Supermicro
SuperServer 1018D-73MTF
(X10SL7-F , Intel Xeon E3-1270 v3)

SPECfp®2006 = 74.8
SPECfp_base2006 = 73.0

410.bwaves
416.game,ess
433.milc
434.zeusmp
435.gromacs
436.cactusADM
437.leslie3d
444.namd
447.dealII
450.soplex
453.povray
454.calculix
459.GemsFDTD
465.tonto
470.lbm
481.wrf
482.sphinx3

SPECfp_base2006 = 73.0
SPECfp2006 = 74.8

Hardware
CPU Name: Intel Xeon E3-1270 v3
CPU Characteristics: Intel Turbo Boost Technology up to 3.90 GHz
CPU MHz: 3500
FPU: Integrated
CPU(s) enabled: 4 cores, 1 chip, 4 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

Software
Operating System: Red Hat Enterprise Linux Server release 6.4 (Santiago)
Compiler: C/C++: Version 13.1.1.163 of Intel C++ Studio XE for Linux;
Fortran: Version 13.1.1.163 of Intel Fortran Studio XE for Linux
Auto Parallel: Yes
File System: ext4

Test date: Jun-2013
Hardware Availability: Jun-2013
Software Availability: May-2013

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Continued on next page
**Supermicro**

**SuperServer 1018D-73MTF**  
(X10SL7-F, Intel Xeon E3-1270 v3)

**SPEC CFP2006 Result**

**SPECfp2006 = 74.8**  
**SPECfp_base2006 = 73.0**

---

**CPU2006 license:** 001176  
**Test date:** Jun-2013  
**Test sponsor:** Supermicro  
**Tested by:** Supermicro  
**Hardware Availability:** Jun-2013  
**Software Availability:** May-2013

---

**L3 Cache:** 8 MB I+D on chip per chip  
**System State:** Run level 3 (multi-user)  
**Base Pointers:** 64-bit  
**Peak Pointers:** 32/64-bit  
**Other Pointers:** None

---

**Other Cache:** None  
**Peak:**  
**Other Hardware:** None

---

**Memory:** 16 GB (2 x 8 GB 2Rx8 PC3-12800E-11, ECC)  
**Disk Subsystem:** 2 x 600 GB SAS 6Gbps, RAID 1, 10000 RPM  
**Other Software:** None

---

**Results Table**

<table>
<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>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>410.bwaves</td>
<td>117</td>
<td>116</td>
<td>117</td>
<td>116</td>
<td>117</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>416.gamess</td>
<td>454</td>
<td>43.1</td>
<td>455</td>
<td>43.1</td>
<td>453</td>
<td>43.2</td>
<td>407</td>
<td>48.1</td>
<td>407</td>
<td>48.1</td>
</tr>
<tr>
<td>433.milc</td>
<td>106</td>
<td>107</td>
<td>86.1</td>
<td>107</td>
<td>86.1</td>
<td>106</td>
<td>86.6</td>
<td>106</td>
<td>86.2</td>
<td></td>
</tr>
<tr>
<td>434.zeusmp</td>
<td>77.6</td>
<td>77.6</td>
<td>117</td>
<td>117</td>
<td>77.4</td>
<td>118</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>435.gromacs</td>
<td>153</td>
<td>153</td>
<td>46.7</td>
<td>153</td>
<td>46.8</td>
<td></td>
<td>153</td>
<td>46.7</td>
<td>153</td>
<td>46.7</td>
</tr>
<tr>
<td>436.cactusADM</td>
<td>46.9</td>
<td>255</td>
<td>47.7</td>
<td>250</td>
<td>47.0</td>
<td>255</td>
<td>46.9</td>
<td>255</td>
<td>47.7</td>
<td>255</td>
</tr>
<tr>
<td>437.leslie3d</td>
<td>115</td>
<td>82.0</td>
<td>114</td>
<td>82.6</td>
<td>114</td>
<td>82.7</td>
<td>115</td>
<td>82.0</td>
<td>114</td>
<td>82.6</td>
</tr>
<tr>
<td>444.namd</td>
<td>260</td>
<td>260</td>
<td>30.9</td>
<td>260</td>
<td>30.9</td>
<td>254</td>
<td>31.5</td>
<td>254</td>
<td>31.6</td>
<td>254</td>
</tr>
<tr>
<td>447.dealII</td>
<td>174</td>
<td>174</td>
<td>65.6</td>
<td>173</td>
<td>66.1</td>
<td>174</td>
<td>65.6</td>
<td>173</td>
<td>66.1</td>
<td>174</td>
</tr>
<tr>
<td>450.soplex</td>
<td>201</td>
<td>200</td>
<td>41.7</td>
<td>200</td>
<td>41.7</td>
<td>201</td>
<td>41.6</td>
<td>200</td>
<td>41.7</td>
<td>200</td>
</tr>
<tr>
<td>453.povray</td>
<td>89.1</td>
<td>90.5</td>
<td>58.8</td>
<td>90.0</td>
<td>59.1</td>
<td></td>
<td>73.4</td>
<td>72.5</td>
<td>73.3</td>
<td>72.6</td>
</tr>
<tr>
<td>454.calculix</td>
<td>161</td>
<td>51.1</td>
<td>162</td>
<td>51.1</td>
<td>162</td>
<td>51.0</td>
<td>157</td>
<td>52.6</td>
<td>157</td>
<td>52.7</td>
</tr>
<tr>
<td>459.GemsFDTD</td>
<td>157</td>
<td>67.8</td>
<td>157</td>
<td>67.6</td>
<td>157</td>
<td>67.8</td>
<td>165</td>
<td>64.3</td>
<td>165</td>
<td>64.4</td>
</tr>
<tr>
<td>465.tonto</td>
<td>197</td>
<td>49.8</td>
<td>199</td>
<td>49.5</td>
<td>199</td>
<td>49.5</td>
<td>188</td>
<td>52.3</td>
<td>187</td>
<td>52.5</td>
</tr>
<tr>
<td>470.lbm</td>
<td>97.6</td>
<td>141</td>
<td>97.6</td>
<td>141</td>
<td>98.1</td>
<td>140</td>
<td>97.6</td>
<td>141</td>
<td>98.1</td>
<td>140</td>
</tr>
<tr>
<td>481.wrf</td>
<td>114</td>
<td>98.4</td>
<td>113</td>
<td>98.7</td>
<td>113</td>
<td>98.5</td>
<td>114</td>
<td>98.4</td>
<td>113</td>
<td>98.7</td>
</tr>
<tr>
<td>482.sphinx3</td>
<td>238</td>
<td>82.0</td>
<td>242</td>
<td>80.4</td>
<td>240</td>
<td>81.2</td>
<td>234</td>
<td>83.2</td>
<td>234</td>
<td>83.4</td>
</tr>
</tbody>
</table>

---

**Operating System Notes**

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

---

**Platform Notes**

Sysinfo program /home/cpu2006_IC13.1/config/sysinfo.rev6818  
$Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3ce98f191  
running on localhost.localdomain Thu Jun  6 10:29:22 2013

This section contains SUT (System Under Test) info as seen by  
some common utilities. To remove or add to this section, see:  
http://www.spec.org/cpu2006/Docs/config.html#sysinfo

From /proc/cpuinfo  
model name : Intel(R) Xeon(R) CPU E3-1270 v3 @ 3.50GHz  
Continued on next page
Supermicro

SuperServer 1018D-73MTF
(X10SL7-F, Intel Xeon E3-1270 v3)

SPECfp2006 = 74.8
SPECfp_base2006 = 73.0

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Platform Notes (Continued)

1 "physical id"s (chips)
8 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
cpu cores : 4
siblings : 8
physical 0: cores 0 1 2 3
cache size : 8192 KB

From /proc/meminfo
MemTotal: 16266532 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.4 (Santiago)

From /etc/*release*/etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)

uname -a:
Linux localhost.localdomain 2.6.32-358.el6.x86_64 #1 SMP Tue Jan 29 11:47:41 EST 2013 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Jun 6 07:54

SPEC is set to: /home/cpu2006_IC13.1

Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/VolGroup-lv_home ext4 492G 23G 445G 5% /home

Additional information from dmidecode:
BIOS American Megatrends Inc. 1.0a 05/09/2013
Memory:
2x 8 GB
2x Hynix/Hyundai HMT41GU7MFR8C-PB 8 GB 1600 MHZ 2 rank
1x Micron/Numonyx 25Q Series 16 MB
2x [Empty] [Empty]

(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:
OMP_NUM_THREADS = "4"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB

Continued on next page
Supermicro
SuperServer 1018D-73MTF
(X10SL7-F, Intel Xeon E3-1270 v3)

SPECfp2006 = 74.8
SPECfp_base2006 = 73.0

General Notes (Continued)

memory using RHEL5.5
Transparent Huge Pages enabled with:
  echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
runspec command invoked through numactl i.e.:
  numactl --interleave=all runspec <etc>

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:
  -xCORE-AVX2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch
  -ansi-alias
Supermicro
SuperServer 1018D-73MTF
(X10SL7-F, Intel Xeon E3-1270 v3)

SPECfp2006 = 74.8
SPECfp_base2006 = 73.0

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Test date: Jun-2013
Hardware Availability: Jun-2013
Software Availability: May-2013

Base Optimization Flags (Continued)

C++ benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -static -opt-prefetch -ansi-alias

Fortran benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Benchmarks using both Fortran and C:
-xCORE-AVX2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch
-ansi-alias

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: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -static
-auto-ilp32 -ansi-alias

470.lbm: basepeak = yes

482.sphinx3: -xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -ansi-alias
-parallel

C++ benchmarks:

Continued on next page
SPEC CFP2006 Result

Supermicro
SuperServer 1018D-73MTF (X10SL7-F, Intel Xeon E3-1270 v3)

SPECfp2006 = 74.8
SPECfp_base2006 = 73.0

CPU2006 license: 001176
Test date: Jun-2013
Test sponsor: Supermicro
Hardware Availability: Jun-2013
Tested by: Supermicro
Software Availability: May-2013

Peak Optimization Flags (Continued)

444.namd: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-fno-alias -auto-ilp32

447.dealII: basepeak = yes

450.soplex: basepeak = yes

453.povray: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll4
-ansi-alias

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2
-inline-level=0 -scalar-rep -static

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2
-inline-level=0 -opt-prefetch -parallel

465.tonto: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-inline-calloc -opt-malloc-options=3 -auto -unroll4

Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes

436.cactusADM: basepeak = yes

454.calculix: -xCORE-AVX2 -ipo -03 -no-prec-div -auto-ilp32 -ansi-alias

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-ic13-official-linux64.20130702.html
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revB.20130719.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.20130702.xml
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revB.20130719.xml
# SPEC CFP2006 Result

Supermicro  
SuperServer 1018D-73MTF  
(X10SL7-F, Intel Xeon E3-1270 v3)

<table>
<thead>
<tr>
<th>SPECfp2006</th>
<th>74.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECfp_base2006</td>
<td>73.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CPU2006 license: 001176</th>
<th>Test date: Jun-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test sponsor: Supermicro</td>
<td>Hardware Availability: Jun-2013</td>
</tr>
<tr>
<td>Tested by: Supermicro</td>
<td>Software Availability: May-2013</td>
</tr>
</tbody>
</table>

---

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2006 v1.2.
Originally published on 24 September 2013.