Supermicro X11SSL-nF motherboard (X11SSL-nF, Intel Xeon E3-1225 v5)

<table>
<thead>
<tr>
<th>SPECfp®2006</th>
<th>SPECfp_base2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>92.7</td>
<td>90.1</td>
</tr>
</tbody>
</table>

**CPU2006 license:** 001176  
**Test date:** Jan-2016  
**Test sponsor:** Supermicro  
**Tested by:** Supermicro

**Hardware**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name:</td>
<td>Intel Xeon E3-1225 v5</td>
</tr>
<tr>
<td>CPU Characteristics:</td>
<td>Intel Turbo Boost Technology up to 3.70 GHz</td>
</tr>
<tr>
<td>CPU MHz:</td>
<td>3300</td>
</tr>
<tr>
<td>FPU:</td>
<td>Integrated</td>
</tr>
<tr>
<td>CPU(s) enabled:</td>
<td>4 cores, 1 chip, 4 cores/chip</td>
</tr>
<tr>
<td>CPU(s) orderable:</td>
<td>1 chip</td>
</tr>
<tr>
<td>Primary Cache:</td>
<td>32 KB I + 32 KB D on chip per core</td>
</tr>
<tr>
<td>Secondary Cache:</td>
<td>256 KB I+D on chip per core</td>
</tr>
</tbody>
</table>

**Software**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System:</td>
<td>Red Hat Enterprise Linux Server release 7.1, Kernel 3.10.0-229.el7.x86_64</td>
</tr>
<tr>
<td>Compiler:</td>
<td>C/C++: Version 15.0.0.0.090 of Intel C++ Studio XE for Linux; Fortran: Version 15.0.0.090 of Intel Fortran Studio XE for Linux</td>
</tr>
<tr>
<td>Auto Parallel:</td>
<td>Yes</td>
</tr>
<tr>
<td>File System:</td>
<td>xfs</td>
</tr>
<tr>
<td>System State:</td>
<td>Run level 3 (multi-user)</td>
</tr>
</tbody>
</table>

---

Continued on next page
Supermicro
Supermicro X11SSL-nF motherboard
(X11SSL-nF, Intel Xeon E3-1225 v5)

SPEC CFP2006 Result
Copyright 2006-2016 Standard Performance Evaluation Corporation

SPECfp2006 = 92.7
SPECfp_base2006 = 90.1

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro
Test date: Jan-2016
Hardware Availability: Oct-2015
Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Software Availability: Mar-2015
Other Software: None

L3 Cache: 8 MB I+D on chip per chip
Other Cache: None
Memory: 64 GB (4 x 16 GB 2Rx8 PC4-2133P-E)
Disk Subsystem: 1 x 1000 GB SATA III, 7200 RPM
Other Hardware: None

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Seconds Base</th>
<th>Ratio</th>
<th>Seconds Peak</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>410.bwaves</td>
<td>99.6 137</td>
<td>98.9 137</td>
<td>99.4 137</td>
<td>99.6 137</td>
</tr>
<tr>
<td>416.gamess</td>
<td>420 46.6</td>
<td>420 46.6</td>
<td>374 52.4</td>
<td>374 52.4</td>
</tr>
<tr>
<td>433.milc</td>
<td>87.9 104</td>
<td>87.9 104</td>
<td>87.1 105</td>
<td>87.1 105</td>
</tr>
<tr>
<td>434.zeusmp</td>
<td>45.4 201</td>
<td>45.4 201</td>
<td>45.4 201</td>
<td>45.4 200</td>
</tr>
<tr>
<td>435.gromacs</td>
<td>125 57.1</td>
<td>125 56.9</td>
<td>125 57.1</td>
<td>125 56.9</td>
</tr>
<tr>
<td>436.cactusADM</td>
<td>35.6 336</td>
<td>35.7 335</td>
<td>35.6 336</td>
<td>35.7 335</td>
</tr>
<tr>
<td>437.leslie3d</td>
<td>89.5 105</td>
<td>89.5 105</td>
<td>89.5 105</td>
<td>89.5 105</td>
</tr>
<tr>
<td>444.namd</td>
<td>228 35.2</td>
<td>228 35.2</td>
<td>228 35.2</td>
<td>228 35.2</td>
</tr>
<tr>
<td>447.dealII</td>
<td>163 70.3</td>
<td>163 70.1</td>
<td>163 70.3</td>
<td>163 70.4</td>
</tr>
<tr>
<td>450.soplex</td>
<td>159 52.3</td>
<td>160 52.3</td>
<td>159 52.3</td>
<td>160 52.3</td>
</tr>
<tr>
<td>453.povray</td>
<td>77.7 68.5</td>
<td>77.9 68.3</td>
<td>69.2 76.9</td>
<td>69.2 74.6</td>
</tr>
<tr>
<td>454.calculix</td>
<td>117 70.8</td>
<td>117 70.7</td>
<td>111 74.6</td>
<td>111 74.6</td>
</tr>
<tr>
<td>459.GemsFD TD</td>
<td>131 81.0</td>
<td>131 81.0</td>
<td>129 82.5</td>
<td>129 82.4</td>
</tr>
<tr>
<td>465.tonto</td>
<td>164 59.8</td>
<td>164 59.9</td>
<td>164 59.8</td>
<td>143 68.8</td>
</tr>
<tr>
<td>470.lbm</td>
<td>74.2 188</td>
<td>74.2 185</td>
<td>74.2 185</td>
<td>74.2 185</td>
</tr>
<tr>
<td>481.wrf</td>
<td>91.2 123</td>
<td>91.2 122</td>
<td>91.2 123</td>
<td>91.2 122</td>
</tr>
<tr>
<td>482.sphinx3</td>
<td>210 92.7</td>
<td>210 92.9</td>
<td>209 93.2</td>
<td>209 93.3</td>
</tr>
</tbody>
</table>

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

Operating System Notes

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

Platform Notes

As tested, the system used a Supermicro CSE-113MFAC2-R606CB chassis. The chassis is configured with 2 PWS-606P-1R redundant power supply, 1 SNK-P0046P heatsink, as well as 4 FAN-0154L4 middle cooling fan.

Sysinfo program /home/cpu2006/config/sysinfo.rev6914
$Rev: 6914 $ $Date:: 2014-06-25 #$ e3fbb8667b5a285932ceab81e28219e1
running on localhost.localdomain Thu Jan 14 04:53:12 2016

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

Continued on next page
Supermicro
Supermicro X11SSL-nF motherboard
(X11SSL-nF, Intel Xeon E3-1225 v5)

SPECfp2006 = 92.7
SPECfp_base2006 = 90.1

CPU2006 license: 001176
Test date: Jan-2016
Test sponsor: Supermicro
Hardware Availability: Oct-2015
Tested by: Supermicro
Software Availability: Mar-2015

Platform Notes (Continued)

From /proc/cpuinfo
  model name : Intel(R) Xeon(R) CPU E3-1225 v5 @ 3.30GHz
  1 "physical id"s (chips)
  4 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
  following excerpts from /proc/cpuinfo might not be reliable. Use with
cautions.)
  cpu cores : 4
  siblings : 4
  physical 0: cores 0 1 2 3
  cache size : 8192 KB

From /proc/meminfo
  MemTotal:  65631332 kB
  HugePages_Total:       0
  Hugepagesize:       2048 kB

From /etc/*release* /etc/*version*
  os-release:
    NAME="Red Hat Enterprise Linux Server"
    VERSION="7.1 (Maipo)"
    ID="rhel"
    ID_LIKE="fedora"
    VERSION_ID="7.1"
    PRETTY_NAME="Red Hat Enterprise Linux Server 7.1 (Maipo)"
    ANSI_COLOR="0;31"
    CPE_NAME=cpe:/o:redhat:enterprise_linux:7.1:GA:server"
  redhat-release: Red Hat Enterprise Linux Server release 7.1 (Maipo)
  system-release: Red Hat Enterprise Linux Server release 7.1 (Maipo)

  uname -a:
    Linux localhost.localdomain 3.10.0-229.el7.x86_64 #1 SMP Thu Jan 29 18:37:38
    EST 2015 x86_64 x86_64 x86_64 GNU/Linux

  run-level 3 Jan 14 00:05

  SPEC is set to: /home/cpu2006
  Filesystem       Type  Size  Used Avail Use% Mounted on
  /dev/mapper/rhel-home xfs   865G 170G  696G  20% /home

Additional information from dmidecode:

Warning: Use caution when you interpret this section. The 'dmidecode' program
reads system data which is "intended to allow hardware to be accurately
determined", but the intent may not be met, as there are frequent changes to
hardware, firmware, and the "DMTF SMBIOS" standard.

  BIOS American Megatrends Inc. 1.0a 12/25/2015
  Memory:
    4x Samsung M391A2K43BB1-CPB 16 GB 2 rank 2133 MHz

Continued on next page
Supermicro
Supermicro X11SSL-nF motherboard
(X11SSL-nF, Intel Xeon E3-1225 v5)

<table>
<thead>
<tr>
<th>SPECfp2006</th>
<th>92.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECfp_base2006</td>
<td>90.1</td>
</tr>
</tbody>
</table>

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

Platform Notes (Continued)
(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,compact,1,0"
LD_LIBRARY_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64:/home/cpu2006/sh"
OMP_NUM_THREADS = "4"

Binaries compiled on a system with 1x Core i5-4670K CPU + 16GB memory using RedHat EL 7.0
Transparent Huge Pages enabled with:
    echo always > /sys/kernel/mm/transparent_hugepage/enabled

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.lesle3d: -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 -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

Continued on next page
Supermicro

Supermicro X11SSL-nF motherboard
(X11SSL-nF, Intel Xeon E3-1225 v5)

SPECfp2006 = 92.7
SPECfp_base2006 = 90.1

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

Test date: Jan-2016
Hardware Availability: Oct-2015
Software Availability: Mar-2015

Base Portability Flags (Continued)

482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

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

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

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

Benchmarks using both Fortran and C:
-xCORE-AVX2 -ipo -O3 -no-prec-div -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)
-auto-ilp32 -ansi-alias

Continued on next page
Peak Optimization Flags (Continued)

470.lbm: basepeak = yes

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

C++ benchmarks:

444.namd: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(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)
-O3(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)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2
-inline-level=0 -scalar-rep-

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(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)
-O3(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 -O3 -no-prec-div -auto-ilp32 -ansi-alias
Supermicro

Supermicro X11SSL-nF motherboard (X11SSL-nF, Intel Xeon E3-1225 v5)

<table>
<thead>
<tr>
<th>CPU2006 license: 001176</th>
<th>Test date: Jan-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test sponsor: Supermicro</td>
<td>Hardware Availability: Oct-2015</td>
</tr>
<tr>
<td>Tested by: Supermicro</td>
<td>Software Availability: Mar-2015</td>
</tr>
</tbody>
</table>

SPECfp2006 = 92.7
SPECfp_base2006 = 90.1

Peak Optimization Flags (Continued)

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-ic15.0-official-linux64.html
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revG.20141230.00.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.xml
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revG.20141230.00.xml

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 9 February 2016.