



Product Change Notification / LIAL-15QPNY176

Date:

13-Apr-2021

Product Category:

Instrumentation Amplifier, Linear Op Amps, Memory, Temperature Sensors

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4506 Final Notice: Qualification of MMT as an additional assembly site for selected products available in 8L TDFN (2x3x0.8mm) package.

Affected CPNs:

[LIAL-15QPNY176_Affected_CPN_04132021.pdf](#)

[LIAL-15QPNY176_Affected_CPN_04132021.csv](#)

Notification Text:

PCN Status:Final notification.

PCN Type:Manufacturing Change

Microchip Parts Affected:

Please open one of the icons found in the Affected CPNs section above.

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 products available in 8L TDFN (2x3x0.8mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change
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Method to Identify Change:Traceability code

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

Revision History:

December 21, 2020: Issued initial notification.

April 7, 2021: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on April 15, 2021.**April 13, 2021:** Re-issued final notification. Corrected the lead frame lead-lock from Yes to No.

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

Attachments:

PCN_LIAL-15QPNY176 _Pre and Post Change Lead frame comparison.pdf

PCN_LIAL-15QPNY176 Qual Report.pdf

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

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QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: LIAL-15QPNY176

Date
March 17, 2021

Qualification of MMT as an additional assembly site for selected products
available in 8L TDFN (2x3x0.8mm) package.



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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of MMT as an additional assembly site for selected products available in 8L TDFN (2x3x0.8mm) package.
CCB No	4506
CN	ES350779
QUAL ID	R2000987 Rev. A
MP CODE	D5AP1Y5QXB00
Part No.	25AA640AT-E/MNY
Bonding No.	BDM-002778 Rev. A
<u>Package</u>	
Type	8L TDFN
Package size	2x3x0.8 mm
<u>Lead Frame</u>	
Paddle size	83 x 71 mils
Material	A194
Surface	NiPdAu (PPF)
Process	Etched
Lead Lock	No
Treatment	Roughening LF
Part Number	10100853
<u>Material</u>	
Epoxy	3280
Wire	CuPdAu wire
Mold Compound	G700LTD
Plating Composition	NiPdAu (PPF)



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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-213601929.000	GRSM416063167.500	2049RRM
MMT-213701243.000	GRSM416063167.500	2050YDG
MMT-213701244.000	GRSM416063167.500	2050YDK

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/SS	Result	Remarks
<u>Precondition</u> <u>Prior Perform</u> <u>Reliability Tests</u> (At MSL Level 1)	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22-A113	693(0)	693		Good Devices
	Bake 150°C, 24 hrs System: CHINEE	JIP/		693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH	IPC/JEDEC		693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243	J-STD-020E		693		
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT			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: + 25°C ,85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
	Stress Condition: -65°C to +150°C, 1000 Cycles System: TABAI ESPEC TSA-70H			231		
	Electrical Test: + 25°C ,85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (> 2.5 grams) Bond Shear (>15.00 grams)		15 (0) 15 (0)	0/15 0/15	Pass Pass	
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
	Stress Condition: +130°C/85%RH, 192 hrs. System: HAST 6000X			231		
	Electrical Test: +25°C System: NEXTEST_PT		231(0)	0/231	Pass	
HAST	Stress Condition: +130°C/85%RH, 96 hrs. Bias Volt: 5.5 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
	Stress Condition: +130°C/85%RH,192 hrs. Bias Volt: 5.5 Volts System: HAST 6000X			231		
	Electrical Test: + 25°C ,85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	

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, 504 hrs System: SHEL LAB Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22- A103		45		45 units
			45(0)	0/45	Pass	
Wire sweep	Wire sweep Inspection 15 Wires / lot	-	45(0) Wires	0/45	Pass	
Bond Strength Data Assembly	Wire Pull (> 2.5 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	

CCB 4506
Pre and Post Change Lead Frame Comparison
PCN # LIAL-15QPNY176

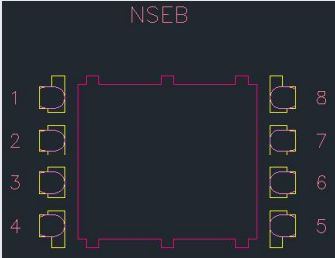
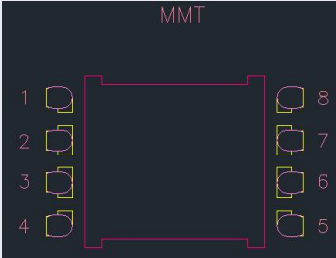


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Lead frame comparison

Pre change	Post Change
NSEB	MMT
 The diagram shows a square lead frame with a central square opening. Eight leads are attached to the perimeter: four on the left (labeled 1, 2, 3, 4 from top to bottom) and four on the right (labeled 8, 7, 6, 5 from top to bottom). The leads are yellow, and the frame is outlined in red.	 The diagram shows a square lead frame with a central square opening. Eight leads are attached to the perimeter: four on the left (labeled 1, 2, 3, 4 from top to bottom) and four on the right (labeled 8, 7, 6, 5 from top to bottom). The leads are yellow, and the frame is outlined in red.

Affected Catalog Part Numbers(CPN)

MCP6V12T-E/MNY
MCP6V17T-E/MNY
MCP6V32T-E/MNY
MCP6V37T-E/MNY
MCP6V82T-E/MNY
MCP6V87T-E/MNY
MCP6V92T-E/MNY
MCP6V62T-E/MNY
MCP6V67T-E/MNY
MCP6V72T-E/MNY
MCP6V77T-E/MNY
24LC32AT-I/MNY
24AA32AT-I/MNY
93LC46AT-I/MNY
93AA46AT-I/MNY
93LC46AT-E/MNY
93LC46BT-I/MNY
93AA46BT-I/MNY
93LC46BT-E/MNY
93C46BT-I/MNY
93C46BT-E/MNY
93C46AT-I/MNY
93C46AT-E/MNY
93LC46CT-I/MNY
93AA46CT-I/MNY
93LC46CT-E/MNY
93LC56CT-I/MNY
93AA56CT-I/MNY
93LC56AT-I/MNY
93AA56AT-I/MNY
93LC56BT-I/MNY
93AA56BT-I/MNY
93LC56CT-E/MNY
93LC56AT-E/MNY
93LC56BT-E/MNY
93LC66CT-I/MNY
93AA66CT-I/MNY
93LC66AT-I/MNY
93AA66AT-I/MNY
93C86CT-E/MNY
25AA320AT-I/MNY100
25AA320AT-I/MNY101

25LC320AT-I/MNY
25AA320AT-I/MNY
25AA320AT-I/MNYB23
25LC320AT-E/MNY
25LC160D-E/MNY
25LC160D-I/MNY
25AA160D-I/MNY
25LC160DT-I/MNY
25AA160DT-I/MNY
25AA160DT-I/MNY-PR
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25LC160CT-E/MNY
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25LC080C-I/MNY
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25LC080CT-I/MNY
25AA080CT-I/MNY
25LC080CT-E/MNY
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25AA640AT-I/MNY
25LC640AT-E/MNY
25AA640AT-E/MNY
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25LC010AT-E/MNY
25LC020AT-I/MNY
25AA020AT-I/MNY
25LC020AT-E/MNY
25LC040AT-I/MNY
25AA040AT-I/MNY
25LC040AT-E/MNY
MCP98242T-BE/MNY
MCP98242T-BE/MNYBA2
MCP98242T-BE/MNYBA3

MCP98242T-BE/MNYBAA
MCP98242T-BE/MNYAB
MCP98242T-BE/MNYBAC
MCP98242T-BE/MNYBAE
MCP98242T-BE/MNYBAF
24LC08BT-I/MNY
24AA08T-I/MNY
24LC08BT-E/MNY
24LC08BHT-I/MNY
24AA08HT-I/MNY
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24LC16BT-I/MNY
24AA16T-I/MNY
24LC16BT-E/MNY
24AA16T-E/MNY
24LC16BHT-I/MNY
24AA16HT-I/MNY
24LC16BHT-E/MNY
24LC32AT-I/MNYA29
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24AA32AFT-I/MNY
24LC32AFT-E/MNY
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24AA64T-I/MNY104
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24AA64T-I/MNY106
24LC64T-I/MNY
24AA64T-I/MNY
24FC64T-I/MNY
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24LC64FT-I/MNY106
24LC64FT-I/MNY
24AA64FT-I/MNY
24FC64FT-I/MNY
24LC64FT-E/MNY
24LC128T-I/MNY
24AA128T-I/MNY
24FC128T-I/MNY
24LC128T-E/MNY
24LC04BT-I/MNY
24AA04T-I/MNY
24LC04BT-E/MNY
24LC04BHT-I/MNY
24AA04HT-I/MNY
24LC04BHT-E/MNY

MCP6N11T-001E/MNY
MCP6N11T-002E/MNY
MCP6N11T-005E/MNY
MCP6N11T-010E/MNY
MCP6N11T-100E/MNY
MCP98243T-BE/MNY
93LC66BT-I/MNY
93AA66BT-I/MNY
93LC66CT-E/MNY
93LC66AT-E/MNY
93LC66BT-E/MNY
93C46CT-I/MNY
93C46CT-E/MNY
93C56CT-I/MNY
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93C56BT-I/MNY
93C56CT-E/MNY
93C56AT-E/MNY
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93C66AT-I/MNY
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93C66AT-E/MNY
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93AA76CT-I/MNY
93LC76CT-E/MNY
93LC86CT-I/MNY
93AA86CT-I/MNY
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93C76CT-I/MNY
93C76CT-E/MNY
93C86CT-I/MNY
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MCP98243T-BE/MNYAB
MCP98208T-E/MNY-GLW08
MCP9843T-BE/MNY
MCP6482T-E/MNY
MCP6492T-E/MNY
MCP6472T-E/MNY
34AA04T-I/MNY
34AA04T-E/MNY