

# 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:	PT7C4302WE
Supplier (Code):	CJE (J)
Pkg Type - Code:	SOIC-08 (W08)
Outline Drawing:	PD-1001
By Extension Pkg:	none

Qual Test Date:	Mar-2010
Die Attach Material:	DAD90
Wire Size & Material:	1.0 mil Gold
Mold Compound:	EME G600FB
Leadframe Material:	Copper
Lead Finish:	100% Matte Sn

Date Codes: WWWJW

### 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
PreCon Autoclave	JESD22-A102	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	500hrs, 0V, 150°C	500 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
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](mailto:customerquestion@pericom.com)

Date: Mar-2010

PKG Type & Code: SOIC-08 (W08)

Assembler-Code: CJE (J)

Qual Device: PT7C4302WE

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

PI6C10804WE				
PI6C18551WE				
PI6C2401WE				
PI6C2402WE				
PI6C2404A-1WE				
PI6C2405A-1HWE				
PI6C2405A-1WE				
PI6C2502AWE				
PI6C2502WE				
PI6C4511WE				
PI6C485311WE				
PI6CL10804WE				
PI6CV2304WE				
PI6CV304WE				
PI90LV017AWE				
PI90LV018AWE				
PI90LV027AWE				
PI90LV028AWE				
PI90LV179WE				
PI90LV9637WE				
PI90LVB010WE				
PS323CSAE				
PS323ESAE				
PT7A7511WE				
PT7A7512WE				
PT7A7513WE				
PT7A7514WE				
PT7A7515WE				
PT7A7521WE				
PT7A7525WE				
PT7A7531WE				
PT7A7532WE				
PT7A7533WE				
PT7C4302WE				
PT7C4307WE				
PT7C4311WE				
PT7C43190WE				
PT7C4337WE				
PT7C433833WE				
PT7C43390WE				
PT7C4363WE				
PT7C4372AWE				
PT7C4511WE				
PT7C4512WE				

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**Lot Background Information:**

Qual Part Number:	PI5C34X245BE
Supplier (Code):	SPE (X)
Pkg Type - Code:	BQSOP-80 (B80)
Outline Drawing:	PD-1211
By Extension Pkg:	B48 B40 Q28 Q24 Q20 Q16 W16 W14 W08

Qual Test Date:	Aug-1999 updated Aug-2011
Die Attach Material:	CRM 1076NS
Wire Size & Material:	1.0 mil Gold
Mold Compound:	EME G600
Leadframe Material:	A194 Copper
Lead Finish:	100% Matte Sn

**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	2	150	150 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	2	22	22 / 0
Autoclave	JESD22-A1	121°C, RH 100%, 29.7psig, 0V	168 hrs	2	45	45 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	2	45	45 / 0
		-65°C to +150°C 500 Cycles	500 cycles	2	45	45 / 0
HTSL (no PreCon)	JESD22-A103	1000hrs, 0V, 150°C	500 hrs	2	45	45 / 0
Physical Dimension	JESD22-B100	Per Datasheet	NA	2	5	5 / 0
External Visual Insp	JESD22-B101	NA	NA	2	5	5 / 0
Solderability	J-STD-020	Pb-Free Solder Dip 245°C	NA	2	5	5 / 0
	JESD22-B102					

**Qualificaton 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.

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Date: Aug-1999 updated Aug-2011  
 PKG Type & Code: BQSOP-80 (B80)  
 Assembler-Code: SPE (X)  
 Qual Device: PI5C34X245BE

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

PI3B16226BEX	PI3V512QE+CHX	PI5V330QEX	PI6C485311WEX	
PI3B32X245BEX	PI3V512QEX	PI5V330SQE+CSX	PI6CL10804WEX	
PI3B32X384BEX	PI3VT3245QEX	PI5V330SQEX	PI6CV2304WEX	
PI3B33X257BEX	PI49FCT20802QEX	PI5V331QEX	PI6CV304WEX	
PI3B34X245BEX	PI49FCT20807QEX	PI5V512QEX	PI90LV017AWEX	
PI3C32X245BEX	PI49FCT32802QEX	PI6C185-00QEX	PI90LV018AWEX	
PI3C32X384BEX	PI49FCT32803QEX	PI6C185-00QIEX	PI90LV027AWEX	
PI3C34X245BEX	PI49FCT32805QEX	PI6C185-01QEX	PI90LV028AWEX	
PI3HDMI1210-ABEX	PI49FCT32807QEX	PI6C185-01QIEX	PI90LV031AWEX	
PI3HDMI412FT-ABEX	PI49FCT3802QEX	PI74FCT2245CTQEX	PI90LV032AWEX	
PI3HDMI412FT-BBEX	PI49FCT3805AQEX	PI74FCT245ATQEX	PI90LV179WEX	
PI3HDMI412FTBEX	PI49FCT3805BQEX	PI74FCT245TQEX	PI90LV9637WEX	
PI3LVD1012BEX	PI49FCT3805CQEX	PI74FCT2541ATQEX	PI90LVB010WEX	
PI3VT32X245BEX	PI49FCT3805DQEX	PI74FCT3244QEX	PS323ESAEX	
PI3VT34X245BEX	PI49FCT3805QEX	PI3B3125WEX	PS391ESEEX	
PI5C32X245BEX	PI49FCT38072CQEX	PI3B3126WEX	PS398CSEEX	
PI5C32X384BEX	PI49FCT3807AQ+AMX	PI3B3257WEX	PS4066ACSDEX	
PI5C33X257BEX	PI49FCT3807AQEX	PI3C3125WEX	PT8A2611WEX	
PI5C34X2245BEX	PI49FCT3807BQE+AMX	PI5A100WEX	PT8A262WEX	
PI5C34X245BEX	PI49FCT3807BQEX	PI5C3253WEX	PT8A263WEX	
PI5C3390QEX	PI49FCT3807CQ+AMX	PI5C3257WEX		
PI2DBS212QEX	PI49FCT3807CQEX	PI5L200WEX		
PI3B3125QEX	PI49FCT3807DQEX	PI5V330SWEX		
PI3B3126QEX	PI49FCT3807QEX	PI5V330WEX		
PI3B3244Q+CFX	PI49FCT807CTQEX	PI6C10804WEX		
PI3B3244QE+CFX	PI49FCT807TQEX	PI6C18551WEX		
PI3B3245QEX	PI5A100QEX	PI6C22405-1HWEX		
PI3B3251QEX	PI5A392AQEX	PI6C22405-1HWIEX		
PI3B3253QEX	PI5C3125QEX	PI6C22405WEX		
PI3B3257AQEX	PI5C3126QEX	PI6C22405WIEX		
PI3B3257QEX	PI5C3244QEX	PI6C22409-1HWEX		
PI3B3861QEX	PI5C3245QEX	PI6C22409-1HWIEX		
PI3C3126QEX	PI5C3251QEX	PI6C22409WEX		
PI3C3245QEX	PI5C3253QEX	PI6C22409WIEX		
PI3C3861-AQEX	PI5C3257QE+AUX	PI6C2402WEX		
PI3C3861QEX	PI5C3257QEX	PI6C2405A-1HWEX		
PI3CH281QEX	PI5C3384CQEX	PI6C2405A-1HWIEX		
PI3CH480QEX	PI5C3384QEX	PI6C2405A-1WEX		
PI3CH800QEX	PI5C3390QEX	PI6C2408-2WEX		
PI3L100QEX	PI5C3861QEX	PI6C2408-3WEX		
PI3L110QEX	PI5L100QEX	PI6C2409-1HWEX		
PI3USB14-AQEX	PI5L200QEX	PI6C2409-1HWIEX		
PI3USB14QEX	PI5USB56QEX	PI6C2502AWEX		
PI3V312QEX	PI5V330AQEX	PI6C4511WEX		

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**Lot Background Information:**

Qual Part Number:	UTL Generic Die
Supplier (Code):	UTL (Z)
Pkg Type - Code:	SOIC-08 (W08)
Outline Drawing:	PD-1001
By Extension Pkg:	none

Qual Test Date:	Apr-2008
Die Attach Material:	Ablestik 2200D
Wire Size & Material:	1.0 mil Gold
Mold Compound:	EME G600
Leadframe Material:	Copper
Lead Finish:	100% Matte Sn

Date Codes:

**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	2	165	165 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	2	11	11 / 0
PreCon Autoclave	JESD22-A102	121°C, RH 100%, 29.7psig, 0V	168 hrs	2	77	77 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	2	77	77 / 0
		-65°C to +150°C 500 Cycles	500 cycles	2	77	77 / 0
Physical Dimension	JESD22-B100	Per Datasheet	NA	2	5	5 / 0
External Visual Insp	JESD22-B101	NA	NA	2	5	5 / 0
Solderability	J-STD-020	Pb-Free Solder Dip 245°C	NA	2	5	5 / 0
	JESD22-B102					

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