**Fujitsu**

PRIMERGY CX2550 M1, Intel Xeon E5-2620 v3, 2.4 GHz

**SPECint\_rate2006 = 523**

**SPECint\_rate\_base2006 = 506**

<table>
<thead>
<tr>
<th>Test sponsor:</th>
<th>CPU2006 license:</th>
<th>Test date:</th>
</tr>
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<tbody>
<tr>
<td>Fujitsu</td>
<td>19</td>
<td>Nov-2014</td>
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<table>
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<tr>
<th>Tested by:</th>
<th>Hardware Availability:</th>
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<tr>
<td>Fujitsu</td>
<td>Sep-2014</td>
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<th>Software Availability:</th>
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<table>
<thead>
<tr>
<th>Hardware</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name: Intel Xeon E5-2620 v3</td>
<td>Operating System: Red Hat Enterprise Linux Server release 6.5 (Santiago)</td>
</tr>
<tr>
<td>CPU Characteristics: Intel Turbo Boost Technology up to 3.20 GHz</td>
<td>Compiler: C/C++: Version 14.0.0.080 of Intel C++ Studio XE for Linux</td>
</tr>
<tr>
<td>CPU MHZ: 2400</td>
<td>Auto Parallel: No</td>
</tr>
<tr>
<td>FPU: Integrated</td>
<td>File System: ext4</td>
</tr>
<tr>
<td>CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip, 2 threads/core</td>
<td>System State: Run level 3 (multi-user)</td>
</tr>
<tr>
<td>CPU(s) orderable: 1.2 chip</td>
<td>Base Pointers: 32-bit</td>
</tr>
<tr>
<td>Primary Cache: 32 KB I + 32 KB D on chip per core</td>
<td>Peak Pointers: 32/64-bit</td>
</tr>
<tr>
<td>Secondary Cache: 256 KB I+D on chip per core</td>
<td>Other Software: Microquill SmartHeap V10.0</td>
</tr>
<tr>
<td>L3 Cache: 15 MB I+D on chip per chip</td>
<td></td>
</tr>
<tr>
<td>Other Cache: None</td>
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<tr>
<td>Memory: 256 GB (16 x 16 GB 2Rx4 PC4-2133P-R, running at 1866 MHz)</td>
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<tr>
<td>Disk Subsystem: 1 x SATA, 500 GB, 7200 RPM</td>
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</tbody>
</table>
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PRIMERGY CX2550 M1, Intel Xeon E5-2620 v3, 2.4 GHz

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

SPEC CINT2006 Result

Fujitsu

SPECint_rate2006 = 523
SPECint_rate_base2006 = 506

Results Table

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<th>Ratio</th>
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<td>400.perlbench</td>
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<td>456.hmmer</td>
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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 numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

BIOS configuration:
Energy Performance = Performance
Utilization Profile = Unbalanced
QPI snoop mode: Early Snoop
COD Enable = Disabled, Early Snoop = Enabled
CPU C1E Support = Disabled

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/home/SPECcpu2006/libs/32:/home/SPECcpu2006/libs/64:/home/SPECcpu2006/sh"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RedHat EL 6.4
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled

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General Notes (Continued)

Filesystem page cache cleared with:
  echo 1>/proc/sys/vm/drop_caches
runspec command invoked through numactl i.e.:
numactl --interleave=all runspec <etc>

This result was measured on the PRIMERGY CX2550 M1. The PRIMERGY CX2550 M1
and the PRIMERGY CX2570 M1 are electronically equivalent.
For information about Fujitsu please visit: http://www.fujitsu.com

Base Compiler Invocation

C benchmarks:
  icc -m32

C++ benchmarks:
  icpc -m32

Base Portability Flags

C benchmarks:
  400.perlbench: -DSPEC_CPU_LINUX_IA32
  462.libquantum: -DSPEC_CPU_LINUX
  483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
  -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
  -opt-mem-layout-trans=3

C++ benchmarks:
  -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
  -opt-mem-layout-trans=3 -Wl,-z,muldefs -L/sh -lsmartheap

Base Other Flags

C benchmarks:
  403.gcc: -Dalloca=_alloca
Fujitsu

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Peak Compiler Invocation

C benchmarks (except as noted below):

```plaintext
icc -m32
```

400.perlbench: icc -m64

401.bzip2: icc -m64

456.hmmer: icc -m64

458.sjeng: icc -m64

C++ benchmarks:

```plaintext
icpc -m32
```

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

```plaintext
400.perlbench: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-o3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-auto-ilkp32
```

401.bzip2: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-o3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-opt-prefetch -auto-ilp32 -ansi-alias

403.gcc: basepeak = yes
429.mcf: basepeak = yes
445.gobmk: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
-ansi-alias -opt-mem-layout-trans=3

456.hmmer: -xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32
458.sjeng: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-o3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-unroll4 -auto-ilp32

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SPEC CINT2006 Result

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Peak Optimization Flags (Continued)

462.libquantum: basepeak = yes

464.h264ref:
-xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-unroll2 -ansi-alias

Peak Other Flags

C benchmarks:

471.omnetpp:
-xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs
-L/sh -lsmartheap

473.astar: basepeak = yes

483.xalancbmk: basepeak = yes

C++ benchmarks:

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64.20140128.html
http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20141216.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64.20140128.xml
http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20141216.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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