



# SPEC® CINT2006 Result

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GIGA-BYTE Technology Co. Ltd.

(Test Sponsor: Intel Corporation)

Gigabyte GA-X58A-UD7 motherboard (Intel Core i7-920)

**SPECint®\_rate2006 = 109**

**SPECint\_rate\_base2006 = 104**

CPU2006 license: 13

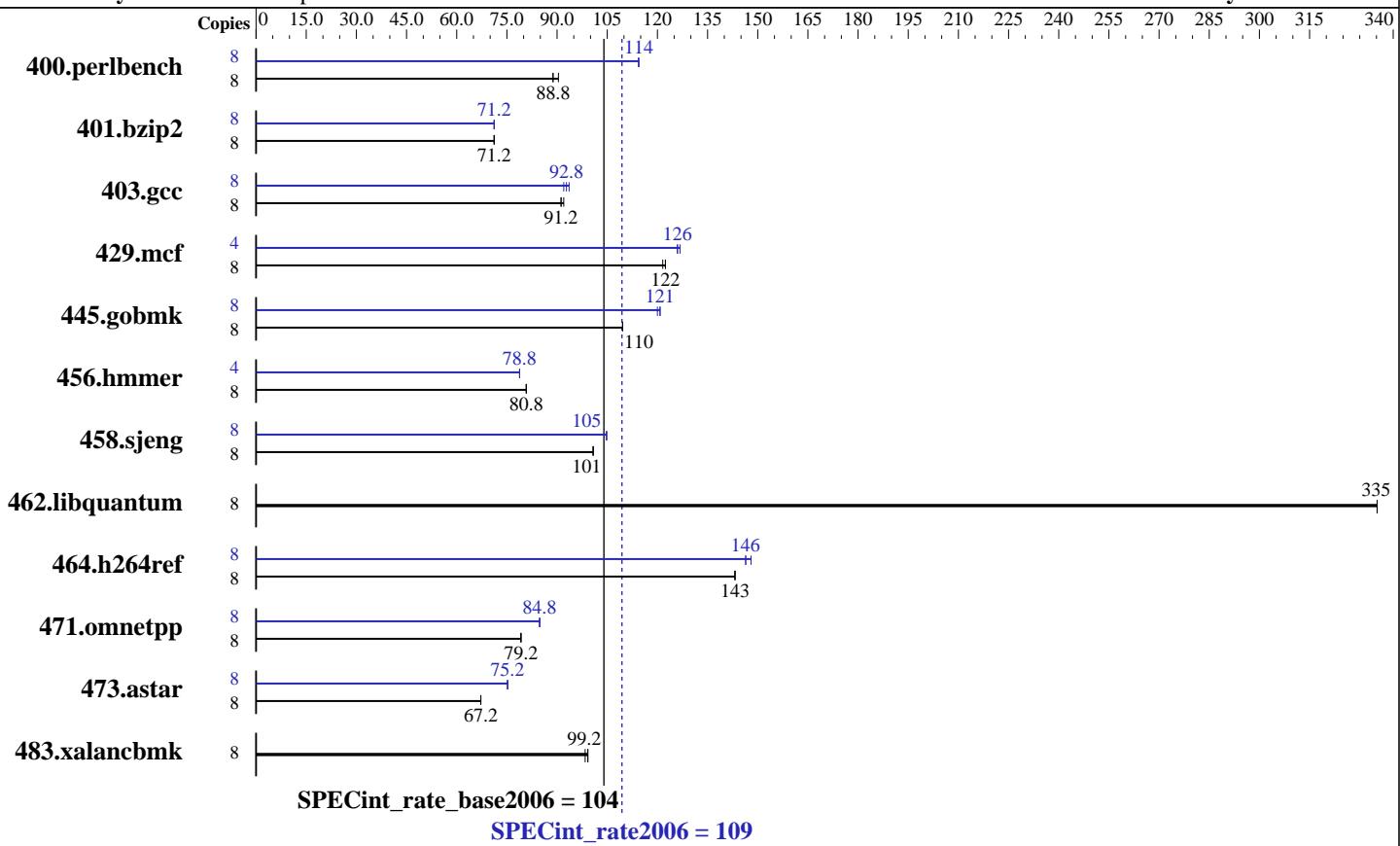
Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Feb-2010

Hardware Availability: Nov-2009

Software Availability: Oct-2009



## Hardware

CPU Name: Intel Core i7-920  
CPU Characteristics: Intel Turbo Boost Technology up to 2.93 GHz  
CPU MHz: 2667  
FPU: Integrated  
CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip, 2 threads/core  
CPU(s) orderable: 1 chip  
Primary Cache: 32 KB I + 32 KB D on chip per core  
Secondary Cache: 256 KB I+D on chip per core  
L3 Cache: 8 MB I+D on chip per chip  
Other Cache: None  
Memory: 12 GB (6x2GB Micron 16JTF25664AY-1G1D1 DDR3-1066 CL7)  
Disk Subsystem: Intel X25-M 80GB SSD  
Other Hardware: None

Operating System:  
Compiler:

Auto Parallel:  
File System:  
System State:  
Base Pointers:  
Peak Pointers:  
Other Software:

Windows Vista Ultimate w/ SP1 (64-bit)  
Intel C++ Compiler Professional 11.1 for IA32  
Build 20090903 Package ID: w\_cproc\_p\_11.1.045  
Microsoft Visual Studio 2008 Professional SP1  
(for libraries)  
No  
NTFS  
Default  
32-bit  
32-bit  
None  
SmartHeap Library Version 8.1 from  
<http://www.microquill.com/>



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## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	8	883	88.8	867	90.4	<b>879</b>	<b>88.8</b>	8	685	114	<b>684</b>	<b>114</b>	683	114
401.bzip2	8	1079	71.2	<b>1082</b>	<b>71.2</b>	1082	71.2	8	1088	71.2	<b>1085</b>	<b>71.2</b>	1084	71.2
403.gcc	8	707	91.2	701	92.0	<b>704</b>	<b>91.2</b>	8	<b>692</b>	<b>92.8</b>	690	93.6	697	92.0
429.mcf	8	601	122	595	122	<b>596</b>	<b>122</b>	4	289	126	288	127	<b>289</b>	<b>126</b>
445.gobmk	8	765	110	<b>766</b>	<b>110</b>	766	110	8	<b>694</b>	<b>121</b>	693	121	698	120
456.hmmer	8	928	80.8	928	80.8	<b>928</b>	<b>80.8</b>	4	474	78.8	474	78.8	<b>474</b>	<b>78.8</b>
458.sjeng	8	<b>960</b>	<b>101</b>	961	101	960	101	8	<b>924</b>	<b>105</b>	924	105	926	105
462.libquantum	8	<b>495</b>	<b>335</b>	495	335	494	335	8	<b>495</b>	<b>335</b>	495	335	494	335
464.h264ref	8	1237	143	<b>1236</b>	<b>143</b>	1236	143	8	1195	148	1211	146	<b>1210</b>	<b>146</b>
471.omnetpp	8	634	79.2	635	79.2	<b>634</b>	<b>79.2</b>	8	592	84.8	592	84.8	<b>592</b>	<b>84.8</b>
473.astar	8	840	67.2	<b>839</b>	<b>67.2</b>	839	67.2	8	<b>748</b>	<b>75.2</b>	748	75.2	749	75.2
483.xalancbmk	8	558	99.2	<b>558</b>	<b>99.2</b>	559	98.4	8	558	99.2	<b>558</b>	<b>99.2</b>	559	98.4

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.

Windows start command was used to bind copies to processors

## General Notes

Tested systems can be used with Shin-G ATX case,  
PC Power and Cooling 1200W power supply  
System was configured with an ATI 5970 discrete graphics card

## Base Compiler Invocation

C benchmarks:

icl -Qvc9 -Qstd=c99

C++ benchmarks:

icl -Qvc9

## Base Portability Flags

403.gcc: -DSPEC\_CPU\_WIN32

464.h264ref: -DWIN32 -DSPEC\_CPU\_NO\_INTTYPES

483.xalancbmk: -Qoption,cpp,--no\_wchar\_t\_keyword



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## Base Optimization Flags

C benchmarks:

```
-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F512000000
```

C++ benchmarks:

```
-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qcxx-features  
/F5120000000 shlw32M.lib -link /FORCE:MULTIPLE
```

## Base Other Flags

C benchmarks:

```
403.gcc: -Dalloca=_alloca
```

## Peak Compiler Invocation

C benchmarks:

```
icl -Qvc9 -Qstd=c99
```

C++ benchmarks:

```
icl -Qvc9
```

## Peak Portability Flags

```
403.gcc: -DSPEC_CPU_WIN32
```

```
464.h264ref: -DWIN32 -DSPEC_CPU_NO_INTTYPES
```

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

## Peak Optimization Flags

C benchmarks:

```
400.perlbench: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch  
/F5120000000 shlw32M.lib -link /FORCE:MULTIPLE
```

```
401.bzip2: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qopt-prefetch -Qansi-alias  
/F512000000
```

```
403.gcc: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qopt-prefetch /F512000000
```

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## Peak Optimization Flags (Continued)

429.mcf: -QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch  
/F512000000

445.gobmk: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O2 -Qprec-div- -Qansi-alias /F512000000

456.hmmr: -QxSSE4.2 -Qipo -O3 -Qprec-div- -Qunroll12 -Qansi-alias  
/F512000000

458.sjeng: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll14 /F512000000

462.libquantum: basepeak = yes

464.h264ref: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll12 -Qansi-alias /F512000000

C++ benchmarks:

471.omnetpp: -QxSSE4.2(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: -QxSSE4.2(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.gnu: -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-winx64-revA.20100302.02.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-winx64-revA.20100302.02.xml>



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For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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