

# **Cypress Semiconductor Package Qualification Report**

**QTP# 000203 VERSION 1.0  
March, 2000**

**84 Lead Plastic Leaded Chip Carrier  
NITTO 8000CH Molding Compound Level 3  
Alphatec Bangkok**

**CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:**

Ed Russell  
Reliability Director  
(408) 432-7069

<b>PLASTIC PACKAGE/ASSEMBLY DESCRIPTION</b>			
Package Outline, Type, or Name:	84 Lead Plastic Leaded Chip Carrier (PLCC)		
Mold Compound Name/Manufacturer:	Nitto MP8000CH		
Mold Compound Tg, °C:	150 °C		
Lead Finish, composition:	88%Sn - 12% Pn		
Die Attach Area Plating:	Yes	Die Attach Pad Size:	360mils x 360mils
Die Attach Method:	Silver Epoxy	Die Attach Material:	8361H Ablestik
Wire Bond Method:	Thermosonic	Wire Material/Size:	Au 1.3 mil
Assembly Line Process Flow:	49-23087		
Moisture Level :	Level 3		
Thermal Resistance JA °C/W:	30		
Name/Location of All Assembly Facilities by Pkg.:	Alphatec Bangkok (ALPHA-X)		

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

**RELIABILITY TESTS PERFORMED**

<b>Stress/Test</b>	<b>Test Condition (Temp/Bias)</b>	<b>Result P/F</b>
High Accelerated Saturation Test	Bias: 5.5V, 130C, 85%RH Precondition: JESD22 Moisture Sensitivity Level 3 192 Hrs., 130°C/85%RH	P
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
External Visual	Cypress Spec 25-00038	P
Bond Pull	Cypress Spec 24--00002	P
Ball Shear	Cypress Spec 24-00018	P
Acoustic Microscopy, Level 3	Cypress Spec. 25-00104	P
Pressure Cooker	No Bias, 121 C, 100%RH	P
X-Ray	Cypress Spec 12-00292	P

**RELIABILITY TEST DATA**

**QTP #000203**

DEVICE	ASSY-LOC	FABLOT#	ASSYLOT#	DURATION	S/S	REJ	FAIL MODE
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STRESS: ACOUSTIC LEVEL 3							
CY7C373I-JC	ALPHA-X	2924753	619937599	COMP	15	0	
CY7C373I-JC	ALPHA-X	2924753	619937599	COMP	15	0	
7C373ET-XJC	ALPHA-X	2922510	619937600	COMP	15	0	
7C373ET-XJC	ALPHA-X	2922510	619937600	COMP	15	0	
CY7C374I-JC	ALPHA-X	2922510	619937601	COMP	15	0	
CY7C374I-JC	ALPHA-X	2922510	619937601	COMP	15	0	
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STRESS: BALL SHEAR							
CY7C373I-JC	ALPHA-X	2924753	619937599	COMP	15	0	
CY7C374I-JC	ALPHA-X	2922510	619937601	COMP	15	0	
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STRESS: BOND PULL							
CY7C373I-JC	ALPHA-X	2924753	619937599	COMP	15	0	
CY7C374I-JC	ALPHA-X	2922510	619937601	COMP	15	0	
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STRESS: EXTERNAL VISUAL							
CY7C374I-JC	ALPHA-X	2922510	619937601	COMP	15	0	
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STRESS: HI-ACCEL SATURATION TEST (130C/85%RH/5.5V), PRECOND. 192 HRS 30C/60%RH							
CY7C374I-JC	ALPHA-X	2922510	619937601	94	50	0	
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STRESS: PRESSURE COOKER (121c,100%RH )							
CY7C373I-JC	ALPHA-X	2924753	619937599	168	50	0	
CY7C374I-JC	ALPHA-X	2922510	619937601	168	50	0	
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STRESS: TC COND. C, -65 TO 150C, PRECOND. 192 HRS 30C/60%RH (MSL 3)							
CY7C373I-JC	ALPHA-X	2924753	619937599	300	50	0	
7C373ET-XJC	ALPHA-X	2922510	619937600	300	50	0	
CY7C374I-JC	ALPHA-X	2922510	619937601	300	50	0	
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STRESS: X-RAY INSPECTION							
CY7C373I-JC	ALPHA-X	2924753	619937599	COMP	15	0	
CY7C374I-JC	ALPHA-X	2922510	619937601	COMP	15	0	
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