



SPEC® CINT2006 Result

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GIGA-BYTE Technology Co. Ltd.

(Test Sponsor: Intel Corporation)

Gigabyte MA78GM-S2H Motherboard (AMD Athlon X2 6400+)

SPECint®2006 = 15.1

SPECint_base2006 = 14.3

CPU2006 license: 13

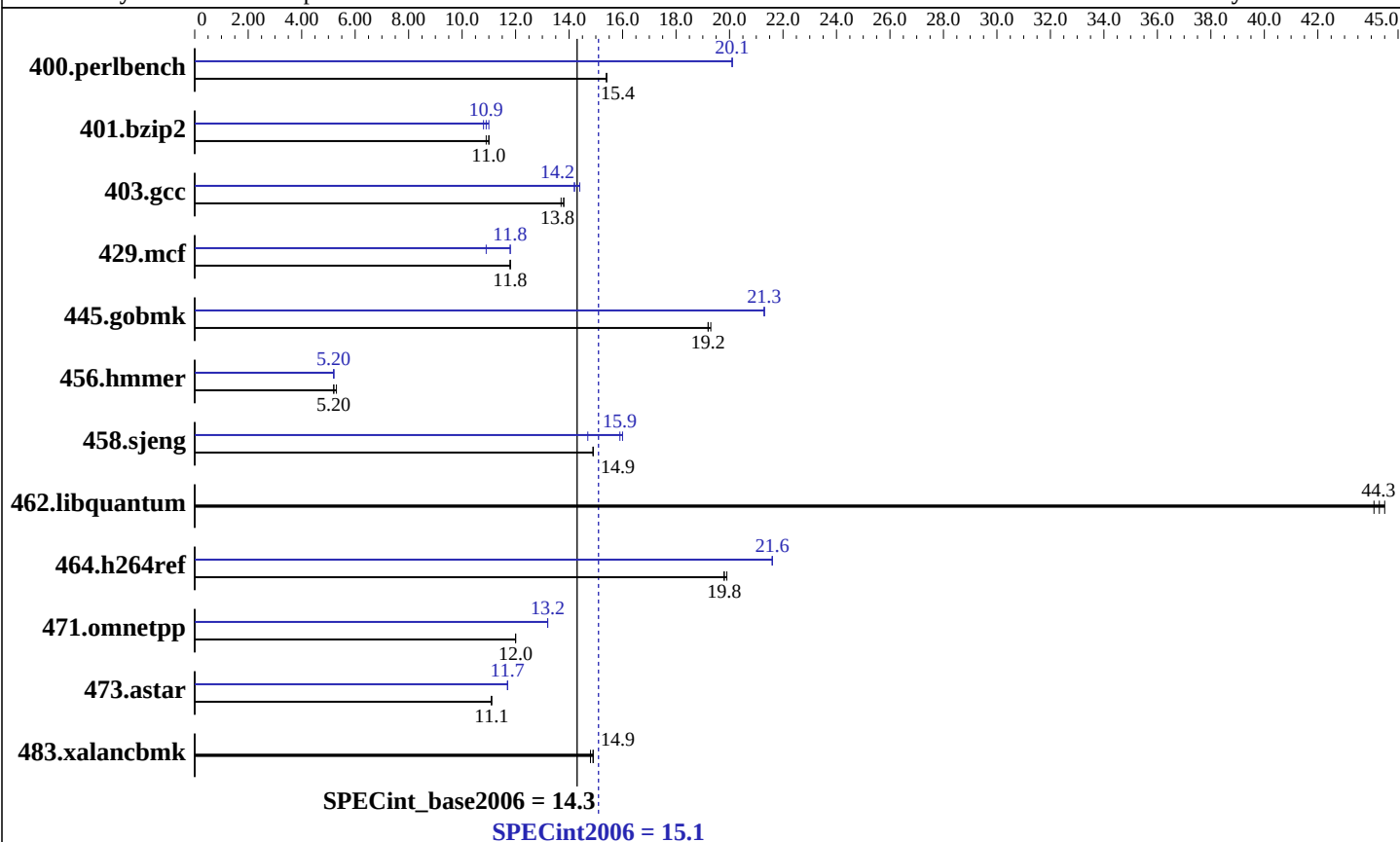
Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Jan-2009

Hardware Availability: Sep-2007

Software Availability: Nov-2008



Hardware

CPU Name: AMD Athlon X2 6400+
CPU Characteristics:
CPU MHz: 3200
FPU: Integrated
CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip
CPU(s) orderable: 1 chip
Primary Cache: 64 KB I + 64 KB D on chip per core
Secondary Cache: 1 MB I+D on chip per core
L3 Cache: None
Other Cache: None
Memory: 4 GB (4x1GB DDR2-800 CL5)
Disk Subsystem: Seagate 320 GB SATA, 7200RPM
Other Hardware: None

Software

Operating System: Windows Vista Ultimate w/ SP1 (64-bit)
Compiler: Intel C++ Compiler Professional 11.0 for IA32
Build 20080930 Package ID: w_cproc_p_11.0.054
Microsoft Visual Studio 2008 (for libraries)
Auto Parallel: Yes
File System: NTFS
System State: Default
Base Pointers: 32-bit
Peak Pointers: 32-bit
Other Software: SmartHeap Library Version 8.1 from <http://www.microquill.com/>



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Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	635	15.4	634	15.4	634	15.4	485	20.1	485	20.1	485	20.1
401.bzip2	878	11.0	888	10.9	874	11.0	884	10.9	895	10.8	877	11.0
403.gcc	587	13.7	585	13.8	583	13.8	558	14.4	568	14.2	568	14.2
429.mcf	773	11.8	776	11.8	774	11.8	775	11.8	838	10.9	776	11.8
445.gobmk	545	19.2	546	19.2	545	19.3	492	21.3	492	21.3	492	21.3
456.hmmer	1787	5.20	1799	5.20	1775	5.30	1793	5.20	1798	5.20	1784	5.20
458.sjeng	811	14.9	811	14.9	811	14.9	759	16.0	759	15.9	821	14.7
462.libquantum	466	44.5	469	44.1	468	44.3	466	44.5	469	44.1	468	44.3
464.h264ref	1116	19.8	1115	19.9	1115	19.8	1026	21.6	1026	21.6	1025	21.6
471.omnetpp	522	12.0	522	12.0	522	12.0	472	13.2	472	13.2	472	13.2
473.astar	632	11.1	632	11.1	631	11.1	600	11.7	600	11.7	600	11.7
483.xalancbmk	465	14.9	464	14.9	465	14.8	465	14.9	464	14.9	465	14.8

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

General Notes

Tested systems can be used with Shin-G ATX case, Antec NeoPower 480W power supply
Binaries were built on Windows Vista Ultimate (32-bit)

OMP_NUM_THREADS set to number of logical processors as seen by the OS

KMP_AFFINITY set to physical,0

The system as described on this result page was formerly generally available, but is no longer generally available. It may or may not be supported.

This benchmark result is intended to provide perspective on past [power and/or] performance for the hardware and software described on this result page.

Base Compiler Invocation

C benchmarks:
icl -Qvc9 -Qc99

C++ benchmarks:
icl -Qvc9

Base Portability Flags

403.gcc: -DSPEC_CPU_WIN32
464.h264ref: -DSPEC_CPU_NO_INTTYPES -DWIN32

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Base Portability Flags (Continued)

483.xalancbmk: -Qoption, cpp, --no_wchar_t_keyword

Base Optimization Flags

C benchmarks:

/arch:SSE2 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qparallel
-Qpar-runtime-control -Qvec-guard-write /F512000000

C++ benchmarks:

/arch:SSE2 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qcxx-features
/F512000000 shlw32m.lib -link /FORCE:MULTIPLE

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks:

icl -Qvc9 -Qc99

C++ benchmarks:

icl -Qvc9

Peak Portability Flags

403.gcc: -DSPEC_CPU_WIN32
464.h264ref: -DSPEC_CPU_NO_INTTYPES -DWIN32
483.xalancbmk: -Qoption, cpp, --no_wchar_t_keyword

Peak Optimization Flags

C benchmarks:

400.perlbench: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch
/F512000000 shlw32m.lib -link /FORCE:MULTIPLE

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Peak Optimization Flags (Continued)

401.bzip2: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qopt-prefetch -Qansi-alias
/F512000000

403.gcc: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- /F512000000

429.mcf: /arch:SSE2 -Qipo -O3 -Qprec-div- -Qopt-prefetch
/F512000000

445.gobmk: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O2 -Qprec-div- -Qansi-alias /F512000000

456.hmmer: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias /F512000000

458.sjeng: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qunroll4 /F512000000

462.libquantum: basepeak = yes

464.h264ref: Same as 456.hmmer

C++ benchmarks:

471.omnetpp: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qansi-alias
-Qopt-ra-region-strategy=block /F512000000 shlw32m.lib
-link /FORCE:MULTIPLE

473.astar: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qansi-alias
-Qopt-ra-region-strategy=routine /F512000000 shlw32m.lib
-link /FORCE:MULTIPLE

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-win32-revA.20090818.html>



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You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-win32-revA.20090818.xml>

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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