Product Change Notification / RMES-24PXYB706

Date:

26-Aug-2021

Product Category:

Linear Op Amps

PCN Type:

Manufacturing Change

Notification Subject:

CCB 3269.001 Final Notice: Qualification of UTL3 as an additional assembly site for selected MCP60x1, MCP60x2, MCP6232 and MCP64x2 device families available in 8L TDFN (2x3x0.8mm) package.

Affected CPNs:

RMES-24PXYB706_Affected_CPN_08262021.pdf
RMES-24PXYB706_Affected_CPN_08262021.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 UTL3 as an additional assembly site for selected MCP60x1, MCP60x2, MCP6232 and MCP64x2 device families available in 8L TDFN (2x3x0.8mm) 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)	UTAC Thai Limited (UTL-3) (UTL3)
Wire material	Au	Au	Au
Die attach material	8600	8600	8600
Molding compound material	G700LTD	G700LTD	G700LTD
Lead frame material	C194	C194	C194

Impacts to Data Sheet:

None

Change Impact:

None

Reason for Change:

To improve manufacturability and productivity by qualifying UTL3 as an additional assembly site

Change Implementation Status:

In Progress

Estimated First Ship Date:

September 05, 2021 (date code: 2137)

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

Time Table Summary:

	August 2021				September 2021				
Workweek	32	33	34	35	36	37	38	39	40
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: **August 26, 2021:** 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_RMES-24PXYB706_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 #: RMES-24PXYB706

Date:
August 24, 2021

Qualification of 8600 die attach and G700LTD mold compound for selected products available in 8L TDFN package at NSEB assembly site.
The qualification of UTL3 as an additional assembly site for selected MCP60x1, MCP60x2, MCP6232 and MCP64x2 device families available in 8L TDFN (2x3x0.8mm) package will be qualify by similarity (QBS).

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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of 8600 die attach and G700LTD mold compound for selected products available in 8L TDFN package at NSEB assembly site. The qualification of UTL3 as an additional assembly site for selected MCP60x1, MCP60x2, MCP6232 and MCP64x2 device families available in 8L TDFN (2x3x0.8mm) package will be qualify by similarity (QBS).
CN	ES180561
QUAL ID	Q18050 Rev. A
MP CODE	GBBS2Y5QXB00
Part No.	MCP6V08T-E/MNY
Bonding No.	BDM-001662
CCB No.	3269 and 3269.001
<u>Package</u>	
Type	8L TDFN
Package size	2x3x0.8 mm
Die thickness	8 mils
Die size	68.0 x 61.0 mils
<u>Lead Frame</u>	
Paddle size	83 x 71 mils
Material	C194 HDS
Surface	Full PPF
Process	Etched
Lead Lock	Yes
Part Number	FR0345
Treatment	Rough PPF
<u>Material</u>	
Epoxy	8600
Wire	Au wire
Mold Compound	G700LTD
Plating Composition	NiPdAu

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
NSEB184600460.000	TMPE217178915.200	18061GA
NSEB184600463.000	TMPE217178915.200	18061GD
NSEB184600467.000	TMPE217178915.200	18061GM

Result [X] Pass [ ] Fail [ ] ____________________

8L TDFN (2x3x0.8mm) assembled by UTL-3 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-020D 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-020D)	IPC/JEDEC J-STD-020D	135	0/135	Pass	
Precondition Prior Perform Reliability Tests (At MSL Level 1)	**Electrical Test :**+25°C,85°C and 125°C System: TTS1000	JESD22-A113	693(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: TTS1000			0/693	Pass	
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: TTS1000		231(0)	0/231	Pass	77 units / lot
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: TTS1000		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		231		Parts had been pre-conditioned at 260°C
	Electrical Test:+25°C,85°C and 125°C System: TTS1000		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, 504 hrs System: SHEL LAB **Electrical Test :**+25°C,85°C and 125°C System: TTS1000	JESD22-A103	 45(0)	45 0/45	 Pass	45 units
Solderability Temp 245°C	**Steam Aging:** Temp 93°C,1Hrs 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	
Physical Dimensions	Physical Dimension, 10 units from 1 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (> 2.0 grams)	M2011	30 (0) Wires	0/30	Pass	
	Bond Shear (>13.00 grams)	JESD22-B116	30 (0) bonds	0/30	Pass	

RMES-24PXYB706 - CCB 3269.00 MCP60x2 MCP6232 and MCP64x2 device families available in 8L TDFN (2x3x0.

Affected Catalog Part Numbers(CPN)

MCP6051T-E/MNY
MCP6061T-E/MNY
MCP6071T-E/MNY
MCP6052T-E/MNY
MCP6062T-E/MNY
MCP6072T-E/MNY
MCP6232T-E/MNY
MCP6402T-E/MNY
MCP6442T-E/MNY