# SPEC® CFP2006 Result

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## Intel Corporation

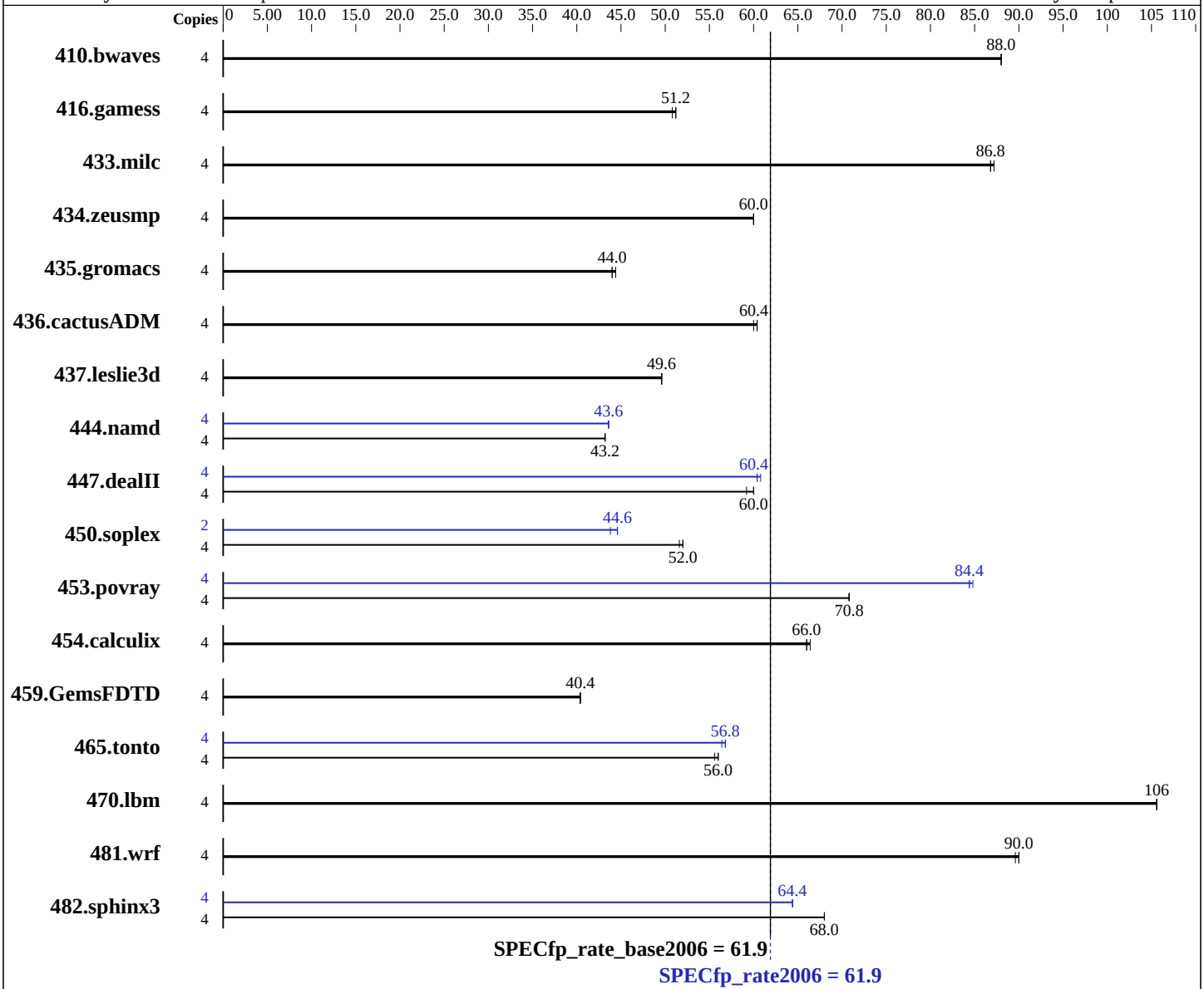
Intel DH67BLB3 Motherboard (Intel Core i3-2100T)

SPECfp®_rate2006 = 61.9

SPECfp_rate_base2006 = 61.9

**CPU2006 license:** 13
**Test sponsor:** Intel Corporation
**Tested by:** Intel Corporation

**Test date:** Apr-2011
**Hardware Availability:** Mar-2011
**Software Availability:** Apr-2011




### Hardware

| | |
|---|---|
| CPU Name: | Intel Core i3-2100T |
| CPU Characteristics: | |
| CPU MHz: | 2500 |
| FPU: | Integrated |
| CPU(s) enabled: | 2 cores, 1 chip, 2 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 |

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### Software

| | |
|---|---|
| Operating System: | Windows 7 Ultimate (64-bit) |
| Compiler: | Intel C++ Compiler XE for Intel64 Version 12.0.3.163 Build 20110217<br>Intel Visual Fortran Compiler XE for Intel64 Version 12.0.3.163 Build 20110217<br>Microsoft Visual Studio 2008 Professional SP1 (for libraries) |
| Auto Parallel: | No |
| File System: | NTFS |

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L3 Cache: 3 MB I+D on chip per chip
Other Cache: None
Memory: 8 GB (2 x 4 GB 2Rx8 PC3-10600U-9)
Disk Subsystem: Seagate 1 TB SATA, 7200 RPM
Other Hardware: None

System State: Default
Base Pointers: 32/64-bit
Peak Pointers: 32/64-bit
Other Software: SmartHeap Library Version 9.01 from http://www.microquill.com/

## Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 410.bwaves | 4 | 618 | 88.0 | 617 | 88.0 | **617** | **88.0** | 4 | 618 | 88.0 | 617 | 88.0 | **617** | **88.0** |
| 416.gamess | 4 | **1533** | **51.2** | 1536 | 50.8 | 1533 | 51.2 | 4 | **1533** | **51.2** | 1536 | 50.8 | 1533 | 51.2 |
| 433.milc | 4 | **422** | **86.8** | 422 | 86.8 | 422 | 87.2 | 4 | **422** | **86.8** | 422 | 86.8 | 422 | 87.2 |
| 434.zeusmp | 4 | 606 | 60.0 | **608** | **60.0** | 608 | 60.0 | 4 | 606 | 60.0 | **608** | **60.0** | 608 | 60.0 |
| 435.gromacs | 4 | **647** | **44.0** | 646 | 44.4 | 647 | 44.0 | 4 | **647** | **44.0** | 646 | 44.4 | 647 | 44.0 |
| 436.cactusADM | 4 | 794 | 60.4 | 798 | 60.0 | **794** | **60.4** | 4 | 794 | 60.4 | 798 | 60.0 | **794** | **60.4** |
| 437.leslie3d | 4 | 761 | 49.6 | **760** | **49.6** | 756 | 49.6 | 4 | 761 | 49.6 | **760** | **49.6** | 756 | 49.6 |
| 444.namd | 4 | 742 | 43.2 | 740 | 43.2 | **741** | **43.2** | 4 | 734 | 43.6 | 735 | 43.6 | **734** | **43.6** |
| 447.dealII | 4 | 760 | 60.0 | **763** | **60.0** | 775 | 59.2 | 4 | **757** | **60.4** | 760 | 60.4 | 753 | 60.8 |
| 450.soplex | 4 | 644 | 51.6 | 644 | 52.0 | **644** | **52.0** | 2 | 374 | 44.6 | 381 | 43.8 | **375** | **44.6** |
| 453.povray | 4 | **301** | **70.8** | 300 | 70.8 | 301 | 70.8 | 4 | 251 | 84.8 | 252 | 84.4 | **252** | **84.4** |
| 454.calculix | 4 | 501 | 66.0 | **499** | **66.0** | 498 | 66.4 | 4 | 501 | 66.0 | **499** | **66.0** | 498 | 66.4 |
| 459.GemsFDTD | 4 | 1051 | 40.4 | **1051** | **40.4** | 1050 | 40.4 | 4 | 1051 | 40.4 | **1051** | **40.4** | 1050 | 40.4 |
| 465.tonto | 4 | 709 | 55.6 | **704** | **56.0** | 703 | 56.0 | 4 | 693 | 56.8 | 700 | 56.4 | **693** | **56.8** |
| 470.lbm | 4 | 521 | 106 | **521** | **106** | 521 | 106 | 4 | 521 | 106 | **521** | **106** | 521 | 106 |
| 481.wrf | 4 | 497 | 90.0 | 499 | 89.6 | **497** | **90.0** | 4 | 497 | 90.0 | 499 | 89.6 | **497** | **90.0** |
| 482.sphinx3 | 4 | 1148 | 68.0 | 1146 | 68.0 | **1148** | **68.0** | 4 | **1214** | **64.4** | 1213 | 64.4 | 1214 | 64.4 |

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.
The start command with the /affinity switch was used to bind processes to cores
```

## General Notes

```
Tested systems can be used with Shin-G ATX case,
PC Power and Cooling 1200W power supply
```

## Base Compiler Invocation

C benchmarks:

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

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## Base Compiler Invocation (Continued)

C++ benchmarks:
icl -Qvc9

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qvc9 -Qstd=c99 ifort

## Base Portability Flags

410.bwaves: -DSPEC_CPU_P64 -names:lowercase
416.gamess: -DSPEC_CPU_P64
433.milc: -DSPEC_CPU_P64
434.zeusmp: -DSPEC_CPU_P64
435.gromacs: -DSPEC_CPU_P64
436.cactusADM: -DSPEC_CPU_P64 /names:lowercase /assume:underscore
437.leslie3d: -DSPEC_CPU_P64
444.namd: -DSPEC_CPU_P64 /TP
447.dealII: -DSPEC_CPU_P64 -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
450.soplex: -DSPEC_CPU_P64
453.povray: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
454.calculix: -DSPEC_CPU_P64 -DSPEC_CPU_NOZMODIFIER /names:lowercase
459.GemsFDTD: -DSPEC_CPU_P64
465.tonto: -DSPEC_CPU_P64
470.lbm: -DSPEC_CPU_P64
481.wrf: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
482.sphinx3: -DSPEC_CPU_P64

## Base Optimization Flags

C benchmarks:
-QxAVX -Qipo -O3 -Qprec-div- -Qansi-alias -Qauto-ilp32 /F1000000000
-link /FORCE:MULTIPLE

C++ benchmarks:
-QxAVX -Qipo -O3 -Qprec-div- -Qansi-alias -Qcxx-features
-Qauto-ilp32 /F1000000000 shlW64M.lib -link /FORCE:MULTIPLE

Fortran benchmarks:
-QxAVX -Qipo -O3 -Qprec-div- -Qansi-alias /F1000000000
-link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:
-QxAVX -Qipo -O3 -Qprec-div- -Qansi-alias -Qauto-ilp32 /F1000000000
-link /FORCE:MULTIPLE

## Peak Compiler Invocation

C benchmarks:
icl -Qvc9 -Qstd=c99

C++ benchmarks:
icl -Qvc9

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qvc9 -Qstd=c99 ifort

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

433.milc: basepeak = yes

470.lbm: basepeak = yes

482.sphinx3: -QxAVX -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias -Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

C++ benchmarks:

444.namd: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Oa -Qauto-ilp32 /F1000000000 shlW64M.lib -link /FORCE:MULTIPLE

447.dealII: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias -Qscalar-rep- -Qauto-ilp32 /F1000000000 shlW64M.lib -link /FORCE:MULTIPLE

450.soplex: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qauto-ilp32 /F1000000000 shlW64M.lib -link /FORCE:MULTIPLE

453.povray: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qauto-ilp32 /F1000000000 shlW64M.lib -link /FORCE:MULTIPLE

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# Peak Optimization Flags (Continued)

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: basepeak = yes

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

465.tonto: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qunroll4 -Qauto /F1000000000 -link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes

436.cactusADM: basepeak = yes

454.calculix: basepeak = yes

481.wrf: basepeak = yes

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic12-winx64-revB.html
http://www.spec.org/cpu2006/flags/Intel-Windows-Platform-Settings.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12-winx64-revB.xml
http://www.spec.org/cpu2006/flags/Intel-Windows-Platform-Settings.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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