SPEC® CINT2006 Result

GIGA-BYTE Technology Co. Ltd.

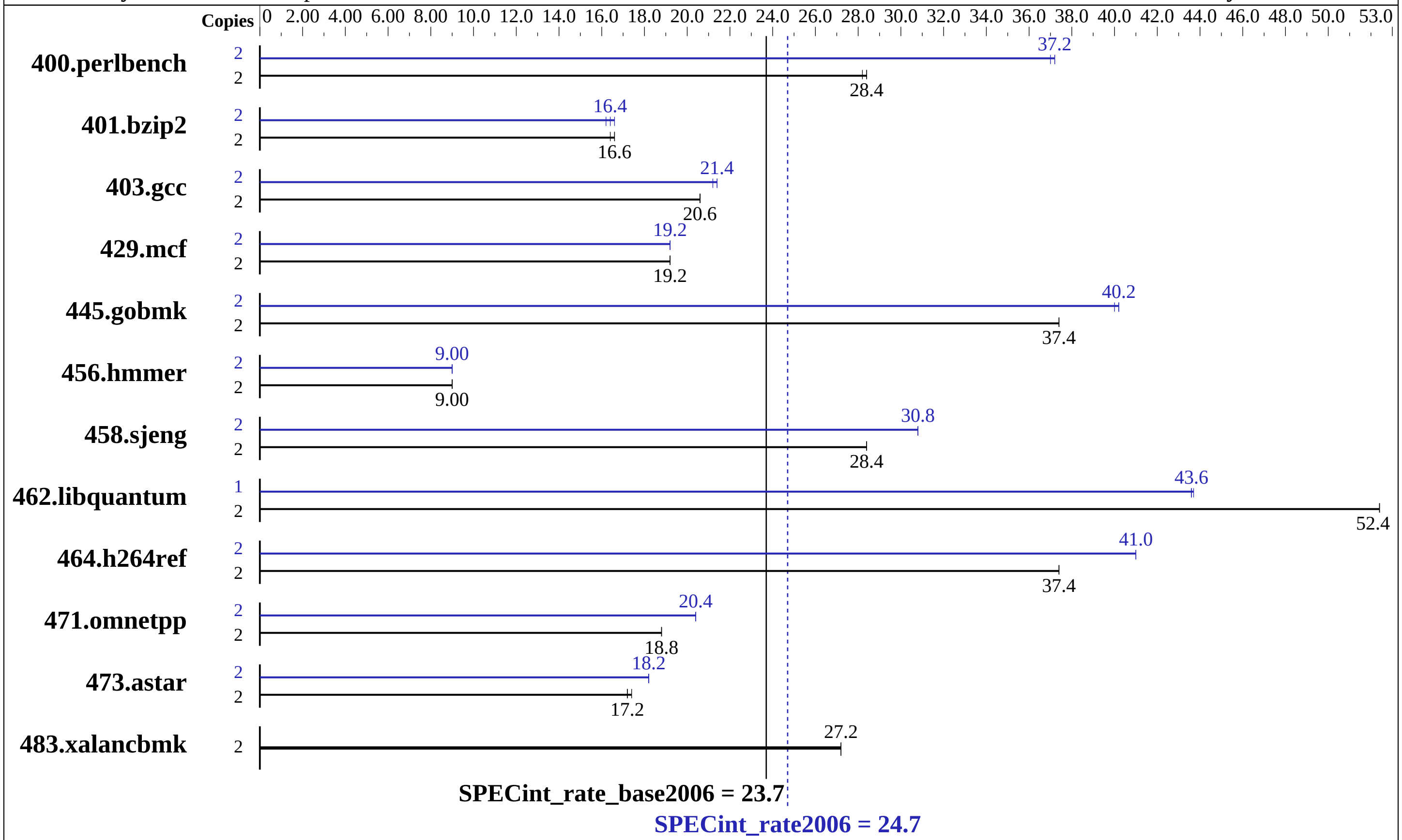
(Test Sponsor: Intel Corporation)

Gigabyte MA78GM-S2H Motherboard (AMD Athlon X2 6000+)

SPECint®_rate2006 = 24.7

SPECint_rate_base2006 = 23.7

CPU2006 license:	13	**Test date:**	Jan-2009
Test sponsor:	Intel Corporation	**Hardware Availability:**	Feb-2007
Tested by:	Intel Corporation	**Software Availability:**	Nov-2008



Hardware

CPU Name:	AMD Athlon X2 6000+
CPU Characteristics:	
CPU MHz:	3100
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:	512 KB 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/

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	2	688	28.4	**688**	**28.4**	693	28.2	2	525	37.2	527	37.0	**526**	**37.2**
401.bzip2	2	1159	16.6	**1162**	**16.6**	1183	16.4	2	1185	16.2	1165	16.6	**1173**	**16.4**
403.gcc	2	780	20.6	784	20.6	**782**	**20.6**	2	**754**	**21.4**	760	21.2	754	21.4
429.mcf	2	**952**	**19.2**	952	19.2	952	19.2	2	952	19.2	**952**	**19.2**	954	19.2
445.gobmk	2	560	37.4	**560**	**37.4**	560	37.4	2	523	40.2	523	40.0	**523**	**40.2**
456.hmmer	2	2087	9.00	2093	9.00	**2088**	**9.00**	2	2079	9.00	**2080**	**9.00**	2083	9.00
458.sjeng	2	**850**	**28.4**	850	28.4	850	28.4	2	**785**	**30.8**	785	30.8	785	30.8
462.libquantum	2	791	52.4	**790**	**52.4**	789	52.4	1	**475**	**43.6**	475	43.7	476	43.6
464.h264ref	2	1182	37.4	**1182**	**37.4**	1182	37.4	2	1080	41.0	**1080**	**41.0**	1079	41.0
471.omnetpp	2	**663**	**18.8**	663	18.8	662	18.8	2	613	20.4	613	20.4	**613**	**20.4**
473.astar	2	812	17.2	**812**	**17.2**	811	17.4	2	**772**	**18.2**	771	18.2	772	18.2
483.xalancbmk	2	506	27.2	**507**	**27.2**	507	27.2	2	506	27.2	**507**	**27.2**	507	27.2

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

Submit Notes

```
The config file option 'submit' was used.
```

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
submit disabled for 462.libquantum peak
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
483.xalancbmk: -Qoption,cpp,--no_wchar_t_keyword

Base Optimization Flags

C benchmarks:
/arch:SSE2 -Qipo -O3 -Qprec-div- -Qopt-prefetch /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

Continued on next page

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- -Qopt-prefetch /F512000000

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

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

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

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

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

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

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