Process Change Notification Form

PCN Number:	PCN_0243
Date of Notification:	November 21, 2008
Cirrus Logic P/N(s):	CS3308-CQZ, CS3308-CQZR, CS3318-CQZ, CS3318-CQZR
Date PCN Effective:	February 20, 2009
Reason for Change:	☒ Design /New Rev. ☐ Fab Site ☐ Fab Process ☐ Additional Fab Source ☐ Assembly Site ☐ Assembly Process ☐ Additional Assembly Source ☐ Other (specify)
Description of Change:	☒ Fix errata ☐ Yield enhancement ☐ Fix known bug ☐ Performance Improvement ☐ Other ****Please see pages below***** **Revision C0 backward compatible to Revision B0**
Cirrus Logic P/N Change:	☐ Yes, New Part Number: ☒ No
Pack Mark Change:	☒ Yes ☐ No If Yes, briefly explain: **YFWAB0 to YFWAC0** *[Any Fab, Assembly, or Design changes results in pack mark changes, please provide detail]*
Lot Effective Date:	0826 for CS3308-CQZ/C0 0744 for CS3318-CQZ/C0 *[Contact the area sales representative for availability of samples if applicable]*
Quality & Reliability impact:	****Please see pages below***** Qualification Data: ☒ Required ☐ Not Required
Datasheet Change Required?	☐ Yes ☒ No If Yes, briefly explain:
Software Change Required?	☐ Yes ☒ No If Yes, briefly explain:

Errata: CS3308 Rev. B0

Rev. B0 Silicon (Reference CS3308 Datasheet)

- To achieve the specified analog performance, the following sequence must be written to the CS3308 internal registers following the release of reset and prior to any other register writes:

  1. Write 0x99 to register 0x00.
  2. Write 0x87 to register 0x1D.
  3. Write 0x42 to register 0x1F.
  4. Write 0x00 to register 0x00.

Contacting Cirrus Logic Support
For all product questions and inquiries, contact a Cirrus Logic Sales Representative.
To find the one nearest you, go to http://www.cirrus.com/corporate/contacts/sales.cfm

Errata: CS3318 Rev. B0

Rev. B0 Silicon (Reference CS3318 Datasheet)

- To achieve the specified analog performance, the following sequence must be written to the CS3318 internal registers following the release of reset and prior to any other register writes:

  1. Write 0x99 to register 0x00.
  2. Write 0x86 to register 0x1D.
  3. Write 0x02 to register 0x1F.
  4. Write 0x00 to register 0x00.

Contacting Cirrus Logic Support
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To find the one nearest you, go to http://www.cirrus.com/corporate/contacts/sales.cfm

RELIABILITY QUALIFICATION REPORT

Reliability Report: QRR081106

Subject/Purpose:

This is to qualify the CS3308-CQZ/C0 and CS3318-CQZ/C0 devices manufactured at MagnaChip (F) and assembled in the Pb-free 48LQFP package at Siliconware (Taiwan).

APPROVALS:

Rod Boutwell
Reliability Engineering

Results:

Qualification successful.

STATUS:

Complete - Pass

Stress	Conditions	Method	Duration	Lot	Results (Fail/Sample)
HTOL 1203-1 (Rev. A0) 1214-1 (Rev. B0) QJ1435 (Similarity)	125 °C 5.25 Volts -5.25 Volts 3.5 Volts Dynamic	JESD22-A108	500 Hours 1000 Hours 24 Hours 48 Hours 500 Hours 1000 Hours	1 1 2 2 2 2	0/77 0/77 0/77 0/77 0/77 0/77
	125 °C 9.45 Volts -9.45 Volts 3.5 Volts Dynamic		96 Hours 500 Hours 1000 Hours	3 3 3	0/77 0/77 0/77
	125 °C 3.6 Volts 12.6 Volts Dynamic				
ESD Human Body Model QJ1345	25 °C	JESD22-A114	2000 Volts	1	0/5
ESD CDM (Charged Device Model) QJ1516	25 °C	JESD22-C101	500/750 Volts	1	0/3
Latch-Up VDD QJ1345	85 °C	JESD78	14.35 Volts 5.80 Volts	1 1	0/3 0/3

Background Information:

Part #: CS3308 **Rev:** C0 **Fab:** MagnaChip (F) **Lead Finish:** Pb-free
Package: 48LQFP **Assembly:** Siliconware (Taiwan)

RELIABILITY QUALIFICATION REPORT

Report Date: 11/17/2008

Reliability Report: QRR081106

Stress	Conditions	Method	Duration	Lot	Results (Fail/sample)
Latch-Up I/O QJ1345	85 °C	JESD78	+/-110 mA	1	0/3
Precondition MSL-3 QJ1426 (Similarity) QJ1427 (Similarity)	24HR 125 °C Bake 192HR 30°C/60%RH Soak 3 pass 260 °C Convection reflow	JESD22-A113	Precondition Precondition	1 2	0/231 0/231
HAST QJ1426 (Similarity)	130 °C 85 %RH 5.25 Volts	JESD22-A110	96 Hours	1	0/77
THB QJ1427 (Similarity)	85 °C 85 %RH 2.5 Volts 3.3 Volts	JESD22-A101	500 Hours 1000 Hours	1 1	0/77 0/77
Temperature Cycle cond. C QJ1426 (Similarity) QJ1427 (Similarity)	-65 °C +150 °C air to air	JESD22-A104	500 Cycles 500 Cycles	1 2	0/77 0/77
Tomography (CSAM) QJ1426 (Similarity) QJ1427 (Similarity)		J-STD-035	Post Temp Cycle 500 TCC	1 2	0/11 0/11
Autoclave/PPOT QJ1426 (Similarity) QJ1427 (Similarity)	121 °C 15 psig 100% R.H.	JESD22-A102	96 Hours 96 Hours	1 2	0/77 0/77
Solderability QJ1426 (Similarity) QJ1427 (Similarity)	93 °C steam aging 8 Hours 245 °C solder bath 5 Seconds	JESD22-B102	Solderability Solderability	1 2	0/15 0/15
HTSL (High Temp Storage Life) QJ1426 (Similarity) QJ1427 (Similarity)	150 °C	JESD22-A103	500 Hours 1000 Hours 500 Hours 1000 Hours	1 1 2 2	0/77 0/77 0/77 0/77

Background Information:

Part #: CS3308 **Rev:** C0 **Fab:** MagnaChip (F) **Lead Finish:** Pb-free

Package: 48LQFP **Assembly:** Siliconware (Taiwan)

Prepared by: Rod Boutwell

(密)

DATE: 11-Oct-06
PAGE: 1 / 2

IN HOUSE QUALIFICATION REPORT

CUSTOMER	**SPIL**
PACKAGE / PIN	**LQFP 208(LF)/28*28*1.4**
DEVICE	**xxxxxxxx**

APPROVED BY.	CHECKED BY.	PREPARED BY.
S.T. Liao	*L.C. Chiang / Jack Lee*	*Paul Lee*
(QA dep. Manager)	(Product Sec. Manager)	(PD engr.)

ENVIRONMENT	READ POINT	SAMPLE SIZE	RESULT
.SAT	ZERO HR	22	0/22
	PRE-CON LEVEL 3	22	0/22
. TEMPERATURE CYCLE (-65°C / 150°C)	1000 CYCLE	45	0/45
. PRESSURE COOKER (2ATM / 121°C)	168 HRS	45	0/45
. High Temp. Storage Life (150°C)	1000 HRS	45	0/45

SAMPLE PRECONDITIONING PRIOR TO ENVIRONMENTAL TESTS IS AS FOLLOW:
BAKING 125°C, 24 HRS --> PRE-CON :192 HRS 30°C / 60% RH --> IR 3X, 260°C

COMMENT

PASSED LEVEL-3 WITH IR260C TEST. PRODUCT CAN BE USED WITH IN 1 WEEK, AFTER REMOVAL FROM DRY-BACK.

Cirrus Logic PCN administrator: Cirrus Logic - Customer Quality

Digitally signed by Cirrus Logic - Customer Quality
DN: cn=Cirrus Logic - Customer Quality, c=US, ou=Cirrus Logic Austin, email=customer_quality@cirrus.com
Reason: All signatures on file
Date: 2008.12.05 13:37:06 -06'00'

Acknowledgement of Receipt of Notice:

Does customer waive PCN Effective Date? ☐ **YES** ☐ **NO**

Company Name: _____

Name (please print)**:** _____ **Title:** _____

Signature: _____ **Date:** _____

Customer Representative is to obtain the customer acknowledgement/signature and return this notification to Cirrus Logic Corp. Quality, attn: PCN administrator at fax number (512) 851-4656

NOTE: Lack of acknowledgement within 30 days of the date of notice, constitutes acceptance of change.
(Reference JEDEC Industry Standard: JESD-46)