



Package Qualification Report

Reliability By Design

Qualification Description:

The information contained herein represents proof of Reliability and Performance of the Package Series listed below in accordance with the Qualification Plan and test methods referenced in Section 7.0, after exposure to a variety of environments and mechanical events that occur during installation and operational lifetime of the product. Upon conclusion of the testing the product continued to operate within specification limits, demonstrating its capability of reliable operation throughout its lifetime.

The purpose of this report is to present Qualification Test results of the referenced Package Series. The Pericom product data presented in this report qualifies the products manufactured in this package configuration, using the same bill of materials and assembled by the identified subcontractor location. The report describes the qualification test program, procedures utilized, criteria enforced (at the time of product validation), and specific result data obtained during the testing of three lots of semiconductors. The three lots consist of an equal number of units from different date codes, from the same production line and SubContractor to ensure manufacturing repeatability.

Lot Background Information:

Qual Part Number:	PT7C5024AL1TAE
Supplier (Code):	CJE (J)
Pkg Type - Code:	SOT23-6 (T6, TA6)
Outline Drawing:	PD-1912
By Extension Pkg:	T5, TA5

Qual Test Date:	May-2009
Die Attach Material:	Ablebond 84-3J
Wire Size & Material:	1.0 mil Gold
Mold Compound:	GE1030S
Leadframe Material:	A194 Copper
Lead Finish:	100% Matte Sn

Date Codes: L1VW

Pericom's Qualification Test Results:

Stress Test	Test Procedure	Test Conditions	Duration	# of Lots	Samples per Lot	Results Pass/Fail
Preconditioning	JESD22-A113	MSL1	NA	3	165	165 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	3	11	11 / 0
Autoclave	JESD22-A1	121°C, RH 100%, 29.7psig, 0V	168 hrs	3	77	77 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	3	77	77 / 0
		-65°C to +150°C 500 Cycles	500 cycles	3	77	77 / 0
HTSL (no PreCon)	JESD22-A103	1000hrs, 0V, 150°C	500 hrs	3	77	77 / 0
		1000hrs, 0V, 150°C	1000 hrs	3	77	77 / 0
Physical Dimension	JESD22-B100	Per Datasheet	NA	3	5	5 / 0
External Visual Insp	JESD22-B101	NA	NA	3	5	5 / 0
Terminal Strength	JESD22-B105	90° Bends, 2 bend min.	NA	3	5	5 / 0
Solderability	J-STD-020	Pb-Free Solder Dip 245°C	NA	3	5	5 / 0
	JESD22-B102					

Qualification by Extension Information:

Where a product of interest is not sampled during this period, it is valid to use the reliability data of the particular process technology or package type family to which the part belongs. All parts within the same family are designed to the same rules, and manufacturing is controlled by SPC. Within a product family, a device can only be fabricated on one process technology/ option, and only assembled on one package type process.

If there are any questions about this qualification, please contact Quality Support at:

customerquestion@pericom.com

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Date: May-2009
 PKG Type & Code: SOT23-6 (T6-TA6)
 Assembler-Code: CJE (J)
 Qual Device: PT7C5024AL1TAE

By extension: Pericom active devices using the Fab/Process at the time of the Qualification:

PI3A125TE	PT7C5024AL1TAE		
PI3A125TEX	PT7C5024AL1TAEX		
PI3A3159TE	PT7M7433TAE		
PI3A3159TEX	PT7M7433TAEX		
PI3A4626TE	PT7M7435TAE		
PI3A4626TEX	PT7M7435TAEX		
PI5A121TE			
PI5A121TEX			
PI5A122TE			
PI5A122TEX			
PI5A124TE			
PI5A124TEX			
PI5A3159TE			
PI5A3159TEX			
PI5A4599ATE			
PI5A4599ATEX			
PI5A4624ATE			
PI5A4624ATEX			
PI5A4626TE			
PI5A4626TEX			
PI5C3301TE			
PI5C3301TEX			
PI5C3303TE			
PI5C3303TEX			
PI6C3421ATE			
PI6C3421ATEX			
PI6C3450TE			
PI6C3450TEX			
PI74ST1G08TE			
PI74ST1G08TEX			
PI74ST1G32TE			
PI74ST1G32TEX			
PI74STX1G08TE			
PI74STX1G08TEX			
PI74STX1GU04TE			
PI74STX1GU04TEX			
PI90LV01TE			
PI90LV01TEX			
PI90LV02TE			
PI90LV02TEX			
PI90LV03TE			
PI90LV03TEX			
PI90LVT02TE			
PI90LVT02TEX			

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Lot Background Information:

Qual Part Number:	Generic UTL Die
Supplier (Code):	UTL (Z)
Pkg Type - Code:	SOT23 (T06)
Outline Drawing:	PD-1912
By Extension Pkg:	T05

Qual Test Date:	Nov-2009 updated Oct-2012
Die Attach Material:	8006NS
Wire Size & Material:	0.8 mil Gold
Mold Compound:	G600
Leadframe Material:	CDA194
Lead Finish:	100% Matte Sn

Date Codes: for ORM 2012-Q2 = 1211ZC

Pericom's Qualification Test Results:

Stress Test	Test Procedure	Test Conditions	Duration	# of Lots	Samples per Lot	Results Pass/Fail
Preconditioning	JESD22-A113	MSL1	NA	3	231	152 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	3	22	22 / 0
PreCon UHAST	JESD22-A118	130°C, RH 85%, 33.3 psia, 0V	96 hrs	3	77	77 / 0
Autoclave	JESD22-A1	121°C, RH 100%, 29.7psig, 0V	96 hrs	3	77	77 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	3	77	77 / 0
		-65°C to +150°C 500 Cycles	500 cycles	3	77	77 / 0
HTSL (no PreCon)	JESD22-A103	1000hrs, 0V, 150°C	500 hrs	1	76	76 / 0
	[Data from ORM 2012-Q2 for PI3A3159TE (T06)]	1000hrs, 0V, 150°C	1000 hrs	1	76	76 / 0
Physical Dimension	JESD22-B100	Per Datasheet	NA	3	5	5 / 0
External Visual Insp	JESD22-B101	NA	NA	3	5	5 / 0
Terminal Strength	JESD22-B105	90° Bends, 2 bend min.	NA	3	5	5 / 0
Solderability	J-STD-020	Pb-Free Solder Dip 245°C	NA	3	5	5 / 0
	JESD22-B102					

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