

Cypress Semiconductor Package Qualification Report

**QTP# I000001 VERSION 1.0
July, 2002**

20-lead TSSOP package

Signetics_Korea Assembly

CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:

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PACKAGE QUALIFICATION HISTORY

Qual Report	Description of Qualification Purpose	Date Comp
I000001	20-lead TSSOP package (173ml) with die size ≤ 120 X 131mls, MSL1 assembled at Signetics Korea (Korea-SI)	Apr 98

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	Z2015
Package Outline, Type, or Name:	20-lead Thin Small Outline Package (TSSOP)
Mold Compound Name/Manufacturer:	SHINETSU KMC – 184-3
Mold Compound Flammability Rating:	V-O per UL94
Oxygen Rating Index:	>28%
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	Solder Plate, 85 %Sn, 15%Pb
Die Backside Preparation Method/Metallization:	N/A
Die Separation Method:	Wafer Saw
Die Attach Supplier:	Ablestik
Die Attach Material:	8390
Die Attach Method:	Epoxy
Bond Diagram Designation:	10-04363
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au, 1.2mil
Thermal Resistance Theta JA °C/W:	N/A
Package Cross Section Yes/No:	N/A
Assembly Process Flow:	49-79003
Name/Location of Assembly (prime) facility:	Signetics Korea (KOREA-SI)

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	Signetics Korea (KOREA-SI)
Fault Coverage:	100%

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENTS

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, 235°C+5, -0°C	P
Pressure Cooker	121C, 100%RH Precondition: JESD22 Moisture Sensitivity MSL 1 168 Hrs., 85°C/85%RH+3IR-Reflow, 235°C+5, -0°C	P
Physical Dimension	Cypress Spec. 25-00031	P
Resistance to Solvents	MIL-STD-883C, Method 2015	P
Solderability	Cypress Spec. 25-00018	P
Coplanarity	JEDEC Spec, Max=4 mils	P

Reliability Test Data

QTP #: I000001

<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: SOLDERABILITY							
IMISM530ZC (7C8SM530B)	F4461	F4461	KOREA-SI	COMP	5	0	
STRESS: COPLANARITY							
IMISM530ZC (7C8SM530B)	F4461	F4461	KOREA-SI	COMP	20	0	
STRESS: RESISTANCE TO SOLVENTS							
IMISM530ZC (7C8SM530B)	F4461	F4461	KOREA-SI	COMP	12	0	
STRESS: PHYSICAL DIMENSION							
IMISM530ZC (7C8SM530B)	F4461	F4461	KOREA-SI	COMP	12	0	
STRESS: STRESS: PRESSURE COOKER TEST, 121C, 100%RH, , PRE COND 168 HR 85C/85%RH, MSL 1							
IMISM530ZC (7C8SM530B)	F4461	F4461	KOREA-SI	168	45	0	
STRESS: TC COND. C -65C TO 150C, , PRE COND 168 HR 85C/85%RH, MSL 1							
IMISM530ZC (7C8SM530B)	F4461	F4461	KOREA-SI	500	76	0	