# SPEC® CFP2006 Result

**Supermicro**
Supermicro X11SSL-nF motherboard  
(X11SSL-nF, Intel Xeon E3-1245 v5)

## SPECfp®2006 = 95.9
SPECfp_base2006 = 93.4

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

<table>
<thead>
<tr>
<th>Software Availability:</th>
<th>Mar-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU2006 license:</td>
<td>001176</td>
</tr>
</tbody>
</table>

### Hardware

<table>
<thead>
<tr>
<th>CPU Name:</th>
<th>Intel Xeon E3-1245 v5</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Characteristics:</td>
<td>Intel Turbo Boost Technology up to 3.90 GHz</td>
</tr>
<tr>
<td>CPU MHz:</td>
<td>3500</td>
</tr>
<tr>
<td>FPU:</td>
<td>Integrated</td>
</tr>
<tr>
<td>CPU(s) enabled:</td>
<td>4 cores, 1 chip, 4 cores/chip, 2 threads/core</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>Operating System:</th>
<th>Red Hat Enterprise Linux Server release 7.1, Kernel 3.10.0-229.el7.x86_64</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compiler:</td>
<td>C/C++: Version 15.0.0.090 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>

---

**Note:** Continued on next page
# SPEC CFP2006 Result

Supermicro X11SSL-nF motherboard (X11SSL-nF, Intel Xeon E3-1245 v5)

**SPECfp2006 = 95.9**

**SPECfp_base2006 = 93.4**

## Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Base Seconds</th>
<th>Ratio</th>
<th>Base Seconds</th>
<th>Ratio</th>
<th>Base Seconds</th>
<th>Ratio</th>
<th>Peak Seconds</th>
<th>Ratio</th>
<th>Peak Seconds</th>
<th>Ratio</th>
<th>Peak Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>410.bwaves</td>
<td>98.6</td>
<td>138</td>
<td>98.4</td>
<td>138</td>
<td>98.2</td>
<td>138</td>
<td>98.6</td>
<td>138</td>
<td>98.4</td>
<td>138</td>
<td>98.2</td>
<td>138</td>
</tr>
<tr>
<td>416.gamess</td>
<td>398</td>
<td>49.2</td>
<td>397</td>
<td>49.3</td>
<td>399</td>
<td>49.1</td>
<td>356</td>
<td>55.1</td>
<td>357</td>
<td>54.9</td>
<td>355</td>
<td>55.2</td>
</tr>
<tr>
<td>433.milc</td>
<td>85.6</td>
<td>107</td>
<td>85.4</td>
<td>107</td>
<td>85.4</td>
<td>107</td>
<td>85.1</td>
<td>108</td>
<td>85.0</td>
<td>108</td>
<td>84.7</td>
<td>108</td>
</tr>
<tr>
<td>434.zeusmp</td>
<td>44.3</td>
<td>205</td>
<td>44.3</td>
<td>206</td>
<td>44.2</td>
<td>206</td>
<td>44.3</td>
<td>205</td>
<td>44.3</td>
<td>206</td>
<td>44.2</td>
<td>206</td>
</tr>
<tr>
<td>435.gromacs</td>
<td>118</td>
<td>60.3</td>
<td>118</td>
<td>60.3</td>
<td>120</td>
<td>59.6</td>
<td>118</td>
<td>60.3</td>
<td>118</td>
<td>60.3</td>
<td>120</td>
<td>59.6</td>
</tr>
<tr>
<td>436.cactusADM</td>
<td>34.4</td>
<td>347</td>
<td>34.7</td>
<td>344</td>
<td>34.6</td>
<td>345</td>
<td>34.4</td>
<td>347</td>
<td>34.7</td>
<td>344</td>
<td>34.6</td>
<td>345</td>
</tr>
<tr>
<td>437.leslie3d</td>
<td>88.2</td>
<td>107</td>
<td>88.4</td>
<td>106</td>
<td>88.3</td>
<td>106</td>
<td>88.2</td>
<td>107</td>
<td>88.4</td>
<td>106</td>
<td>88.3</td>
<td>106</td>
</tr>
<tr>
<td>444.namd</td>
<td>218</td>
<td>36.8</td>
<td>218</td>
<td>36.8</td>
<td>218</td>
<td>36.8</td>
<td>214</td>
<td>37.5</td>
<td>214</td>
<td>37.5</td>
<td>214</td>
<td>37.5</td>
</tr>
<tr>
<td>447.dealII</td>
<td>155</td>
<td>73.9</td>
<td>155</td>
<td>73.9</td>
<td>155</td>
<td>73.8</td>
<td>155</td>
<td>73.9</td>
<td>155</td>
<td>73.9</td>
<td>155</td>
<td>73.9</td>
</tr>
<tr>
<td>450.soplex</td>
<td>153</td>
<td>54.6</td>
<td>153</td>
<td>54.4</td>
<td>155</td>
<td>53.7</td>
<td>153</td>
<td>54.6</td>
<td>153</td>
<td>54.4</td>
<td>155</td>
<td>53.7</td>
</tr>
<tr>
<td>453.povray</td>
<td>74.2</td>
<td>71.7</td>
<td>74.0</td>
<td>71.9</td>
<td>74.1</td>
<td>71.8</td>
<td>66.6</td>
<td>79.9</td>
<td>67.1</td>
<td>79.3</td>
<td>66.3</td>
<td>80.3</td>
</tr>
<tr>
<td>454.calculix</td>
<td>111</td>
<td>74.2</td>
<td>112</td>
<td>73.8</td>
<td>111</td>
<td>74.1</td>
<td>106</td>
<td>78.1</td>
<td>105</td>
<td>78.3</td>
<td>106</td>
<td>77.8</td>
</tr>
<tr>
<td>459.GemsFDTD</td>
<td>129</td>
<td>82.0</td>
<td>130</td>
<td>81.9</td>
<td>129</td>
<td>81.9</td>
<td>127</td>
<td>83.5</td>
<td>127</td>
<td>83.5</td>
<td>127</td>
<td>83.5</td>
</tr>
<tr>
<td>465.tonto</td>
<td>156</td>
<td>63.1</td>
<td>155</td>
<td>63.5</td>
<td>155</td>
<td>63.5</td>
<td>137</td>
<td>71.6</td>
<td>137</td>
<td>71.9</td>
<td>136</td>
<td>72.1</td>
</tr>
<tr>
<td>470.lbm</td>
<td>73.8</td>
<td>186</td>
<td>73.8</td>
<td>186</td>
<td>73.8</td>
<td>186</td>
<td>73.8</td>
<td>186</td>
<td>73.8</td>
<td>186</td>
<td>73.8</td>
<td>186</td>
</tr>
<tr>
<td>481.wrf</td>
<td>87.7</td>
<td>127</td>
<td>88.1</td>
<td>127</td>
<td>87.7</td>
<td>127</td>
<td>87.7</td>
<td>127</td>
<td>87.7</td>
<td>127</td>
<td>87.7</td>
<td>127</td>
</tr>
<tr>
<td>482.sphinx3</td>
<td>201</td>
<td>96.8</td>
<td>198</td>
<td>98.3</td>
<td>201</td>
<td>97.0</td>
<td>197</td>
<td>99.0</td>
<td>196</td>
<td>99.3</td>
<td>198</td>
<td>98.3</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 Tue Mar  8 02:42:32 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 X11SSL-nF motherboard (X11SSL-nF, Intel Xeon E3-1245 v5)

SPECfp2006 = \[95.9\]
SPECfp_base2006 = \[93.4\]

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

Platform Notes (Continued)

From /proc/cpuinfo
- model name: Intel(R) Xeon(R) CPU E3-1245 v5 @ 3.50GHz
- 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: 65630544 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)

- 4x Samsung M391A2K43BB1-CPB 16 GB 2 rank 2133 MHz

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
SPEC CFP2006 Result

Supermicro
Supermicro X11SSL-nF motherboard
(X11SSL-nF, Intel Xeon E3-1245 v5)

SPECfp2006 = 95.9
SPECfp_base2006 = 93.4

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.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 -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 E3-1245 v5)

SPECfp2006 = 95.9
SPECfp_base2006 = 93.4

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

Test date: Mar-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)
-03(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
SPEC CFP2006 Result

Supermicro
Supermicro X11SSL-nF motherboard
(X11SSL-nF, Intel Xeon E3-1245 v5)

SPECfp2006 = 95.9
SPECfp_base2006 = 93.4

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

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-revH.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-revH.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.
Report generated on Tue Apr  5 14:56:02 2016 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 5 April 2016.