



**Please note that Cypress is an Infineon Technologies Company.**

The document following this cover page is marked as “Cypress” document as this is the company that originally developed the product. Please note that Infineon will continue to offer the product to new and existing customers as part of the Infineon product portfolio.

**Continuity of document content**

The fact that Infineon offers the following product as part of the Infineon product portfolio does not lead to any changes to this document. Future revisions will occur when appropriate, and any changes will be set out on the document history page.

**Continuity of ordering part numbers**

Infineon continues to support existing part numbers. Please continue to use the ordering part numbers listed in the datasheet for ordering.

# Cypress Semiconductor Product Qualification Report

**QTP# 044403**  
**July 2013**

<b>72 Meg Synchronous SRAM Family</b> <b>Technology R9T-3R, Fab4</b>	
<b>CY7C1470V25/BV25</b> <b>CY7C1472V25/BV25</b> <b>CY7C1474V25/BV25</b>	<b>72-Mbit (2M x 36/4M x 18/1M x 72) 2.25V Pipelined SRAM with NoBL™ Architecture</b>
<b>CY7C1471V25/BV25</b> <b>CY7C1473V25/BV25</b> <b>CY7C1475V25/BV25</b>	<b>72-Mbit (2M x 36/4M x 18/1M x 72) 2.25V Flow-Through SRAM with NoBL™ Architecture</b>
<b>CY7C1480V25/BV25</b> <b>CY7C1482V25/BV25</b> <b>CY7C1486V25/BV25</b>	<b>72-Mbit (2M x 36/4M x 18/1M x 72) 2.25V Pipelined Sync SRAM</b>
<b>CY7C1481V25/BV25</b> <b>CY7C1483V25/BV25</b>	<b>72-Mbit (2M x 36/4M x 18/1M x 72) 2.25V Flow-Through SRAM</b>
<b>CY7C1484V25/BV25</b> <b>CY7C1485V25/BV25</b>	<b>72-Mbit (2M x 36/4M x 18) 2.25V Pipelined DCD Sync SRAM</b>
<b>CY7C1470V33/BV33</b> <b>CY7C1472V33/BV33</b> <b>CY7C1474V33/BV33</b>	<b>72-Mbit (2M x 36/4M x 18/1M x 72) 3.3V Pipelined SRAM with NoBL™ Architecture</b>
<b>CY7C1471V33/BV33</b> <b>CY7C1473V33/BV33</b> <b>CY7C1475V33/BV33</b>	<b>72-Mbit (2M x 36/4M x 18/1M x 72) 3.3V Flow-Through SRAM with NoBL™ Architecture</b>
<b>CY7C1480V33/BV33</b> <b>CY7C1482V33/BV33</b> <b>CY7C1486V33/BV33</b>	<b>72-Mbit (2M x 36/4M x 18/1M x 72) 3.3V Pipelined Sync RAM</b>
<b>CY7C1481V33/BV33</b> <b>CY7C1483V33/BV33</b>	<b>72-Mbit (2M x 36/4M x 18/1M x 72) 3.3V Flow-Through SRAM</b>
<b>CY7C1484V33/BV33</b> <b>CY7C1485V33/BV33</b>	<b>72-Mbit (2M x 36/4M x 18) 3.3V Pipelined DCD Sync SRAM</b>

## CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:

Zhaomin Ji  
Principal Reliability Engineer  
(408) 432-7021

Mira Ben-Tzur  
Quality Engineering Director  
(408) 943-2675

### PRODUCT QUALIFICATION HISTORY

<b>Qual Report</b>	<b>Description of Qualification Purpose</b>	<b>Date Comp</b>
033302	New Technology R9T-3R, Fab 4, and New Device CY7C137*/138*E (18Meg) Synchronous Product Family	Sept 04
044403	New Device CY7C147*/7C148* AC (72Meg) Device Family, R9T-3R Technology @ Fab4	Nov 04
071001	New Mask change to fix Single Event Latch-up on 72Meg Device Family, R9T-3R @Fab4	Jun 07

**Cypress products are manufactured using qualified processes. The technology qualification for this product is referenced above and must be considered to get a complete and thorough evaluation of the reliability of the product.**

<b>PRODUCT DESCRIPTION (for qualification)</b>	
Qualification Purpose:	Qualify CY7C147*E/148*A Synchronous product family in qualified technology R9T-3R, Fab 4
Marketing Part #:	CY7C1470/2/4BV25, CY7C1471/3/4BV25, CY7C1481/3BV25, CY7C1484/5BV25, CY7C1480/2/6BV25, CY7C1470/2/4BV33, CY7C1471/3/4BV33, CY7C1480/2/6BV33, CY7C1481/3BV33, CY7C1484/5BV33
Device Description:	2.5V, 3.3V, Commercial
Cypress Division:	Cypress Semiconductor Corporation –Memory & Image Division (MID)

<b>TECHNOLOGY/FAB PROCESS DESCRIPTION – R9T-3R</b>			
Number of Metal Layers:	3	Metal Composition:	Metal 1: 150Å Ti /3200Å Al / 300Å TiW Metal 2: 150Å Ti /6000 Å Al / 300Å TiW Metal 3: 150Å Ti / 8,000Å Al / 300Å TiW
Passivation Type and Materials:	1000Å Oxide TEOS / 9000Å Nitride		
Generic Process Technology/Design Rule (□-drawn):	CMOS, Triple Metal, 90 nm		
Gate Oxide Material/Thickness (MOS):	Nitridized SiO <sub>2</sub> , Thin GOX 20A, Thick GOX, 58A		
Name/Location of Die Fab (prime) Facility:	Cypress Semiconductor -- Bloomington, MN		
Die Fab Line ID/Wafer Process ID:	Fab4/R9T-3R		

**PACKAGE AVAILABILITY**

<b>PACKAGE</b>	<b>ASSEMBLY SITE FACILITY</b>
<b>100-Lead TQFP</b>	<b>CML-RA, JT-CHINA,</b>
<b>165/209-Ball FBGA</b>	<b>TAIWAN-G</b>

**Note:** Package Qualification details upon request

<b>MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION</b>	
<b>Package Designation:</b>	A100
<b>Package Outline, Type, or Name:</b>	100-Lead Thin Quad Flat Pack (TQFP)
<b>Mold Compound Name/Manufacturer:</b>	Hitachi CEL 9200HF9-U (V80)
<b>Mold Compound Flammability Rating:</b>	N/A
<b>Oxygen Rating Index:</b>	N/A
<b>Lead Frame Material:</b>	Copper Alloy 194
<b>Lead Finish, Composition / Thickness:</b>	Ni-40um, Pd-0.8um, Au-0.1 to 0.6um
<b>Die Backside Preparation Method/Metallization:</b>	Grinding
<b>Die Separation Method:</b>	Step-Cut
<b>Die Attach Supplier:</b>	Dexter
<b>Die Attach Material:</b>	QMI 509 Snap Cure
<b>Die Attach Method:</b>	Silver Epoxy
<b>Wire Bond Method:</b>	Thermosonic
<b>Wire Material/Size:</b>	Au, 1.0 mil
<b>Thermal Resistance Theta JA °C/W:</b>	16.8°C/W
<b>Package Cross Section Yes/No:</b>	N/A
<b>Name/Location of Assembly (prime) facility:</b>	Cypress Philippines (CML-R)
<b>MSL Level</b>	3
<b>Reflow Profile</b>	260C

<b>ELECTRICAL TEST / FINISH DESCRIPTION</b>	
<b>Test Location:</b>	CML-R, GO-TAIWAN, KY-TAIWAN

**Note:** Please contact a Cypress Representative for other packages availability

**RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENT**

<b>Stress/Test</b>	<b>Test Condition (Temp/Bias)</b>	<b>Result P/F</b>
High Temperature Operating Life Early Failure Rate	Dynamic Operating Condition, Vcc Max (Core) = 2.2V, 150°C Dynamic Operating Condition, Vcc Max (Core) = 2.25V, 150°C	P
High Temperature Operating Life Latent Failure Rate	Dynamic Operating Condition, Vcc Max (Core)=2.25V, 150°C	P
High Temperature Steady State Life	Static Operating Condition, Vcc Max= 2.25V, 150°C	P
Low Temperature Operating Life	Dynamic Operating Condition, Vcc = 6.50V, -30°C	P
High Accelerated Saturation Test (HAST)	130°C, 3.63V, 85%RH Precondition: JESD22 Moisture Sensitivity MSL 3 192 Hrs, 30°C/60%RH+3IR-Reflow, <b>260°C</b> +0, -5°C	P
Temperature Cycle	MIL-STD-883C, Method 1010, Condition C, -65°C to 150°C Precondition: JESD22 Moisture Sensitivity MSL 3 192 Hrs, 30°C/60%RH+3IR-Reflow, <b>260°C</b> +0, -5°C	P
Pressure Cooker	121°C, 100%RH, 15 Psig Precondition: JESD22 Moisture Sensitivity MSL 3 192 Hrs, 30°C/60%RH+3IR-Reflow, <b>260°C</b> +0, -5°C	P
High Temperature Storage	150□C ± 5°C, no bias	P
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 JESD22-C101C	P
Current Density	Meets the Technology Device Level Reliability Specifications	P
Age Bond Strength	200°C, 4HRS MIL-STD-883, Method 883-2011	P
Acoustic Microscopy	J-STD-020	P
Dynamic Latch up	In accordance with JESD78	P
Static Latch up	125C, ± 200/300mA In accordance with JESD78	P

**RELIABILITY FAILURE RATE SUMMARY**

<b>Stress/Test</b>	<b>Device Tested/ Device Hours</b>	<b># Fails</b>	<b>Activation Energy</b>	<b>Thermal AF<sup>3</sup></b>	<b>Failure Rate</b>
High Temperature Operating Life Early Failure Rate	1,391 Devices	0	N/A	N/A	0 PPM
High Temperature Operating Life <sup>1,2</sup> Long Term Failure Rate	594,000 DHRs	0	0.7	170	9 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 #: 033302**

<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>							
CY7C1470V33 (7C1470A)	4330156	610417279	CML-R	COMP	15	0	
CY7C1470V33 (7C1470A)	4321389	610417280	CML-R	COMP	15	0	
CY7C1470V33 (7C1470A)	4323794	610348235	TAIWN-G	COMP	15	0	
<b>STRESS: AGE BOND STRENGTH</b>							
CY7C1370DV33 (7C1370E)	4421235	610447674	CML-R	COMP	5	0	
CY7C1370DV33 (7C1370E)	4406200	610435906	CML-R	COMP	5	0	
CY7C1370DV33 (7C1370E)	4410258	610437891	CML-R	COMP	5	0	
<b>STRESS: BALL SHEAR</b>							
CY7C1470V33 (7C1470A)	4321389	610417278	CML-R	COMP	10	0	
<b>STRESS: BOND PULL</b>							
CY7C1470V33 (7C1470A)	4321389	610417278	CML-R	COMP	10	0	
<b>STRESS: DYNAMIC LATCH-UP</b>							
CY7C1470V33 (7C1470A)	4321389	610417278	CML-R	COMP	3	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 2,200V</b>							
CY7C1470V33 (7C1470A)	4352888	610425832	TAIWN-G	COMP	3	0	
CY7C1470V33 (7C1470A)	4401980	610425833	TAIWN-G	COMP	3	0	
CY7C1370DV33 (7C1370E)	4345377	610417723	CML-R	COMP	3	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER JEDEC EIA/JESD22-A114-B, 2,200V</b>							
CY7C1470V33 (7C1470A)	4352888	610425832	TAIWN-G	COMP	9	0	
CY7C1470V33 (7C1470A)	4401980	610425833	TAIWN-G	COMP	9	0	
CY7C1370DV33 (7C1370E)	4421235	610446833	CML-R	COMP	9	0	
<b>STRESS: ESD-CHARGE DEVICE MODEL, 500V</b>							
CY7C1470V33 (7C1470A)	4352888	610425832	TAIWN-G	COMP	9	0	
CY7C1470V33 (7C1470A)	4401980	610425833	TAIWN-G	COMP	9	0	
CY7C1370DV33 (7C1370E)	4345377	610417723	CML-R	COMP	9	0	
<b>STRESS: HIGH TEMPERATURE STORAGE, PLASTIC, 150C, no bias</b>							
CY7C1470V33 (7C1470A)	4323794	610348234	TAIWN-G	500	47	0	
CY7C1470V33 (7C1470A)	4323794	610348234	TAIWN-G	1000	47	0	



## Reliability Test Data

**QTP #: 033302**

<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: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE, 150C, 2.25V, Vcc Max (Core)</b>							
CY7C1370DV33 (7C1370E)	4345377	610424939	CML-R	48	193	0	
CY7C1370DV33 (7C1370E)	4345377	610422227	CML-R	48	951	0	
CY7C1370DV33 (7C1370E)	4406200	610435906	CML-R	48	1246	0	
CY7C1370DV33 (7C1370E)	4410258	610437891	CML-R	48	1382	1	Non-Visual
<b>STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE, 150C, 2.25V, Vcc Max (Core)</b>							
CY7C1370DV33 (7C1370E)	4345377	610424939	CML-R	500	170	0	
CY7C1370DV33 (7C1370E)	4406200	610435906	CML-R	500	400	0	
CY7C1370DV33 (7C1370E)	4410258	610437891	CML-R	500	400	0	
<b>STRESS: HIGH TEMP STEADY STATE LIFE TEST, 150C, 2.25V, Vcc Max</b>							
CY7C1470V33 (7C1470A)	4405088	610418824	TAIWN-G	80	85	0	
CY7C1470V33 (7C1470A)	4405088	610418824	TAIWN-G	168	85	0	
<b>STRESS: INTERNAL VISUAL</b>							
CY7C1470V33 (7C1470A)	4321389	610417278	CML-R	COMP	5	0	
<b>STRESS: LOW TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE, -30C, 6.50V, Vcc</b>							
CY7C1470V33 (7C1470A)	4333765	610349455	CML-R	500	45	0	
<b>STRESS: PRESSURE COOKER TEST, 121C, 100%RH, 15 Psig, PRE COND 192 HR 30C/60%RH, MSL3</b>							
CY7C1370DV33 (7C1370E)	4345377	610422227	CML-R	168	50	0	
CY7C1370DV33 (7C1370E)	4406200	610435906	CML-R	168	50	0	
CY7C1470V33 (7C1470A)	4321389	610417278	CML-R	168	43	0	
<b>STRESS: HI-ACCEL SATURATION TEST, 130C, 85%RH, 3.63V, PRE COND 192 HR 30C/60%RH, MSL3</b>							
CY7C1370DV33 (7C1370E)	4406200	610435906	CML-R	128	50	0	
CY7C1470V33 (7C1470A)	4321389	610417278	CML-R	128	47	0	
CY7C1470V33 (7C1470A)	4330156	610417279	CML-R	128	44	0	
<b>STRESS: STATIC LATCH-UP TESTING, 125C, 7.5V, +/300mA</b>							
CY7C1470V33 (7C1470A)	4352888	610425832	TAIWN-G	COMP	3	0	
CY7C1470V33 (7C1470A)	4401980	610425833	TAIWN-G	COMP	3	0	
CY7C1370DV33 (7C1370E)	4345377	610417723	CML-R	COMP	3	0	

## *Reliability Test Data*

**QTP #: 033302**

<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>							
CY7C1370DV33 (7C1370E)	4345377	610422227	CML-R	300	50	0	
CY7C1370DV33 (7C1370E)	4345377	610422227	CML-R	500	49	0	
CY7C1370DV33 (7C1370E)	4345377	610422227	CML-R	1000	49	0	
CY7C1470V33 (7C1470A)	4330156	610417279	CML-R	300	43	0	
CY7C1470V33 (7C1470A)	4330156	610417279	CML-R	500	43	0	
CY7C1470V33 (7C1470A)	4330156	610417279	CML-R	1000	42	0	
CY7C1470V33 (7C1470A)	4321389	610417280	CML-R	300	34	0	
CY7C1470V33 (7C1470A)	4321389	610417280	CML-R	500	33	0	
CY7C1470V33 (7C1470A)	4321389	610417280	CML-R	1000	33	0	
<b>STRESS: THERMAL SHOCK</b>							
CY7C1470V33 (7C1470A)	4321389	610417278	CML-R	100	46	0	
CY7C1470V33 (7C1470A)	4321389	610417278	CML-R	200	46	0	
<b>STRESS: X-RAY</b>							
CY7C1470V33 (7C1470A)	4321389	610417278	CML-R	COMP	15	0	

## Reliability Test Data

**QTP #: 044403**

<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>							
CY7C1470V33 (7C1470A)	4323794	610348323	TAIWN-G	COMP	15	0	
CY7C1470V33 (7C1470A)	4352888	610425832	TAIWN-G	COMP	15	0	
CY7C1470V33 (7C1470A)	4401980	610425833	TAIWN-G	COMP	15	0	
<b>STRESS: AGE BOND STRENGTH</b>							
CY7C1370DV33 (7C1370E)	4410258	610437891	CML-R	COMP	5	0	
CY7C1470V33 (7C1470A)	4321389	610354349	TAIWN-G	COMP	3	0	
CY7C1470V33 (7C1470A)	4323794	610348235	TAIWN-G	COMP	3	0	
<b>STRESS: DYNAMIC LATCH-UP</b>							
CY7C1470V33 (7C1470A)	4323794	610348323	TAIWN-G	COMP	3	0	
<b>STRESS: ESD-CHARGE DEVICE MODEL, 500V</b>							
CY7C1470V33 (7C1470A)	4333765	610349455	TAIWN-G	COMP	9	0	
CY7C1470V33 (7C1470A)	4401980	610425833	TAIWN-G	COMP	9	0	
CY7C1470V33 (7C1470A)	4352888	610425832	TAIWN-G	COMP	9	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 2,200V</b>							
CY7C1470V33 (7C1470A)	4333765	610349455	TAIWN-G	COMP	3	0	
CY7C1470V33 (7C1470A)	4401980	610425833	TAIWN-G	COMP	3	0	
CY7C1470V33 (7C1470A)	4352888	610425832	TAIWN-G	COMP	3	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER JEDEC EIA/JESD22-A114-B, 2,200V</b>							
CY7C1470V33 (7C1470A)	4333765	610349455	TAIWN-G	COMP	9	0	
CY7C1470V33 (7C1470A)	4401980	610425833	TAIWN-G	COMP	9	0	
CY7C1470V33 (7C1470A)	4352888	610425832	TAIWN-G	COMP	9	0	
<b>STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE, 150C, 2.25V, Vcc Max (Core)</b>							
CY7C1470V33 (7C1470A)	4423022	610453316	TAIWN-G	48	447	0	
CY7C1470V33 (7C1470A)	4425478	610451858	TAIWN-G	48	833	0	
CY7C1470V33 (7C1470A)	4425554	610453022	TAIWN-G	48	560	0	
<b>STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE, 150C, 2.25V, Vcc Max (Core)</b>							
CY7C1470V33 (7C1470A)	4423022	610453316	TAIWN-G	500	397	0	
CY7C1470V33 (7C1470A)	4425478	610451858	TAIWN-G	500	397	0	
CY7C1470V33 (7C1470A)	4425554	610453022	TAIWN-G	500	394	0	

Company Confidential

A printed copy of this document is considered uncontrolled. Refer to online copy for latest revision.

## Reliability Test Data

**QTP #: 044403**

<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: HIGH TEMP STEADY STATE LIFE TEST, 150C, 2.25V, Vcc Max</b>							
CY7C1470V33 (7C1470A)	4405088	610418824	TAIWN-G	80	85	0	
CY7C1470V33 (7C1470A)	4405088	610418824	TAIWN-G	168	85	0	
<b>STRESS: HI-ACCEL SATURATION TEST, 130C, 85%RH, 3.63V, PRE COND 192 HR 30C/60%RH, MSL3</b>							
CY7C1470V33 (7C1470A)	4321389	610417278	TAIWN-G	128	47	0	
CY7C1470V33 (7C1470A)	4414234	610446423	TAIWN-G	128	49	0	
CY7C1470V33 (7C1470A)	4414234	610446424	TAIWN-G	128	46	0	
<b>STRESS: HIGH TEMPERATURE STORAGE, PLASTIC, 150C</b>							
CY7C1470V33 (7C1470A)	4323794	610348234	TAIWN-G	500	47	0	
CY7C1470V33 (7C1470A)	4323794	610348234	TAIWN-G	1000	47	0	
<b>STRESS: LOW TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE, -30C, 6.50V, Vcc</b>							
CY7C1470V33 (7C1470A)	4323794	610348323	TAIWN-G	500	45	0	
<b>STRESS: PRESSURE COOKER TEST, 121C, 100%RH, 15 Psig, PRE COND 192 HR 30C/60%RH, MSL3</b>							
CY7C1470V33 (7C1470A)	4321389	610417278	TAIWN-G	168	43	0	
CY7C1470V33 (7C1470A)	4414234	610446423	TAIWN-G	168	50	0	
CY7C1470V33 (7C1470A)	4414234	610446424	TAIWN-G	168	51	0	
<b>STRESS: STATIC LATCH-UP TESTING, 125C, 7V, +300mA</b>							
CY7C1470V33 (7C1470A)	4333765	610349455	TAIWN-G	COMP	3	0	
<b>STRESS: STATIC LATCH-UP TESTING, 125C, 7.5V, +300mA</b>							
CY7C1470V33 (7C1470A)	4401980	610425833	TAIWN-G	COMP	3	0	
CY7C1470V33 (7C1470A)	4352888	610425832	TAIWN-G	COMP	3	0	
<b>STRESS: TC COND. C -65C TO 150C, PRE COND 192 HRS 30C/60%RH, MSL3</b>							
CY7C1470V33 (7C1470A)	4323794	610348323	TAIWN-G	300	48	0	
CY7C1470V33 (7C1470A)	4323794	610348323	TAIWN-G	500	48	0	
CY7C1470V33 (7C1470A)	4323794	610348323	TAIWN-G	1000	48	0	
CY7C1470V33 (7C1470A)	4352888	610425832	TAIWN-G	300	50	0	
CY7C1470V33 (7C1470A)	4352888	610425832	TAIWN-G	500	50	0	
CY7C1470V33 (7C1470A)	4352888	610425832	TAIWN-G	1000	50	0	
CY7C1470V33 (7C1470A)	4401980	610425833	TAIWN-G	300	50	0	
CY7C1470V33 (7C1470A)	4401980	610425833	TAIWN-G	500	50	0	
CY7C1470V33 (7C1470A)	4401980	610425833	TAIWN-G	1000	50	0	

Company Confidential

A printed copy of this document is considered uncontrolled. Refer to online copy for latest revision.

## *Reliability Test Data*

**QTP #: 071001**

<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><i>STRESS: ACOUSTIC-MSL3</i></b>							
CY7C1471BV25 (7C14712B)	4708823	610720982	CML-R	COMP	15	0	
<b><i>STRESS: ESD-CHARGE DEVICE MODEL, 500V</i></b>							
CY7C1471BV25 (7C14712B)	4708823	610720982	CML-R	COMP	9	0	
<b><i>STRESS: ESD-HUMAN BODY CIRCUIT PER JEDEC EIA/JESD22-A114-B, 2,200V</i></b>							
CY7C1471BV25 (7C14712B)	4708823	610720982	CML-R	COMP	8	0	
<b><i>STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE, 150C, 2.2V, Vcc Max</i></b>							
CY7C1471BV25 (7C14712B)	4708823	610720982	CML-R	48	1391	0	
<b><i>STRESS: STATIC LATCH-UP TESTING, 125C, 4.2V, +/-200mA</i></b>							
CY7C1471BV25 (7C14712B)	4708823	610720982	CML-R	COMP	3	0	

## History Page

Document Title: QTP#044403: 72 MEG SYNCHRONOUS SRAM FAMILY (CY7C147\*/148\*) TECHNOLOGY R9T-3R,  
FAB4

Document Number: 001-62484

Rev.	ECN No.	Orig. of Change	Description of Change
**	2959485	HGA	Initial spec release
*A	4050749	NSR	Added QTP# in the spec title Removed VERSION 5.2 in the title page. Updated Electrical Test Location Removed Obsolete Bond Diagram Spec 10-04921 and Assembly process flow spec 11-21009. Removed reference Cypress specs in the reliability tests performed table.
*B	5373248	JYF	Sunset: No Change
		DCON	Updated Cypress logo with the new tagline, and removed Distribution: WEB and Posting: None in the document history page.