

Date: August 5, 2005

Subject: *Pericom Reliability Qualification – CSM-S Fab 2’s CMOS, 0.25 μm, 2.5V, 1P3M Process*
Chartered Semiconductor Manufacturing – Singapore Fab 2’s CMOS, 0.25-μm, 2.5 volt, Single Poly/Triple Metal (1P3M) process has been qualified to Pericom’s standard die level process qualification. The PI74SSTVF16857 device type successfully completed 1500 hours of Dynamic High Temperature Operating Life (DHTOL) test with no failures. All other Pericom products using the same process technology and design rules will therefore meet Pericom’s Wafer Fab Process Qualification requirements. This device also passed High Temp Storage Life (HTSL) for 1000 hours at 150 °C, and Temperature Cycle (TMCL) testing per the table below.

With no failures at the 168-hour timepoint, there is no concern over potential infant mortality issues that would require 100% burn-in for products using this process. This is the same result we have observed for all current Pericom designs and processes. The equivalent long-term life test FIT rate is currently 48.7 for Pericom devices using the same process and design rules, with a calculated MTBF of 205,000 hours. FIT rates are calculated 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%.

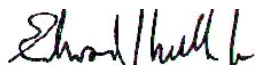
Pericom’s 0.25-μm Process Qualification Test results:

Rel Lot #	Device Type	Stress Test	Stress Condition	Stress Duration	Sample Units	Results Pass/Fail
Q03003	PI74SSTVF16857	DHTOL	150°C, 2.75v	168 hrs	197	197/0
				500 hrs	197	197/0
				1000 hrs	197	197/0
				1500 hrs	197	197/0
	PI74SSTVF16857	HTSL	150°C	168 hrs	100	100/0
				500 hrs	100	100/0
				1000 hrs	100	100/0
	PI74SSTVF16857	TMCL	-65, +150 °C	500 cycles	76	76/0

Other Pericom device types currently using this same process and design rules are: PI74SSTVF16859, PI74SSTVF32852, PI74AUC16244, PI74AUC16245.

If there are any questions about this qualification, please contact the undersigned.

Regards,



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