# SPEC® CFP2006 Result



## Intel Corporation

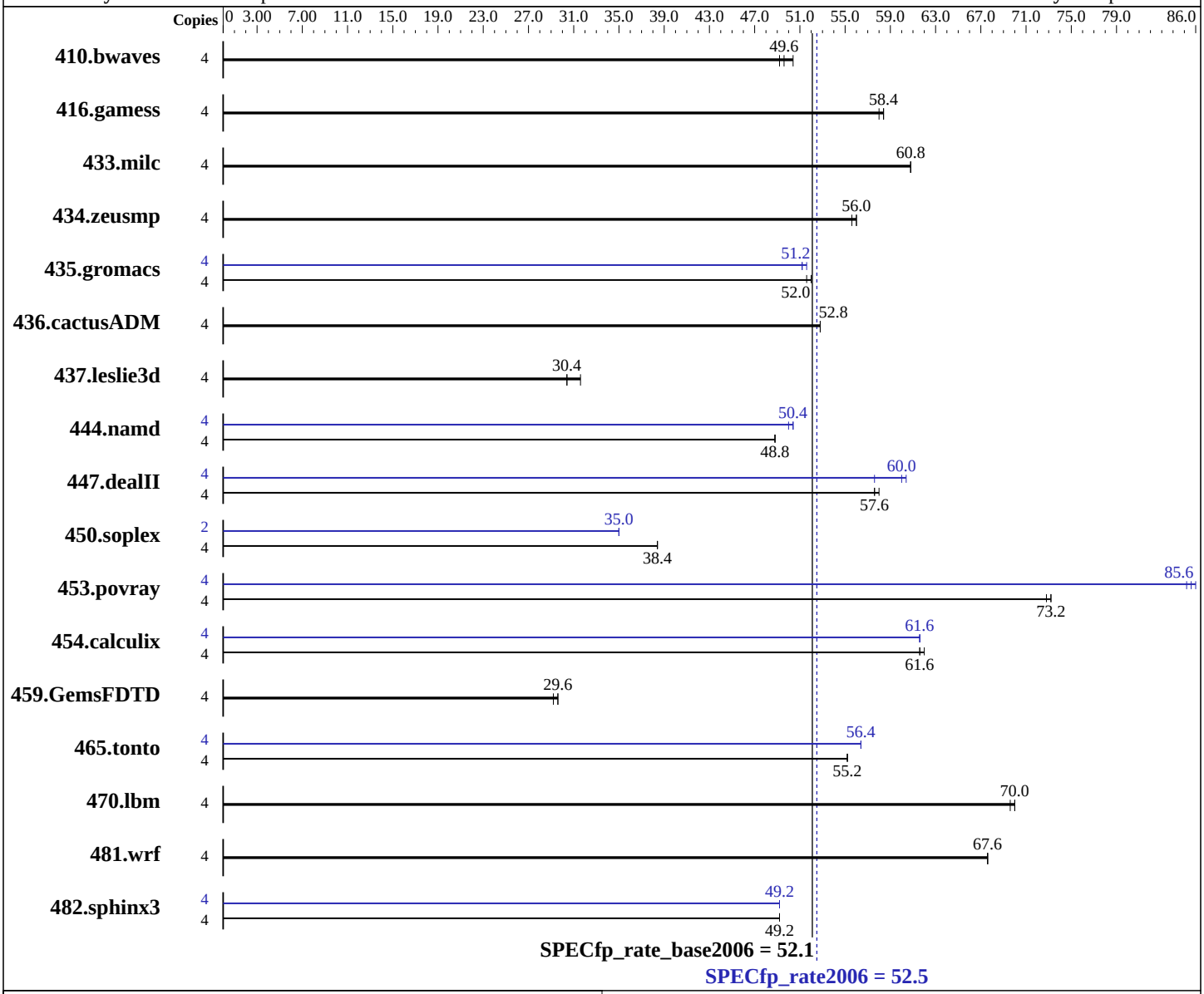
## Intel DH57JG Motherboard (Intel Core i3-560)

**SPECfp®_rate2006 = 52.5**

**SPECfp_rate_base2006 = 52.1**

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

**Test date:** Jul-2011
**Hardware Availability:** Aug-2010
**Software Availability:** Apr-2011




### Hardware

| | |
|---|---|
| CPU Name: | Intel Core i3-560 |
| CPU Characteristics: | |
| CPU MHz: | 3333 |
| 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 Intel 64 Version 12.0.3.176 Build 20110309<br>Intel Visual Fortran Compiler XE for Intel 64 Version 12.0.3.176 Build 20110309<br>Microsoft Visual Studio 2008 Professional SP1 (for libraries) |
| Auto Parallel: | No |
| File System: | NTFS |

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## Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 410.bwaves | 4 | 1102 | 49.2 | **1097** | **49.6** | 1083 | 50.4 | 4 | 1102 | 49.2 | **1097** | **49.6** | 1083 | 50.4 |
| 416.gamess | 4 | 1342 | 58.4 | **1343** | **58.4** | 1352 | 58.0 | 4 | 1342 | 58.4 | **1343** | **58.4** | 1352 | 58.0 |
| 433.milc | 4 | **604** | **60.8** | 605 | 60.8 | 604 | 60.8 | 4 | **604** | **60.8** | 605 | 60.8 | 604 | 60.8 |
| 434.zeusmp | 4 | 648 | 56.0 | 656 | 55.6 | **652** | **56.0** | 4 | 648 | 56.0 | 656 | 55.6 | **652** | **56.0** |
| 435.gromacs | 4 | 552 | 51.6 | 549 | 52.0 | **550** | **52.0** | 4 | 554 | 51.6 | **556** | **51.2** | 557 | 51.2 |
| 436.cactusADM | 4 | 907 | 52.8 | **906** | **52.8** | 904 | 52.8 | 4 | 907 | 52.8 | **906** | **52.8** | 904 | 52.8 |
| 437.leslie3d | 4 | **1235** | **30.4** | 1238 | 30.4 | 1184 | 31.6 | 4 | **1235** | **30.4** | 1238 | 30.4 | 1184 | 31.6 |
| 444.namd | 4 | 660 | 48.8 | 659 | 48.8 | **659** | **48.8** | 4 | 639 | 50.0 | 639 | 50.4 | **639** | **50.4** |
| 447.dealII | 4 | 795 | 57.6 | **795** | **57.6** | 790 | 58.0 | 4 | **761** | **60.0** | 796 | 57.6 | 757 | 60.4 |
| 450.soplex | 4 | 869 | 38.4 | **869** | **38.4** | 869 | 38.4 | 2 | 477 | 35.0 | 477 | 35.0 | **477** | **35.0** |
| 453.povray | 4 | **291** | **73.2** | 293 | 72.8 | 291 | 73.2 | 4 | 249 | 85.2 | **249** | **85.6** | 247 | 86.0 |
| 454.calculix | 4 | 537 | 61.6 | 534 | 62.0 | **535** | **61.6** | 4 | 535 | 61.6 | **536** | **61.6** | 536 | 61.6 |
| 459.GemsFDTD | 4 | **1441** | **29.6** | 1445 | 29.2 | 1439 | 29.6 | 4 | **1441** | **29.6** | 1445 | 29.2 | 1439 | 29.6 |
| 465.tonto | 4 | 712 | 55.2 | 711 | 55.2 | **711** | **55.2** | 4 | **699** | **56.4** | 700 | 56.4 | 699 | 56.4 |
| 470.lbm | 4 | 787 | 70.0 | **787** | **70.0** | 788 | 69.6 | 4 | 787 | 70.0 | **787** | **70.0** | 788 | 69.6 |
| 481.wrf | 4 | **662** | **67.6** | 660 | 67.6 | 662 | 67.6 | 4 | **662** | **67.6** | 660 | 67.6 | 662 | 67.6 |
| 482.sphinx3 | 4 | **1585** | **49.2** | 1583 | 49.2 | 1587 | 49.2 | 4 | **1582** | **49.2** | 1582 | 49.2 | 1582 | 49.2 |

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.
 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:
-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qansi-alias -Qauto-ilp32
/F1000000000 -link /FORCE:MULTIPLE

C++ benchmarks:
-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qansi-alias -Qcxx-features
-Qauto-ilp32 /F1000000000 shlW64M.lib -link /FORCE:MULTIPLE

Fortran benchmarks:
-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qansi-alias /F1000000000
-link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:
-QxSSE4.2 -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: -QxSSE4.2 -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias
-Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

C++ benchmarks:

444.namd: -QxSSE4.2(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: -QxSSE4.2(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: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qauto-ilp32 /F1000000000 shlW64M.lib
-link /FORCE:MULTIPLE

453.povray: -QxSSE4.2(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: -QxSSE4.2(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: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

436.cactusADM: basepeak = yes

454.calculix: -QxSSE4.2 -Qipo -O3 -Qprec-div- -Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

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-revC.html
http://www.spec.org/cpu2006/flags/Intel-Windows-Platform-Settings.20110719.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12-winx64-revC.xml
http://www.spec.org/cpu2006/flags/Intel-Windows-Platform-Settings.20110719.xml



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

Tested with SPEC CPU2006 v1.1.
Report generated on Wed Jul 23 22:10:46 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 22 August 2011.