

**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 Vehicle:	PI3VDP411LSZBE
Supplier (Code):	GTK (G)
Pkg Type - Code:	TQFN-48 (ZB48)
Process:	MGN 0.25um
Outline Drawing:	PD-2080
By Extension Pkg:	ZD24 ZH20 ZB20 ZA08 ZH16 ZNA20

Qual Test Date:	May-2011 update Jan-2014
Die Attach Material:	1076DJ-G
Wire Size & Material:	0.8mil PdCu
Mold Compound:	G700H
Leadframe Material:	A194 Copper
Lead Finish:	100% Matte Sn

Date Codes: 1108GG

**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
HTSL (no PreCon)	JESD22-A103	1000hrs, 0V, 150°C	500 hrs	3	77	77 / 0
		1000hrs, 0V, 150°C	1000 hrs	3	77	77 / 0
Wire Strength, IMG		After 1000 hours HTSL	NA	3	2	2 / 0
Splash, Cratering		After Wire bonding	NA	3	3	3 / 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					

**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: May-2011 update Jan-2014  
 PKG Type & Code: TQFN-48 (ZB48) QBE: ZD24 ZH20 ZB20 ZA08 ZH16 ZNA20  
 Assembler-Code: GTK (G)  
 Qual Vehicle: PI3VDP411LSZBE

**By extension: Pericom active devices using the Package at the time of the Qualification:**

PI2EQX3431ZHE	PI3DBS3224ZNAE			
PI2EQX3431ZHE	PI3DBS3224ZNAEX			
PI2EQX3431ZHEX				
PI2EQX3431ZHEX				
PI3EQX7502IZDE				
PI3EQX7502IZDE				
PI3EQX7502IZDEX				
PI3EQX7502IZDEX				
PI3EQX7502ZDE				
PI3EQX7502ZDEX				
PI3EQXDP8121ZBE				
PI3EQXDP8121ZBEX				
PI3USB14-AZHE				
PI3USB14-AZHEX				
PI3VDP411LSAZBE				
PI3VDP411LSAZBEX				
PI3VDP411LSRZBE				
PI3VDP411LSRZBE				
PI3VDP411LSRZBEX				
PI3VDP411LSRZBEX				
PI3VDP411LSTAZBE				
PI3VDP411LSTAZBEX				
PI3VDP411LSTRZBE				
PI3VDP411LSTRZBEX				
PI3VDP411LSTZBE				
PI3VDP411LSTZBEX				
PI3VDP411LSZBE				
PI3VDP411LSZBEX				
PI5USB2058ZHE				
PI5USB2058ZHE				
PI5USB2058ZHEX				
PI5USB2058ZHEX				
PI3USB302ZBE				
PI3USB302ZBEX				
PI5USB14566AZAEX				
PI5USB14566ZAEX				
PI5USB58ZHE				
PI5USB58ZHEX				