# SPEC® CFP2006 Result

**Supermicro**

SuperServer 5029S-TN2 (X11SSV-Q, Intel Core i5-6500T)

<table>
<thead>
<tr>
<th>SPECfp2006</th>
<th>83.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECfp_base2006</td>
<td>81.6</td>
</tr>
</tbody>
</table>

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

| 410.bwaves | 143 |
| 416.gamess | 38.8 |
| 433.milc | 98.2 |
| 434.zeusmp | 185 |
| 435.gromacs | 51.4 |
| 436.cactusADM | 295 |
| 437.leslie3d | 102 |
| 444.namd | 29.8 |
| 447.dealII | 65.5 |
| 450.soplex | 45.6 |
| 453.povray | 65.6 |
| 454.calculix | 61.9 |
| 459.GemsFDTD | 81.3 |
| 465.tonto | 59.0 |
| 470.lbm | 51.9 |
| 481.wrf | 112 |
| 482.sphinx3 | 76.3 |

**Hardware**

- **CPU Name:** Intel Core i5-6500T  
- **CPU Characteristics:** Intel Turbo Boost Technology up to 3.10 GHz  
- **CPU MHz:** 2500  
- **FPU:** Integrated  
- **CPU(s) enabled:** 4 cores, 1 chip, 4 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

**Software**

- **Operating System:** Red Hat Enterprise Linux Server release 7.1, Kernel 3.10.0-229.el7.x86_64  
- **Compiler:** C++: Version 16.0.0.101 of Intel C++ Studio XE for Linux; Fortran: Version 16.0.0.101 of Intel Fortran Studio XE for Linux  
- **Auto Parallel:** Yes  
- **File System:** xfs  
- **System State:** Run level 3 (multi-user)

---

Continued on next page
## SPEC CFP2006 Result

**Supermicro**

SuperServer 5029S-TN2 (X11SSV-Q, Intel Core i5-6500T)

<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>94.9</td>
<td>143</td>
<td>95.0</td>
<td>143</td>
<td>94.9</td>
<td>143</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>416.gamess</td>
<td>505</td>
<td>38.8</td>
<td>504</td>
<td>38.8</td>
<td>505</td>
<td>38.8</td>
<td>446</td>
<td>43.9</td>
<td>444</td>
<td>44.1</td>
</tr>
<tr>
<td>433.milc</td>
<td>93.3</td>
<td>98.4</td>
<td>93.5</td>
<td>98.2</td>
<td>93.6</td>
<td>98.1</td>
<td>93.3</td>
<td>98.4</td>
<td>93.5</td>
<td>98.2</td>
</tr>
<tr>
<td>434.zeusmp</td>
<td>49.1</td>
<td>185</td>
<td>49.2</td>
<td>185</td>
<td>49.1</td>
<td>185</td>
<td>49.3</td>
<td>185</td>
<td>49.2</td>
<td>185</td>
</tr>
<tr>
<td>435.gromacs</td>
<td>138</td>
<td>51.6</td>
<td>139</td>
<td>51.3</td>
<td>139</td>
<td>51.4</td>
<td>138</td>
<td>51.6</td>
<td>139</td>
<td>51.3</td>
</tr>
<tr>
<td>436.cactusADM</td>
<td>40.0</td>
<td>299</td>
<td>40.6</td>
<td>295</td>
<td>41.3</td>
<td>290</td>
<td>40.0</td>
<td>299</td>
<td>40.6</td>
<td>295</td>
</tr>
<tr>
<td>437.leslie3d</td>
<td>92.4</td>
<td>102</td>
<td>92.1</td>
<td>102</td>
<td>92.7</td>
<td>101</td>
<td>92.4</td>
<td>102</td>
<td>92.4</td>
<td>102</td>
</tr>
<tr>
<td>444.namd</td>
<td>269</td>
<td>298</td>
<td>269</td>
<td>298</td>
<td>269</td>
<td>298</td>
<td>264</td>
<td>30.4</td>
<td>264</td>
<td>30.4</td>
</tr>
<tr>
<td>447.dealII</td>
<td>175</td>
<td>65.5</td>
<td>175</td>
<td>65.5</td>
<td>175</td>
<td>65.4</td>
<td>175</td>
<td>65.5</td>
<td>175</td>
<td>65.4</td>
</tr>
<tr>
<td>450.soplex</td>
<td>183</td>
<td>45.6</td>
<td>181</td>
<td>46.1</td>
<td>183</td>
<td>45.5</td>
<td>183</td>
<td>45.6</td>
<td>181</td>
<td>46.1</td>
</tr>
<tr>
<td>453.povray</td>
<td>92.7</td>
<td>57.4</td>
<td>91.6</td>
<td>58.1</td>
<td>92.0</td>
<td>57.9</td>
<td>80.6</td>
<td>66.0</td>
<td>82.0</td>
<td>64.8</td>
</tr>
<tr>
<td>454.calculix</td>
<td>133</td>
<td>61.9</td>
<td>133</td>
<td>62.0</td>
<td>133</td>
<td>61.9</td>
<td>130</td>
<td>63.3</td>
<td>130</td>
<td>63.5</td>
</tr>
<tr>
<td>459.GemsFDTD</td>
<td>133</td>
<td>79.7</td>
<td>133</td>
<td>79.7</td>
<td>133</td>
<td>79.7</td>
<td>130</td>
<td>81.3</td>
<td>131</td>
<td>81.3</td>
</tr>
<tr>
<td>465.tonto</td>
<td>189</td>
<td>52.0</td>
<td>190</td>
<td>51.9</td>
<td>190</td>
<td>51.9</td>
<td>167</td>
<td>59.0</td>
<td>167</td>
<td>59.0</td>
</tr>
<tr>
<td>470.lbm</td>
<td>75.5</td>
<td>182</td>
<td>75.6</td>
<td>182</td>
<td>75.5</td>
<td>182</td>
<td>75.5</td>
<td>182</td>
<td>75.6</td>
<td>182</td>
</tr>
<tr>
<td>481.wrf</td>
<td>100</td>
<td>111</td>
<td>99.8</td>
<td>112</td>
<td>100</td>
<td>112</td>
<td>100</td>
<td>111</td>
<td>99.8</td>
<td>112</td>
</tr>
<tr>
<td>482.sphinx3</td>
<td>255</td>
<td>76.3</td>
<td>256</td>
<td>76.2</td>
<td>255</td>
<td>76.3</td>
<td>255</td>
<td>76.3</td>
<td>256</td>
<td>76.2</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

Sysinfo program /home/cpu2006_ic16/config/sysinfo.rev6914
$Rev: 6914 $ $Date:: 2014-06-25 #$ e3fbb8667b5a285932ceab81e28219e1
running on localhost.localdomain Mon Dec 14 09:03:09 2015

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) Core(TM) i5-6500T CPU @ 2.50GHz
Continued on next page
Supermicro
SuperServer 5029S-TN2
(X11SSV-Q, Intel Core i5-6500T)

SPECfp2006 = 83.8
SPECfp_base2006 = 81.6

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

Test date: Dec-2015
Hardware Availability: Sep-2015
Software Availability: Sep-2015

Platform Notes (Continued)

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 : 6144 KB

From /proc/meminfo
MemTotal: 16034992 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 Dec 11 17:45

SPEC is set to: /home/cpu2006_ic16
Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs 216G 190G 27G 88% /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 11/03/2015
Memory:
2x Samsung M471A1G43DB0-CPB 8 GB 2 rank 2133 MHz

(End of data from sysinfo program)
SPEC CFP2006 Result

Supermicro
SuperServer 5029S-TN2
(X11SSV-Q , Intel Core i5-6500T)

SPECfp2006 = 83.8
SPECfp_base2006 = 81.6

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_ic16/libs/32:/home/cpu2006_ic16/libs/64:/home/cpu2006_ic16/sh"
OMP_NUM_THREADS = "4"

Binaries compiled on a system with 1x Intel Core i5-4670K CPU + 32GB memory using RedHat EL 7.1
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
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
SPEC CFP2006 Result

Supermicro
SuperServer 5029S-TN2
(X11SSV-Q, Intel Core i5-6500T)

SPECfp2006 = 83.8
SPECfp_base2006 = 81.6

CPU2006 license: 001176
Test sponsor: Supermicro
Test date: Dec-2015
Tested by: Supermicro
Hardware Availability: Sep-2015
Software Availability: Sep-2015

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: basepeak = yes
470.lbm: basepeak = yes
482.sphinx3: basepeak = yes

C++ benchmarks:

Continued on next page
Peak Optimization Flags (Continued)

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

447.dealII: basepeak = yes

450.soplex: basepeak = yes

453.povray: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)
-ipo(pass 2) -03(pass 2) -no-prec-div(pass 2)
-par-num-threads=1(pass 1) -prof-use(pass 2) -unroll14
-ansi-alias

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)
-ipo(pass 2) -03(pass 2) -no-prec-div(pass 2)
-par-num-threads=1(pass 1) -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:threadsafe(pass 1)
-ipo(pass 2) -03(pass 2) -no-prec-div(pass 2)
-par-num-threads=1(pass 1) -prof-use(pass 2) -unroll2
-inline-level=0 -opt-prefetch -parallel

465.tonto: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)
-ipo(pass 2) -03(pass 2) -no-prec-div(pass 2)
-par-num-threads=1(pass 1) -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
# SPEC CFP2006 Result

**Supermicro**  
SuperServer 5029S-TN2  
(X11SSV-Q, Intel Core i5-6500T)  

| SPECfp2006 = | 83.8 |
| SPECfp_base2006 = | 81.6 |

**CPU2006 license:** 001176  
**Test date:** Dec-2015  
**Test sponsor:** Supermicro  
**Hardware Availability:** Sep-2015  
**Tested by:** Supermicro  
**Software Availability:** Sep-2015

The flags files that were used to format this result can be browsed at:


You can also download the XML flags sources by saving the following links:


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 29 December 2015.