

23 Sep 2010

[CCB 990.02: Qualification of 8 & 14L SOIC packages with SG-8300GM mold compound at MTAI assembly site.](#)

PCN Status:

Initial notification

Microchip Part#s Affected:

See attachments of affected catalog part numbers (CPN) labeled as...

[PCN_CYER-22VQEA101_Affected_CPN.xls](#)

[PCN_CYER-22VQEA101_Affected_CPN.pdf](#)

Description of Change:

Qualification of 14L SOIC package with SG-8300GM mold compound at MTAI assembly site and the 8L SOIC package will qualify by similarity.

Pre Change:

G600V

Post Change:

SG-8300GM

Impacts to Data Sheet:

None

Reason for Change:

To improve productivity

Change Implementation Status:

In Progress

Estimated First Ship Date:

December 15, 2010 (Date code 1051)

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

Attachments:

[PCN_CYER-22VQEA101_Affected_CPN.pdf](#)

[PCN_CYER-22VQEA101_Affected_CPN.xls](#)

[PCN_CYER-22VQEA101_Qual Plan.pdf](#)

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Parts Affected

11AA010
11AA020
11AA02E48
11AA040
11AA080
11AA160
11LC010
11LC020
11LC040
11LC080
11LC160
23A256
23A640
23K256
23K640
24AA00
24AA01
24AA014
24AA014H
24AA01H
24AA02
24AA024
24AA024H
24AA025
24AA025E48
24AA02E48
24AA02H
24AA04
24AA04H
24AA08
24AA08H
24AA128
24AA16
24AA16H
24AA256
24AA32A
24AA32AF
24AA512
24AA52
24AA64
24AA64F
24C00
24C01C

24C02C
24C08B
24FC128
24FC256
24FC512
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24LC00
24LC014
24LC014H
24LC01B
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24LC024
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24LC16BH
24LC21
24LC21A
24LC22A
24LC256
24LC32A
24LC32AF
24LC512
24LC64
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24LCS21A
24LCS22A
24LCS52
24VL014
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24VL024
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24VL025
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34VL02

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MCP1406
MCP1407
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MCP14700
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MCP14E4
MCP14E5
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MCP25055

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MCP3302
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MCP3428
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MCP3550-60
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MCP41050
MCP41100
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MCP6S92
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MCP6V02
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PIC12F683

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PIC16F506
PIC16F526
PIC16F610
PIC16F616
PIC16F630
PIC16F636
PIC16F676
PIC16F684
PIC16F688
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TC1041
TC1044S
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TC1427
TC1428
TC3400
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TC428
TC429
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TC4405

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TC4422A
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TC4426A
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TC4451
TC4452
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TC642B
TC646
TC646B
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TC648B
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TC649B
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TC7660
TC7660H
TC7660S
TC7662B
TC77
TC9400
TCN75
TCN75A





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Product Change Notification - CYER-22VQEA101

Date: 23 Sep 2010

Product Category: Memory; RF and Security; Analog (Thermal, Power Management & Safety); Analog (Linear & Mixed Signal) AND Interface; Touch Sensing Technologies; Radio Frequency Devices; 8-bit Microcontrollers

Device Family:  

Notification subject: CCB 990.02: Qualification of 8 & 14L SOIC packages with SG-8300GM mold compound at MTAI assembly site.

Notification text:

PCN Status:
Initial notification

Microchip Part#s Affected:
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Post Change:
SG-8300GM

Impacts to Data Sheet:
None

Reason for Change:
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Change Implementation Status:
In Progress

Estimated First Ship Date:
December 15, 2010 (Date code 1051)

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MICROCHIP

QUALIFICATION PLAN

RELIABILITY LABORATORY

PCN: CYER-22VQEA101

Date:

Aug 9, 2010

Qualification of 14L SOIC package with SG-8300GM mold compound at MTAI assembly site and the 8L SOIC package will qualify by similarity

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Purpose _____ Qualification of 14L SOIC package with SG-8300GM mold compound at MTAI assembly site and the 8L SOIC package will qualify by similarity

MP Code _____ C5033TD3XB04

Part No. _____ PIC16F676

CCB No. _____ 990.02

Package Type _____ 14L SOIC 150"

Die Thickness _____ 15 mils

Lead frame _____ A194

Die Size _____ 81.9 x 98.5 mils

Paddle Size _____ 95 x 155 mils

Surface _____ Ag ring plating

Process _____ Stamped

Lead Lock _____ No

Die Attach Epoxy _____ 8390A

Compound _____ SG-8300GM (supplier: Samsung)

Plating composition _____ Matte Sn

Test Name	Conditions	Reliability Stress Read Point -40°C to +85°C datasheet operating range (Temp)	Pre & Post Reliability Stress Test Temperature (°C) -40°C to +85°C datasheet operating range (Temp)	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Duration (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	0	5	30 bonds from a min. 5 devices.
External Visual										
External Visual	Mil. Std. 883-2009/2010			All devices prior to submission for qualification testing	0	3	ALL	0	5	
HTSL (High Temp Storage Life)										
HTSL (High Temp Storage Life)	+175°C	500 hrs	+25 +85	45	5	1	50	0	10	Spares should be properly identified.
Preconditioning - Required for surface mount devices										
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. Perform SAM analysis using the standard sample size. MSL-1 @ 260°C		+25	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.
HAST	+130°C/85% RH for 96 hours. 1 lot to be hot temp testing at 85 and 125C.	96 hrs	+25 +85	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre- conditioning.

Test Name	Conditions	Reliability Stress Read Point -40°C to +85°C datasheet operating range (Temp)	Pre & Post Reliability Stress Test Temperature (°C) -40°C to +85°C datasheet operating range (Temp)	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Duration (Days)	Special Instructions
Autoclave	+121°C/15 psig for 96 hours.	96 hrs	+25	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. 3 gram force WBP on 5 devices from 1 lot, test following Temp Cycle stress. 1 lot to be hot temp testing at 85 and 125C.	500 cycles	+85	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.