

Cypress Semiconductor Qualification Report

**QTP# 98366 VERSION 1.0
September, 1999**

**16 Lead to 40 Lead Cerdip - Commercial and Military
Amertron Philippines**

CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:

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HERMETIC PACKAGE/ASSEMBLY DESCRIPTION			
Package Outline, Type, or Name:		16ld to 40ld Cerdip / Windowed Cerdip	
Lead Frame material:	A42 Alloy		
Lead Finish, composition:		Sn/Pb (solder dip) 85/15	
Die Attach Method:	Ag/ Glass Plate		
Wire Bond Method:	Wedge	Die Attach Material:	QMI 2419
Assembly Line ID and Process ID:	Amerton Philippines (PHIL-AS)	Wire Material/Size:	Al / 1.25 mil

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

RELIABILITY TESTS PERFORMED

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
Solderability	Cypress Spec 25-00018	P
Lead Integrity	Cypress Spec 25-00004	P
Internal Visual	Cypress Spec 25-00017	P
External Visual	Cypress Spec 12-00292/12-00103	P
Physical Dimension	Cypress Spec. 25-00031	P
Die Shear	Cypress Spec 24-00215	P
Salt Atmosphere	Cypress Spec 25-00013/38	P
Bond Pull	Cypress Spec 24-00002	P
Internal Water Vapor	MIL STD-883-1018	P
High Temperature Operating Life Latent Failure Rate	Dynamic Operating Condition 150C, 5.75V	P
Adhesion of Lead Finish	Cypress Spec. 25-00029	P
Lid Torque	Cypress Spec. 25-00035	P
X-Ray	MIL STD-883-2012	P
Thermal Series	MIL-STD-883-5005, D3	
Mechanical Series	MIL-STD-883-5005, D4	P

RELIABILITY TEST DATA

QTP#: 98366

DEVICE	ASSY-LOC	FABLOT#	ASSYLOT#	DURATION	S/S	REJ	FAIL MODE
STRESS: MOISTURE RESISTANCE							
CY7C199-DMB	PHIL-AS	2816534	619810589	COMP	17	0	
CY27H010-WMB	PHIL-AS	2723965	619810906	COMP	17	0	
STRESS: MECHANICAL SHOCK							
CY7C199-DMB	PHIL-AS	2816534	619810589	COMP	17	0	
CY27H010-WMB	PHIL-AS	2723965	619810906	COMP	17	0	
STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE (150C, 5.75V)							
CY7C199-DMB	PHIL-AS	2816534	619810589	80	116	0	
CY7C199-DMB	PHIL-AS	2816534	619810589	500	116	0	
CY27H010-WMB	PHIL-AS	2723965	619810906	80	120	0	
CY27H010-WMB	PHIL-AS	2723965	619810906	500	120	0	
STRESS: TC COND. C, -65 TO 150C + FINE/GROSS TEST, HERMETIC DEVICES							
CY7C199-DMB	PHIL-AS	2816534	619810589	100	47	0	
CY7C199-DMB	PHIL-AS	2816534	619810589	1000	47	0	
CY27H010-WMB	PHIL-AS	2723965	619810906	100	48	0	
CY27H010-WMB	PHIL-AS	2723965	619810906	1000	48	0	