

**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:	PI3VDP411LSTZDE
Supplier (Code):	SPEL (X)
Pkg Type - Code:	TQFN-48 (ZD48)
Outline Drawing:	PD-2045
By Extension Pkg:	ZH32

Qual Test Date:	Apr-2009 Updated Nov-2010
Die Attach Material:	CRM1076NS
Wire Size & Material:	1.0 mil Gold
Mold Compound:	CEL 9220ZHF10L
Leadframe Material:	Copper - C194F
Lead Finish:	PPF

Date Code(s): 0826XG, 0827XG, 0828XG

**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	80	80 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	3	5	5 / 0
PreCon UHAST	JESD22-A118	130°C, RH 85%, 33.3 psia, 0V	96 hrs	3	40	40 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	3	40	40 / 0
		-65°C to +150°C 500 Cycles	500 cycles	3	40	40 / 0
Physical Dimension	JESD22-B100	Per Datasheet	NA	1	5	5 / 0
External Visual Insp	JESD22-B101	NA	NA	3	5	5 / 0
Solderability	J-STD-020 JESD22-B102	Pb-Free Solder Dip 245°C	NA	3	3	3 / 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](mailto:customerquestion@pericom.com)

Date: Apr-2009 Updated Nov-2010  
 PKG Type & Code: TQFN-48 (ZD48)  
 Assembler-Code: SPEL (X)  
 Qual Vehicle: PI3VDP411LSTZDE

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

PI2EQX3232BZDE			
PI2EQX3232BZDEX			
PI2EQX4432DZDE			
PI2EQX4432DZDEX			
PI3HDMI415-AZDE			
PI3HDMI415-AZDEX			
PI3HDMI415ZDE			
PI3HDMI415ZDEX			
PI3VDP101LSZDE			
PI3VDP101LSZDEX			
PI3VDP411LSTZDE			
PI3VDP411LSTZDEX			
PI3VDP411LSZDE			
PI3VDP411LSZDEX			
PI3VDP611LSZDE			
PI3VDP611LSZDEX			
PI6LC4840ZHE			
PI6LC4840ZHEX			

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**Qualification Description:**

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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 Vehicle:	PI3VDP411LSZDE	Qual Test Date:	Apr-2008
Supplier (Code):	ASEM (B)	Die Attach Material:	EN4900
Pkg Type - Code:	TQFN (ZD48)	Wire Size & Material:	0.8 mil Gold
Outline Drawing:	PD-2045	Mold Compound:	G770HCD
By Extension Pkg:	none	Leadframe Material:	Copper
		Lead Finish:	PPF

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	60	60 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	3	5	5 / 0
PreCon UHAST	JESD22-A118	130°C, RH 85%, 33.3 psia, 0V	96 hrs	3	30	30 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	3	30	30 / 0
		-65°C to +150°C 500 Cycles	500 cycles	3	30	30 / 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					

**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.

If there are any questions about this qualification, please contact Quality Support at: [customerquestion@pericom.com](mailto:customerquestion@pericom.com)

Date: Apr-2008

PKG Type & Code: TQFN (ZD48)

Assembler-Code: ASEM (B)

Qual Vehicle: PI3VDP411LSZDE

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

PI3HDMI415-AZDE			
PI3HDMI415-AZDEX			
PI3HDMI415ZDE			
PI3HDMI415ZDEX			
PI3L510ZFE			
PI3L510ZFEX			
PI3VDP101LSZDE			
PI3VDP101LSZDEX			
PI3VDP411LSTZDE			
PI3VDP411LSTZDEX			
PI3VDP411LSZDE			
PI3VDP411LSZDEX			
PI3VDP611LSZDE			
PI3VDP611LSZDEX			
PI4ULS3V08ZFE			
PI4ULS3V08ZFEX			