

Cypress Semiconductor Qualification Report

QTP# 98074 VERSION 1.0
July, 1998

56 Ld TSSOP Package
Unisem, Malaysia Assembly

CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:

Marc Hartranft
Reliability Manager

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PLASTIC PACKAGE/ASSEMBLY DESCRIPTION			
Package Outline, Type, or Name:	56 Ld TSSOP		
Mold Compound Name/Manufacturer:	Sumitomo 7351T		
Lead Frame material:	Copper		
Lead Finish, composition:	Solder Plated, 85%Sn, 15%Pb		
Die Attach Area Plating:	Silver		
Die Attach Method:	Epoxy	Die Attach Material:	Ablestik 84-1LMSIR4
Wire Bond Method:	Thermosonic	Wire Material/Size:	Gold / 1.0 mil
JESD22-A112 Moisture Sensitivity Level	Level 1		
Assembly Line ID and Process ID:	Unisem, Malaysia (MALAY-U)		

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 1 168 Hrs., 85°C/85%RH	P
High Accelerated Saturation Test	140°C/5.5V Precondition: JESD22 Moisture Sensitivity Level 1 192 Hrs., 85°C/85%RH	P
High Temperature Storage	165°C, no bias	P
Internal Visual	Cypress Spec 25-00017	P
External Visual	Cypress Spec 12-00102/12-00103	P
Physical Dimension	Cypress Spec. 25-00031	P
Resistance to Solvents	Cypress Spec. 25-00016	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
Acoustic Microscopy Test	Cypress Spec 25-000104	P

RELIABILITY TEST DATA

QTP#: 98074

DEVICE	ASSY-LOC	FABLOT#	ASSYLOT#	DURATION	S/S	REJ	FAIL MODE
STRESS: HI-ACCEL SATURATION TEST (140C, 3.63V), PRECOND. 168 HRS 85C/85%RH							
CY74FCT163LD952PAC	MALAY-U	4727954	349705947	128	48	0	
STRESS: HIGH TEMPERATURE STORAGE (165C, NO BIAS)							
CY74FCT163LD952PAC	MALAY-U	4727954	349705947	336	48	0	
CY74FCT163LD952PAC	MALAY-U	4727954	349705947	1000	48	0	
STRESS: TC COND. C, -65 TO 150C, PRECOND. 168 HRS 85C/85%RH (MSL 1)							
CY74FCT163LD952PAC	MALAY-U	4727954	349705947	300	48	0	
CY74FCT163LD952PAC	MALAY-U	4727954	349705947	1000	48	0	
CY74FCT163LD952PAC	MALAY-U	4727954	349705948	300	48	0	
CY74FCT163LD952PAC	MALAY-U	4727954	349705948	1000	48	0	
CY74FCT163LD952PAC	MALAY-U	4727954	349705949	300	48	0	
CY74FCT163LD952PAC	MALAY-U	4727954	349705949	1000	48	0	
STRESS: THERMAL SHOCK, CONDITION B							
CY74FCT163LD952PAC	MALAY-U	4727954	349705947	100	48	0	
CY74FCT163LD952PAC	MALAY-U	4727954	349705947	200	48	0	