

Cypress Semiconductor Qualification Report

**QTP# 99101 VERSION 1.0
May, 1999**

**Sumitomo EME 6600CR Molding Compound
Cypress Philippines**

CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:

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Reliability Director
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PLASTIC PACKAGE/ASSEMBLY/MARK DESCRIPTION			
Package Outline, Type, or Name:		28Ld SOJ/SOIC 24Ld QSOP	
Mold Compound Name/Manufacturer:		Sumitomo EME 6600CR	
Mold Compound Tg, °C:	150 Deg C	D/C Material if used:	
Lead Frame material:	Coppeer, Reduced Metal Pad?_No_ Ring Plating?_No_		
Lead Finish, composition:	85%-95% tin		
Die Attach Area Plating:	AG plating	Die Attach Pad Size:	Various
Die Attach Method:	Epoxy	Die Attach Material:	8361H Ablestik
Wire Bond Method:	Thermosonic	Wire Material/Size:	Au 1.3 mil Wire
For Mark Quals, Ink Type/Manufacturer If laser mark write in 'LASER'	Laser		
Name/Location of All Assembly Facilities by Pkg:	Cypress Philippines (CSPI-R)		
Name/Location of All Marking Sites:	Cypress Philippines (CSPI-R)		

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 MSL 1 168 Hrs., 85°C/85%RH+ 3IR-Reflow, 220°C+ 5, 0°C	P
High Accelerated Saturation Test	140°C/5.5V Precondition: JESD22 Moisture Sensitivity MSL 1 168 Hrs., 85°C/85%RH+ 3IR-Reflow, 220°C+ 5, 0°C	P
High Temp Dynamic Operating Life Early Failure Rate	Dynamic Operating Condition, Vcc = 3.45V, 150°C	P
Acoustic Microscopy	Cypress Spec. 25-00104	P
High Temperature Storage	165°C, no bias	P
X-Ray	Cypress Spec 12-000149	P

RELIABILITY TEST DATA
QTP#: 99101

DEVICE	ASSY-LOC	FABLOT#	ASSYLOT#	DURATION	S/S	REJ	FAIL MODE
STRESS: ACOUSTIC MSL 1							
CY74FCT2646ATQC	CSPI-R	3730259	619901183	COMP	15	0	
CY74FCT2245ATQC	CSPI-R	2851349	619903565M1	COMP	15	0	
CY7C1399-VC	CSPI-R	4835362	619903699	COMP	15	0	
CY62256V-VC	CSPI-R	4843225	619903700	COMP	15	0	
CY7C199-12VC	CSPI-R	3814781	619904034M	COMP	15	0	
CY74FCT16244ATPVC	CSPI-R	4833150	619904891	COMP	15	0	
CY7C63101A-OC	CSPI-R	2852416	619905509	COMP	15	0	
STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE (150C, 3.45V)							
CY7C1399-VC	CSPI-R	4835362	619903699	48	120	0	
STRESS: HI-ACCEL SATURATION TEST (140C, 3.3V), PRECOND. 168 HRS 85C/85%RH							
CY7C1399-VC	CSPI-R	4835362	619903699	128	48	0	
STRESS: HIGH TEMPERATURE STORAGE (165C, NO BIAS)							
CY7C1399-VC	CSPI-R	4835362	619903699	336	50	0	
CY7C63101A-OC	CSPI-R	2852416	619905509	336	50	0	
STRESS: X-RAY INSPECTION							
CY74FCT2646ATQC	CSPI-R	3730259	619901183	COMP	15	0	
CY74FCT2245ATQC	CSPI-R	2851349	619903565M1	COMP	15	0	
CY7C1399-VC	CSPI-R	4835362	619903699	COMP	15	0	
CY62256V-VC	CSPI-R	4843225	619903700	COMP	15	0	
CY74FCT16244ATPVC	CSPI-R	4833150	619904891	COMP	15	0	
STRESS: TC COND. C, -65 TO 150C, PRECOND. 168 HRS 85C/85%RH (MSL 1)							
CY74FCT2646ATQC	CSPI-R	3730259	619901183	300	50	0	
CY74FCT2245ATQC	CSPI-R	2851349	619903565M1	300	50	0	
CY7C1399-VC	CSPI-R	4835362	619903699	300	50	0	
CY62256V-VC	CSPI-R	4843225	619903700	300	50	0	
CY7C199-12VC	CSPI-R	3814781	619904034M	300	50	0	
CY74FCT16244ATPVC	CSPI-R	4833150	619904891	300	50	0	
CY7C63101A-OC	CSPI-R	2852416	619905509	300	50	0	