

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:	PI6C20400ALE
Supplier (Code):	GTK (G)
Pkg Type - Code:	TSSOP (L28)
Outline Drawing:	PD1313
By Extension Pkg:	L20 L18 L16 L14 L08

Qual Test Date:	Nov-2009
Die Attach Material:	1076DJ-G (cond)
Wire Size & Material:	1.0mil Gold
Mold Compound:	G700L
Leadframe Material:	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	3	100	300 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	3	15	45 / 0
PreCon UHAST	JESD22-A118	130°C, RH 85%, 33.3 psia, 0V	96 hrs	3	50	150 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	3	50	150 / 0
		-65°C to +150°C 500 Cycles	500 cycles	3	50	150 / 0
Physical Dimension	JESD22-B100	Per Datasheet	NA	1	5	5 / 0
External Visual Insp	JESD22-B101	NA	NA	3	5	15 / 0
Solderability	J-STD-020	Pb-Free Solder Dip 245°C	NA	1	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. 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:

customerquestion@pericom.com

Date: Nov-2009
 PKG Type & Code: TSSOP (L28)
 Assembler-Code: GTK (G)
 Qual Vehicle: PI6C20400ALE

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

PI3B3125LE	PI49FCT20803LE	PI6C22409-1HLE	PI6C557-10LE	
PI3B3125LEX	PI49FCT20803LEX	PI6C22409-1HLEX	PI6C557-10LEX	
PI3B3126LE	PI49FCT32802LE	PI6C22409-1HLIE	PI6CV2304LE	
PI3B3126LEX	PI49FCT32802LEX	PI6C22409-1HLIEX	PI6CV2304LEX	
PI3B3245LE	PI49FCT32803LE	PI6C22409LE	PI6CV304LE	
PI3B3245LEX	PI49FCT32803LEX	PI6C22409LEX	PI6CV304LEX	
PI3B3251LE	PI49FCT3802LE	PI6C22409LIE	PI6CV847LE	
PI3B3251LEX	PI49FCT3802LEX	PI6C22409LIEX	PI6CV847LEX	
PI3B3253LE	PI49FCT3803LE	PI6C22510LE	PI6CV855-02LE	
PI3B3253LEX	PI49FCT3803LEX	PI6C22510LEX	PI6CV855-02LEX	
PI3B3257LE	PI5C3245LE	PI6C2405A-1HLE	PI6CV855LE	
PI3B3257LEX	PI5C3245LEX	PI6C2405A-1HLEX	PI6CV855LEX	
PI3C3125LE	PI5C3253LE	PI6C2405A-1HLIE	PI6CX201ALE	
PI3C3125LEX	PI5C3253LEX	PI6C2405A-1HLIEX	PI6CX201ALEX	
PI3C3126LE	PI5C3257LE	PI6C2405A-1LE	PI74FCT3244LE	
PI3C3126LEX	PI5C3257LEX	PI6C2405A-1LEX	PI74FCT3244LEX	
PI3C3305LE	PI5C3305LE	PI6C2409-1HLE	PI90LV031ALE	
PI3C3305LEX	PI5C3305LEX	PI6C2409-1HLEX	PI90LV031ALEX	
PI3C3306LE	PI5C3306LE	PI6C2410LE	PI90LV032ALE	
PI3C3306LEX	PI5C3306LEX	PI6C2410LEX	PI90LV032ALEX	
PI3CH200LE	PI5C3384LE	PI6C2509-133LE	PI90LV047ALE	
PI3CH200LEX	PI5C3384LEX	PI6C2509-133LEX	PI90LV047ALEX	
PI3CH281LE	PI5L200LE	PI6C2510-133ELE	PI90LV048ALE	
PI3CH281LEX	PI5L200LEX	PI6C2510-133ELEX	PI90LV048ALEX	
PI3CH480LE	PI6C10806BLE	PI6C2510-133LE	PI90LV14LE	
PI3CH480LEX	PI6C10806BLEX	PI6C2510-133LEX	PI90LV14LEX	
PI3CH800LE	PI6C10810LE	PI6C41204LE	PI90LVT048ALE	
PI3CH800LEX	PI6C10810LEX	PI6C41204LEX	PI90LVT048ALEX	
PI3L110LE	PI6C20400ALE	PI6C48533-01LE	PI6C48535-01BLE	
PI3L110LEX	PI6C20400ALEX	PI6C48533-01LEX	PI6C48535-01BLEX	
PI3USB14-ALE	PI6C20400BLE	PI6C48535-01LE		
PI3USB14-ALEX	PI6C20400BLEX	PI6C48535-01LEX		
PI3USB14LE	PI6C20400LE	PI6C48543LE		
PI3USB14LEX	PI6C20400LEX	PI6C48543LEX		
PI3USB20LE	PI6C20400SLE	PI6C48545LE		
PI3USB20LEX	PI6C20400SLEX	PI6C48545LEX		
PI3V312LE	PI6C22405-1HLE	PI6C557-03ALE		
PI3V312LEX	PI6C22405-1HLEX	PI6C557-03ALEX		
PI3VT3245LE	PI6C22405-1HLIE	PI6C557-03LE		
PI3VT3245LEX	PI6C22405-1HLIEX	PI6C557-03LEX		
PI3VT3306LE	PI6C22405LE	PI6C557-05BLE		
PI3VT3306LEX	PI6C22405LEX	PI6C557-05BLEX		
PI49FCT20802LE	PI6C22405LIE	PI6C557-05LE		
PI49FCT20802LEX	PI6C22405LIEX	PI6C557-05LEX		

updated PN List May-2012

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Lot Background Information:

Qual Part Number:	PI5C2510-133LE PI6C41204ALE	Qual Test Date:	Jan-2011
Supplier (Code):	SPE (X)	Die Attach Material:	CRM 1076NS (non-cond)
Pkg Type - Code:	TSSOP (L24) and (L20)	Wire Size & Material:	1.0mil Gold
Outline Drawing:	PD-1312	Mold Compound:	EME G600
By Extension Pkg:	L20, L08	Leadframe Material:	Copper
		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	2	150	300 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	2	11	22 / 0
PreCon UHAST	JESD22-A118	130°C, RH 85%, 33.3 psia, 0V	96 hrs	2	45	135 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	2	45	135 / 0
↓	↓	↓	500 cycles	2	45	135 / 0
HTSL	JESD22-A103	1000hrs, 0V, 150°C	500 hrs	2	45	135 / 0
↓	↓	↓	1000 hrs	2	45	135 / 0
Physical Dimension	JESD22-B100	Per Datasheet	NA	2	5	10 / 0
External Visual Insp	JESD22-B101	NA	NA	2	5	10 / 0
Terminal Strength	JESD22-B105	90° Bends, 2 bend min.	NA	2	5	10 / 0
Solderability	J-STD-020 JESD22-B102	Pb-Free Solder Dip 245°C	NA	2	3	6 / 0

Qualificaton by Extension Information:

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Lot Background Information:

Qual Part Number:	PI6CV855LE (L28)
	PI6C2509-133LE (L24)
	PI6C48533-01LE (L20)
Supplier (Code):	OSE (O)
Pkg Type - Code:	TSSOP-28 (L28)
Outline Drawing:	PD-1313
By Extension Pkg:	L24 L20 L16 L08

Qual Test Date:	Jul-2009 update Jul-2015
	Nov-2010
	Aug-2010
Die Attach Material:	EN4900G
Wire Size & Material:	1.0 mil Gold
Mold Compound:	CEL-9220HF
Leadframe Material:	Copper
Lead Finish:	100% Matte Sn

Date Codes: 0826OG, 1034OG, 1005OI

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	462 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	3	20	60 / 0
PreCon UHAST	JESD22-A118	130°C, RH 85%, 33.3 psia, 0V	96 hrs	2	75	150 / 0
Autoclave	JESD22-A1	121°C, RH 100%, 29.7psig, 0V	168 hrs	3	100	300 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C 500 Cycles	100 cycles	3	76	228 / 0
		-65°C to +150°C 500 Cycles	500 cycles	3	76	228 / 0
HTSL (no PreCon)	JESD22-A103	1000hrs, 0V, 150°C	500 hrs	2	75	150 / 0
		1000hrs, 0V, 150°C	1000 hrs	2	75	150 / 0
Physical Dimension	JESD22-B100	Per Datasheet	NA	3	5	15 / 0
External Visual Insp	JESD22-B101	NA	NA	3	5	15 / 0
Solderability (via 2014-2015 ORM)	J-STD-020	Pb-Free Solder Dip 245°C	NA	3	3	9 / 0
	JESD22-B102					

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customerquestion@pericom.com

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Date: Jul-2009 update Jul-2015
 PKG Type & Code: TSSOP-28 (L28) QBE: L24, L20, L16, L08
 Assembler-Code: OSE (O)
 Qual Device: PI6CV855LE (L28)

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

L28	L20	L16		L08
PI6C20400ALE	PI3B3244LE	PI3B3251LE	PI5C3257LEX	PI3C3305LE
PI6C20400ALEX	PI3B3244LEX	PI3B3251LEX	PI5L200LE	PI3C3305LEX
PI6C20400BLE	PI3B3245LE	PI3B3253LE	PI5L200LEX	PI3C3306LE
PI6C20400BLEX	PI3B3245LEX	PI3B3253LEX	PI6C10806BLE	PI3C3306LEX
PI6C20400LE	PI3C3245LE	PI3B3257LE	PI6C10806BLEX	PI3CH200LE
PI6C20400LEX	PI3C3245LE	PI3B3257LEX	PI6C2409-1HLE	PI3CH200LEX
PI6C20400SLE	PI3C3245LEX	PI3CH281LE	PI6C2409-1HLEX	PI3VT3306LE
PI6C20400SLEX	PI3CH800LE	PI3CH281LEX	PI6C490086LE	PI3VT3306LEX
PT7C4050LEX	PI3CH800LEX	PI3CH360LE	PI6C490086LEX	PI5C3305LE
PT7C4050LE	PI3VT3245-ALE	PI3CH360LEX	PI6C490097LE	PI5C3305LEX
	PI3VT3245-ALEX	PI3CH400LE	PI6C490097LEX	PI5C3306LE
L24	PI5C3245LE	PI3CH400LEX	PI6C490098LE	PI5C3306LEX
PI3B3384LE	PI5C3245LEX	PI3CH401LE	PI6C490098LEX	PI6C2405A-1HLE
PI3B3384LEX	PI6C10810LE	PI3CH401LEX	PI6C557-03ALE	PI6C2405A-1HLEX
PI3B3861LE	PI6C10810LEX	PI3CH480LE	PI6C557-03ALEX	PI6C2405A-1HLIE
PI3B3861LEX	PI6C41204LE	PI3CH480LEX	PI6C557-03BLE	PI6C2405A-1HLIEX
PI3CH1000LE	PI6C41204LEX	PI3L110LE	PI6C557-03BLEX	PI6C2405A-1LE
PI3CH1000LEX	PI6C48533-01LE	PI3L110LEX	PI6C557-03LE	PI6C2405A-1LEX
PI3CH1010LE	PI6C48533-01LEX	PI3USB14-ALE	PI6C557-03LEX	PI6CV2304LE
PI3CH1010LEX	PI6C48535-01LE	PI3USB14-ALEX	PI6C557-10LE	PI6CV2304LEX
PI4IOE5V9555LE	PI6C48535-01LEX	PI3USB14LE	PI6C557-10LEX	PI6CV304LE
PI4IOE5V9555LEX	PI6C48543LE	PI3USB14LEX	PI6LC5011-01LE	PI6CV304LEX
PI5C3384LE	PI6C48543LEX	PI3USB20LE	PI6LC5011-01LEX	PT7C43190LE
PI5C3384LEX	PI6C48545LE	PI3USB20LEX	PI6LC5011-02LE	PT7C43190LEX
PS8A0382ALE	PI6C48545LEX	PI3V312LE	PI6LC5011-02LEX	PT7C4337LE
PS8A0382ALEX	PI6C557-05BLE	PI3V312LEX	PI90LV031ALE	PT7C4337LEX
PS8A0384ALE	PI6C557-05BLEX	PI49FCT20802LE	PI90LV031ALEX	PT7C433833LE
PS8A0384ALEX	PI6C557-05LE	PI49FCT20802LEX	PI90LV032ALE	PT7C433833LEX
PT8A3351ALE	PI6C557-05LEX	PI49FCT20803LE	PI90LV032ALEX	PT7C43390LE
PT8A3351ALEX	PI6C557-06LE	PI49FCT20803LEX	PI90LV047ALE	PT7C43390LEX
PT8A3353ALE	PI6C557-06LEX	PI49FCT32802LE	PI90LV047ALEX	PT7C4372ALE
PT8A3353ALEX	PI6C557-06LIE	PI49FCT32802LEX	PI90LV048ALE	PT7C4372ALEX
PT8A3355ALE	PI6C557-06LIEX	PI49FCT32803LE	PI90LV048ALEX	PT7C4563LE
PT8A3355ALEX	PI6CEQ20400LE	PI49FCT32803LEX	PI90LV3486LE	PT7C4563LEX
PT8A3362LEX	PI6CEQ20400LEX	PI49FCT3802LE	PI90LV3486LEX	
PT8A3362LE	PI6CEQ20400LIE	PI49FCT3802LEX	PI90LVB047ALE	
PT8A3382ALE	PI6CEQ20400LIEX	PI49FCT3803LE	PI90LVB047ALEX	
PT8A3382ALEX	PI6CX201ALE	PI49FCT3803LEX	PI90LVT048ALE	
PT8A3384ALE	PI6CX201ALEX	PI4IOE5V9554LE	PI90LVT048ALEX	
PT8A3384ALEX		PI4IOE5V9554LEX	PI90LVT3486LE	
		PI5C3253LE	PI90LVT3486LEX	
		PI5C3253LEX		
		PI5C3257LE		

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Lot Background Information:

Qual Part Number:	PI3CH480LE
Supplier (Code):	NFME (K)
Pkg Type - Code:	TSSOP-16 (L16)
Outline Drawing:	PD1310
By Extension Pkg:	L14, L08

Qual Test Date:	May-2014
Die Attach Material:	8200T
Wire Size & Material:	0.8 mil Gold
Mold Compound:	CEL9210HFVL
Leadframe Material:	Copper
Lead Finish:	100% matte tin (Sn)
Date Codes:	Z1407KG

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	176	528 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	3	22	66 / 0
PreCon Autoclave	JESD22-A102	121°C, RH 100%, 29.7 psia, 0V	96 hrs	3	77	231 / 0
PreCon Temp Cycle	JESD22-A104	-65°C to +150°C	100 cycles	3	77	231 / 0
		-65°C to +150°C	500 cycles	3	77	231 / 0
HTSL (no PreCon)	JESD22-A103	1000hrs, 0V, 150°C	500 hrs	3	77	231 / 0
		1000hrs, 0V, 150°C	1000 hrs	3	77	231 / 0
Physical Dimension	JESD22-B100	Per Datasheet	NA	3	5	15 / 0
External Visual Insp	JESD22-B101	NA	NA	3	5	15 / 0
Solderability	J-STD-020	Pb-Free Solder Dip 245°C	NA	3	5	15 / 0
	JESD22-B102					

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