

Cypress Semiconductor Product Qualification Report

QTP# 043103 Rev. 1.0
December 2004

4 PLL Clock Device Family with SS Output	
CY27043LFXC-1 CY27043LFXC-1T	Clock Generator
CY27043LFXC-2 CY27043LFXC-2T	Clock Generator
CSMOS35B Technology	

CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:

Rene Rodgers
Principal Reliability Engineer
(408) 943-2732

Sabbas Daniel
Quality Director
(408) 943-2685

PRODUCT QUALIFICATION HISTORY

Qual Report	Description of Qualification Purpose	Date Comp
I000006	Qualification Summary for Cypress Acquisition of IMI Devices and Packages (Feb. 23, 2001)	Feb 03
I000006	Added new device data gathered, B35C qualified base die (CY2LL843*, CY2SSTV16859*, CY2AVC16835*)	May 04
042304	7C827042AR Mask Option of the D35C base die	Jul 04
043103	7C870432AR Mask Option of the D35C base die	Sep 04

PRODUCT DESCRIPTION (for qualification)	
Qualification Purpose: Qualify CY27403LFXC-1/2, New Mask Option from qualified D35C Base die, CMOS35B technology	
Marketing Part #:	CY27043LFXC-1/1T, CY27043LFXC-2/2T
Device Description:	2.5V, Commercial, available in 20-pin QFN
Cypress Division:	Cypress Semiconductor Corporation –Timing Technologies Division (TTD)
Overall Die (or Mask) REV Level (pre-requisite for qualification):	Rev. A
What ID markings on Die:	7C870431A/7C870432A

TECHNOLOGY/FAB PROCESS DESCRIPTION			
Number of Metal Layers:	3	Metal Composition:	Metal 1, 2: 100Å IMPTi /300Å TiN/ .5K AlCu/350Å Tin ARC Metal 3: 300Å IMPTi /300Å TiN/.8K AlCu/350Å Tin ARC
Passivation Materials and Thickness	350Å TiN/2K PSG/7K Si ₃ N ₄		
Free Phosphorus contents in top glass layer(%):	0%		
Number of Transistors in Device	8,000		
Number of Logic Gates in Device	2,225		
Generic Process Technology/Design Rule (μ-drawn):	CMOS, Triple Metal/0.35 um		
Gate Oxide Material/Thickness (MOS):	SiO ₂ / 65 Å		
Name/Location of Die Fab (prime) Facility:	Chartered Semiconductor Singapore		
Die Fab Line ID/Wafer Process ID:	2L313-698-CBB/CRA		

PACKAGE AVAILABILITY

PACKAGE	ASSEMBLY SITE FACILITY
20-pin QFN	Amkor-Korea (L)

Note: Package Qualification details upon request

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	LY20
Package Outline, Type, or Name:	20-pin QFN
Mold Compound Name/Manufacturer:	Sumitomo G700
Mold Compound Flammability Rating:	V-o per UL94
Oxygen Rating Index:	>28%
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	Pure Sn (0.8~1.2uinch)
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	Sawing 100%
Die Attach Supplier:	Ablebond
Die Attach Material:	8290
Die Attach Method:	Epoxy
Bond Diagram Designation:	10-05654
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au, 1.0 mil
Thermal Resistance Theta JA °C/W:	68.03°C/W
Package Cross Section Yes/No:	N/A
Assembly Process Flow:	49-10994
Name/Location of Assembly (prime) facility:	Amkor-Korea (L)

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-R
Fault Coverage:	100%

Note: Please contact a Cypress Representative for other packages availability

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENT

Stress/Test	Test Condition (Temp/Bias)	Result P/F
Electrostatic Discharge Human Body Model (ESD-HBM)	2,200V MIL-STD-883, Method 3015.7	P
Electrostatic Discharge Human Body Model (ESD-HBM)	2,200V JEDEC EIA/JESD22-A114-B	P
Electrostatic Discharge Charge Device Model (ESD-CDM)	500V Cypress Spec. 25-00020	P
Static Latchup	125C, 8.0V, \pm 300mA In accordance with JEDEC 17. Cypress Spec. 01-00081	P

DIE QUALIFICATION TEST RESULTS

RX11 base die platform (0.6um, CMOS, Tower Semiconductor, Israel)

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Life Test	MIL-STD-883 Method 1005	140°C/5.5V	240 480	0/116 0/116	Lot T2000 (IMIXG571)
Life Test	MIL-STD-883 Method 1005	140°C/5.5V	240 480	0/116 0/116	Lot T2004 (IMISC608)
Life Test	MIL-STD-883 Method 1005	140°C/5.5V	240 480	0/116 0/116	Lot T2131 (IMISG577)
Life Test	MIL-STD-883 Method 1005	140°C/5.5V	240 480	0/116 0/116	Lot T2213 (IMISC608)
Latch-up	JESD78		200 mA	0/5	Lot T2000 (IMIXG571)
HTS		150C	500 cycles	0/45	Lot T2000 (IMIXG571)

KB14 base die platform (0.6um, CMOS, Tower Semiconductor, Israel)

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Life Test	MIL-STD-883 Method 1005	140°C/5.5V	240 480	0/116 0/116	Lot T2014 (IMISM530)
Latch-up	JESD78		200 mA	0/5	Lot T2014 (IMISM530)
ESD	MIL-STD-883 Method 3015	HBM	500V 750V 1000V	0/3 0/3 1/3	Lot T2014 (IMISM530)
HTS		150C	500 cycles	0/45	Lot T2014 (IMISM530)

RF06 base die platform (1.0 uM, CMOS, 2 layers metal, Tower Semiconductor, Israel)

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Life Test	MIL-STD-883 Method 1005	125°C/5.5V	168 500 1000	0/77 0/77 0/77	Lot T2055 (IMI4347)
Life Test	MIL-STD-883 Method 1005	125°C/5.5V	168 500 1000	0/116 0/116 0/116	Lot T3118 (IMIFS741)
ESD	MIL-STD-883 Method 3015	HBM	1000V 1500V 2000V	0/3 0/3 3/3	Lot T2055 (IMI4347)
Latch-up	JESD78		200 mA	0/5	Lot T2055 (IMI4347)

ZB15/17 base die platform (0.35uM, CMOS, 2 layers metal, IBM-NY)

Test	Military or Industry Standard	Conditions	TestPoints	Test Results	Comments
Life Test	MIL-STD-883 Method 1005	140°C/5V	240 480	0/116 0/116	Lot B5503-ZB17 (IMIZ9102)
Life Test	MIL-STD-883 Method 1005	125°C/5V	500 1000	0/116 0/116	Lot B6312-ZB17 (IMIZ9546)
Life Test	MIL-STD-883 Method 1005	140°C/5V	480	0/77	Lot B5431-ZB15 (IMIZ9714)
Life Test	MIL-STD-883 Method 1005	140°C/5V	480	0/116 0/116	Lot B6082-ZB15 (IMIZ9102)
ESD	MIL-STD-883 Method 3015	HBM	2000V 3000V 4000V 5000V	0/3 0/3 0/3 3/3	Lot B6388-ZB17 (IMIZ9102)
Latch-up	JESD78		200 mA	0/5	Lot B6388-ZB17 (IMIZ9102)

A35C/G35C base die platform (0.35 uM, 3 layers metal, CMOS, CSM-Singapore)

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Life Test	MIL-STD-883 Method 1005	125°C/5V	500 1000	0/116 0/116	Lot C1008 /C1000-A35C
Life Test	MIL-STD-883 Method 1005	125°C/5V	500 1000	0/116 0/116	Lot C1016-A35C
Life Test	MIL-STD-883 Method 1005	125°C/5V	500 1000	0/116 0/116	Lot C1138-A35C
Life Test	MIL-STD-883 Method 1005	125°C/5V	500 1000	0/116 0/116	Lot C1179-A35C
ESD	MIL-STD-883 Method 3015	HBM	1000V 1500V 2000V	0/3 0/3 0/3	Lot C1026-A35C
Latch-up	JESD78		200 mA	0/5	Lot C1009-A35C
ESD	MIL-STD-883 Method 3015	HBM	2000V 3000V 4000V	0/3 0/3 0/3	Lot C1186-G35C
Latch-up	JESD78		200 mA	0/5	Lot C1186-G35C

B35C base die platform (0.35 μ M, 3 layers metal, CMOS, CSM-Singapore)

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Life Test	MIL-STD-883 Method 1005	125 ^o C/5V	500 1000	0/116 0/116	Lot C1035-B35C
Life Test	MIL-STD-883 Method 1005	125 ^o C/5V	500 1000	0/116 0/116	Lot C1035-B35C
ESD	MIL-STD-883 Method 3015	HBM	2000V 3000V 4000V 5000V	0/3 0/3 0/3 3/3	Lot C1035-B35C
Latch-up	JESD78		200 mA	0/5	Lot C1035-B35C

D35C/E35C/F35C base die platform (0.35 μ M, 3 layers metal, CMOS, CSM-Singapore)

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Life Test	MIL-STD-883 Method 1005	150 ^o C/3.3V	168 332	0/116 0/116	Lot C1061-D35C
Life Test	MIL-STD-883 Method 1005	150 ^o C/3.3V	72 596	0/116 0/116	Lot C1024-D35C
Life Test	MIL-STD-883 Method 1005	150 ^o C/3.3V	168	0/116	Lot C1130-D35C
ESD	MIL-STD-883 Method 3015	HBM	2000V 3000V 4000V 5000V	0/3 0/3 0/3 0/3	Lot C1214-D35C
Latch-up	JESD78		200 Ma	0/5	Lot C1214-D35C
ESD	MIL-STD-883 Method 3015	HBM	2000V 3000V 4000V	0/3 0/3 0/2	Lot C1281-E35C
Latch-up	JESD78		200 mA	0/5	Lot C1281-E35C
ESD	MIL-STD-883 Method 3015	HBM	2000V 3000V 4000V	0/3 0/3 0/2	Lot C1189-F35C
Latch-up	JESD78		200 mA	0/5	Lot C1189-F35C

PACKAGE QUALIFICATION TEST RESULTS

SOIC ,0.150 wide

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, CWT, lot C1179
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, CWT, lot C1179
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, SPEL, lot T2959
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, SPEL, lot T2959
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, CWT, lot B6399
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, CWT, lot B6399
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, SIG-K, lot F5216
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, SIG-K, lot F5216
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by CWT
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by CWT
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Coverage	N/A	0/5	Performed by CWT
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by CWT
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by SPEL
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by SPEL
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Coverage	N/A	0/5	Performed by SPEL
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by SPEL
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by SIG-K
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by SIG-K
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Coverage	N/A	0/5	Performed by SIG-K
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by SIG-K

PACKAGE QUALIFICATION TEST RESULTS

SSOP ,0.295 wide

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, OSE, lot C1138
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, OSE, lot C1138
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, OSE, lot C1035
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, OSE, lot C1035
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, OSE, lot C1009
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, OSE, lot C1009
Temperature Cycle	MIL-STD-883 Method 1010	50 hours /5V, 130°C, 85%RH	50	0/76	Preconditioned Units, OSE, lot C1009
Pressure Pot	JEDEC Std. 22 Test Method 102	1000 Hours, 85% RH, 85°C,	1000	0/76	Preconditioned Units, OSE, lot C1009
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, CWT, lot T2706
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, CWT, lot T2706
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by OSE
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by OSE
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Coverage	N/A	0/5	Performed by OSE
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by OSE
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by CWT
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by CWT
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Coverage	N/A	0/5	Performed by CWT
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by CWT

PACKAGE QUALIFICATION TEST RESULTS

SSOP ,0.209 wide

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, OSE, Lot T2408
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, OSE, Lot T2408
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, OSE, Lot T2415
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, OSE, Lot T2415
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by OSE
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by OSE
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Coverage	N/A	0/5	Performed by OSE
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by OSE

TSSOP ,0.170 wide

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/45	Preconditioned Units SIG-K LOT F4461
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/45	Preconditioned Units SIG-K, LOT F4461
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units OSE, LOT C1141
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units OSE, LOT C1141`
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by SIG-K
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by SIG-K
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Coverage	N/A	0/5	Performed by OSE
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by OSE

PACKAGE QUALIFICATION TEST RESULTS

TSSOP ,0.240 wide

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units OSE. Lot F6182
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units OSE, Lot F6182
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units SIG-K. Lot F3966
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units SIG-K, Lot F3966
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by OSE
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by OSE
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Covrg	N/A	0/5	Performed by OSE
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by OSE
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by SIG-K
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by SIG-K
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Coverage	N/A	0/5	Performed by SIG-K
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by SIG-K

PACKAGE QUALIFICATION TEST RESULTS

TQFP

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units MHT, Lot B6747
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units MHT, Lot B6747
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units SIG-K, Lot B6562
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units SIG-K, Lot B6562
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/45	Preconditioned Units MHT, Lot B6262
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/45	Preconditioned Units MHT, Lot B6262
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by MHT
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by MHT
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Covrg	N/A	0/5	Performed by MHT
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by MHT
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by SIG-K
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by SIG-K
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Coverage	N/A	0/5	Performed by SIG-K
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by SIG-K

A35C Base – Personalizations

MARKETING ROOT #	DATE ISSUED	PACKAGE
98121	11/15/1999	56 SSOP
C5003	06/26/2000	56 SSOP
005	12/12/2000	48 TSSOP/SSOP
C6001	01/12/2000	16 TSSOP
C6005	05/19/2000	8 SOIC
C9429	07/19/2000	28 SOIC
C9530	11/10/1999	48 SSOP/TSSOP
C9531	11/10/1999	28 SSOP/TSSOP
C9630	10/13/1999	48 SSOP
C9631	04/04/2000	48 SSOP
C9641	12/06/1999	48 SSOP/TSSOP
C9703	11/08/1999	48 SSOP
C9706/07	12/06/1999	48 SSOP
C9713	04/12/2000	48 SSOP
C9725	10/16/2000	28 TSSOP
C9726	06/27/2000	48 SSOP
C9727	06/27/2000	48 SSOP
C9730	01/10/2000	48 SSOP
C9801	01/28/2000	56 SSOP
C9806I	04/04/2000	48 SSOP/ TSSOP
9829/9825	11/30/1999	56 SSOP
C9809	02/11/2000	48 SSOP
C9810/9815	10/25/1999	56 SSOP
C9824	11/22/1999	56 SSOP
C9827	04/05/2000	56 SSOP
C9827/C9832	09/18/2000	56 TSSOP
C9835	02/10/2000	56SSOP
C9836	09/11/2000	48SSOP/TSSOP
C9837	09/11/2000	48SSOP/TSSOP
C9840	12/06/1999	48 SSOP
C9842	02/28/2000	56 SSOP
C9843	02/28/2000	48 SSOP
C9844	09/14/2000	48 SSOP
C9846	06/02/2000	48 SSOP
C9849	03/17/2000	56 SSOP
C9850	11/19/1999	56 SSOP/TSSOP
C9851	09/30/1999	48 TSSOP
9853	12/01/1999	48 SSOP/TSSOP
C9854	10/04/2000	48 SSOP
C9857	10/11/2000	48 SSOP
C9860	06/02/2000	48 SSOP
C9866	09/11/2000	48SSOP
C9869	09/11/2000	56SSOP
C9870	11/20/2000	56 TSSOP / SSOP
C9909	01/24/2000	56 SSOP/48 SSOP
C9910	02/08/2001	56 SSOP
C9911	03/06/2001	48 SSOP

A35C Base – Personalizations (Continued)

MARKETING ROOT #	DATE ISSUED	PACKAGE
C9914	06/02/2000	28 SSOP/TSSOP*
C9926	08/04/2000	48 SSOP
C9945	10/26/2000	56 SSOP
C9946	10/26/2000	56 SSOP
SM560	10/06/2000	8 SOIC
SM561	10/06/2000	8 SOIC
SM562	10/16/2000	8 SOIC
SM564	09/18/2000	8 SOIC
SM565	09/18/2000	16 SOIC
SM566	05/16/2000	16 SOIC

B35C Base – Personalizations

Customer Specific Marketing Numbers

D35C Base - Personalizations

MARKETING ROOT #	MANUFACTURING #	DATE ISSUED	PACKAGE
CY24240	7C825822A	07/12/2001	16 SOIC
CY24244	7C825822A	01/17/2002	16 SOIC
CY25560 (SM560)	7C825822A	06/13/2001	8 SOIC
CY25566	7C825822A	08/21/2001	16 SOIC
CY25822	7C825822A	05/23/2002	8 SOIC
CY25822-1	7C825822B	11/04/2002	8 SOIC
CY25822-2	7C858222B	11/06/2002	8 SOIC
CY27023	7C825822A	11/29/2001	16 TSSOP
CY27024	7C825822A	09/17/2001	16 TSSOP
CY27025	7C825822A	01/10/2002	16 TSSOP
CY27027	7C825822A	03/11/2002	16 TSSOP
CY27028-1/-2/-3/-4	7C825822A	03/11/2002	16 TSSOP
CY2DP814	7C825822A	08/29/2001	16 SOIC/TSSOP
CY2LL8422/23	7C825822A	04/12/2001	28TSSOP/SSOP

E35C Base – Personalizations

MARKETING ROOT #	MANUF. PART #	DATE ISSUED	PACKAGE
CY22313	7C822313C	04/10/2003	24 TSSOP
CY24234	7C824234A	04/05/2001	16 TSSOP
CY24260/61	7C824260A	10/25/2001	20 TSSOP/16 TSSOP
CY24262	7C824262A	11/07/2001	20 TSSOP
CY27022	7C827022A	10/23/2001	8 SOIC
CY27030/-1/-2	7C827030A	07/15/2002	16 TSSOP
CY27032	7C827032A	08/13/2002	16 TSSOP

F35C Base – Personalizations

MARKETING ROOT #	MANUF. PART #	DATE ISSUED	PACKAGE
CY25568 - SM568	7C825568B	01/25/2001	16 SOIC
CY25811 - SM811	7C825811B	02/22/2001	8 SOIC
CY25812 - SM812	7C825812B	02/22/2001	8 SOIC
CY25814 - SM814	7C825814B	02/01/2201	8 SOIC
CY25818/819	7C825818A	09/21/2001	8 SOIC
CY25901	7C825901A	09/19/2002	8 SOIC
CY25901-1	7C859011A	10/24/2002	8 SOIC
CY25902	7C825902A	09/19/2002	8 TSSOP
CY27020 (C6005)	7C827020A	10/01/2001	8 SOIC
CY27029	7C827029A	08/16/2002	14 SOIC
CY27029-1	7C870291A	10/31/2002	14 SOIC
CY27031	7C827031A	10/31/2002	8 SOIC
CY2DL814	7C8DL814A	04/03/2001	16 TSSOP/SSOP
CY2DP814	7C8DP814A	07/26/2001	16TSSOP/SSOP
CY2LL842	7C8LL842CB	07/16/2001	16 TSSOP/SOIC
CY2LL843 - LL843	7C8LL843C	07/16/2001	16 TSSOP/SOIC
CY2PC822	7C82822A	05/13/2002	8 SOIC

G35C Base – Personalizations

MARKETING ROOT #	MANUF. PART #	DATE ISSUED	PACKAGE
CY29973	7C829973B	07/20/2001	52 TQFP
CY29976/77	7C829976C/77C	10/10/2001	52 TQFP
CY29946/47/48/49	7C829946A	04/05/2001	32 TQFP/ 52 TQFP
CY29992	7C829992A	05/23/2001	32 TQFP
CY28342	7C828342D	01/29/2002	48 TSSOP
CY28341	7C828341D	10/01/2001	56 TSSOP
CY29940	7C829940A	02/15/2001	32 TQFP
CY29942/3	7C829942B		
CY29943	7C829943B		
CY28506 (C5006)	7C828506A	07/11/2001	28 SSOP/TSSOP
CY2V995/CY2V9950	7C82V995D, 7C8V9950D	07/01/2002	32 / 44 TQFP
CY7B9950/CY7B995	7C8B9950D,7C87B995D	07/01/2002	32 / 44 TQFP
CY28345	7C828345A	09/27/2001	64 TSSOP
CY28347	7C828347A	09/27/2001	56 SSOP/TSSOP
CY28348	7C828348A	11/09/2001	48 SSOP
CY28370	7C828370A	12/20/2001	48 SSOP
CY28373/74	7C8283723A	01/16/2002	56/48 SSOP
CY28380	7C828380A	02/19/2002	56 SSOP
CY28372	7C828372A	02/20/2001	48 SSOP
CY28503	7C828503A	04/11/2002	56 SSOP
CY28354	7C828354A	04/15/2002	48 SSOP
CY28357/8	7C828357A	04/15/2002	48 SSOP/28 SSOP
CY29352	7C829352A	04/18/2002	32 TQFP
CY28381	7C828381A	05/01/2002	48 SSOP
CY29974/75	7C89974A/75A	05/16/2002	52 TQFP
CY28331	7C828331A	05/17/2002	48 SSOP
CY29960/2	7C829960A	05/20/2002	48 LQFP/TQFP
CY29653/8	7C829653A/8A	05/20/2002	32 LQFP
CY29350/1	7C829350A/1A	05/20/2002	32 LQFP
CY28346-2	7C883462A	05/22/2002	56 SSOP/TSSOP
CY28339	7C828339A	06/04/2002	48 TSSOP
CY28332	7C828332A	06/04/2002	48 SSOP
CY28374	7C828374A	06/04/2002	48 SSOP
CY28508/12	7C828508A	06/07/2002	28SSOP/20TSSOP
CY28508/12	7C828508C	11/27/2002	28SSOP/20TSSOP
CY28508/12	7C828508D	12/17/2002	28SSOP/20TSSOP
CY28341-2	7C883412A	07/09/2002	56 SSOP/TSSOP
CY292510 (CY22510)	7C892510A	07/10/2002	24 TSSOP
CY2DH8110	7C828110A	08/16/2002	32 TQFP
CY28331-2	7C883312A	09/24/2002	48 SSOP
CY29940-1	7C899401A	10/04/2002	44 TQFP
CY2HH8110	7C881101A	02/28/2003	32 TQFP
CY2SSTV857	7C8TV857E		48 TSSOP
CY2SSTV8575	7C8TV8575A		32 TQFP
CY2SSTV857-27	7C885727A	03/05/2003	48 TSSOP
CY2SSTV857-32	7C885727A	03/05/2003	48 TSSOP/40 QFN
CY2DL818	7C8DL818B		38 TSSOP
CY2PD817	7C82817A	04/30/2003	24 TSSOP

Reliability Test Data

B35C BASE DIE

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ESD-CHARGE DEVICE MODEL, 500V							
CY2SSTV16859 (7C826859A)	9210123	610334679	KOREA-L	COMP	2	0	
CY2AVC16835 (7C81635ER)	9202732	610303336	TAIWAN-T	COMP	2	0	
CY2SSTV16859 (7C826859A)	9210123	610249055	KOREA-GQ	COMP	3	0	
CY2LL843 (7C82LL843CR)	9213233	610218031	TAIWAN-CH	COMP	3	0	
STRESS: ESD-CHARGE DEVICE MODEL, 750V							
CY2SSTV16859 (7C826859A)	9210123	610334679	KOREA-L	COMP	1	0	
CY2SSTV16859 (7C826859A)	9210123	610249055	KOREA-GQ	COMP	3	0	
CY2LL843 (7C82LL843CR)	9213233	610218031	TAIWAN-CH	COMP	3	0	
STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 1100V							
CY2SSTV16859 (7C826859A)	9210123	610334679	KOREA-L	COMP	1	0	
STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 2000V							
CY2AVC16835 (7C81635ER)	9202732	610303336	TAIWAN-T	COMP	2	0	
CY2LL843 (7C82LL843CR)	9213233	610218031	TAIWAN-CH	COMP	3	0	
STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 2200V							
CY2SSTV16859 (7C826859A)	9210123	610334679	KOREA-L	COMP	2	0	
CY2AVC16835 (7C81635ER)	9202732	610303336	TAIWAN-T	COMP	2	0	
CY2SSTV16859 (7C826859A)	9210123	610249055	KOREA-GQ	COMP	3	0	
CY2LL843 (7C82LL843CR)	9213233	610218031	TAIWAN-CH	COMP	3	0	
STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 2400V							
CY2AVC16835 (7C81635ER)	9202732	610303336	TAIWAN-T	COMP	2	0	
CY2SSTV16859 (7C826859A)	9210123	610249055	KOREA-GQ	COMP	3	0	
CY2LL843 (7C82LL843CR)	9213233	610218031	TAIWAN-CH	COMP	3	0	
STRESS: STATIC LATCH-UP TESTING, 125C, 8.0V, ±300mA							
CY2SSTV16859 (7C826859A)	9210123	610334679	KOREA-L	COMP	3	0	
STRESS: STATIC LATCH-UP TESTING, 125C, 10V, ±300mA							
CY2AVC16835 (7C81635ER)	9202732	610303336	TAIWAN-T	COMP	2	0	
CY2SSTV16859 (7C826859A)	9210123	610249055	KOREA-GQ	COMP	2	0	
CY2LL843 (7C82LL843CR)	9213233	610218031	TAIWAN-CH	COMP	3	0	

Reliability Test Data

QTP #: 042304

<i>Device</i>	<i>Fab Lot #</i>	<i>Assy Lot #</i>	<i>Assy Loc</i>	<i>Duration</i>	<i>Samp</i>	<i>Rej</i>	<i>Failure Mechanism</i>
STRESS: ESD-CHARGE DEVICE MODEL, 500V							
CY27042LFXC (7C827042A)	9408719	610433454	SEOL-L	COMP	9	0	
STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 2,200V							
CY27042LFXC (7C827042A)	9408719	610433454	SEOL-L	COMP	9	0	
STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 2,200V							
CY27042LFXC (7C827042A)	9408719	610433454	SEOL-L	COMP	3	0	
STRESS: STATIC LATCH-UP TESTING, 125C, 8.0V, ±300mA							
CY27042LFXC (7C827042A)	9408719	610433454	SEOL-L	COMP	3	0	

Reliability Test Data

QTP #: 043103

<i>Device</i>	<i>Fab Lot #</i>	<i>Assy Lot #</i>	<i>Assy Loc</i>	<i>Duration</i>	<i>Samp</i>	<i>Rej</i>	<i>Failure Mechanism</i>
STRESS: ESD-CHARGE DEVICE MODEL, 500V							
CY27043LFXC-1 (7C870431A)	9410846	610444185	SEOL-L	COMP	9	0	
CY27043LFXC-2 (7C870432A)	9408719	610442844	SEOL-L	COMP	9	0	
STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 2,200V							
CY27043LFXC-1 (7C870431A)	9410846	610444185	SEOL-L	COMP	9	0	
CY27043LFXC-2 (7C870432A)	9408719	610442844	SEOL-L	COMP	9	0	
STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 2,200V							
CY27043LFXC-1 (7C870431A)	9410846	610444185	SEOL-L	COMP	3	0	
CY27043LFXC-2 (7C870432A)	9408719	610442844	SEOL-L	COMP	3	0	
STRESS: STATIC LATCH-UP TESTING, 125C, 8.0V, ±300mA							
CY27043LFXC-1 (7C870431A)	9410846	610444185	SEOL-L	COMP	3	0	
CY27043LFXC-2 (7C870432A)	9408719	610442844	SEOL-L	COMP	3	0	