



SPEC® CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Huawei

SPECfp®2006 = 62.2

Huawei RH2288H v2 (Intel Xeon E5-2618L v2)

SPECfp_base2006 = 60.1

CPU2006 license: 3175

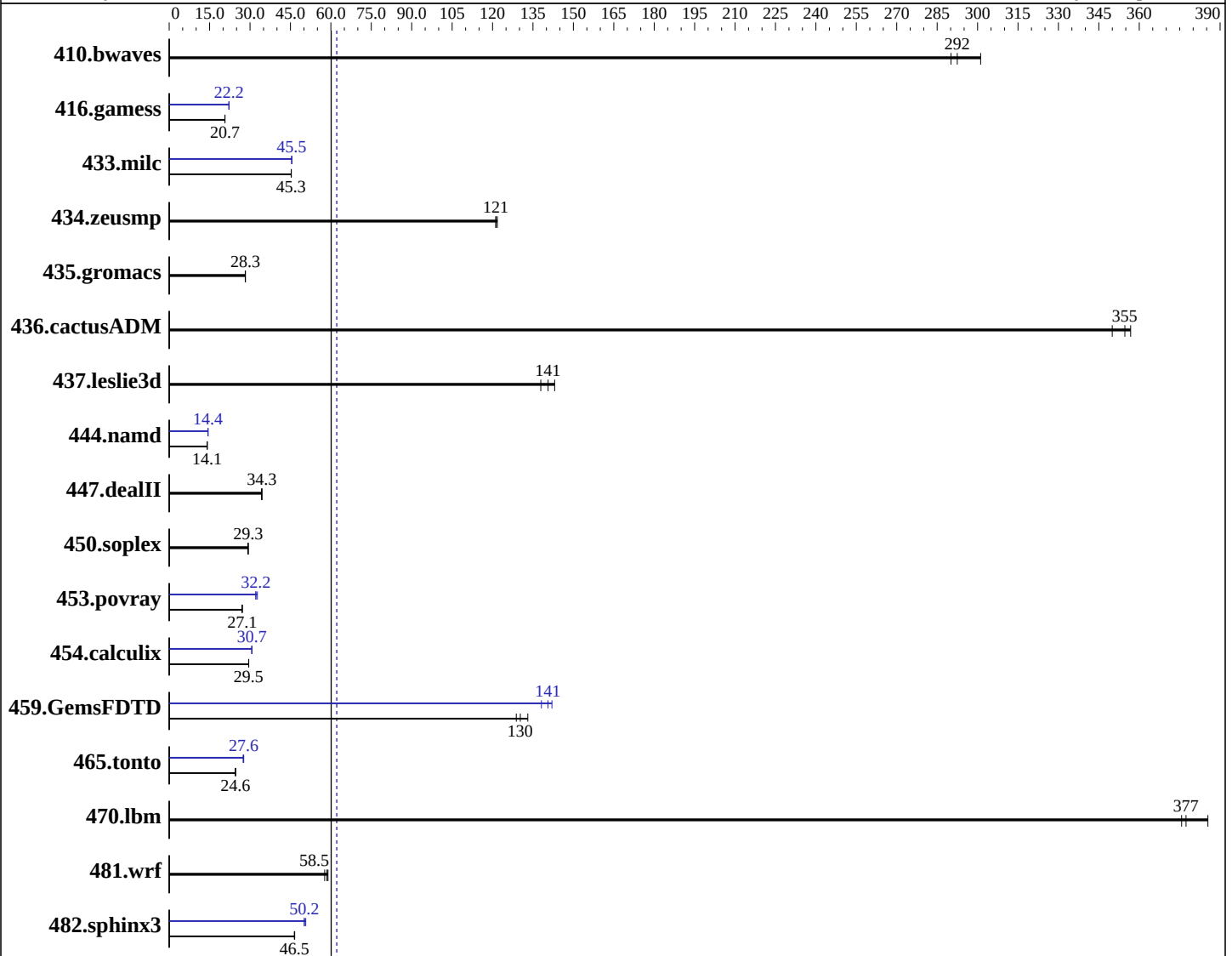
Test sponsor: Huawei

Tested by: Huawei

Test date: Dec-2014

Hardware Availability: Sep-2013

Software Availability: Sep-2014



SPECfp_base2006 = 60.1

SPECfp2006 = 62.2

Hardware

CPU Name: Intel Xeon E5-2618L v2
CPU Characteristics:
CPU MHz: 2000
FPU: Integrated
CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip
CPU(s) orderable: 1,2 chip
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 256 KB I+D on chip per core

Continued on next page

Software

Operating System: Red Hat Enterprise Linux Server release 7.0 (Maipo)
Compiler: 3.10.0-123.el7.x86_64
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
Auto Parallel: Yes
File System: ext4

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Huawei

SPECfp2006 = 62.2

Huawei RH2288H v2 (Intel Xeon E5-2618L v2)

SPECfp_base2006 = 60.1

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Dec-2014

Hardware Availability: Sep-2013

Software Availability: Sep-2014

L3 Cache: 15 MB I+D on chip per chip
 Other Cache: None
 Memory: 256 GB (16 x 16 GB 2Rx4 PC3-14900R-13, ECC, running at 1333 MHz)
 Disk Subsystem: 1 x 300 GB SAS, 10000 RPM
 Other Hardware: None

System State: Run level 3 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 32/64-bit
 Other Software: None

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	<u>46.5</u>	<u>292</u>	45.1	301	46.8	290	<u>46.5</u>	<u>292</u>	45.1	301	46.8	290
416.gamess	<u>946</u>	<u>20.7</u>	946	20.7	947	20.7	<u>883</u>	<u>22.2</u>	<u>883</u>	<u>22.2</u>	882	22.2
433.milc	202	45.3	203	45.3	<u>203</u>	<u>45.3</u>	<u>202</u>	<u>45.5</u>	<u>202</u>	<u>45.5</u>	<u>202</u>	<u>45.5</u>
434.zeusmp	<u>75.1</u>	<u>121</u>	74.7	122	75.1	121	<u>75.1</u>	<u>121</u>	74.7	122	75.1	121
435.gromacs	252	28.3	<u>253</u>	<u>28.3</u>	253	28.2	<u>252</u>	<u>28.3</u>	<u>253</u>	<u>28.3</u>	253	28.2
436.cactusADM	33.5	357	<u>33.7</u>	<u>355</u>	34.1	350	<u>33.5</u>	<u>357</u>	<u>33.7</u>	<u>355</u>	34.1	350
437.leslie3d	65.7	143	68.2	138	<u>66.9</u>	<u>141</u>	<u>65.7</u>	<u>143</u>	<u>68.2</u>	<u>138</u>	<u>66.9</u>	<u>141</u>
444.namd	<u>569</u>	<u>14.1</u>	569	14.1	569	14.1	<u>557</u>	<u>14.4</u>	<u>557</u>	<u>14.4</u>	<u>557</u>	<u>14.4</u>
447.dealII	<u>333</u>	<u>34.3</u>	333	34.3	332	34.4	<u>333</u>	<u>34.3</u>	333	34.3	332	34.4
450.soplex	284	29.4	285	29.2	<u>285</u>	<u>29.3</u>	<u>284</u>	<u>29.4</u>	<u>285</u>	<u>29.2</u>	<u>285</u>	<u>29.3</u>
453.povray	197	27.0	196	27.2	<u>196</u>	<u>27.1</u>	<u>166</u>	<u>32.1</u>	<u>165</u>	<u>32.2</u>	163	32.7
454.calculix	279	29.5	280	29.5	<u>280</u>	<u>29.5</u>	<u>269</u>	<u>30.7</u>	<u>269</u>	<u>30.7</u>	269	30.7
459.GemsFDTD	79.7	133	82.4	129	<u>81.4</u>	<u>130</u>	<u>75.5</u>	<u>141</u>	74.7	142	76.8	138
465.tonto	400	24.6	400	24.6	<u>400</u>	<u>24.6</u>	<u>356</u>	<u>27.6</u>	<u>359</u>	<u>27.4</u>	<u>356</u>	<u>27.6</u>
470.lbm	36.6	376	<u>36.4</u>	<u>377</u>	35.6	385	<u>36.6</u>	<u>376</u>	<u>36.4</u>	<u>377</u>	35.6	385
481.wrf	194	57.7	190	58.9	<u>191</u>	<u>58.5</u>	<u>194</u>	<u>57.7</u>	<u>190</u>	<u>58.9</u>	<u>191</u>	<u>58.5</u>
482.sphinx3	<u>419</u>	<u>46.5</u>	418	46.6	420	46.5	<u>385</u>	<u>50.7</u>	<u>389</u>	<u>50.1</u>	<u>388</u>	<u>50.2</u>

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

BIOS configuration:

Set Power Efficiency Mode to Custom

Baseboard Management Controller used to adjust the fan speed to 100%

Set Hyper-Threading to Disabled

Sysinfo program /spec15/config/sysinfo.rev6914

\$Rev: 6914 \$ \$Date:: 2014-06-25 #\$ e3fbb8667b5a285932ceab81e28219e1

running on localhost.localdomain Sun Dec 14 16:43:07 2014

This section contains SUT (System Under Test) info as seen by

Continued on next page

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org/

Page 2



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Huawei

SPECfp2006 = 62.2

Huawei RH2288H v2 (Intel Xeon E5-2618L v2)

SPECfp_base2006 = 60.1

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Dec-2014

Hardware Availability: Sep-2013

Software Availability: Sep-2014

Platform Notes (Continued)

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 E5-2618L v2 @ 2.00GHz

2 "physical id"s (chips)

12 "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 : 6

siblings : 6

physical 0: cores 0 1 2 3 4 5

physical 1: cores 0 1 2 3 4 5

cache size : 15360 KB

From /proc/meminfo

MemTotal: 263924204 kB

HugePages_Total: 0

Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*

os-release:

NAME="Red Hat Enterprise Linux Server"

VERSION="7.0 (Maipo)"

ID="rhel"

ID_LIKE="fedora"

VERSION_ID="7.0"

PRETTY_NAME="Red Hat Enterprise Linux Server 7.0 (Maipo)"

ANSI_COLOR="0;31"

CPE_NAME="cpe:/o:redhat:enterprise_linux:7.0:GA:server"

redhat-release: Red Hat Enterprise Linux Server release 7.0 (Maipo)

system-release: Red Hat Enterprise Linux Server release 7.0 (Maipo)

system-release-cpe: cpe:/o:redhat:enterprise_linux:7.0:ga:server

uname -a:

Linux localhost.localdomain 3.10.0-123.el7.x86_64 #1 SMP Mon May 5 11:16:57

EDT 2014 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Dec 12 10:27

SPEC is set to: /spec15

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
------------	------	------	------	-------	------	------------

/dev/mapper/rhel-root	ext4	256G	8.2G	235G	4%	/
-----------------------	------	------	------	------	----	---

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 Insyde Corp. RMIBV629 05/12/2014

Continued on next page

Standard Performance Evaluation Corporation

info@spec.org

<http://www.spec.org/>

Page 3



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Huawei

SPECfp2006 = 62.2

Huawei RH2288H v2 (Intel Xeon E5-2618L v2)

SPECfp_base2006 = 60.1

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Dec-2014

Hardware Availability: Sep-2013

Software Availability: Sep-2014

Platform Notes (Continued)

Memory:

16x Hynix HMT42GR7BFR4C-RD 16 GB 2 rank 1867 MHz, configured at 1333 MHz
8x NO DIMM NO DIMM

(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 = "/spec15/libs/32:/spec15/libs/64:/spec15/sh"

OMP_NUM_THREADS = "12"

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

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

Continued on next page

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org/

Page 4



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Huawei

SPECfp2006 = 62.2

Huawei RH2288H v2 (Intel Xeon E5-2618L v2)

SPECfp_base2006 = 60.1

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Dec-2014

Hardware Availability: Sep-2013

Software Availability: Sep-2014

Base Portability Flags (Continued)

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:
-xAVX -ipo -O3 -no-prec-div -parallel -opt-prefetch -ansi-alias

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

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

Benchmarks using both Fortran and C:
-xAVX -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



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Huawei

SPECfp2006 = 62.2

Huawei RH2288H v2 (Intel Xeon E5-2618L v2)

SPECfp_base2006 = 60.1

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Dec-2014

Hardware Availability: Sep-2013

Software Availability: Sep-2014

Peak Optimization Flags

C benchmarks:

433.milc: -xAVX(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

470.lbm: basepeak = yes

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

C++ benchmarks:

444.namd: -xAVX(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: -xAVX(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: -xAVX(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: -xAVX(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: -xAVX(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

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Huawei

SPECfp2006 = 62.2

Huawei RH2288H v2 (Intel Xeon E5-2618L v2)

SPECfp_base2006 = 60.1

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Dec-2014

Hardware Availability: Sep-2013

Software Availability: Sep-2014

Peak Optimization Flags (Continued)

454.calculix: -xAVX -ipo -O3 -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-ic15.0-official-linux64.html>

<http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-V1.0-IVB-RevG.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/Huawei-Platform-Settings-V1.0-IVB-RevG.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 Wed Jan 14 10:27:13 2015 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 13 January 2015.