

Cypress Semiconductor Package Qualification Report

**QTP# 001601 VERSION 1.0
October, 2000**

**32-pin Windowed Rectangular
Leadless Chip Carrier (LCC)
Alphatec, Bangkok**

CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:

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HERMETIC PACKAGE/ASSEMBLY DESCRIPTION	
Package Designation:	Q32
Package Outline, Type, or Name:	32-pin Windowed Rectangular Leadless Chip Carrier (LCC)
Mold Compound Name/Manufacturer:	N/A
Mold Compound Flammability Rating:	N/A
Oxygen Rating Index:	>28%
Lead Frame Material:	N/A
Lead Finish, Composition / Thickness:	63/37 Solder Dip LCC pads
Die Backside Preparation Method/Metallization:	N/A
Die Separation Method:	Wafer Saw
Die Attach Supplier:	QMI
Die Attach Material:	2419MA
Bond Diagram Designation	10-00519
Wire Bond Method:	Ultrasonic-wedge
Wire Material/Size:	Gold/ 1.25mil
Thermal Resistance Theta JA °C/W:	N/A
Package Cross Section Yes/No:	N/A
Assembly Process Flow:	49-15007
Name/Location of Assembly (prime) facility:	Alphatec Bangkok (ALPHA-X)

<u>ELECTRICAL TEST / FINISH DESCRIPTION</u>	
Test Location:	Alphatec Bangkok (ALPHA-X)
Fault Coverage:	100%

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

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENT

Stress/Test	Test Condition (Temp/Bias)	Result P/F
Temperature Cycle (Hermetic Devices)	MIL-STD-883C, Method 1010, Condition C, -65°C to 150°C	P
Internal Visual	Cypress Spec 25-00017	P
Physical Dimension	Cypress Spec. 25-00031	P
Military Life Test Group C	150C, 5.75V	P
External Visual	Cypress Spec Cypress Spec 25-00038	P
Lead Torque	Cypress Spec 25-00035	P
Solderability	Cypress Spec 25-00018	P
Salt Atmosphere	Cypress Spec 25-00013/Cypress Spec 25-00038	P
Mechanical Series	MIL-STD-883C, Method 5005	P
Internal Water Vapor	MIL-STD-883C, Method 1018	P

Reliability Test Data

QTP #: 001601

<i>Device</i>	<i>Fab Lot #</i>	<i>Assy Lot #</i>	<i>Assy Loc</i>	<i>Duration</i>	<i>Samp</i>	<i>Rej</i>	<i>Failure Mechanism</i>
STRESS: PHYSICAL DIMENSIONS							
CY7C277-QMB	2010333	610017296	ALPHA-X	COMP	5	0	
STRESS: MOISTURE SERIES							
CY7C277-QMB	2010333	610017296	ALPHA-X	COMP	17	0	
STRESS: MECHANICAL SERIES							
CY7C277-QMB	2010333	610017296	ALPHA-X	COMP	17	0	
STRESS: SALT ATMOSPHERE							
CY7C277-QMB	2010333	610017296	ALPHA-X	COMP	15	0	
STRESS: INTERNAL WATER VAPOR							
CY7C277-QMB	2010333	610017296	ALPHA-X	COMP	3	0	
STRESS: LID TORQUE							
CY7C277-QMB	2010333	610017296	ALPHA-X	COMP	5	0	
STRESS: EXTERNAL VISUAL							
CY7C277-QMB	2010333	610017296	ALPHA-X	COMP	15	0	
STRESS: DYNAMIC BURN-IN, Group C, 150C, 5.75V (MILITARY)							
CY7C277-QMB	2010333	610017296	ALPHA-X	184	48	0	
STRESS: INTERNAL VISUAL							
CY7C277-QMB	2010333	610017296	ALPHA-X	COMP	5	0	
STRESS: SOLERABILITY							
CY7C277-QMB	2010333	610017296	ALPHA-X	COMP	3	0	
STRESS: TC CONDITION C, 150C TO -65C, HERMETIC DEVICE							
CY7C277-QMB	2010333	610017296	ALPHA-X	1000	46	0	