





Product Change Notification - CYER-110SAZ739

Date: 25 Jun 2010
Product Category: Analog (Linear & Mixed Signal) AND Interface; Analog (Thermal, Power Management & Safety)
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:
Final notification

Microchip Part#s Affected:
See attachments of Affected Part Numbers Labeled as...
PCN_CYER-110SAZ739_CPN_Affected.xls
PCN_CYER-110SAZ739_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:
July 30, 2010 (Date code 1031)

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-110SAZ739_Affected_CPN.xls](#)
[PCN_CYER-110SAZ739_CPN_Affected.pdf](#)
[PCN_CYER-110SAZ739_Qual Report.pdf](#)

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MICROCHIP

QUALIFICATION REPORT
RELIABILITY LABORATORY

PCN#: CYER-110SAZ739

Date
June 09, 2010

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

Distribution

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MICROCHIP PACKAGE QUALIFICATION REPORT

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

CN	BC100618
QUAL ID	Q10037
MP CODE	Y2AJ1BA3XC00
Part No.	TC4426EUA
Bonding No.	A-022842 Rev. B
CCB	947
<u>Package</u>	
Type	8L MSOP
Package size	3x3 mm
Die thickness	8 mils
Die size	78.00 x 62.00 mils
<u>Lead Frame</u>	
Paddle size	71 x 96 mils
Material	C194 / ASM (China)
Surface	Ag Spot Plating
Process	Stamped
Lead Lock	No
Part Number	FM0105
<u>Die attach material</u>	
Epoxy	84-1 LMISR4 / Ablestik (China)
Wire	Au wire / Heraeus (China)
Mold Compound	G600F / Sumitomo (China)
Plating Composition	Matte Tin



MICROCHIP PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Trace Code
ATES105100306	TMPE210437295.600	1012YE3
ATES105200001	TMPE210437295.600	1013YE4
ATES105200002	TMPE210437295.600	1013YE5

Result

Pass Fail _____

8L MSOP assembled by MMS (ATES) 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-020C standard.

Prepared By: _____) Date: June 09, 2010 (Reliability Engineer)

(Mr. Udom Suksansakul)

Approved By: _____) Date: June 09, 2010 (Reliability Manager)

(Mr. Surasit Phurikhup)

PACKAGE QUALIFICATION REPORT

Qual Report : Q10037

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
<u>MSL</u>								
MSL Level 1/260°C	85°C/ 85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 260°C max System: Vitronics Soltec MR1243 (IPC/JEDEC J-STD-020C)	S12/14/16 (PDC)	135	05/04/10	05/13/10	0/135	Pass	
<u>Precondition</u>								
Electrical Test	Electrical Test :+25°C and 125°C System: TTS	S12/14/16 (PDC)	693(0)	04/27/10	04/30/10	693		Good Devices
Bake	Bake 150°C, 24 hrs System: CHINEE	PI-92014B		05/04/10	05/05/10	693		
Moisture Soak	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH	PI-91173B		05/06/10	05/13/10	693		
Convection-Reflow	3x Convection-Reflow 260°C max System: Vitronics Soltec MR1243	PI-91160B		05/13/10	05/13/10	693		
Electrical Test	Electrical Test :+25°C and 125°C System: TTS	S12/14/16 (PDC)		05/13/10	05/14/10	0/693	Pass	

PACKAGE QUALIFICATION REPORT

Qual Report : Q10037

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
Temp Cycle	Stress Condition: -65°C to +150°C, 500 Cycles System : TABAI ESPEC TSA-70H Inspection: External crack inspection all units under 40X Optical magnification	PI-91020B		05/15/10	05/27/10	231		Parts had been pre-conditioned at 260°C
		QCI-33003	30(0)	05/27/10	05/27/10	0/30		
	Electrical Test: +125°C System: TTS	S12/14/16 (PDC)	231(0)	05/27/10	05/29/10	0/231	Pass	77 units / lot
	Bond Strength: Bond Shear (12.40 grams) Wire Pull (> 3 grams)	QCI-91022	15 (0) 15 (0)	05/29/10 05/29/10	05/29/10 05/29/10	0/15 0/15	Pass Pass	
Pressure Cooker	Stress Condition: +121°C, 100% RH, 15 PSI, 96 hrs. System: HIRAYAMA TPC-422R	PI-92013B		05/17/10	05/21/10	231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: TTS	S12/14/16 (PDC)	231(0)	05/21/10	05/22/10	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Qual Report : Q10037

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X	PI-92010B		05/17/10	05/21/10	231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C and 125°C System: TTS	S12/14/16 (PDC)	231(0)	05/21/10	05/22/10	0/231	Pass	77 units / lot
Solderability Temp 245°C	Steam Aging: Temp 93°C, 8Hrs 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	QCI-31003	22 (0)	05/04/10 05/05/10 05/05/10	05/04/10 05/05/10 05/05/10	22 22 0/22	Pass	
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs System: CHINEE Electrical Test: +25°C and 125°C System: TTS	PI-92014B S12/14/16 (PDC)	135(0)	05/15/10 05/27/10	05/27/10 05/29/10	135 0/135	Pass	45 units / lot
Bond Strength Data Assembly	Bond Shear (12.40 grams) Wire Pull (> 3 grams)	QCI-91022	30 (0) bonds 30 (0) wires	- -	- -	0/30 0/30	Pass Pass	

CATALOG_PART_NBR
MCP1252-33X50I/MS
MCP1252-ADJI/MS
MCP1252T-33X50I/MS
MCP1252T-ADJI/MS
MCP1253-33X50I/MS
MCP1253-ADJI/MS
MCP1253T-33X50I/MS
MCP1253T-ADJI/MS
MCP1601-I/MS
MCP1601T-I/MS
MCP1650R-E/MS
MCP1650RT-E/MS
MCP1650S-E/MS
MCP1650ST-E/MS
MCP1651R-E/MS
MCP1651RT-E/MS
MCP1651S-E/MS
MCP1651ST-E/MS
MCP1652R-E/MS
MCP1652RT-E/MS
MCP1652S-E/MS
MCP1652ST-E/MS
MCP3001-I/MS
MCP3002-I/MS
MCP3201-CI/MS
MCP3201T-CI/MS
MCP3202-CI/MS
MCP3202T-CI/MS
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MCP3301T-BI/MS
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MCP9801-M/MSRC2
MCP9801T-M/MS
MCP9801T-M/MSRC2
TC1026CEUA
TC1026CEUART
TC1026CEUATR
TC1029EUA
TC1029EUATR
TC1029EUATR-SAM
TC1041CEUA
TC1041CEUATR
TC1041CEUATRAAA
TC1107-2.5VUA
TC1107-2.5VUATR
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TC1107-2.7VUATR
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TC1107-2.8VUATR
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TC1173-3.0VUA
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TC1300Y-2.7VUA
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TC1301A-AAAVUA
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TC72-2.8MUATRB34
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TC72-3.3MUATR
TC72-5.0MUA
TC72-5.0MUATR
TCN75-3.3MUA
TCN75-3.3MUA713
TCN75-5.0MUA
TCN75-5.0MUA713