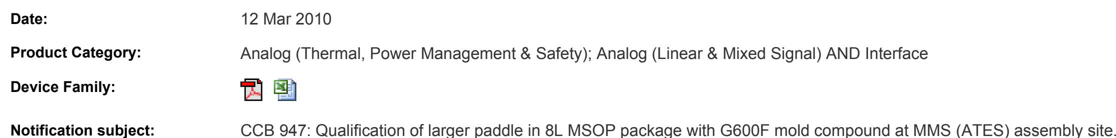

Product Change Notification - CYER-11OSAZ739

Date: 12 Mar 2010

Product Category: Analog (Thermal, Power Management & Safety); Analog (Linear & Mixed Signal) AND Interface

Device Family:

Notification subject: CCB 947: Qualification of larger paddle in 8L MSOP package with G600F mold compound at MMS (ATES) assembly site.

Notification text:

PCN Status:
Initial notification

Microchip Part#s Affected:
See attachments of Affected Part Numbers Labeled as…
PCN_CYER-11OSAZ739_CPN_Affected.xls
PCN_CYER-11OSAZ739_CPN_Affected.pdf

Description of Change:
Qualification of larger paddle in 8L MSOP package with G600F mold compound at MMS (ATES) assembly site.

Pre Change:
Mold compound: MP8000CH4. Paddle size: 68 x 94 mils paddle

Post Change:
Mold Compound: G600F. Paddle size: 71 x 96 mils paddle

Impacts to Data Sheet:
None

Reason for Change:
To improve manufacturability

Change Implementation Status:
In Progress

Estimated First Ship Date:
May 20, 2010 (Date code 1021)

NOTE: Please be advised that during the transition period customers may receive pre and post change parts, due to existing inventory of the pre changed parts.

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

Attachment(s):
PCN_CYER-11OSAZ739_CPN_Affected.pdf
PCN_CYER-11OSAZ739_CPN_Affected.xls
PCN_CYER-11OSAZ739_Qual Plan.pdf

Terms and Conditions:

If you wish to change your product/process change notification (PCN) profile please log on to our website at http://www.microchip.com/PCN sign into myMICROCHIP to open the myMICROCHIP home page, then select a profile option from the left navigation bar.

To opt out of future offer or information emails (other than product change notification emails), click here to go to microchipDIRECT and login, then click on the "My account" link, click on "Update profile" and un-check the box that states "Future offers or information about Microchip's products or services."

Parts Affected

MCP1252-33X50
MCP1252-ADJ
MCP1253-33X50
MCP1253-ADJ
MCP1253
MCP1601
MCP1650
MCP1651
MCP1652
MCP3001
MCP3002
MCP3201
MCP3202
MCP3301
MCP4921
MCP6002
MCP6042
MCP6141
MCP6142
MCP616
MCP617
MCP618
MCP6231
MCP6232
MCP6241
MCP6242
MCP6273
MCP6275
MCP6281
MCP6282
MCP6285
MCP6291
MCP6292
MCP6293
MCP6295
MCP6541
MCP6542
MCP6543
MCP6546
MCP6547
MCP6548
MCP6L02
MCP6L2

MCP6L92
MCP6S91
MCP6S92
MCP9801
TC1026
TC1029
TC1041
TC1107
TC1121
TC1173
TC1174
TC1266
TC1300
TC1301A
TC1301B
TC1302A
TC1302B
TC1320
TC1321
TC1410
TC1410N
TC1411
TC1411N
TC4426A
TC4427A
TC4428A
TC642B
TC646B
TC647B
TC648B
TC649B
TC650
TC651
TC652
TC653
TC72
TCN75
MCP73828
MCP73843
MCP73844

MICROCHIP

QUALIFICATION PLAN

PCN#: CYER-11OSAZ739

Date:
Feb 18, 2010

Qualification of G600F Mold Compound and Larger Paddle in 8L MSOP Package at MMS (ATES) Assembly Site

Distribution

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Purpose: Qualification of G600F mold compound and larger paddle in 8L MSOP package at MMS (ATES) assembly site.

MP code: ____ Y2AJ1BA3XC00

Part No.: ____ TC4426EUA

CCB: ____ 947

Package:

Type ____ 8L MSOP

Width or Size ____ 3x3 mm

Die thickness: ____ 8 mils

Die size: ____ 78.0x 62.0 mils

Lead frame:

Paddle size: ____ 71 x 96 mils

Material ____ C194

Surface ____ Ag spot plating

Process ____ Stamped

Lead Lock ____ No

Part Number ____ FM0105

Wire:

Material ____ Au / Heraeus (China)

Die Attach Epoxy:

Part Number ____ 84-1LMISR4 / Ablestik (China)

Conductive ____ Yes

Mold Compound: ____ G600F / Sumitomo (China)

Reliability Test plan: ____ See attached, STD Package Reliability Test plan on each package.

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 Qty**	**Est. Dur. Days**	**Special Instructions**
Standard Pb-free Solderability	JESD22B-102E; Perform 8 hour steam aging for Matte tin finish and 1 hr steam aging for NiPdAu finish prior to testing. Standard Pb-free: Matte tin/ NiPdAu finish, SAC solder, wetting temp 245°C for both SMD & through hole packages.	22	5	1	27	> 95% lead coverage	5	

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 Qty**	**Est. Dur. Days**	**Special Instructions**
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5	30 bonds from a min. 5 devices.
Wire Sweep								Required for any reduction in wire bond thickness.
External Visual	Mil. Std. 883-2009/2010	ALL	0	3	ALL	0	5	

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 Qty	Est. Dur. Days	Special Instructions
HTSL (High Temp Storage Life)	+175 C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at +25C and hot temp.	45	5	3	150	0	10	Must be in progress at time of package release to production, but completion is not required for release to production.
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. Perform SAM analysis using the standard sample size. MSL1 @ 260°	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 Qty**	**Est. Dur. Days**	**Special Instructions**
HAST *	+130 deg C/85% RH for 96 hours. Electrical test pre and post stress at +25 and hot temp.	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Autoclave *	+121 deg C/15 psig for 96 hours. Electrical test pre and post stress at +25 deg 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 hot temp; 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.