Package Qualification Report

Reliability By Design

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:	PI3B3257WE	Qual Test Date:	May-2016
Supplier (Code):	SAT (S)	Die Attach Material:	84-1LMISR4
Pkg Type - Code:	SOIC-16 (W16)	Wire Size & Material:	0.8 mil PdCu
Outline Drawing:	PD-1004	Mold Compound:	EME-G700LY
By Extension Pkg:	W14	Leadframe Material:	Copper
		Lead Finish:	100% Matte Sn
		Date Codes	1603SG, 1604SG, 1605SG

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	253	759 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	3	22	66 / 0
PreCon UHAST	JESD22-A118	130C, 85% RH, 96Hrs, 33.3 psia (230kPa)	96 hrs	3	77	231 / 0
PreCon BHAST	JESD22-A110	130C, 85% RH, 33.3 psia (230kPa), Vmax	96 hrs	3	77	231 / 0
		130C, 85% RH, 33.3 psia (230kPa), Vmax	192 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 Datasheeet	NA	3	5	15 / 0
External Visual Insp	JESD22-B101	Workmanship, Marking, etc.	NA	3	5	15 / 0
Solderability	J-STD-020 JESD22-B102	Pb-Free Solder Dip 245°C	NA	3	5	15 / 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.

If there are any questions about this qualification, please contact Quality Support at: customerquestion@diodes.com

Date: **May-2016**
Subject: **SOIC-16 (W16)** QBE: W14
Qual Device: **PI3B3257WE**

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

PS8A0040AWEX	PT8A2645WEX			
PS8A0034WEX	PT8A2646WEX			
PT8A978BLWEX	PT8A2647WEX			
PT8A2648WEX	PT8A2651WEX			
PS8A0040CWEX	PT8A2703WEX			
PS8AES02WEX	PT8A3251WEX			
PS8A0143HWEX	PT8A3253WEX			
PT8A9010WEX	PT8A3254WEX			
PI6C2409-1HWEX	PT8T1301WEX			
PT8A3252WEX	PT8A977BWEX			
PI90LV032AWEX	PI3C3125WEX			
PI90LV031AWEX	PI3B3125WEX			
PT8A3263BWEX	PI3B3126WEX			
PI5L200WEX				
PI5A100WEX				
PS8A0032WEX				
PT8A263WEX				
PI3B3257WEX				
PT8A262WEX				
PI5V330WEX				
PI5V330SWEX				
PT8A3263AWEX				
PT8A2621WEX				
PS8A0143BWEX				
PT8A2641WEX				
PI5C3257WEX				
PS8A0143AWEX				
PI5C3253WEX				
PS8A0041AWEX				
PT8A3263HWEX				
PT8A3321AWEX				
PI3B3253WEX				
PS8A0031WEX				
PS8A0033WEX				
PS8A0039WEX				
PS8AES01WEX				
PS8AES05WEX				
PS8AES06WEX				
PS8AES07WEX				
PS8AES08WEX				
PT8A2611WEX				
PT8A261CWEX				
PT8A2642WEX				

Package Qualification Report

Reliability By Design

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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 Part Number:	PT7A7515WE	Qual Test Date:	Apr-2016
Supplier (Code):	SAT (S)	Die Attach Material:	84-1LMISR4
Pkg Type - Code:	SOIC-8 (W08)	Wire Size & Material:	0.8 mil PdCu
Outline Drawing:	PD-1001	Mold Compound:	EME-G700LA-LA
By Extension Pkg:	none	Leadframe Material:	Copper
		Lead Finish:	100% Matte Sn
		Date Codes	Q1603SG, Q1604SG, Q1605SG

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	253	759 / 0
CSAM	J-STD-020	No delamination of Die Top, Wire bond, Down bond areas	NA	3	22	66 / 0
PreCon UHAST	JESD22-A118	130C, 85% RH, 96Hrs, 33.3 psia (230kPa)	96 hrs	3	77	231 / 0
PreCon BHAST	JESD22-A110	130C, 85% RH, 33.3 psia (230kPa), Vmax	96 hrs	3	77	231 / 0
		130C, 85% RH, 33.3 psia (230kPa), Vmax	192 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 Datasheeet	NA	3	5	15 / 0
External Visual Insp	JESD22-B101	Workmanship, Marking, etc.	NA	3	5	15 / 0
Solderability	J-STD-020 JESD22-B102	Pb-Free Solder Dip 245°C	NA	3	5	15 / 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.

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

Date: **Apr-2016**

Subject: **SOIC-8 (W08)** QBE: none

Qual Device: **PT7A7515WE**

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

PT7C4302WEX	PT7A7512WEX	PS8A0023WEX	PT8A320WEX	PT8A3305HWEX
PI6C10804WEX	PI6C2405A-1HWIE	PS8A0024WEX	PT8A3230WEX	PT8A3305LWEX
PI6CV2304WEX	PI5PD2065WEX	PS8A0025WEX	PT8A3231WEX	PT8A3307HWEX
PT7A7514WEX	PS8A1020WEX	PS8A0026WEX	PT8A3232WEX	PT8A3307LWEX
PT7C4337WEX	PI6C49X0201WIE	PS8A0027WEX	PT8A3233WEX	PT8A3307NWEX
PS8A0057WEX	PT8A2541WEX	PS8A0060WEX	PT8A3234WEX	PT8A3511WEX
PI6C2405A-1HWEX	PI6C49X0204AWIE	PS8A0067WEX	PT8A3235WEX	PT8A3512WEX
PT7C4511WEX	PT8A3287BWEX	PS8A0070WEX	PT8A3236WEX	PT8A3514AWEX
PS8A0054WEX	PT8A3284WEX	PS8A0074WEX	PT8A3237WEX	PT8A3514BWEX
PS8A0050WEX	PT8A2767FWEX	PS8A0075WEX	PT8A3240AWEX	PT8A3514CWEX
PI90LV179WEX	PI5PD2069WEX	PS8A0080WEX	PT8A3240WEX	PT8A3515BWEX
PI6CV304WEX	PT7C433833WEX	PS8A0081WEX	PT8A3241WEX	PT8A3516AWEX
PT7A7515WEX	PS8A0055WEX	PS8A0082WEX	PT8A3242WEX	PT8A3516BWEX
PT7C4307WEX	PT8A3515AWEX	PS8A0083WEX	PT8A3243WEX	PT8A3516FWEX
PS8A0050NWEX	PT8A2544WEX	PS8A0084WEX	PT8A3244WEX	PT8A3517AWEX
PT7C4563WEX	PT8A3287WEX	PS8A0085WEX	PT8A3245WEX	PT8A3517BWEX
PT8A3300BWEX	PT8A2511WEX	PS8A0086WEX	PT8A3246WEX	PT8A3518AWEX
PT7A7513WEX	PT7A7521WEX	PS8A0087WEX	PT8A3247WEX	PT8A3518BWEX
PI90LV027AWEX	PI6C49X0202WIE	PS8A0090WEX	PT8A3270WEX	PT8A3519AWEX
PS8A0132BWEX	PI6ULS5V9306WEX	PS8A0094WEX	PT8A3274WEX	PT8A3519BWEX
PS8A0057NWEX	PT7C4372AWEX	PS8A0095WEX	PT8A3275WEX	PT8A9011WEX
PI90LV028AWEX	PI6C2405A-1WIE	PS8A0101AWEX	PT8A3280CWEX	PT8A94B02WEX
PT7C4311WEX	PI6C49X0204BWIE	PS8A0101BWEX	PT8A3280WEX	
PI6C485311WEX	PI6C49X0204CWIE	PS8A0102AWEX	PT8A3281WEX	
PS8A0010WEX	PI6ULS5V9509WEX	PS8A0102BWEX	PT8A3282WEX	
PI6C2405A-1WEX	PI6ULS5V9515AWEX	PS8A0103WEX	PT8A3283WEX	
PT7C4512WEX	PI6ULS5V9517AWEX	PS8A0107WEX	PT8A3285WEX	
PI90LV9637WEX	PT7C43190AWEX	PS8A0132AWEX	PT8A3286WEX	
PS8A0130BWEX	PT7C43190WEX	PS8A0132RWEX	PT8A3290WEX	
PT8A2704WEX	PT7C43390AWEX	PT7A7523WEX	PT8A3294BWEX	
PT7C43390WEX	PT7C4339WEX	PT7A7533WEX	PT8A3294WEX	
PS8A0054NWEX	PT7C5006ANDWEX	PT7A7535WEX	PT8A3295WEX	
PT7A7534WEX	PT7C5006ANEWEX	PT7C4502WEX	PT8A3300NWEX	
PS8A0020WEX	PI5PD1922BWEX	PT7C5006ANDWEX	PT8A3301AWEX	
PS8A0014WEX	PS8A0004WEX	PT7C5006ANEWEX	PT8A3301BWEX	
PT7A7511WEX	PS8A0011WEX	PT7V2727WEX	PT8A3301CWEX	
PT7C4501WEX	PS8A0012WEX	PT7V3727WEX	PT8A3301EWEX	
PT7C4337AWEX	PS8A0013WEX	PT7V4035WEX	PT8A3302AWEX	
PS8A0065WEX	PS8A0015WEX	PT7V41283-A1WEX	PT8A3302BWEX	
PI6C49X0204B-AWEX	PS8A0016WEX	PT8A2542WEX	PT8A3302RWEX	
PI6CL10804WEX	PS8A0017WEX	PT8A2545WEX	PT8A3302SWEX	
PT7C4363WEX	PS8A0021WEX	PT8A2562WEX	PT8A3303AWEX	
PS8A0132SWEX	PS8A0022WEX	PT8A3201WEX	PT8A3304LWEX	

DIODES INCORPORATED

PERICOM A PRODUCT LINE OF DIODES INCORPORATED
ENABLING SERIAL CONNECTIVITY

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Lot Background Information:

Qual Part Number: PT7A7515WE
Supplier (Code): CAT (T)
Pkg Type - Code: SOIC-8 (W08)
Outline Drawing: PD-1001
By Extension Pkg: none

Qual Test Date: Apr-2016
Die Attach Material: H9607
Wire Size & Material: 0.8 mil PdCu
Mold Compound: EME-G631K
Leadframe Material: Copper
Lead Finish: 100% Matte Sn
Date Codes Q1603TW, Q1604TW, Q1605TW

Pericom's Qualification Test Results:

Stress Test	Test Procedure	Test Conditions	Duration	# of Lots	Samples per Lot	Results Pass/Fail
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		130C, 85% RH, 33.3 psia (230kPa), Vmax	192 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 Datasheeet	NA	3	5	15 / 0
External Visual Insp	JESD22-B101	Workmanship, Marking, etc.	NA	3	5	15 / 0
Solderability	J-STD-020 JESD22-B102	Pb-Free Solder Dip 245°C	NA	3	5	15 / 0

Qualificaton by Extension Information:

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Date: **Apr-2016**
Subject: **SOIC-8 (W08)** QBE: none
Qual Device: **PT7A7515WE**

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PT7C4302WEX	PT7A7512WEX	PS8A0023WEX	PT8A320WEX	PT8A3305HWEX
PI6C10804WEX	PI6C2405A-1HWIE	PS8A0024WEX	PT8A3230WEX	PT8A3305LWEX
PI6CV2304WEX	PI5PD2065WEX	PS8A0025WEX	PT8A3231WEX	PT8A3307HWEX
PT7A7514WEX	PS8A1020WEX	PS8A0026WEX	PT8A3232WEX	PT8A3307LWEX
PT7C4337WEX	PI6C49X0201WIE	PS8A0027WEX	PT8A3233WEX	PT8A3307NWEX
PS8A0057WEX	PT8A2541WEX	PS8A0060WEX	PT8A3234WEX	PT8A3511WEX
PI6C2405A-1HWEX	PI6C49X0204AWIE	PS8A0067WEX	PT8A3235WEX	PT8A3512WEX
PT7C4511WEX	PT8A3287BWEX	PS8A0070WEX	PT8A3236WEX	PT8A3514AWEX
PS8A0054WEX	PT8A3284WEX	PS8A0074WEX	PT8A3237WEX	PT8A3514BWEX
PS8A0050WEX	PT8A2767FWEX	PS8A0075WEX	PT8A3240AWEX	PT8A3514CWEX
PI90LV179WEX	PI5PD2069WEX	PS8A0080WEX	PT8A3240WEX	PT8A3515BWEX
PI6CV304WEX	PT7C433833WEX	PS8A0081WEX	PT8A3241WEX	PT8A3516AWEX
PT7A7515WEX	PS8A0055WEX	PS8A0082WEX	PT8A3242WEX	PT8A3516BWEX
PT7C4307WEX	PT8A3515AWEX	PS8A0083WEX	PT8A3243WEX	PT8A3516FWEX
PS8A0050NWEX	PT8A2544WEX	PS8A0084WEX	PT8A3244WEX	PT8A3517AWEX
PT7C4563WEX	PT8A3287WEX	PS8A0085WEX	PT8A3245WEX	PT8A3517BWEX
PT8A3300BWEX	PT8A2511WEX	PS8A0086WEX	PT8A3246WEX	PT8A3518AWEX
PT7A7513WEX	PT7A7521WEX	PS8A0087WEX	PT8A3247WEX	PT8A3518BWEX
PI90LV027AWEX	PI6C49X0202WIE	PS8A0090WEX	PT8A3270WEX	PT8A3519AWEX
PS8A0132BWEX	PI6ULS5V9306WEX	PS8A0094WEX	PT8A3274WEX	PT8A3519BWEX
PS8A0057NWEX	PT7C4372AWEX	PS8A0095WEX	PT8A3275WEX	PT8A9011WEX
PI90LV028AWEX	PI6C2405A-1WIE	PS8A0101AWEX	PT8A3280CWEX	PT8A94B02WEX
PT7C4311WEX	PI6C49X0204BWIE	PS8A0101BWEX	PT8A3280WEX	
PI6C485311WEX	PI6C49X0204CWIE	PS8A0102AWEX	PT8A3281WEX	
PS8A0010WEX	PI6ULS5V9509WEX	PS8A0102BWEX	PT8A3282WEX	
PI6C2405A-1WEX	PI6ULS5V9515AWEX	PS8A0103WEX	PT8A3283WEX	
PT7C4512WEX	PI6ULS5V9517AWEX	PS8A0107WEX	PT8A3285WEX	
PI90LV9637WEX	PT7C43190AWEX	PS8A0132AWEX	PT8A3286WEX	
PS8A0130BWEX	PT7C43190WEX	PS8A0132RWEX	PT8A3290WEX	
PT8A2704WEX	PT7C43390AWEX	PT7A7523WEX	PT8A3294BWEX	
PT7C43390WEX	PT7C4339WEX	PT7A7533WEX	PT8A3294WEX	
PS8A0054NWEX	PT7C5006ANDWEX	PT7A7535WEX	PT8A3295WEX	
PT7A7534WEX	PT7C5006ANEWEX	PT7C4502WEX	PT8A3300NWEX	
PS8A0020WEX	PI5PD1922BWEX	PT7C5006ANDWEX	PT8A3301AWEX	
PS8A0014WEX	PS8A0004WEX	PT7C5006ANEWEX	PT8A3301BWEX	
PT7A7511WEX	PS8A0011WEX	PT7V2727WEX	PT8A3301CWEX	
PT7C4501WEX	PS8A0012WEX	PT7V3727WEX	PT8A3301EWEX	
PT7C4337AWEX	PS8A0013WEX	PT7V4035WEX	PT8A3302AWEX	
PS8A0065WEX	PS8A0015WEX	PT7V41283-A1WEX	PT8A3302BWEX	
PI6C49X0204B-AWEX	PS8A0016WEX	PT8A2542WEX	PT8A3302RWEX	
PI6CL10804WEX	PS8A0017WEX	PT8A2545WEX	PT8A3302SWEX	
PT7C4363WEX	PS8A0021WEX	PT8A2562WEX	PT8A3303AWEX	
PS8A0132SWEX	PS8A0022WEX	PT8A3201WEX	PT8A3304LWEX	