technology Thailand (Branch) (MMT)
Wire Material	Au	Au	Au/2N
Die Attach Material	8600 / 8200T	8600 / 8200T	3280
Molding Compound Material	G700LTD / G770HCD	G700LTD / G770HCD	G700LTD
Lead-Frame Material	EFTEC-64T	EFTEC-64T	C194
Lead-Frame Lead Lock	No	No	Yes

Impacts to Data Sheet: None

Change Impact: None

Reason for Change: To improve on-time delivery performance by qualifying MMT as an additional assembly site.

Change Implementation Status: In Progress

Estimated First Ship Date: December 28, 2022 (date code: 2253)

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

Time Table Summary:

	July 2022					>	**December 2022**			
Workweek	27	28	29	30	31		50	51	52	53
Initial PCN Issue Date	x									
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: July 01, 2022: Issued initial notification.
December 12, 2022: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on December 28, 2022.

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

Attachments:

PCN_MFOL-28NMYX712_Pre and Post Change Summary.pdf
PCN_MFOL-28NMYZ712_Qual 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.

CCB 5167

Pre and Post Change Summary

PCN# MFOL-28NMYX712

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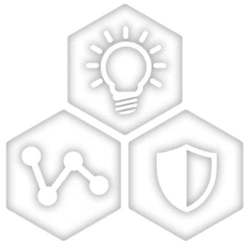
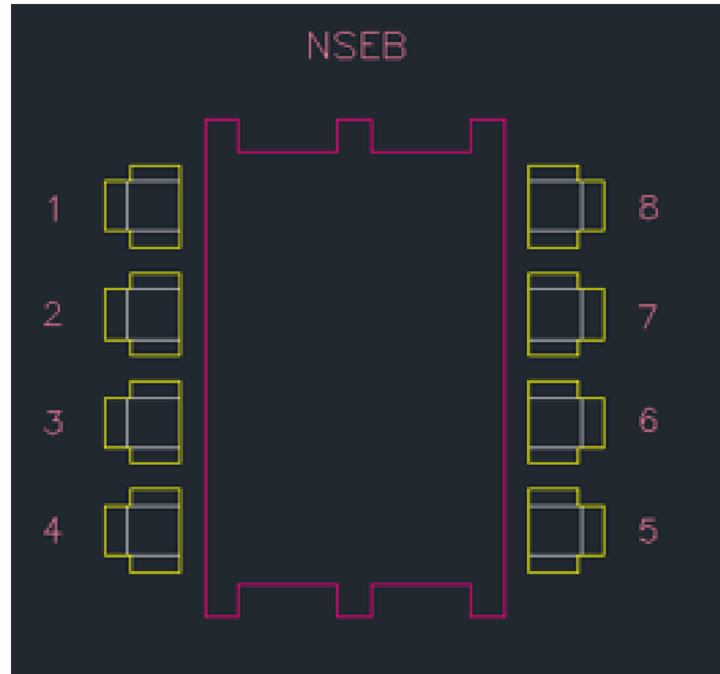
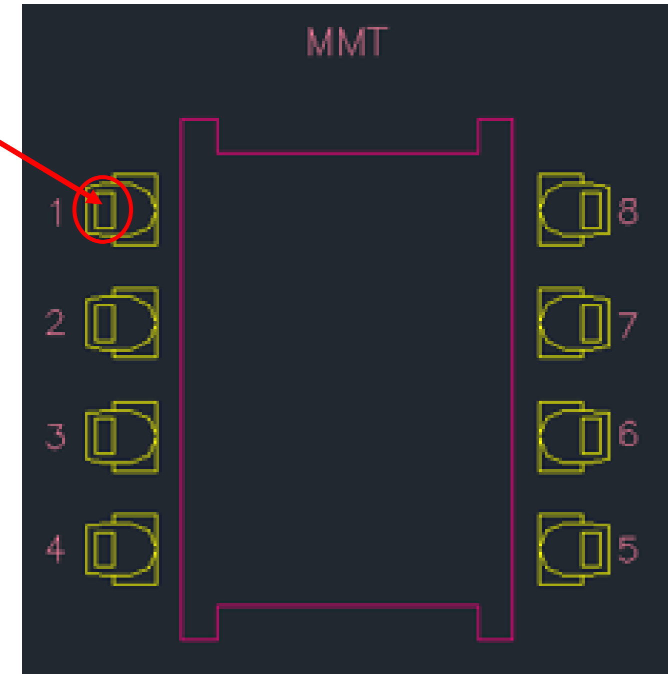


Lead Frame Comparison

NSEB	MMT
	Lead-lock 

Lead-lock	No

Lead-lock	Yes

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

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Affected Catalog Part Numbers (CPN)

MCP2561-E/MF
MCP2561FD-E/MF
MCP2561T-H/MF
MCP2561FDT-H/MF
MCP2561T-H/MFVAO
MCP2561FDT-H/MFVAO
MCP2561-H/MF
MCP2561FD-H/MF
MCP2561-H/MFVAO
MCP2561T-E/MF
MCP2561FDT-E/MF
MCP2562-E/MF
MCP2562FD-E/MF
MCP2562-E/MFVAO
MCP2562FD-E/MFVAO
MCP2562T-H/MF
MCP2562FDT-H/MF
MCP2562-H/MF
MCP2562FD-H/MF
MCP2562T-E/MF
MCP2562FDT-E/MF
MCP2562T-E/MFVAO
MCP2562FDT-E/MFVAO

MICROCHIP

QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN ID#: MFOL-28NMYX712

Date:
November 16, 2022

Qualification of MMT as an additional assembly site for selected MCP2561 and MCP2562 device families available in 8L DFN (3x3x0.9mm) package. This is AEC Q100 Grade 0 qualification.

MICROCHIP

PACKAGE QUALIFICATION REPORT

Purpose	Qualification of MMT as an additional assembly site for selected MCP2561 and MCP2562 device families available in 8L DFN (3x3x0.9mm) package. This is AEC Q100 Grade 0 qualification.
CCB	5167
CN	E000117811
QUAL ID	R2200852 Rev. A
MP CODE	V7BB1MA7XVA1
Part No.	MCP2561-H/MFVAO
Bonding No.	BD-000735 Rev.02
Package	
Type	8L DFN
Package size	3 x 3 x 0.9 mm
Lead Frame	
Paddle size	102 x 71 mils
Material	C194
Surface	Bare Cu
Process	ETCHED
Lead Lock	YES
Part Number	10100851
Material	
Epoxy	3280
Wire	Au/2N wire
Compound	G700LTD
Plating Composition	Matte Sn

MICROCHIP PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-231402746.000	VS01923077102.100	2227J5R
MMT-231501772.000	VS01923077102.100	2228T2E
MMT-231402748.000	VS01923077102.100	2227T20

Result [X] Pass [ ] Fail [ ] ____________________

8L DFN (3x3x0.9 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/SS	Res ult	Remarks
Precondition Prior Perform Reliability Tests (At MSL Level 1)	**Electrical Test:** +25°C, 125°C, 150°C and -40°C System: J750	JESD22-A113	693(0)	0/693		Good Devices
	Bake 150°C, 24 hrs System: CHINEE	JIP/ IPC/JEDEC J-STD-020E		0/693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			0/693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			0/693		
	Electrical Test: +25°C, 125°C and 150°C System: J750		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:** -55°C to +150°C, 1000 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C, 125°C and 150°C System: J750		231(0)	0/231	Pass	77 units / lot
	Stress Condition: -55°C to +150°C, 2000 Cycles System: TABAI ESPEC TSA-70H			231		
	Electrical Test: +25°C, 125°C and 150°C System: J750		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (> 2.50 grams)		15 (0)	0/15	Pass	
	Bond Shear (>15.00 grams)		15 (0)	0/15	Pass	
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: J750		231(0)	0/231	Pass	77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 5.5 Volts System: HAST 6000X	JESD22-A110		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C ,125°C and 150°C System: J750		231(0)	0/231	Pass	77 units / lot

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, 1000 hrs. System: SHEL LAB	JESD22-A103		0/45		
	Electrical Test: +25°C, 125°C and 150°C System: J750		45(0)	0/45	Pass	
Solderability Temp 245°C	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000	J-STD-002	22(0)	0/22		
	Solder Dipping:Solder Temp.245°C Solder material:Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D			0/22		
	Visual Inspection: External Visual Inspection			0/22	Pass	
Physical Dimensions	Physical Dimension, 10 units / 1 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	