

Date: June 8, 2006 (Update 2)

Subject: TSMC - CMOS 0.25 μm (1P4M) Wafer Fab Process Reliability Report

An additional amount of 105 units from another lot of the PI7C21P100B PCI-X Bridge device type successfully completed Dynamic High Temperature Operating Life (DHTOL) test with no failures. This device and others in the PCI-X Bridge family of products is manufactured at our wafer fabrication subcontract supplier in Taiwan, TSMC (<http://www.tsmc.com/english/default.htm>), using their 0.25- μm CMOS, 2.5-volt, Single Poly, Quad Metal (1P4M) process. Therefore this device type and others in the product family that use this process meet Pericom's Fab Process Qualification sampling plan requirements. The devices have also previously passed their ESD and Latch-up characterization test evaluation per JEDEC test standards. The results are indicated in the table below.

The equivalent FIT rate including the original lot tested for 3000 hours and the new lot tested for 1000 hours is currently 42.9 for any devices using the same process and design rules, with an MTBF of 23,317,089 hours. The FIT calculation was made using the Arrhenius equation, with an Activation energy of 0.5 eV, an assumed system operating temperature of 55 °C, and a Confidence Level factor of 60%.

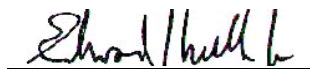
Pericom's Process Qualification Test results:

Rel Lot #	Device Type	Pkg. Type	Date Code	Stress Test	Sample Units	Test Conditions (Per JEDEC Standards)	Stress/Duration	Results Pass/Fail
Q04014-1A	PI7C21P100B	NH-304	Z0439BT	DHTOL	105	+125 °C, 3.6 V	168 hrs	105/0
Q04014-1A	PI7C21P100B	NH-304	Z0439BT				500 hrs	
Q04014-1A	PI7C21P100B	NH-304	Z0439BT				1000 hrs	
Q04014-1A	PI7C21P100B	NH-304	Z0439BT				2000 hrs	
Q04014-1A	PI7C21P100B	NH-304	Z0439BT	↓	↓	↓	3000 hrs	↓
QDT06001-1	PI7C21P100B	NHE-304	Z0524BT	DHTOL	105	+125 °C, 3.6 V	168 hrs	105/0
QDT06001-1	PI7C21P100B	NHE-304	Z0524BT	↓	↓	↓	1000 hrs	↓
N/A	PI7C21P100B	NHE-304	Z0523BT	Latch-up	6	EIA/JESD78	>±200mA	6/0
N/A	PI7C21P100B	NH-304	Z0439BT	ESD-HBM	3	JESD22-A114-B	>2000V	3/0
N/A	PI7C21P100B	NH-304	Z0439BT	ESD-MM	3	JESD22-A115-A	>200V	3/0

Generically equivalent Pericom products that use the same array, design rules and process technology can also be considered qualified by this product.

If there are any questions about this qualification report, please contact me as indicated below.

Regards,



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