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Product Change Notification - CYER-19MGTD414

Date: 19 Apr 2010

Product Category: Memory; Analog (Linear & Mixed Signal) AND Interface; Analog (Thermal, Power Management & Safety); 8-bit Microcontrollers

Device Family: 

Notification subject: CCB# 960: Qualification of 8L DFN (4x4) package with CRM1076DJ die attach and G770HCD mold compound at UNIS assembly site.

Notification text:

PCN Status:
Final notification

Microchip Part#s Affected:
See attachments of Affected Part Numbers Labeled as...
PCN_CYER-19MGTD414_CPN_Affected.xls
PCN_CYER-19MGTD414_CPN_Affected.pdf

Description of Change:
Qualification of 8L DFN (4x4) package with CRM1076DJ die attach and G770HCD mold compound at UNIS assembly site.

Pre Change:
8290 die attach & G770HT mold compound

Post Change:
CRM1076DJ die attach & G770HCD mold compound

Impacts to Data Sheet:
None

Reason for Change:
To improve on-time delivery performance

Change Implementation Status:
In Progress

Estimated First Ship Date:
May 28, 2010 (Date code 1022)

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-19MGTD414_Affected_CPM.pdf](#)
[PCN_CYER-19MGTD414_Affected_CPM.xls](#)
[PCN_CYER-19MGTD414_Qual Report.pdf](#)

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Parts Affected

24AA16
24AA32A
24AA64
24LC16B
24LC32A
24LC64
25AA010A
25AA020A
25LC010A
25LC020A
MCP2021
MCP4011
MCP6V02
MCP6V07
MCP73832
MCP9804
MCP9805
MCP98242
PIC10F220
PIC12F510
PIC12F519
PIC12F609
PIC12F615
PIC12F629
PIC12F635
PIC12F675
PIC12F683



QUALIFICATION REPORT
RELIABILITY LABORATORY

PCN#: CYER-19MGTD414

Date:
March 19, 2008

Qualification of 44L QFN (8x8) with CRM1076DJ die attach and G770HCD mold compound at UNIS assembly site. Qualify 28L QFN (6x6), 28L QFN-S (6x6), 20L QFN (4x4) and the **8L DFN (4x4)** by similarity

Distribution

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MICROCHIP PACKAGE QUALIFICATION REPORT

Purpose	Qualification of 44L QFN (8x8) with CRM1076DJ die attach and G770HCD mold compound at UNIS assembly site. Qualify 28L QFN (6x6), 28L QFN-S (6x6), 20L QFN (4x4) and the 8L DFN (4x4) by similarity.
CN	BC072896
QUAL ID	Q08002
MP CODE	DFAD17T3XA20
Part No.	DSPIC30F4011-20I/ML
Bonding No.	A-018103 Rev. A
CCB#	960
<u>Package</u>	
Type	44L QFN
Package size	8x8x0.9 mm
Die thickness	11 mils
Die size	161.8 x 213.4 mils
<u>Lead Frame</u>	
Paddle size	268 x 268 mils
Material	Possehl - A194 (Hong Kong)
Surface	Bare copper
Process	Etched
Lead Lock	Yes
Part Number	421989
<u>Die attach material</u>	
Epoxy	Sumitomo - CRM1076DJ (Singapore)
Wire	Tanaka - Au wire (Malaysia)
Mold Compound	Sumitomo - G770HCD (Singapore)
Plating Composition	Matte Tin



MICROCHIP PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assemble Lot No.	Wafer Lot No.	Trace Code
UNIS083600119	TMPE208124908.100	07493BQ
UNIS083600120	TMPE208124908.100	07493BR
UNIS083700001	TMPE208124908.100	075000U

Result

Pass Fail _____

44L QFN assembled by UNIS 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: Thinnapol N. Date: March 19, 2008 (Reliability Engineer)

Approved By: Surasit P. Date: March 19, 2008 (Reliability Manager)

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: HELLER (1808 EXL) (IPC/JEDEC J-STD-020C)	S12/14/16 (PDC)	135	01/21/08	02/03/08	0/135	Pass	
<u>Precondition</u>								
Electrical Test	Electrical Test :+25°C and 85°C System: J750	S12/14/16 (PDC)	693(0)	01/07/08	01/18/08	693		Good Devices
Bake	Bake 150°C, 24 hrs System: CHINEE	PI-92014B		01/21/08	01/21/08	693		
Moisture Soak	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH	PI-91173B		01/22/08	01/23/08	693		
Convection-Reflow	3x Convection-Reflow 260°C max System: HELLER (1808 EXL)	PI-91160B		01/23/08	01/30/08	693		
Electrical Test	Electrical Test :+25°C and 85°C System: J750	S12/14/16 (PDC)		01/30/08	02/03/08	0/693	Pass	

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
<u>Temp Cycle</u>	Stress Condition: -65°C to +150°C, 500 Cycles System : TABAI ESPEC TSA-70H	PI-91020B		02/02/08	02/14/08	231		Parts had been pre-conditioned at 260°C
	Inspection: External crack inspection all units under 40X Optical magnification	QCI-33003	30(0)	02/14/08	02/14/08	0/30		
	Electrical Test: +85°C System: J750	S12/14/16 (PDC)	231(0)	02/14/08	02/14/08	0/231	Pass	77 units / lot
	Bond Strength: Bond Shear (19.20 grams) Wire Pull (> 3 grams)	QCI-91022	15 (0) 15 (0)	02/14/08 02/14/08	02/15/08 02/15/08	0/15 0/15	Pass Pass	
<u>Pressure Cooker</u>	Stress Condition: +121°C, 100%RH, 15 PSI, 96 hrs. System: TABAI ESPEC TPC-421	PI-92013B		02/04/08	02/08/08	231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: J750	S12/14/16 (PDC)	231(0)	02/08/08	02/11/08	0/231	Pass	77 units / lot
<u>HAST</u>	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X	PI-92010B		02/16/08	02/20/08	231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C and 85°C System: J750	S12/14/16 (PDC)	231(0)	02/20/08	02/28/08	0/231	Pass	77 units / lot
<u>Bond Strength</u> <u>Data Assembly</u>	Bond Shear (19.20 grams)	QCI-91022	30 (0) bonds	-	-	0/30	Pass	
	Wire Pull (> 3 grams)		30 (0) wires	-	-	0/30	Pass	