

Qualification Description:

The information contained herein represents proof of Reliability and Performance of the baseline process technology listed below in accordance with the Qualification Plan and test methods referenced in Section 8.0, after exposure to a variety of environments (electrical, thermal, humidity, etc) and mechanical events that may 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 of referenced process technology. The Pericom product data presented in this report qualifies all products manufactured using the exact semiconductor materials and processing techniques used in the baseline process and its off-shoot processes. The report describes the qualification test program, procedures used, criteria enforced (at the time of product validation), and the resulting test data obtained during the Qualification Test. The materials and processing techniques used in the baseline process are incorporated into the off-shoot processes, so the quality/integrity of the baseline and off-shoots (i.e.: 2PxM, 1PxM) processes will be equivalent.

Lot Background Information:

Qual Test Date:	Apr-2009	By Ext. Process:	0.50um 2PxM
Process Technology:	0.50um 2P3M		0.50um 1PxM
Foundry & Code:	CSMC (W)		
Qual Test Number:	QU-08030.1 QU-06040 QU-06002 QU-10031	Qual Vehicle(s):	TESTC2893ZEE PT8A3252PE PT7M6835FD3C4E PS8A0050WE

Pericom's Qualification Test Results:

Stress Test	Test Procedure	Test Conditions	Duration (hrs)	# of Lots	Samples per Lot	Results Pass/Fail
Dynamic High Temp	JESD22-A108	1000 hrs 5.5V 125°C	168	3	25	75 / 0
Operating Life (DHTOL)	JESD22-A108	1000 hrs 5.5V 125°C	500	3	25	75 / 0
TESTC2893ZEE	JESD22-A108	1000 hrs 5.5V 125°C	1000	3	25	75 / 0
Dynamic High Temp	JESD22-A108	1000 hrs 5.5V 125°C	168	1	80	80 / 0
Operating Life (DHTOL)	JESD22-A108	1000 hrs 5.5V 125°C	500	1	80	80 / 0
PT8A3252PE	JESD22-A108	1000 hrs 5.5V 125°C	1000	1	80	80 / 0
Dynamic High Temp	JESD22-A108	1000 hrs 5.5V 150°C	168	1	80	80 / 0
Operating Life (DHTOL)	JESD22-A108	1000 hrs 5.5V 150°C	500	1	80	80 / 0
PT7M6835FD3C4E	JESD22-A108	1000 hrs 5.5V 150°C	1000	1	80	80 / 0
	Based on 235 units completed 1000 hrs of DHTOL	FIT Rate (55C, 0.5eV, 5.5V, 60%)	91.3			
		Calculated MTBF	10,952,526			
Temp Cycle Test	JESD22-A104	-65°C to 150°C, 500cyc	100 cycles	3	77	231 / 0
		-65°C to 150°C, 500cyc	500 cycles	3	77	231 / 0
High Temp Storage (HTS)	JESD22-A103	1000hrs, 0V, 150°C	168 hrs	3	77	231 / 0
		1000hrs, 0V, 150°C	500 hrs	3	77	231 / 0
		1000hrs, 0V, 150°C	1000 hrs	3	77	231 / 0
Latch Up Test	JESD78	Report available by Device				
ESD-HBM Test	JESD22-A114	Report available by Device				

Qualification by Extension Information:

It is valid to use the reliability data of a particular process technology and apply to all products within this process technology family. All parts within the same family are designed to the same rules (layout & electrical), and manufacturing is controlled by SPC. Within a product family, a device can only be fabricated on one process technology option.

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

Date: Apr-2009
 Subject: Pericom Process Qualification Report
 Mfg-Fab-Process: CSMC (W) 0.50um 2P3M and by extension: 2PxM, 1PxM
 Qual Vehicle(s): TESTC2893ZEE PT8A3252PE PT7M6835FD3C4E PS8A0050WE

Part Numbers qualified by extension using this Fab and Process:

PT8A3252PE				
PT7M6835FD3C4E				
PS8A0050WE				