

**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:	PI2EQX3431ZHE	Qual Test Date:	Dec-2010
Supplier (Code):	GTK (G)	Die Attach Material:	1076DJ-G
Pkg Type - Code:	TQFN-20 (ZH20)	Wire Size & Material:	0.8mil Gold
Outline Drawing:	PD-2032	Mold Compound:	G700HA
By Extension Pkg:	ZH16	Leadframe Material:	Copper (A194)
		Lead Finish:	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	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
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
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.

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Date: May-2009 update Jan-2012  
 PKG Type & Code: TQFN-36 (ZF36)  
 Assembler-Code: GTK (G)  
 Qual Device: PI2EQX3201BZFE

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

PI2EQX3201BLZFE	PI3EQX6801ZDE		
PI2EQX3201BLZFEX	PI3EQX6801ZDEX		
PI2EQX3201BZFE	PI3EQX6852BZDE		
PI2EQX3201BZFEX	PI3EQX6852BZDEX		
PI2EQX4401DZFE	PI3EQX7701ZDE		
PI2EQX4401DZFEX	PI3EQX7701ZDEX		
PI2EQX4401ZFE	PI3EQX7711ZDE		
PI2EQX4401ZFEX	PI3EQX7711ZDEX		
PI2EQX4951SLAZDE	PI3EQX7741IZDE		
PI2EQX4951SLAZDEX	PI3EQX7741IZDEX		
PI2EQX4951SLZDE	PI3EQX7741STZDE		
PI2EQX4951SLZDEX	PI3EQX7741STZDEX		
PI2EQX6741SLZDE	PI4ULS3V08ZFEX		
PI2EQX6741SLZDEX	PI4ULS3V08ZFEX		
PI2EQX6811ZDE	PI6PCIEB24ZDE		
PI2EQX6811ZDEX	PI6PCIEB24ZDEX		
PI2EQXDP101-AZFE			
PI2EQXDP101-AZFEX			
PI2EQXDP101ZFE			
PI2EQXDP101ZFEX			
PI3EQX3251BLZFE			
PI3EQX3251BLZFEX			
PI3EQX4951BZDE			
PI3EQX4951BZDEX			
PI3EQX4951STAZDE			
PI3EQX4951STAZDEX			
PI3EQX4951STZDE			
PI3EQX4951STZDEX			
PI3EQX5701ZDE			
PI3EQX5701ZDEX			
PI3EQX6701AZDE			
PI3EQX6701AZDEX			
PI3EQX6701CZDE			
PI3EQX6701CZDEX			
PI3EQX6701DZDE			
PI3EQX6701DZDEX			
PI3EQX6701EZDE			
PI3EQX6701EZDEX			
PI3EQX6701ZDE			
PI3EQX6701ZDEX			
PI3EQX6741STBZDE			
PI3EQX6741STBZDEX			
PI3EQX6741STZDE			
PI3EQX6741STZDEX			

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**Lot Background Information:**

Qual Part Number:	PI3A412ZHE
Supplier (Code):	SPE (X)
Pkg Type - Code:	TQFN-16 (ZH16)
Outline Drawing:	PD-2047
By Extension Pkg:	

Qual Test Date:	Aug-2007 update: Oct-2011
Die Attach Material:	CRM 1076
Wire Size & Material:	1.0 mil Gold
Mold Compound:	G770HCD
Leadframe Material:	194FH 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	1	200	200 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	1	200	200 / 0
PreCon UHAST	JESD22-A118	130°C, RH 85%, 33.3 psia, 0V	96 hrs	1	77	77 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	1	77	77 / 0
		-65°C to +150°C 500 Cycles	500 cycles	1	77	77 / 0
Physical Dimension	JESD22-B100	Per Datasheet	NA	1	5	5 / 0
External Visual Insp	JESD22-B101	NA	NA	1	5	5 / 0
Solderability	J-STD-020 JESD22-B102	Pb-Free Solder Dip 245°C	NA	1	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.

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### Lot Background Information:

Qual Part Number:	Internal UTL Part Number
Supplier (Code):	UTL (Z)
Pkg Type - Code:	TQFN-16 (4mm x 4mm)
Outline Drawing:	PD-2047
By Extension Pkg:	ZH16

Qual Test Date:	Nov-2011
Die Attach Material:	8200T
Wire Size & Material:	1.0 mil Gold
Mold Compound:	EME G770HC
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	3	354	354 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	3	32	32 / 0
PreCon Temp-Humd-Bias	JESD22-A101	130°C, RH 85%, 33.3 psia, 0V	168 hrs	3	116	116 / 0
		<b>No Bias</b>	500 hrs	3	116	116 / 0
		130°C, RH 85%, 33.3 psia, 0V	1000 hrs	3	116	116 / 0
PreCon Autoclave	JESD22-A102	121°C, RH 100%, 29.7psia, 0V	96 hrs	3	116	116 / 0
		121°C, RH 100%, 29.7psia, 0V	240 hrs	3	116	116 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	3	121	121 / 0
		-65°C to +150°C 500 Cycles	500 cycles	3	121	121 / 0
HTSL (no PreCon)	JESD22-A103	1000hrs, 0V, 150°C	168 hrs	3	116	116 / 0
		1000hrs, 0V, 150°C	500 hrs	3	116	116 / 0
		1000hrs, 0V, 150°C	1000 hrs	3	116	116 / 0
Physical Dimension	JESD22-B100	Per Datasheet	NA	3	5	5 / 0
External Visual Insp	JESD22-B101	NA	NA	3	5	5 / 0

### Qualification by Extension Information:

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