Fujitsu

PRIMERGY TX100 S2, Intel Core i3-560, 3.33 GHz

SPECfp®2006 = 33.0
SPECfp_base2006 = 31.6

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

CPU Name: Intel Core i3-560
CPU Characteristics:
CPU MHz: 3333
FPU: Integrated
CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip
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

Hardware

Operating System: SUSE Linux Enterprise Server 11 (x86_64) with SP1, Kernel 2.6.32.12-0.7-default
Compiler: Intel C++ and Fortran Professional Compiler for IA32 and Intel 64, Version 11.1
Auto Parallel: Yes
File System: ext3
System State: Run level 3 (multi-user)

Software

Test date: Aug-2010
Hardware Availability: Aug-2010
Software Availability: Jan-2010

Continued on next page
### Fujitsu

**PRIMERGY TX100 S2, Intel Core i3-560, 3.33 GHz**

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<tr>
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<td>Fujitsu</td>
</tr>
<tr>
<td>Tested by:</td>
<td>Fujitsu</td>
</tr>
<tr>
<td>L3 Cache:</td>
<td>4 MB I+D on chip per chip</td>
</tr>
<tr>
<td>Other Cache:</td>
<td>None</td>
</tr>
<tr>
<td>Memory:</td>
<td>16 GB (4x4 GB PC3-10600E, 2 rank, CL9-9-9, ECC)</td>
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<tr>
<td>Disk Subsystem:</td>
<td>1 x SAS, 300 GB, 10000 RPM</td>
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<tr>
<td>Other Hardware:</td>
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<tr>
<td>Base Pointers:</td>
<td>64-bit</td>
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<tr>
<td>Peak Pointers:</td>
<td>32/64-bit</td>
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<td>Other Software:</td>
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**SPEC CFP2006 Result**

**SPECfp2006 =** 33.0

**SPECfp_base2006 =** 31.6

### Results Table

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<thead>
<tr>
<th>Benchmark</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
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<tbody>
<tr>
<td>410.bwaves</td>
<td>243</td>
<td>55.9</td>
<td>243</td>
<td>55.9</td>
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<td>416.gamess</td>
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<td>753</td>
<td>26.0</td>
<td>753</td>
<td>26.0</td>
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<td>433.milc</td>
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<td>43.0</td>
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<td>42.8</td>
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<td>42.9</td>
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<td>43.2</td>
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<td>434.zeusmp</td>
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<td>28.1</td>
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<td>23.1</td>
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<td>436.cactusADM</td>
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<td>437.leslie3d</td>
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<td>29.0</td>
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<td>447.dealII</td>
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<td>450.soplex</td>
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<td>29.7</td>
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<td>29.2</td>
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<tr>
<td>459.GemsFDTD</td>
<td>329</td>
<td>32.3</td>
<td>328</td>
<td>32.3</td>
<td>329</td>
<td>32.3</td>
<td>329</td>
<td>32.3</td>
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<td>32.3</td>
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<tr>
<td>465.tonto</td>
<td>388</td>
<td>25.3</td>
<td>393</td>
<td>25.1</td>
<td>390</td>
<td>25.2</td>
<td>311</td>
<td>31.7</td>
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<td>31.6</td>
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<tr>
<td>470.libm</td>
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<td>39.2</td>
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<td>39.1</td>
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<td>40.0</td>
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<td>40.0</td>
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<tr>
<td>481.wrf</td>
<td>286</td>
<td>39.0</td>
<td>286</td>
<td>39.0</td>
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<td>39.0</td>
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<td>29.9</td>
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<td>29.5</td>
<td>658</td>
<td>29.6</td>
<td>653</td>
<td>29.9</td>
</tr>
</tbody>
</table>

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

### Operating System Notes

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

### Platform Notes

BIOS configuration:
Intel HT Technology = Disable

### General Notes

OMP_NUM_THREADS set to number of cores
KMP_AFFINITY set to granularity=fine,scatter
KMP_STACKSIZE set to 200M

For information about Fujitsu please visit: [http://www.fujitsu.com](http://www.fujitsu.com)
### SPEC CFP2006 Result

Fujitsu

PRIMERGY TX100 S2, Intel Core i3-560, 3.33 GHz

| SPECfp2006 | 33.0 |
| SPECfp_base2006 | 31.6 |

CPU2006 license: 19  
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Test date: Aug-2010  
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Software Availability: Jan-2010

**General Notes (Continued)**

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
- 447.dealII: -DSPEC_CPU_LP64
- 450.soplex: -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
- 482.sphinx3: -DSPEC_CPU_LP64

### Base Optimization Flags

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

- C++ benchmarks:  
  -xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

- Fortran benchmarks:  
  -xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch
**SPEC CFP2006 Result**

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### Base Optimization Flags (Continued)

Benchmarks using both Fortran and C:

- `-xSSE4.2`  
- `-ipo`  
- `-O3`  
- `-no-prec-div`  
- `-static`  
- `-parallel`  
- `-opt-prefetch`

### Peak Compiler Invocation

- **C benchmarks:**  
  - `icc` `-m64`

- **C++ benchmarks:**  
  - `icpc` `-m64`

- **Fortran benchmarks:**  
  - `ifort` `-m64`

Benchmarks using both Fortran and C:

- `icc` `-m64` `ifort` `-m64`

### Peak Portability Flags

Same as Base Portability Flags

### 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)  
- `-ansi-alias`

- `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)  
- `-parallel` `-ansi-alias` `-auto-ilp32`

- `482.sphinx3`: `basepeak = yes`

**C++ benchmarks:**

- `444.namd`: `basepeak = yes`

- `447.dealII`: `-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` `-ansi-alias` `-scalar-rep-` `-auto-ilp32`

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Peak Optimization Flags (Continued)

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 -auto-ilp32

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
    -parallel

416.gamess: -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 -ansi-alias -scalar-rep-

434.zeusmp: basepeak = yes
437.leslie3d: basepeak = yes
459.GemsFDTD: basepeak = yes

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)
    -inline-calloc -opt-malloc-options=3 -auto -unroll4

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

436.cactusADM: -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 -opt-prefetch -parallel -auto-ilp32

454.calculix: -xSSE4.2 -ipo -O3 -no-prec-div -static -auto-ilp32
481.wrf: Same as 454.calculix

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:
### SPEC CFP2006 Result

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Tested with SPEC CPU2006 v1.1.


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