

Cypress Semiconductor Qualification Report

**QTP# 97175 VERSION 1.0
June, 1997**

**28 Ld TSOP Package
Cypress Philippines Assembly**

PLASTIC PACKAGE/ASSEMBLY DESCRIPTION			
Package Outline, Type, or Name:	28 Ld TSOP		
Mold Compound Name/Manufacturer:	Hitachi CEL9200		
Lead Frame material:	Copper		
Lead Finish, composition:	Solder Plated, 90%Sn, 10%Pb		
Die Attach Area Plating:	None		
Die Attach Method:	Epoxy	Die Attach Material:	Ablestik 8361H
Wire Bond Method:	Thermosonic	Wire Material/Size:	Gold / 1.3 mil
JESD22-A112 Moisture Sensitivity Level	Level 3		
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 Level 3 192 Hrs., 30°C/60%RH	P
High Accelerated Saturation Test	140°C/5.5V Precondition: JESD22 Moisture Sensitivity Level 3 192 Hrs., 30°C/60%RH	P
Internal Visual	Cypress Spec 25-00017	P
External Visual	Cypress Spec 12-00102/12-00103	P
Physical Dimension	Cypress Spec. 25-00031	P
Solderability, Steam Aged	Cypress Spec. 25-00018	P
Die Shear	Cypress Spec 24-00004	P
Ball Shear	Cypress Spec 24-00018	P
Bond Pull	Cypress Spec 24-00002	P
Thermal Shock	Cypress Spec 25-00014	P
X-Ray	Cypress Spec 12-000149	P
Resistance to Solvent	Cypress Spec 25-00016	P
C-SAM		P

RELIABILITY TEST DATA

QTP#: 97175

DEVICE	ASSY-LOC	FABLOT#	ASSYLOT#	DURATION	S/S	REJ	FAIL MODE
STRESS: BALL SHEAR							
CY7C199-ZC	CSPI	3709211	619702326	COMP	10	0	
STRESS: BOND PULL							
CY7C199-ZC	CSPI	3709211	619702326	COMP	10	0	
STRESS: C-SAM							
CY7C199-ZC	CSPI	3709211	619702326	192H	15	0	
CY7C199-ZC	CSPI	3709211	619702327	192H	15	0	
STRESS: PHYSICAL DIMENSIONS							
CY7C199-ZC	CSPI	3709211	619702326	COMP	5	0	
STRESS: DIE SHEAR							
Y7C199-ZC	CSPI	3709211	619702326	COMP	15	0	
STRESS: EXTERNAL VISUAL							
CY7C199-ZC	CSPI	3709211	619702326	COMP	15	0	
STRESS: HI-ACCEL SATURATION TEST (140C, 5.5V), PRECOND. 192 HRS 30C/60%RH							
CY7C199-ZC	CSPI	3709211	619702326	128H	43	0	
CY7C199-ZC	CSPI	3709211	619702327	128H	45	0	
STRESS: HIGH TEMPERATURE STORAGE (165C, NO BIAS)							
CY7C199-ZC	CSPI	3709211	619702326	336H	45	0	
STRESS: INTERNAL VISUAL							
CY7C199-ZC	CSPI	3709211	619702326	0H	5	0	
STRESS: SOLDERABILITY							
CY7C199-ZC	CSPI	3709211	619702326	8H	5	0	
STRESS: TC COND. C, -65 TO 150C, PRECOND. 192 HRS 30C/60%RH							
CY7C199-ZC	CSPI	3709211	619702326	300C	45	0	
CY7C199-ZC	CSPI	3709211	619702327	300C	45	0	
STRESS: THERMAL SHOCK, CONDITION B							
CY7C199-ZC	CSPI	3709211	619702326	100C	45	0	
CY7C199-ZC	CSPI	3709211	619702326	200C	45	0	
STRESS: X-RAY							
CY7C199-ZC	CSPI	3709211	619702326	0H	15	0	
CY7C199-ZC	CSPI	3709211	619702327	0H	15	0	