

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:	PI3HDMI301ZHE
Supplier (Code):	GTK (G)
Pkg Type - Code:	TQFN-64 (ZL64)
Outline Drawing:	PD-2067
By Extension Pkg:	ZD40 ZH42 ZH28

Qual Test Date:	Dec-2010 updated Aug-2011
Die Attach Material:	EME 1076DJ-G
Wire Size & Material:	0.8 mil Gold
Mold Compound:	G770HJ
Leadframe Material:	A194 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	154	154 / 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
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
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	3	3 / 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

Date: Dec-2010 updated Aug-2011
 PKG Type & Code: TQFN-64 (ZL64)
 Assembler-Code: GTK (G)
 Qual Device: PI3HDMI301ZHE

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

PI2DBS212ZHE	PI3HDMI101SZHE	PI3PCIE3462ZHE		
PI2DBS212ZHEX	PI3HDMI101SZHEX	PI3PCIE3462ZHEX		
PI2DBS412ZHE	PI3HDMI101ZHE	PI3V712-AZHE		
PI2DBS412ZHEX	PI3HDMI101ZHEX	PI3V712-AZHEX		
PI2DBS6212ZHE	PI3HDMI213-AZHE	PI3V712-BZHE		
PI2DBS6212ZHEX	PI3HDMI213-AZHEX	PI3V712-BZHEX		
PI2EQX3421ZHE	PI3HDMI214-AZHE	PI3V712ZHE		
PI2EQX3421ZHEX	PI3HDMI214-AZHEX	PI3V712ZHEX		
PI2EQX5801CZHE	PI3HDMI301ZLE	PI3VDP101LSZHE		
PI2EQX5801CZHEX	PI3HDMI301ZLEX	PI3VDP101LSZHEX		
PI2LVD412ZHE	PI3HDMI412-AZHE	PI3VDP411LSTZHE		
PI2LVD412ZHEX	PI3HDMI412-AZHEX	PI3VDP411LSTZHEX		
PI2PCIE212ZHE	PI3HDMI412FT-AZHE	PI3VDP411LSZHE		
PI2PCIE212ZHEX	PI3HDMI412FT-AZHEX	PI3VDP411LSZHEX		
PI2PCIE2212ZHE	PI3HDMI412FT-BZHE	PI3VDP412ZHE		
PI2PCIE2212ZHEX	PI3HDMI412FT-BZHEX	PI3VDP412ZHEX		
PI2PCIE2214ZHE	PI3HDMI412FT-CZHE	PI3VDP611LSZHE		
PI2PCIE2214ZHEX	PI3HDMI412FT-CZHEX	PI3VDP611LSZHEX		
PI2PCIE2412ZHE	PI3HDMI412FTZHE	PI3VDP612-AZHE		
PI2PCIE2412ZHEX	PI3HDMI412FTZHEX	PI3VDP612-AZHEX		
PI2PCIE2422ZHE	PI3HDMI412ZHE	PI3VDP612ZHE		
PI2PCIE2422ZHEX	PI3HDMI412ZHEX	PI3VDP612ZHEX		
PI2PCIE2442ZHE	PI3HDMI431ARCZLE	PI6LC4872-01ZDE		
PI2PCIE2442ZHEX	PI3HDMI431ARCZLEX	PI6LC4872-01ZDEX		
PI2PCIE2452ZHE	PI3HDMI431ARZLE	PI6LC4872-01ZDIE		
PI2PCIE2452ZHEX	PI3HDMI431ARZLEX	PI6LC4872-01ZDIEX		
PI2PCIE412-CZHE	PI3L720ZHE	PI6LC4872-02ZDE		
PI2PCIE412-CZHEX	PI3L720ZHEX	PI6LC4872-02ZDEX		
PI2PCIE412-DZHE	PI3LVD412ZHE	PI6LC4872-02ZDIE		
PI2PCIE412-DZHEX	PI3LVD412ZHEX	PI6LC4872-02ZDIEX		
PI2PCIE412ZHE	PI3LVD4889ZHE			
PI2PCIE412ZHEX	PI3LVD4889ZHEX			
PI2USB3212ZHE	PI3PCIE2215ZHE			
PI2USB3212ZHEX	PI3PCIE2215ZHEX			
PI2VDP412ZHE	PI3PCIE2415-AZHE			
PI2VDP412ZHEX	PI3PCIE2415-AZHEX			
PI3EQX7702ZHE	PI3PCIE2415ZHE			
PI3EQX7702ZHEX	PI3PCIE2415ZHEX			
PI3G612ZHE	PI3PCIE3412ZHE			
PI3G612ZHEX	PI3PCIE3412ZHEX			
PI3HDMI101-AZHE	PI3PCIE3415ZHE			
PI3HDMI101-AZHEX	PI3PCIE3415ZHEX			
PI3HDMI101-BZHE	PI3PCIE3442ZHE			
PI3HDMI101-BZHEX	PI3PCIE3442ZHEX			

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Lot Background Information:

Qual Part Number:	PI3HDMI431ARZLE
Supplier (Code):	UTL (Z)
Pkg Type - Code:	TQFN-64 (ZL64)
Outline Drawing:	PD2044
By Extension Pkg:	ZL42, ZL32, ZL20, ZL16 ZK24, ZK12

Qual Test Date:	Aug-2010
Die Attach Material:	Ablebond 8200T
Wire Size & Material:	1.0mil Gold
Mold Compound:	G770HCD
Leadframe Material:	Copper
Lead Finish:	NiPdAu (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	1	77	77 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	1	22	22 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	1	77	77 / 0
↓	↓	↓	500 cycles	1	77	77 / 0
HTSL (no PreCon)	JESD22-A103	1000hrs, 0V, 150°C	500 hrs	1	77	77 / 0
↓	↓	↓	1000 hrs	1	77	77 / 0
Physical Dimension	JESD22-B100	NA	NA	3	5	5 / 0
External Visual Insp	JESD22-B101	NA	NA	3	5	5 / 0

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. Refer to Appendix A for a list of devices qualified by extension.

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

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