

Cypress Semiconductor Qualification Report

**QTP# 99241 VERSION 1.0
September, 1999**

**48/56 Ld SSOP Package
(135 x 166 mils), Donut Design Leadframe
Cypress Philippines Assembly**

CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:

Ed Russell
Reliability Director
(408) 432-7069

PLASTIC PACKAGE/ASSEMBLY DESCRIPTION			
Package Outline, Type, or Name:	56 Ld SSOP		
Mold Compound Name/Manufacturer:	Hitachi CEL9200		
Lead Frame material:	Copper		
Lead Finish, composition:	Solder Plated, 85%Sn, 15%Pb		
Die Attach Area Plating:	Silver		
Die Attach Method:	Silver Epoxy	Die Attach Material:	Ablestick 8361H
Wire Bond Method:	Thermosonic	Wire Material/Size:	Gold / 1.0 mil
JESD22-A112 Moisture Sensitivity Level	MSL 1		
Assembly Line ID and Process ID:	Cypress Philippines (CSPI-R)		

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

RELIABILITY TESTS PERFORMED

Stress/Test	Test Condition (Temp/Bias)	Result P/F
Temperature Cycle	MIL-STD-883C, Method 1010, Condition C, -65°C to 150°C Precondition: JESD22 Moisture Sensitivity MSL 1 168 Hrs., 85°C/85%RH+ 3IR-Reflow, 220°C+ 5, 0°C	P
High Accelerated Saturation Test	140°C/5.5V Precondition: JESD22 Moisture Sensitivity MSL 1 168 Hrs., 85°C/85%RH+ 3IR-Reflow, 220°C+ 5, 0°C	P
Internal Visual	Cypress Spec 25-00017	P
High Temp Storage	165°C, no bias	P
Pressure Cooker Test	No bias, 121°C, 100%, 30 PSIA	p
Ball Shear	Cypress Spec 24-00018	P
Bond Pull	Cypress Spec 24-00002	P
Thermal Shock	Cypress Spec 25-00014	P
X-Ray	MIL-STD-883-2012	P
Acoustic Microscopy Test	Cypress Spec 25-00104	P

RELIABILITY TEST DATA

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DEVICE	ASSY-LOC	FABLOT#	ASSYLOT#	DURATION	S/S	REJ	FAIL MODE
7C66113AT	CSPI-R	2916923	619916424	COMP	10	0	
STRESS: AGE BALL SHEAR							
7C66113AT	CSPI-R	2916923	619916424	COMP	10	0	
STRESS: BOND PULL							
7C66113AT	CSPI-R	2916923	619916424	COMP	10	0	
STRESS: HI-ACCEL SATURATION TEST (140C/85%RH/5.5V), PRECOND. 168 HRS 85C/85%RH							
7C66113AT	CSPI-R	2916923	619916424	128	50	0	
STRESS: HIGH TEMPERATURE STORAGE (165C, NO BIAS)							
7C66113AT	CSPI-R	2916923	619916424	336	50	0	
STRESS: INTERNAL VISUAL							
7C66113AT	CSPI-R	2916923	619916424	COMP	5	0	
STRESS: PRESSURE COOKER TEST (121C, 100%RH)							
7C66113AT	CSPI-R	2916923	619916424	168	48	0	
STRESS: TC COND. C, -65 TO 150C, PRECOND. 168 HRS 85C/85%RH (MSL 1)							
7C66113AT	CSPI-R	2916923	619916424	300	50	0	
7C66113AT	CSPI-R	2916923	619916487	300	50	0	
7C66113AT	CSPI-R	2916923	619916488	300	49	0	
STRESS: THERMAL SHOCK, CONDITION B							
7C66113AT	CSPI-R	2916923	619916424	100	50	0	
7C66113AT	CSPI-R	2916923	619916424	200	50	0	
STRESS: X-RAY INSPECTION							
7C66113AT	CSPI-R	2916923	619916424	COMP	15	0	