### SPEC® CFP2006 Result

**Fujitsu**

PRIMERGY BX922 S2, Intel Xeon X5677, 3.46 GHz

<table>
<thead>
<tr>
<th>SPECfp®_rate2006</th>
<th>222</th>
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<tbody>
<tr>
<td>SPECfp_rate_base2006</td>
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**CPU2006 license:** 19  
**Test sponsor:** Fujitsu  
**Tested by:** Fujitsu  
**Test date:** May-2010  
**Hardware Availability:** Oct-2010  
**Software Availability:** Jan-2010

<table>
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<tr>
<th>Test</th>
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<th>CPU Name</th>
<th>CPU Characteristics</th>
<th>CPU MHz</th>
<th>FPU</th>
<th>CPU(s) enabled</th>
<th>CPU(s) orderable</th>
<th>Primary Cache</th>
<th>Secondary Cache</th>
</tr>
</thead>
<tbody>
<tr>
<td>410.bwaves</td>
<td>8</td>
<td>Intel Xeon X5677</td>
<td>Intel Turbo Boost Technology up to 3.73 GHz</td>
<td>3467</td>
<td>Integrated</td>
<td>8 cores, 2 chips, 4 cores/chip, 2 threads/core</td>
<td>32 KB I + 32 KB D on chip per core</td>
<td>256 KB I+D on chip per core</td>
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<tr>
<td>416.gamess</td>
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</table>

**CSP**

**Operating System:** SUSE Linux Enterprise Server 11 (x86_64), Kernel 2.6.27.19-5-default  
**Compiler:** Intel C++ and Fortran Professional Compiler for IA32 and Intel 64, Version 11.1  
**Build 20091130 Package ID:** l_cproc_p_11.1.064, l_cprof_p_11.1.064  
**Auto Parallel:** No  
**File System:** ext3  
**System State:** Multi-User Run Level 3

Continued on next page
**SPEC CFP2006 Result**

**Fujitsu**

PRIMERGY BX922 S2, Intel Xeon X5677, 3.46 GHz

**SPECfp_rate2006 = 222**

**SPECfp_rate_base2006 = 214**

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<thead>
<tr>
<th><strong>CPU2006 license:</strong></th>
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<td><strong>Tested by:</strong></td>
<td>Fujitsu</td>
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### Results Table

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</table>

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.

numactl was used to bind copies to the cores

### Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

### Platform Notes

BIOS configuration:

Data Reuse Optimization = Disable

Performance/Power Setting = Traditional
Fujitsu PRIMERGY BX922 S2, Intel Xeon X5677, 3.46 GHz

SPECfp_rate2006 = 222
SPECfp_rate_base2006 = 214

CPU2006 license: 19
Test sponsor: Fujitsu
Test date: May-2010
Tested by: Fujitsu
Hardware Availability: Oct-2010
Tested by: Fujitsu
Software Availability: Jan-2010

General Notes
For information about Fujitsu please visit: http://www.fujitsu.com
Binaries were compiled on SLES 10 with Binutils 2.18.50.0.7.20080502

Base Compiler Invocation

C benchmarks:
  icc -m64

C++ benchmarks:
  icpc -m64

Fortran benchmarks:
  ifort -m64

Benchmarks using both Fortran and C:
  icc -m64 ifort -m64

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64 -nofor_main
447.dealII: -DSPEC_CPU_LP64
450.soplex: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64 -nofor_main
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
465.tonto: -DSPEC_CPU_LP64
470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
  -xSSE4.2 -ipo -O3 -no-prec-div -static

C++ benchmarks:
  -xSSE4.2 -ipo -O3 -no-prec-div -static
**SPEC CFP2006 Result**

**Fujitsu**

PRIMERGY BX922 S2, Intel Xeon X5677, 3.46 GHz

| SPECfp_rate2006 | 222 |
| SPECfp_rate_base2006 | 214 |

**Above Optimization Flags (Continued)**

For Fortran benchmarks:
- `-xSSE4.2 -ipo -O3 -no-prec-div -static`

For benchmarks using both Fortran and C:
- `-xSSE4.2 -ipo -O3 -no-prec-div -static`

**Peak Compiler Invocation**

For C benchmarks (except as noted below):
- `icc -m64`
- `482.sphinx3: icc -m32`

For C++ benchmarks (except as noted below):
- `icpc -m64`
- `450.soplex: icpc -m32`

For Fortran benchmarks:
- `ifort -m64`

For benchmarks using both Fortran and C:
- `icc -m64 ifort -m64`

**Peak Portability Flags**

- `410.bwaves: -DSPEC_CPU_LP64`
- `416.games: -DSPEC_CPU_LP64`
- `433.milc: -DSPEC_CPU_LP64`
- `434.zeusmp: -DSPEC_CPU_LP64`
- `435.gromacs: -DSPEC_CPU_LP64 -nofor_main`
- `436.cactusADM: -DSPEC_CPU_LP64 -nofor_main`
- `437.leslie3d: -DSPEC_CPU_LP64`
- `444.namd: -DSPEC_CPU_LP64`
- `447.dealII: -DSPEC_CPU_LP64`
- `453.povray: -DSPEC_CPU_LP64`
- `454.calculix: -DSPEC_CPU_LP64 -nofor_main`
- `459.GemsFDTD: -DSPEC_CPU_LP64`
- `465.tonto: -DSPEC_CPU_LP64`
- `470.lbm: -DSPEC_CPU_LP64`
- `481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX`
Peak Optimization Flags

C benchmarks:

433.milc: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-fno-alias -opt-prefetch

470.lbm: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-opt-malloc-options=3 -ansi-alias -auto-ilp32

482.sphinx3: -xSSE4.2 -ipo -O3 -no-prec-div -static -unroll2

C++ benchmarks:

444.namd: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-fno-alias -auto-ilp32

447.dealII: basepeak = yes

450.soplex: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-opt-malloc-options=3

453.povray: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-unroll4 -ansi-alias

Fortran benchmarks:

410.bwaves: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

416.gamess: basepeak = yes

434.zeusmp: basepeak = yes

437.leslie3d: -xSSE4.2 -ipo -O3 -no-prec-div -static

459.GemsFDTD: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-unroll2 -Ob0

465.tonto: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-unroll4 -auto -inline-calloc -opt-malloc-options=3

Benchmarks using both Fortran and C:

435.gromacs: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-opt-prefetch -auto-ilp32

Continued on next page
Fujitsu
PRIMERGY BX922 S2, Intel Xeon X5677, 3.46 GHz

SPEC fp_rate2006 = 222
SPEC fp_rate_base2006 = 214

CPU2006 license: 19
Test sponsor: Fujitsu
Test date: May-2010
Tested by: Fujitsu
Software Availability: Jan-2010

Peak Optimization Flags (Continued)

436.cactusADM: basepeak = yes
454.calculix: basepeak = yes
481.wrf: basepeak = yes

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

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

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

Tested with SPEC CPU2006 v1.1.
Originally published on 20 July 2010.