

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-2004, updated June-2015
Process Technology:	0.35um 2P2M, 0.35um 1P2M
Foundry & Code:	GBL (C) formerly CSM
Qual Test Number:	QDC04008-1, Q00063-1A, Q03003-2A Q04007-1A

By Ext. Process:	0.35um 1P2M 0.35um 1P3M 0.35um 1PxM
Qual Vehicle(s):	PI6CX100-27 PI74SSTV16857 PI3B3257

Pericom's Qualification Test Results:

Stress Test	Test Procedure	Test Conditions	Duration	# of Lots	Samples per Lot	Results Pass/Fail
Dynamic High Temp	JESD22-A108B	3000 hrs 3.6V 150°C	168 hrs	1	150	150 / 0
Operating Life (DHTOL)		3000 hrs 3.6V 150°C	500 hrs	1	150	150 / 0
(PI6CX100-27 0.35um 2P2M)		3000 hrs 3.6V 150°C	1000 hrs	1	150	150 / 0
		3000 hrs 3.6V 150°C	2000 hrs	1	150	150 / 0
		3000 hrs 3.6V 150°C	3000 hrs	1	150	150 / 0
Dynamic High Temp	JESD22-A108B	1000 hrs 3.6V 150°C	168 hrs	3	117	351 / 0
Operating Life (DHTOL)		1000 hrs 3.6V 150°C	500 hrs	3	117	351 / 0
(PI74SSTV16857 0.35um 1P2M)		1000 hrs 3.6V 150°C	1000 hrs	3	117	351 / 0
Dynamic High Temp	JESD22-A108B	1000 hrs 3.6V 150°C	168 hrs	2	102	204 / 0
Operating Life (DHTOL)		1000 hrs 3.6V 150°C	500 hrs	2	102	204 / 0
(2004 Reliability testing - PI3B3257)		1000 hrs 3.6V 150°C	1000 hrs	2	102	204 / 0
Dynamic High Temp	JESD22-A108B	1000 hrs 3.6V 150°C	168 hrs	3	77	231 / 0
Operating Life (DHTOL)		1000 hrs 3.6V 150°C	500 hrs	3	77	231 / 0
(2013 Qual Testing - PI6C557-05Q)		1000 hrs 3.6V 150°C	1000 hrs	3	77	231 / 0
ELFR for PI6C557-05Q	JESD22-A108B	24 hours 3.6V 125°C	24 hrs	3	800	2400 / 0
	ELFR based on 705 units with 168 hrs of DHTOL & 2400 units - 24hrs DHTOL FIT based on 936 units with 1000 hrs of DHTOL	ELFR (55°C, 0.7eV, 3.6V, 60%CL)	55.4			
		FIT Rate (55°C, 0.7eV, 3.6V, 60%CL)	2.5			
		Calculated MTBF (hrs)	403,469,855			
High Temp Storage	JESD22-A103B	1000 hrs 0V 150°C	168 hrs	3	80	240 / 0
		1000 hrs 0V 150°C	1000 hrs	3	80	240 / 0
High Temp Storage	JESD22-A103B	1000 hrs 0V 150°C	168 hrs	18	76	1368 / 0
(HTS - from Ongoing Rel Monitoring - 2014)		1000 hrs 0V 150°C	1000 hrs	18	76	1368 / 0
P-Temp Cycle	JESD22-A104	-65°C to 150°C, 500 cycles	500 cycles	1	76	76 / 0
P-Temp Cycle (PkgQual)	JESD22-A104	-65°C to 150°C, 1000 cycles	1000 cycles	2	45	90 / 0
P-Temp Cycle	JESD22-A104	-65°C to 150°C, 500 cycles	100 cycles	18	76	1368 / 0
(TC - from Ongoing Rel Monitoring - 2014)		-65°C to 150°C, 1000 cycles	500 cycles	18	76	1368 / 0
P-U_PCT (PkgQual)	JESD22-A102	121°C, RH 100%, 29.7 psia, 0V	168 hrs	2	45	90 / 0
Latch Up Test	EIA JESD78	Report available by Device				
ESD-HBM Test	JESD22-A114D	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

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Date: Apr-2004, updated June-2015
 Subject: Pericom Qualification Report
 Mfg-Fab-Process: GBL (C) formerly CSM 0.35um 2P2M, 0.35um 1P2M
 Qual Vehicle(s): PI6CX100-27 PI74SSTV16857 PI3B3257

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

PI3A3159TEX	PI3B3257AQE	PI49FCT32803LEX	PI49FCT3807AQEX	PI6C20800BAEX
PI3A3160ZEEX	PI3B3257AQEX	PI49FCT32803QE	PI49FCT3807ASE	PI6C20800BIAE
PI3A412ZHEX	PI3B3257LE	PI49FCT32803QEX	PI49FCT3807ASEX	PI6C20800BIAEX
PI3A4626TEX	PI3B3257LEX	PI49FCT32805QE	PI49FCT3807BQE	PI6C20800SAE
PI3B16209AE	PI3B3257QE	PI49FCT32805QEX	PI49FCT3807BQEX	PI6C20800SAEX
PI3B16209AEX	PI3B3257QEX	PI49FCT32807HE	PI49FCT3807CHE	PI6C20800SIAE
PI3B16226BE	PI3B3257WE	PI49FCT32807HEX	PI49FCT3807CHEX	PI6C20800SIAEX
PI3B16226BEX	PI3B3257WEX	PI49FCT32807QE	PI49FCT3807CQE	PI6C20800SIVE
PI3B16232AE	PI3B32X245BE	PI49FCT32807QEX	PI49FCT3807CQEX	PI6C20800SIVEX
PI3B16232AEX	PI3B32X245BEX	PI49FCT3802LE	PI49FCT3807CSE	PI6C20800SVE
PI3B16233AE	PI3B32X384BE	PI49FCT3802LEX	PI49FCT3807CSEX	PI6C20800SVEX
PI3B16233AEX	PI3B32X384BEX	PI49FCT3802QE	PI49FCT3807DHE	PI6C20800VE
PI3B16244AE	PI3B3384LE	PI49FCT3802QEX	PI49FCT3807DHEX	PI6C20800VEX
PI3B16244AEX	PI3B3384LEX	PI49FCT3803LE	PI49FCT3807DQE	PI6C487016FBE
PI3B16245AE	PI3B3384QE	PI49FCT3803LEX	PI49FCT3807DQEX	PI6C487016FBEX
PI3B16245AEX	PI3B3384QEX	PI49FCT38052CHE	PI49FCT3807DSE	PI6C49003AE
PI3B16292AE	PI3B33X257BE	PI49FCT38052CHEX	PI49FCT3807DSEX	PI6C49003AEX
PI3B16292AEX	PI3B33X257BEX	PI49FCT3805AHE	PI49FCT3807HE	PI6C49004AAEX
PI3B3125LE	PI3B34X245BE	PI49FCT3805AHEX	PI49FCT3807HEX	PI6C49004AE
PI3B3125LEX	PI3B34X245BEX	PI49FCT3805AQE	PI49FCT3807QE	PI6C49004AEX
PI3B3125QE	PI3B3861LE	PI49FCT3805AQEX	PI49FCT3807QEX	PI6C49005AEX
PI3B3125QEX	PI3B3861LEX	PI49FCT3805BHE	PI4ULS3V08MZLE	PI6C49005AIEX
PI3B3125WE	PI3B3861QE	PI49FCT3805BHEX	PI4ULS3V08MZLEX	PI6C49006AEX
PI3B3125WEX	PI3B3861QEX	PI49FCT3805BQE	PI4ULS3V08ZFE	PI6C49006AIEX
PI3B3126LE	PI3L100QE	PI49FCT3805BQEX	PI4ULS3V08ZFEX	PI6C490086LE
PI3B3126LEX	PI3L100QEX	PI49FCT3805CHE	PI4ULS3V16AE	PI6C490086LEX
PI3B3126QE	PI3USB10LP-AZLEX	PI49FCT3805CHEX	PI4ULS3V16AEX	PI6C490097LE
PI3B3126QEX	PI3USB10LP-AZMEX	PI49FCT3805CQE	PI4ULS3V16MNLE	PI6C490097LEX
PI3B3244LE	PI3USB2117ZLEX	PI49FCT3805CQEX	PI4ULS3V16MNLEX	PI6C490098LE
PI3B3244LEX	PI49FCT20802LE	PI49FCT3805DHE	PI4ULS3V16ZFE	PI6C490098LEX
PI3B3244QE	PI49FCT20802LEX	PI49FCT3805DHEX	PI4ULS3V16ZFEX	PI6C49014LIEX
PI3B3244QEX	PI49FCT20802QE	PI49FCT3805DQE	PI6C20400ALE	PI6C49015LIEX
PI3B3245LE	PI49FCT20802QEX	PI49FCT3805DQEX	PI6C20400ALEX	PI6C49016ZDIEX
PI3B3245LEX	PI49FCT20803LE	PI49FCT3805QE	PI6C20400BLE	PI6C49019AIEX
PI3B3245QE	PI49FCT20803LEX	PI49FCT3805QEX	PI6C20400BLEX	PI6C49053AIEX
PI3B3245QEX	PI49FCT20807HE	PI49FCT38072BHE	PI6C20400HE	PI6C557-01BZHIEX
PI3B3251LE	PI49FCT20807HEX	PI49FCT38072BHEX	PI6C20400HEX	PI6C557-03ALE
PI3B3251LEX	PI49FCT20807QE	PI49FCT38072CQE	PI6C20400LE	PI6C557-03ALEX
PI3B3251QE	PI49FCT20807QEX	PI49FCT38072CQEX	PI6C20400LEX	PI6C557-03AQE
PI3B3251QEX	PI49FCT32802LE	PI49FCT38072CSE	PI6C20400SHE	PI6C557-03AQEX
PI3B3253LE	PI49FCT32802LEX	PI49FCT38072CSEX	PI6C20400SHEX	PI6C557-03BLE
PI3B3253LEX	PI49FCT32802QE	PI49FCT3807AHE	PI6C20400SLE	PI6C557-03BLEX
PI3B3253QE	PI49FCT32802QEX	PI49FCT3807AHEX	PI6C20400SLEX	PI6C557-03BQE
PI3B3253QEX	PI49FCT32803LE	PI49FCT3807AQE	PI6C20800BAE	PI6C557-03BQEX

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

PI6C557-03LE	PI74AVC164245AE		
PI6C557-03LEX	PI74AVC164245AEX		
PI6C557-05BLE	PI74AVC164245KE		
PI6C557-05BLEX	PI74AVC164245KEX		
PI6C557-05LE	PI74AVC164245LAAE		
PI6C557-05LEX	PI74AVC164245LAAEX		
PI6C557-06LEX	PI74HSTL1212AE		
PI6C557-06LIEX	PI74HSTL1212AEX		
PI6C557-10LE	PI90LV017AWE		
PI6C557-10LEX	PI90LV017AWEX		
PI6C5572-05LIEX	PI90LV027AWE		
PI6CEQ20200LEX	PI90LV027AWEX		
PI6CEQ20200LIEX	PI90LV028AWE		
PI6CEQ20400LEX	PI90LV028AWEX		
PI6CV2304LE	PI90LV031ALE		
PI6CV2304LEX	PI90LV031ALEX		
PI6CV2304WE	PI90LV031AWE		
PI6CV2304WEX	PI90LV031AWEX		
PI6CV304LE	PI90LV032ALE		
PI6CV304LEX	PI90LV032ALEX		
PI6CV304WE	PI90LV032AWE		
PI6CV304WEX	PI90LV032AWEX		
PI6CV847LE	PI6C557-05QLE		
PI6CV847LEX	PI6C557-05QLEX		
PI6CV855-02LE	PI6C557-03AQLE		
PI6CV855-02LEX	PI6C557-03AQLEX		
PI6CV855LE			
PI6CV855LEX			
PI6CV857AE			
PI6CV857AEX			
PI6CVF857AE			
PI6CVF857AEX			
PI6CX100-00WE			
PI6CX100-00WEX			
PI6PCIEB24ZDE			
PI6PCIEB24ZDEX			
PI74ALVTC16245AE			
PI74ALVTC16245AEX			
PI74ALVTC16245VE			
PI74ALVTC16245VEX			
PI74AVC+16836AE			
PI74AVC+16836AEX			
PI74AVC164245AAE			
PI74AVC164245AAEX			

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