

Product / Process Change Notification JLIO-7MCTR5

The information below reflects a change that is being implemented.

Notice Date: 12/17/2008

Product Category: Battery Management; Linear Devices; Mixed Signal Devices; Power Management; Thermal Management

Notification Subject: CCB#869: QUALIFICATION OF 8L & 10L MSOP WITH 8200T EPOXY AND G600 MOLD COMPOUND AT UTL ASSEMBLY

Notification Body:

PCN Status:
Initial Notification

Microchip Part#s Affected (please see the link for these files at the end of this PCN):
[CCB#869_Microchip Catalog Part#s Affected.xls](#)
[CCB#869_Microchip Catalog Part#s Affected.pdf](#)

Description of Change:
Change in bill of materials

Pre-Change:
Mold compound: KMC 184-7
Die attach epoxy: 84-1LMISR4

Post-Change:
Mold compound: G600
Die attach epoxy: 8200T

Impacts to Data Sheet:
None

Reason for Change:
To improve manufacturability

Change Implementation Status:
In progress

Estimated Change Implementation Date(s):
February 28th, 2009 (Date Code: 0909)

NOTE: Please be advised that during a transition period you may receive parts with either bill of materials, due to existing inventory of the original bill of materials.

Markings to Distinguish Revised From Unrevised Devices: (e.g.: Date Code, Device Marking, Ship Container Marking)
Traceability code

Attachment(s):

CCB#869 Microchip Catalog Part#s Affected.pdf PCN JL10-7MCTR5 10L MSOP UTL CCB#869 Qual Plan.pdf

CCB#869_Microchip Catalog Part#s Affected.xls



MICROCHIP

QUALIFICATION PLAN

CCB#: 869
PCN#: JLIO-7MCTR5

Date:
November 20, 2008

Qualification of 8L MSOP and 10L MSOP
With 8200T Epoxy and G600 Mold Compound
at
UTL (NSEB) Assembly

Distribution

Surasit P.
Wanphen L.
Wichai K.
Chaweng W..

Rangsun K.
A. Navarro
R. Sharma

Microchip Technology (Thailand) Co.,Ltd.
14 Moo 1 T.Wangtakien A. Muangchacherngsao,
Chacherngsao, Thailand,24000
Tel. (6638) 857119-45, 857311-19 ext. 1231
Fax (6638) 857149-50

Purpose: _____ To qualify 10L MSOP using 8200T die attach epoxy and G600 Mold Compound at UTL (NSEB) assembly. 8L MSOP is qualified by similarity.

Mask: _____ GBBA1BE3XPI0

Part No.: _____ TC1303B-PI0EUN

Bonding No.: _____ BDE-000728 Rev 02

Package:

Type _____ 10L MSOP

Die thickness: _____ 8 mils

Die size: _____ 63.00 x 83.60 mils

Lead frame:

Paddle size: _____ 82 x 94 mils

Material _____ C7025 / Possehl (Hongkong)

Surface _____ Ag spot plating

Process _____ Stamped

Lead Lock _____ Yes

Part Number _____ FM0009

Wire:

Material _____ Au

Wire Diameter _____ 1.0 mil / Tanaka (Malaysia)

Die Attach Epoxy:

Part Number _____ 8200T / Ablestik (USA)

Conductive _____ Yes

Mold Compound: _____ G600 / Sumitomo (Singapore)

Reliability Test plan: _____ See attached, STD Package Reliability Test plan for 10L MSOP with Green/HALOGEN-FREE BOM at UTL

Package Reliability Tests								
Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Quantity of Lots	Total Units	Fail Accept #	Est. Dur. Days	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	Cpk > 1.33 or 0 fails after TC	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	Cpk > 1.33	5	30 bonds from a min. 5 devices.
External Visual	Mil. Std. 883-2009/2010	ALL	0	3	ALL	0	5	All devices prior to submission for qualification testing
Preconditioning - * Required for surface mount devices	+150°C Bake for 24 hours, moisture loading requirements per MSL level + 3X reflow at peak reflow temperature per Jedec-STD-020C for package type; Electrical test pre and post stress at +25°C	231	15	3	738	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test.

Package Reliability Tests								
Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Quantity of Lots	Total Units	Fail Accept #	Est. Dur. Days	Special Instructions
HAST *	+130 °C/85% RH for 96 hours. Electrical test pre and post stress at +25 and +85 °C.	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Autoclave *	+121 °C/15 psig for 96 hours. Electrical test pre and post stress at +25 °C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle*	-65 °C to +150 °C for 500 cycles. Electrical test pre and post stress at +85 °C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

Microchip Catalog Part#s Affected

MCP1256-E/UN
MCP1256T-E/UN
MCP1257-E/UN
MCP1257T-E/UN
MCP1257T-E/UNV01
MCP1258-E/UN
MCP1258T-E/UN
MCP1259-E/UN
MCP1259T-E/UN
MCP1653R-E/UN
MCP1653RT-E/UN
MCP1653S-E/UN
MCP1653ST-E/UN
MCP3423-E/UN
MCP3423T-E/UN
MCP4232-103E/UN
MCP4232-104E/UN
MCP4232-502E/UN
MCP4232-503E/UN
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MCP4262T-503E/UN
MCP4632-103E/UN
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MCP4632-502E/UN
MCP4632-503E/UN

Microchip Catalog Part#s Affected

MCP4632T-103E/UN
MCP4632T-104E/UN
MCP4632T-502E/UN
MCP4632T-503E/UN
MCP4642-103E/UN
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MCP73833-6SI/UN
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MCP73833-B6I/UN
MCP73833-BZI/UN
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MCP73833T-G8I/UN
MCP73833T-GPI/UN
MCP73833T-NVI/UN
MCP73833T-YAI/UN
MCP73834-6SI/UN

Microchip Catalog Part#s Affected

MCP73834-B6I/UN
MCP73834-CNI/UN
MCP73834-FCI/UN
MCP73834-G8I/UN
MCP73834-GPI/UN
MCP73834-NVI/UN
MCP73834-YAI/UN
MCP73834T-6SI/UN
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MCP73834T-CNI/UN
MCP73834T-FCI/UN
MCP73834T-G8I/UN
MCP73834T-GPI/UN
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TC1303A-PP3EUN
TC1303A-PP3EUNTR
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TC1303A-ZI0EUN
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TC1303B-PA0EUN
TC1303B-PA0EUNTR
TC1303B-PF0EUN
TC1303B-PF0EUNTR
TC1303B-PG0EUN
TC1303B-PG0EUNTR

Microchip Catalog Part#s Affected

TC1303B-PI0EUN
TC1303B-PI0EUNTR
TC1303B-VS0EUN
TC1303B-VS0EUNTR
TC1303B-ZA0EUN
TC1303B-ZA0EUNTR
TC1303B-ZI0EUN
TC1303B-ZI0EUNTR
TC1303B-ZP0EUN
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TC654EUN
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TC665EUN

Microchip Catalog Part#s Affected
TC665EUNTR