



# SPEC® CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5019S-WR  
(X11SSW-F, Intel Xeon E3-1230 v5)

SPECint®\_rate2006 = 249

SPECint\_rate\_base2006 = 241

CPU2006 license: 001176

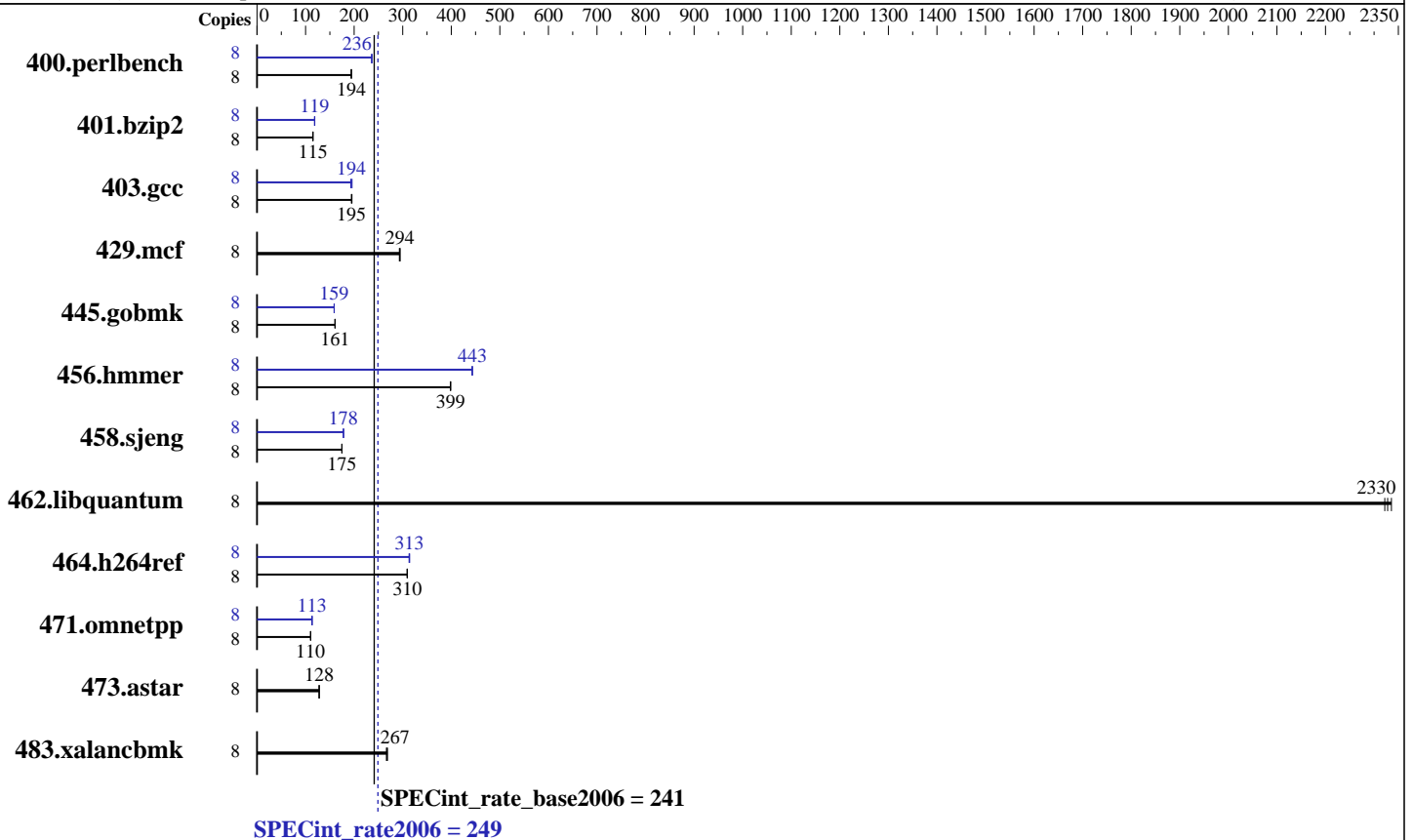
Test sponsor: Supermicro

Tested by: Supermicro

Test date: Dec-2015

Hardware Availability: Oct-2015

Software Availability: Mar-2015



### Hardware

CPU Name: Intel Xeon E3-1230 v5  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.80 GHz  
 CPU MHz: 3400  
 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  
 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

### Software

Operating System: Red Hat Enterprise Linux Server release 7.1, Kernel 3.10.0-229.el7.x86\_64  
 Compiler: C/C++: Version 15.0.0.090 of Intel C++ Studio XE for Linux  
 Auto Parallel: No  
 File System: xfs  
 System State: Run level 3 (multi-user)  
 Base Pointers: 32-bit  
 Peak Pointers: 32/64-bit  
 Other Software: Microquill SmartHeap V10.0



# SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5019S-WR  
(X11SSW-F, Intel Xeon E3-1230 v5)

SPECint\_rate2006 = 249

SPECint\_rate\_base2006 = 241

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

Test date: Dec-2015  
Hardware Availability: Oct-2015  
Software Availability: Mar-2015

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	8	403	194	<b><u>402</u></b>	<b><u>194</u></b>	402	194	8	331	236	<b><u>331</u></b>	<b><u>236</u></b>	331	236
401.bzip2	8	671	115	670	115	<b><u>670</u></b>	<b><u>115</u></b>	8	652	118	649	119	<b><u>651</u></b>	<b><u>119</u></b>
403.gcc	8	329	195	331	195	<b><u>331</u></b>	<b><u>195</u></b>	8	334	193	329	196	<b><u>331</u></b>	<b><u>194</u></b>
429.mcf	8	248	295	<b><u>248</u></b>	<b><u>294</u></b>	249	293	8	248	295	<b><u>248</u></b>	<b><u>294</u></b>	249	293
445.gobmk	8	523	161	<b><u>522</u></b>	<b><u>161</u></b>	522	161	8	<b><u>528</u></b>	<b><u>159</u></b>	528	159	528	159
456.hammer	8	188	398	<b><u>187</u></b>	<b><u>399</u></b>	187	399	8	169	443	<b><u>168</u></b>	<b><u>443</u></b>	168	444
458.sjeng	8	554	175	<b><u>554</u></b>	<b><u>175</u></b>	553	175	8	544	178	543	178	<b><u>544</u></b>	<b><u>178</u></b>
462.libquantum	8	<b><u>71.2</u></b>	<b><u>2330</u></b>	71.0	2340	71.4	2320	8	<b><u>71.2</u></b>	<b><u>2330</u></b>	71.0	2340	71.4	2320
464.h264ref	8	573	309	572	310	<b><u>572</u></b>	<b><u>310</u></b>	8	563	314	<b><u>565</u></b>	<b><u>313</u></b>	565	313
471.omnetpp	8	452	111	454	110	<b><u>453</u></b>	<b><u>110</u></b>	8	442	113	440	114	<b><u>442</u></b>	<b><u>113</u></b>
473.astar	8	<b><u>439</u></b>	<b><u>128</u></b>	439	128	439	128	8	<b><u>439</u></b>	<b><u>128</u></b>	439	128	439	128
483.xalancbmk	8	<b><u>207</u></b>	<b><u>267</u></b>	205	269	207	267	8	<b><u>207</u></b>	<b><u>267</u></b>	205	269	207	267

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

## Submit Notes

The taskset mechanism was used to bind copies to processors. The config file option 'submit' was used to generate taskset 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

Sysinfo program /home/cpu2006/config/sysinfo.rev6914  
\$Rev: 6914 \$ \$Date:: 2014-06-25 #\$ e3fbb8667b5a285932ceab81e28219e1  
running on localhost.localdomain Sat Dec 12 03:12:30 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) Xeon(R) CPU E3-1230 v5 @ 3.40GHz  
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

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5019S-WR  
(X11SSW-F, Intel Xeon E3-1230 v5)

SPECint\_rate2006 = 249

SPECint\_rate\_base2006 = 241

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

Test date: Dec-2015  
Hardware Availability: Oct-2015  
Software Availability: Mar-2015

### Platform Notes (Continued)

physical 0: cores 0 1 2 3  
cache size : 8192 KB

From /proc/meminfo  
MemTotal: 65755200 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)  
system-release-cpe: cpe:/o:redhat:enterprise\_linux:7.1:ga:server

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 20:07

SPEC is set to: /home/cpu2006  
Filesystem Type Size Used Avail Use% Mounted on  
/dev/mapper/rhel-home xfs 865G 169G 697G 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. 1.0 11/03/2015  
Memory:  
4x Samsung M391A2K43BB1-CPB 16 GB 2 rank 2133 MHz

(End of data from sysinfo program)

### General Notes

Environment variables set by runspec before the start of the run:  
LD\_LIBRARY\_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64:/home/cpu2006/sh"

Binaries compiled on a system with 1x Core i5-4670K CPU + 16GB  
memory using RedHat EL 7.0

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5019S-WR  
(X11SSW-F, Intel Xeon E3-1230 v5)

SPECint\_rate2006 = 249

SPECint\_rate\_base2006 = 241

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

Test date: Dec-2015  
Hardware Availability: Oct-2015  
Software Availability: Mar-2015

## General Notes (Continued)

Transparent Huge Pages enabled with:  
echo always > /sys/kernel/mm/transparent\_hugepage/enabled

## Base Compiler Invocation

C benchmarks:  
icc -m32 -L/opt/intel/composer\_xe\_2015/lib/ia32  
C++ benchmarks:  
icpc -m32 -L/opt/intel/composer\_xe\_2015/lib/ia32

## Base Portability Flags

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

## Peak Compiler Invocation

C benchmarks (except as noted below):  
icc -m32 -L/opt/intel/composer\_xe\_2015/lib/ia32  
400.perlbench: icc -m64  
401.bzip2: icc -m64

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5019S-WR  
(X11SSW-F, Intel Xeon E3-1230 v5)

SPECint\_rate2006 = 249

SPECint\_rate\_base2006 = 241

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

Test date: Dec-2015  
Hardware Availability: Oct-2015  
Software Availability: Mar-2015

## Peak Compiler Invocation (Continued)

456.hmmr: `icc -m64`

458.sjeng: `icc -m64`

C++ benchmarks:

`icpc -m32 -L/opt/intel/composer_xe_2015/lib/ia32`

## Peak Portability Flags

400.perlbench: `-DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64`

401.bzip2: `-DSPEC_CPU_LP64`

456.hmmr: `-DSPEC_CPU_LP64`

458.sjeng: `-DSPEC_CPU_LP64`

462.libquantum: `-DSPEC_CPU_LINUX`

483.xalancbmk: `-DSPEC_CPU_LINUX`

## Peak Optimization Flags

C benchmarks:

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-ilp32`

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: `-xCORE-AVX2 -ipo -O3 -no-prec-div`

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.hmmr: `-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`

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`

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5019S-WR  
(X11SSW-F, Intel Xeon E3-1230 v5)

SPECint\_rate2006 = 249

SPECint\_rate\_base2006 = 241

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

Test date: Dec-2015  
Hardware Availability: Oct-2015  
Software Availability: Mar-2015

## Peak Optimization Flags (Continued)

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

## Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=\_alloca

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 SPECint 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](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.2.  
Report generated on Tue Jan 12 15:45:34 2016 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 12 January 2016.