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# Cypress Semiconductor

## Product Qualification Report

QTP# 072401 VERSION\*C  
September, 2014

General Purpose Low Power 4PLL w/Programmable Spread Spectrum Clock Generator, L8C-3R Technology, Fab 4	
CY2544Cxxx / CY2544Ixxx CY2545Cxxx / CY2545Ixxx CY2548Cxxx / CY2548Ixxx M60xxLFXI / M80xxLFXI	3.3/3.0/2.5V Programmable Clock Generator- 4x4mm 24Lead QFN Package
CY2546Cxxx/CY2546Ixxx CY2547Cxxx/CY2547Ixxx	1.8V Programmable Clock Generator- 4x4mm 24Lead QFN Package
CY25404ZXC-xxx/ CY25404ZXI-xxx	3.3/3.0/2.5V Programmable Clock Generator- 20Lead TSSOP Package
9xxLFXI / M7xxLFXI M6xxLFXI / M3xxLFXI M2xxLFXI	3.3/3.0/2.5/1.8V Programmable Clock Generator – 3x3mm 16Lead QFN Package
CY25403SXCxxx/CY25423SXCxxx CY25483SXCxxx/CY25403SXIxxx CY25423SXIxxx, CY25483SXIxxx	Three PLL Programmable Clock Generator with Spread Spectrum – 8L SOIC
CY25402SXCxxx/CY25422SXCxxx CY25412SXCxxx/CY25432SXCxxx CY25482SXCxxx/CY25402SXIxxx CY25422SXIxxx/CY25412SXIxxx CY25432SXIxxx/CY25482SXIxxx	Two PLL Programmable Clock Generator with Spread Spectrum – 8L SOIC
M4000	Four-PLL Programmable Clock Generator for Portable Applications
CY2542	1.8V Input, 2.5/3.0/3.3V Quad PLL Programmable Spread Spectrum Clock Generator with 2 Wire Serial Interface and Frequency Select

**FOR ANY QUESTIONS ON THIS REPORT, PLEASE CONTACT**  
[reliability@cypress.com](mailto:reliability@cypress.com) or via a CYLINK CRM CASE

**Prepared By:**  
Josephine Pineda  
Reliability Engineer

**Reviewed By:**  
Zhaomin Ji  
Reliability Manager

**Approved By:**  
Richard Oshiro  
Reliability Director

## PRODUCT QUALIFICATION HISTORY

QTP Number	Description of Qualification Purpose	Date Comp
053301	Qualify L8C-3R Technology Derivative of the C8 Technology at Fab4 using CY5077 Device	Sep 06
053408	Qualify 7C84400A Device in L8C-3R Technology, Fab4	Jul 06
072401	Qualify 7C84501B Device in L8C-3R Technology, Fab4	Sep 07
073705	Qualify 7C84502BC, Metal option of 7C84501B	Nov 07
120102	Qualification of Bond Device Options M4000 / CY2542 on 24 QFN Package, L8C-3R Technology in CMI Fab 4	Feb 12

PRODUCT DESCRIPTION (for qualification)	
Qualification Purpose: Qualify CY2546C Device on L8C-3R Technology at Fab4	
Marketing Part #:	CY2544/45C/lxxx, CY2546/47C/lxxx, CY25404ZXI-xxx, CY25403SXC/l-xxx , CY25402SXC/l-xxx , M600xLFXI, M800xLFXI, M60x, M30x, M20x, M40x, CY2542
Device Description:	1.8V, 2.5V, 3.3V PLL Programmable Clock Generator (Commercial & Industrial)
Cypress Division:	Cypress Semiconductor Corporation – Memory Product Division

TECHNOLOGY/FAB PROCESS DESCRIPTION			
Number of Metal Layers:	4	Metal Composition:	Metal 1: 100A Ti/3,200A Al 0.5% Cu /300A TiW Metal 2: 150A Ti/4,230A Al 0.5% Cu/300A TiW Metal 3: 150A Ti/4,230A Al 0.5% Cu/300A TiW Metal 4: 150A Ti/8,000A Al 0.5% Cu/300A TiW
Passivation Type and Materials:		1,000A TeOs / 7,000A Si <sub>3</sub> N <sub>4</sub>	
Generic Process Technology/Design Rule (μ-drawn):		CMOS, 0.13μm	
Gate Oxide Material/Thickness (MOS):		SiO <sub>2</sub> DGOX 32/55A	
Name/Location of Die Fab (prime) Facility:		CMI / Bloomington MN	
Die Fab Line ID/Wafer Process ID:		Fab4, L8C-3R	

### PACKAGE AVAILABILITY

PACKAGE	ASSEMBLY SITE FACILITY
24-Pin QFN	Amkor- SEOUL (L)
16-Pin QFN	Amkor- PHILIPPINES (M)
20-Lead TSSOP	OSE- TAIWAN (T)
8-Lead SOIC	CML - PHILIPPINES (RA)

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	LY24
Package Outline, Type, or Name:	24-Pin Quad Flat No-Lead (QFN)
Mold Compound Name/Manufacturer:	Sumitomo EME G700
Mold Compound Flammability Rating:	UL-94 V-0
Oxygen Rating Index:	N/A
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	Pure Sn
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	Wafer Saw
Die Attach Supplier:	Ablestik
Die Attach Material:	8290
Die Attach Method:	Epoxy
Bond Diagram Designation:	001-15874
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au, 1.0mil
Thermal Resistance Theta JA °C/W:	23°C/W
Package Cross Section Yes/No:	N/A
Assembly Process Flow:	49-10994
Name/Location of Assembly (prime) facility:	SEOUL-L
MSL Level	3
Reflow Profile	260C

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-R

### RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENT

Stress/Test	Test Condition (Temp/Bias)	Result P/F
High Temperature Operating Life Early Failure Rate	Dynamic Operating Condition, Vcc Max=2.07V, 150°C Dynamic Operating Condition, Vcc Max=2.35V, 150°C Dynamic Operating Condition, Vcc Max=3.8V, 150°C JESD22-A108	P
High Temperature Operating Life Latent Failure Rate	Dynamic Operating Condition, Vcc Max=2.07V, 150°C Dynamic Operating Condition, Vcc Max=2.35V, 150°C Dynamic Operating Condition, Vcc Max=3.8V, 150°C JESD22-A108	P
Long Life Verification	Dynamic Operating Condition, Vcc Max=2.35V, 150°C JESD22-A108	P
High Temperature Steady State Life	150°C, 2.35V, Vcc Max JESD22-A108	P
High Accelerated Saturation Test (HAST)	JEDEC STD 22-A110: 130°C, 2.35V, 85%RH Precondition: JESD22 Moisture Sensitivity Level 3 192 Hrs, 30C/60%RH+ Reflow, 260°C +0, -5°C	P
Temperature Cycle	MIL-STD-883, Method 1010, Condition C, -65°C to 150°C Precondition: JESD22 Moisture Sensitivity Level 3 192 Hrs, 30C/60%RH+ Reflow, 260°C +0, -5°C	P
Pressure Cooker	JESD22-A102: 121°C, 100%RH, 15 Psig Precondition: JESD22 Moisture Sensitivity Level 3 192 Hrs, 30C/60%RH+ Reflow, 260°C +0, -5°C	P
Electrostatic Discharge Human Body Model (ESD-HBM)	2100V/2200V JEDEC EIA/JESD22-A114	P
Electrostatic Discharge Charge Device Model (ESD-CDM)	500V JESD22-C101	P
Acoustic Microscopy	J-STD-020 Precondition: JESD22 Moisture Sensitivity Level 3 192 Hrs, 30C/60%RH+ Reflow, 260°C +0, -5°C	P
Dynamic Latch-up	6.25V JESD78	P
High Temperature Storage	JESD22-A103: 150°C, no bias	P
Latch up Sensitivity	125°C, ± 50mA JESD78	P

### RELIABILITY FAILURE RATE SUMMARY

Stress/Test	Device Tested/ Device Hours	# Fails	Activation Energy	Thermal <sup>3</sup> A.F	Failure Rate
High Temperature Operating Life Early Failure Rate <sup>1</sup>	3,261 Devices	0	N/A	N/A	0 PPM
High Temperature Operating Life <sup>1,2</sup> Long Term Failure Rate	489,100 DHRs	0	0.7	170	11 FIT

<sup>1</sup> Assuming an ambient temperature of 55°C and a junction temperature rise of 15°C.

<sup>2</sup> Chi-squared 60% estimations used to calculate the failure rate.

<sup>3</sup> Thermal Acceleration Factor is calculated from the Arrhenius equation

$$AF = \exp \left[ \frac{E_A}{k} \left[ \frac{1}{T_2} - \frac{1}{T_1} \right] \right]$$

where:

$E_A$  = The Activation Energy of the defect mechanism.

$k$  = Boltzmann's constant =  $8.62 \times 10^{-5}$  eV/Kelvin.

$T_1$  is the junction temperature of the device under stress and  $T_2$  is the junction temperature of the device at use conditions.

## Reliability Test Data

**QTP #: 053301**

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
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**STRESS: ACOUSTIC-MSL3**

CY5077 (7C850003A)	4538565	610555083	CML-RA	COMP	16	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	COMP	15	0	
CY5077 (7C850003A)	4615715	610637084	PHIL-M	COMP	15	0	

**STRESS: DYNAMIC LATCH-UP, 5.0V**

CY5077 (7C850003A)				COMP	2	0	
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**STRESS: DYNAMIC LATCH-UP, 6.25V**

CY5077 (7C850003A)				COMP	2	0	
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**STRESS: ESD-CHARGE DEVICE MODEL (500V)**

CY5077 (7C850003A)	4538565	610555083	CML-RA	COMP	9	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	COMP	9	0	
CY5077 (7C850003A)	4615715	610637084	PHIL-M	COMP	9	0	

**STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114, 2200V**

CY5077 (7C850003A)	4538565	610555083	CML-RA	COMP	9	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	COMP	9	0	
CY5077 (7C850003A)	4615715	610637084	PHIL-M	COMP	3	0	

**STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 2200V**

CY5077 (7C850003A)	4538565	610555083	CML-RA	COMP	3	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	COMP	3	0	
CY5077 (7C850003A)	4615715	610637084	PHIL-M	COMP	3	0	

**STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE (150C, 2.35V, Vcc Max)**

CY5077 (7C850003A)	4538565	610555083	CML-RA	48	519	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	48	1061	0	
CY5077 (7C850003A)	4615715	610637084	PHIL-M	48	500	0	

**STRESS: HIGH TEMP STEADY STATE LIFE TEST (150C, 2.35V)**

CY5077 (7C850003A)	4538565	610555083	CML-RA	80	79	0	
CY5077 (7C850003A)	4538565	610555083	CML-RA	168	79	0	



## Reliability Test Data

### QTP #: 053301

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
<b>STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE (150C, 2.35V, Vcc Max)</b>							
CY5077 (7C850003A)	4538565	610555083	CML-RA	80	120	0	
CY5077 (7C850003A)	4538565	610555083	CML-RA	500	120	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	80	120	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	500	120	0	
CY5077 (7C850003A)	4615715	610637084	PHIL-M	80	120	0	
CY5077 (7C850003A)	4615715	610637084	PHIL-M	500	120	0	
<b>STRESS: LONG LIFE VERIFICATION TEST (150C, 2.35V, Vcc Max)</b>							
CY5077 (7C850003A)	4538565	610555083	CML-RA	1000	119	0	
<b>STRESS: HI-ACCEL SATURATION TEST (130C, 85%RH, 2.35V), PRE COND 192 HR, 30C/60%RH, MSL3</b>							
CY5077 (7C850003A)	4538565	610555083	CML-RA	128	48	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	128	48	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	256	47	0	
<b>STRESS: HIGH TEMPERATURE STORAGE, 150C, no bias</b>							
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	500	50	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	1000	50	0	
<b>STRESS: STATIC LATCH-UP TESTING (125C, 3.0V, <math>\pm 200</math>mA), 1.8V Option</b>							
CY5077 (7C850003A)	4538565	610555083	CML-RA	COMP	3	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	COMP	3	0	
CY5077 (7C850003A)	4615715	610637084	PHIL-M	COMP	3	0	
<b>STRESS: STATIC LATCH-UP TESTING (125C, 6.5V, <math>\pm 200</math>mA), 3.3V Option</b>							
CY5077 (7C850003A)	4538565	610555083	CML-RA	COMP	3	0	
<b>STRESS: STATIC LATCH-UP TESTING (125C, 5.4V, <math>\pm 200</math>mA), 3.3V Option</b>							
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	COMP	3	0	
CY5077 (7C850003A)	4615715	610637084	PHIL-M	COMP	3	0	

## Reliability Test Data

### QTP #: 053301

<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>
<b>STRESS: TC COND. C -65C TO 150C, PRE COND 192 HRS, 30C/60%RH, MSL3</b>							
CY5077 (7C850003A)	4538565	610555083	CML-RA	300	50	0	
CY5077 (7C850003A)	4538565	610555083	CML-RA	500	50	0	
CY5077 (7C850003A)	4538565	610555083	CML-RA	1000	50	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	300	50	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	500	50	0	
CY5077 (7C850003A)	4550443	61033232/3/915	PHIL-M	1000	50	0	
CY5077 (7C850003A)	4615715	610637084	PHIL-M	300	49	0	
CY5077 (7C850003A)	4615715	610637084	PHIL-M	500	49	0	
CY5077 (7C850003A)	4615715	610637084	PHIL-M	1000	48	0	

## Reliability Test Data

### QTP #: 053408

<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>
<b>STRESS: ACOUSTIC-MSL3</b>							
CY27044 (7C870442A)	4547637	610615630	KOREA-L	COMP	15	0	
CY27044 (7C870442A)	4549015	610621941	KOREA-L	COMP	15	0	
CY27044 (7C870442A)	4614301	610628571	KOREA-L	COMP	15	0	
<b>STRESS: ESD-CHARGE DEVICE MODEL (500V)</b>							
CY27044 (7C870442A)	4547637	610615630	KOREA-L	COMP	9	0	
CY27044 (7C870442A)	4614301	610628571	KOREA-L	COM P	9	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114, 2200V</b>							
CY27044 (7C870442A)	4547637	610615630	KOREA-L	COMP	9	0	
CY27044 (7C870442A)	4614301	610628571	KOREA-L	COMP	9	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 2,200V</b>							
CY27044 (7C870442A)	4547637	610615630	KOREA-L	COMP	3	0	
CY27044 (7C870442A)	4614301	610628571	KOREA-L	COMP	3	0	
<b>STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE (150C, 2.35V, Vcc Max)</b>							
CY27044 (7C870442A)	4547637	610615630	KOREA-L	48	339	0	
<b>STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE (150C, 2.07V, Vcc Max)</b>							
CY27044 (7C870442A)	4549015	610621941	KOREA-L	48	355	0	
<b>STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE (150C, 2.35V, Vcc Max)</b>							
CY27044 (7C870442A)	4547637	610615630	KOREA-L	80	120	0	
CY27044 (7C870442A)	4547637	610615630	KOREA-L	500	120	0	
<b>STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE (150C, 2.07V, Vcc Max)</b>							
CY27044 (7C870442A)	4549015	610621941	KOREA-L	80	120	0	
CY27044 (7C870442A)	4549015	610621941	KOREA-L	500	120	0	
<b>STRESS: HI-ACCEL SATURATION TEST (130C, 85%RH, 2.35V), PRE COND 192 HR, 30C/60%RH, MSL3</b>							
CY27044 (7C870442A)	4547637	610615630	KOREA-L	128	48	0	
<b>STRESS: STATIC LATCH-UP TESTING (125C, 3.0V, ±200mA)</b>							
CY27044 (7C870442A)	4547637	610615630	KOREA-L	COMP	3	0	
CY27044 (7C870442A)	4614301	610628571	KOREA-L	COMP	3	0	

## Reliability Test Data

### QTP #: 053408

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
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**STRESS: TC COND. C -65C TO 150C, PRE COND 192 HRS, 30C/60%RH, MSL3**

CY27044 (7C870442A)	4547637	610615630	KOREA-L	300	50	0	
CY27044 (7C870442A)	4547637	610615630	KOREA-L	500	50	0	
CY27044 (7C870442A)	4547637	610615630	KOREA-L	1000	50	0	
CY27044 (7C870442A)	4549015	610621941	KOREA-L	300	50	0	
CY27044 (7C870442A)	4549015	610621941	KOREA-L	500	50	0	
CY27044 (7C870442A)	4549015	610621941	KOREA-L	1000	50	0	
CY27044 (7C870442A)	4614301	610628571	KOREA-L	300	50	0	
CY27044 (7C870442A)	4614301	610628571	KOREA-L	500	50	0	
CY27044 (7C870442A)	4614301	610628571	KOREA-L	1000	50	0	

## Reliability Test Data

### QTP #: 072401

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
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#### STRESS: ACOUSTIC-MSL3

CY2546C (7C8B5401B)	4716297	610737565	KOREA-L	COMP	15	0	
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#### STRESS: ESD-CHARGE DEVICE MODEL (500V)

CY2546C (7C8B5401B)	4716297	610737565	KOREA-L	COMP	9	0	
CY2544C (7C8A5401B)	4716297	610737566	KOREA-L	COMP	9	0	
M202 (7C825416B)	4716297	610733912	PHIL-M	COMP	9	0	

#### STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114, 2200V

CY2546C (7C8B5401B)	4716297	610737565	KOREA-L	COMP	8	0	
CY2544C (7C8A5401B)	4716297	610737566	KOREA-L	COMP	8	0	
M202 (7C825416B)	4716297	610733912	PHIL-M	COMP	8	0	
CY25404 (7C8A5423B)	4716297	610731870	TAIWAN-T	COMP	8	0	

#### STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114, 2100V

CY25404 (7C8A5423B)	4716297	610731870	TAIWAN-T	COMP	8	0	
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#### STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE (150C, 2.07V, Vcc Max)

CY2546C (7C8B5401B)	4649571		KOREA-L	48	1080	0	
CY2546C (7C8B5401B)	4716297	610737565	KOREA-L	48	1078	0	

#### STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE (150C, 3.8V, Vcc Max)

CY2544C (7C8A5401B)	4716297	610737566	KOREA-L	48	1103	0	
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#### STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE (150C, 2.07V, Vcc Max)

CY2546C (7C8B5401B)	4649571		KOREA-L	80	120	0	
CY2546C (7C8B5401B)	4649571		KOREA-L	500	120	0	
CY2546C (7C8B5401B)	4716297	610737565	KOREA-L	80	120	0	
CY2546C (7C8B5401B)	4716297	610737565	KOREA-L	500	120	0	

#### STRESS: HIGH TEMP DYNAMIC OPERATING LIFE--LATENT FAILURE RATE (150C, 3.8V, Vcc Max)

CY2544C (7C8A5401B)	4716297	610737566	KOREA-L	80	120	0	
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#### STRESS: STATIC LATCH-UP TESTING (125C, 3.0V, ±200mA)

CY2546C (7C8B5401B)	4716297	610737565	KOREA-L	COMP	6	0	
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#### STRESS: STATIC LATCH-UP TESTING (125C, 5.4V, ±200mA)

CY2544C (7C8A5401B)	4716297	610737566	KOREA-L	COMP	6	0	
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## Reliability Test Data

### QTP #: 072401

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
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**STRESS: STATIC LATCH-UP TESTING (125C, 5.4V/3.0V,  $\pm$ 200mA)**

M202 (7C825416B)	4716297	610733912	PHIL-M	COMP	6	0	
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**STRESS: PRESSURE COOKER TEST (121C, 100%RH), 15 psig, PRE COND 192HR, 30C/60%RH, MSL3**

CY2546C (7C8B5401B)	4716297	610737565	KOREA-L	168	80	0	
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**STRESS: TC COND. C -65C TO 150C, PRE COND 192 HRS, 30C/60%RH, MSL3**

CY2546C (7C8B5401B)	4649571		KOREA-L	500	84	0	
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CY2546C (7C8B5401B)	4649571		KOREA-L	1000	84	0	
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CY2546C (7C8B5401B)	4716297	610737565	KOREA-L	500	80	0	
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## Reliability Test Data

### QTP #: 073705

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
<b>STRESS: ESD-CHARGE DEVICE MODEL (500V)</b>							
CY25403S (7C8A5402B)	4723974	610757075	CML-RA	COMP	9	0	
CY25482S (7C8A5404B)	4723974	610757087	CML-RA	COMP	9	0	
CY25422S (7C8B5402B)	4723974	610757088	CML-RA	COMP	9	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114, 2200V</b>							
CY25403S (7C8A5402B)	4723974	610757075	CML-RA	COMP	8	0	
CY25482S (7C8A5404B)	4723974	610757087	CML-RA	COMP	8	0	
CY25422S (7C8B5402B)	4723974	610757088	CML-RA	COMP	8	0	
<b>STRESS: STATIC LATCH-UP TESTING (125C, 5.4V, ±200mA)</b>							
CY25403S (7C8A5402B)	4723974	610757075	CML-RA	COMP	6	0	
CY25482S (7C8A5404B)	4723974	610757087	CML-RA	COMP	6	0	
<b>STRESS: STATIC LATCH-UP TESTING (125C, 2.7V, ±200mA)</b>							
CY25422S (7C8B5402B)	4723974	610757088	CML-RA	COMP	6	0	
<b>STRESS: SORT YIELD</b>							
CY25403S (7C8A5402B)	4723974			COMP	COMPARABLE		



## Reliability Test Data

### QTP #: 120102

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
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**STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114, 2200V**

M4000LFXI (7C8C5401B)	4803133	610913282	L-KOREA	COMP	8	0	
CY2542FCI (7C8C5405B)	4843704	610938584	L-KOREA	COMP	8	0	

**STRESS: STATIC LATCH-UP TESTING (125C, 1.9V,  $\pm 50mA$ )**

M4000LFXI (7C8C5401B)	4803133	610913282	L-KOREA	COMP	8	0	
CY2542FCI (7C8C5405B)	4843704	610938584	L-KOREA	COMP	8	0	



## Document History Page

Document Title: 072401: GENERAL PURPOSE LOW POWER 4PLL W/PROGRAMMABLE SPREAD  
SPECTRUM CLOCK GENERATOR, L8C-3R TECHNOLOGY, FAB 4  
Document Number: 001-72502

Rev.	ECN No.	Orig. of Change	Description of Change
**	3360918	HGA	Initial spec release
*A	3530371	NSR	Added QTP 120102 in the history page and QTP data. Added CY2542 and M4000 devices in the title page. Remove QTP version 2.1 in the title page
*B	4131677	JYF	Sunset Spec Review: Complete re-write of Reliability Tests Performed table to align with current spec template.
*C	4518042	JYF	Sunset review: - Updated QTP title page for template alignment; - Updated device division from DCD to MPD.

Distribution: WEB

Posting: None