

# **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:	PI74LCX16245VE	Qual Test Date:	Sep-2011
Supplier (Code):	SPEL (X)	Die Attach Material:	CRM 1076
Pkg Type - Code:	SSOP-48 (V48)	Wire Size & Material:	1.0 mil Gold
Outline Drawing:	PD-1401	Mold Compound:	EME G600
By Extension Pkg:	none	Leadframe Material:	A194 Copper
		Lead Finish:	100% Matte Sn
•		Date Codes:	1125XC

#### 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	1	100	100 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	1	22	22 / 0
PreCon UHAST	JESD22-A118	130°C, RH 85%, 33.3 psia, 0V	96 hrs	1	45	45 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	1	45	45 / 0
		-65°C to +150°C 500 Cycles	500 cycles	1	45	45 / 0
HTSL (no PreCon)	JESD22-A103	1000hrs, 0V, 150°C	500 hrs	1	45	45 / 0
		1000hrs, 0V, 150°C	1000 hrs	1	45	45 / 0
Physical Dimension	JESD22-B100	Per Datasheeet	NA	1	5	5/0
External Visual Insp	JESD22-B101	NA	NA	1	5	5/0
Terminal Strength	JESD22-B105	90° Bends, 2 bend min.	NA	1	5	5/0
Solderability	J-STD-020 JESD22-B102	Pb-Free Solder Dip 245°C	NA	1	5	5/0

## **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:	Sep-2011	
PKG Type & Code:	SSOP-48 (V48)	
Assembler-Code:	SPEL (X)	
Qual Device:	PI74LCX16245VE	_

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

PI6C180BVE		
PI6C180BVEX		
PI6C180VE		
PI6C180VEX		
PI6C20800SIVE		
PI6C20800SIVEX		
PI6C20800SVE		
PI6C20800SVEX		
PI6C20800VE		
PI6C20800VEX		
PI74ALVTC16245VE		
PI74ALVTC16245VEX		
PI74FCT162245ATVE		
PI74FCT162245ATVEX		
PI74FCT162245CTVE		
PI74FCT162245CTVEX		
PI74FCT162245TVE		
PI74FCT162245TVEX		
PI74FCT16244CTVE		
PI74FCT16244CTVEX		
PI74FCT16244TVE		
PI74FCT16244TVEX		
PI74FCT16245ATVE		
PI74FCT16245ATVEX		
PI74FCT16245CTVE		
PI74FCT16245CTVEX		
PI74FCT16245TVE		
PI74FCT16245TVEX		
PI74LCX16245VE		
PI74LCX16245VEX		

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