

Cypress Semiconductor Qualification Report

**QTP# 98191/92VERSION 1.0
August, 1998**

**32 Ld TSOP Type I Package
Gateway Electronics, Philippines**

PLASTIC PACKAGE/ASSEMBLY DESCRIPTION			
Package Outline, Type, or Name:	32 Ld TSOP Type I		
Mold Compound Name/Manufacturer:	Sumitomo EME-7351LS		
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 8361
Wire Bond Method:	Thermosonic	Wire Material/Size:	Gold / 1.3 mil
JESD22-A112 Moisture Sensitivity Level	Level 3		
Assembly Line ID and Process ID:	Gateway Electronic, Philippines (PHIL-GW)		

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
Pressure Cooker Test	121°C/100%RH	P
Ball Shear	Cypress Spec 24-00018	P
Bond Pull	Cypress Spec 24-00002	P
X-Ray	Cypress Spec 12-000149	P
Acoustic Microscopy Test (C-SAM)	Cypress Spec 25-000104	P

RELIABILITY TEST DATA

QTP#: 98191/92

QTP #	DEVICE	ASSY-LOC	FABLOT#	ASSYLOT#	DURATION	S/S	REJ	FAIL MODE
STRESS: AGE BALL SHEAR								
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698	DATA	10	0	
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698L	DATA	10	0	
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698L1	DATA	10	0	
STRESS: BOND PULL								
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698	DATA	10	0	
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698L	DATA	10	0	
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698L1	DATA	10	0	
STRESS: HI-ACCEL SATURATION TEST (140C, 5.5V), PRECOND. 192 HRS 30C/60%RH								
98191	7C109FB-GWZCB	PHIL-GW	3747781	619803751	128	47	0	
98191	7C109FB-GWZCB	PHIL-GW	3746648	619803752	128	46	0	
98191	7C109FB-GWZCB	PHIL-GW	3734743	619803753	128	48	0	
STRESS: PRESSURE COOKER TEST (121C, 100%RH)								
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698	168	45	0	
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698L	168	45	0	
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698L1	168	45	0	
STRESS: TC COND. C, -65 TO 150C, PRECOND. 192 HRS 30C/60%RH (MSL 3)								
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698	300	45	0	
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698L	300	45	0	
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698L1	300	45	0	
STRESS: X-RAY								
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698	DATA	15	0	
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698L	DATA	15	0	
98192	7C109GC-GWZC	PHIL-GW	4804852	619804698L1	DATA	15	0	