



# SPEC® CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

## Huawei

### SPECint®\_rate2006 = 846

### Huawei RH1288 V3 (Intel Xeon E5-2667 v3)

### SPECint\_rate\_base2006 = 811

CPU2006 license: 3175

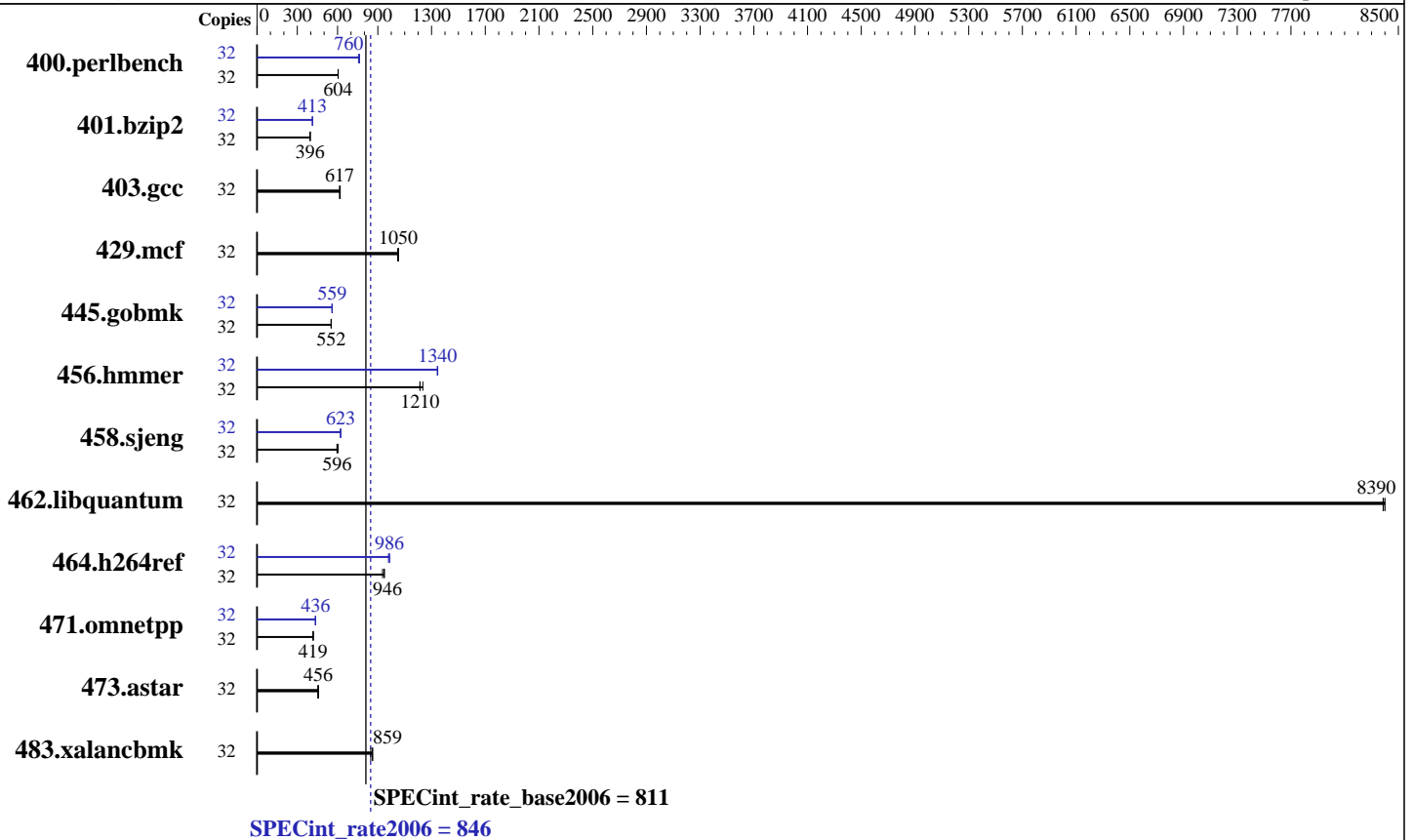
Test sponsor: Huawei

Tested by: Huawei

Test date: Apr-2015

Hardware Availability: Sep-2014

Software Availability: Sep-2014



### Hardware

CPU Name: Intel Xeon E5-2667 v3  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.60 GHz  
 CPU MHz: 3200  
 FPU: Integrated  
 CPU(s) enabled: 16 cores, 2 chips, 8 cores/chip, 2 threads/core  
 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  
 L3 Cache: 20 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 256 GB (16 x 16 GB 2Rx4 PC4-2133P-R)  
 Disk Subsystem: 1 x 500 GB SATA, 7200 RPM  
 Other Hardware: None

### Software

Operating System: Red Hat Enterprise Linux Server release 7.0 (Maipo)  
 3.10.0-123.el7.x86\_64  
 Compiler: C/C++: Version 15.0.0.090 of Intel C++ Studio XE for Linux  
 Auto Parallel: No  
 File System: ext4  
 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 2006-2015 Standard Performance Evaluation Corporation

## Huawei

SPECint\_rate2006 = 846

Huawei RH1288 V3 (Intel Xeon E5-2667 v3)

SPECint\_rate\_base2006 = 811

CPU2006 license: 3175  
Test sponsor: Huawei  
Tested by: Huawei

Test date: Apr-2015  
Hardware Availability: Sep-2014  
Software Availability: Sep-2014

### Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	32	518	603	<b><u>518</u></b>	<b><u>604</u></b>	517	605	32	414	756	<b><u>411</u></b>	<b><u>760</u></b>	409	764
401.bzip2	32	781	395	779	396	<b><u>781</u></b>	<b><u>396</u></b>	32	<b><u>748</u></b>	<b><u>413</u></b>	747	413	749	412
403.gcc	32	419	615	416	620	<b><u>418</u></b>	<b><u>617</u></b>	32	419	615	416	620	<b><u>418</u></b>	<b><u>617</u></b>
429.mcf	32	279	1050	<b><u>277</u></b>	<b><u>1050</u></b>	277	1050	32	279	1050	<b><u>277</u></b>	<b><u>1050</u></b>	277	1050
445.gobmk	32	<b><u>608</u></b>	<b><u>552</u></b>	607	553	608	552	32	600	560	<b><u>600</u></b>	<b><u>559</u></b>	601	558
456.hammer	32	246	1210	242	1240	<b><u>246</u></b>	<b><u>1210</u></b>	32	<b><u>222</u></b>	<b><u>1340</u></b>	222	1340	222	1350
458.sjeng	32	<b><u>649</u></b>	<b><u>596</u></b>	640	605	650	596	32	<b><u>622</u></b>	<b><u>623</u></b>	621	623	623	622
462.libquantum	32	79.1	8390	<b><u>79.0</u></b>	<b><u>8390</u></b>	78.9	8400	32	79.1	8390	<b><u>79.0</u></b>	<b><u>8390</u></b>	78.9	8400
464.h264ref	32	<b><u>748</u></b>	<b><u>946</u></b>	746	949	758	935	32	723	979	718	987	<b><u>718</u></b>	<b><u>986</u></b>
471.omnetpp	32	<b><u>478</u></b>	<b><u>419</u></b>	480	417	477	419	32	461	434	458	436	<b><u>459</u></b>	<b><u>436</u></b>
473.astar	32	<b><u>493</u></b>	<b><u>456</u></b>	496	453	491	457	32	<b><u>493</u></b>	<b><u>456</u></b>	496	453	491	457
483.xalancbmk	32	261	847	256	862	<b><u>257</u></b>	<b><u>859</u></b>	32	261	847	256	862	<b><u>257</u></b>	<b><u>859</u></b>

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

### Submit Notes

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

BIOS configuration:  
Set Power Efficiency Mode to Performance  
Set Snoop Mode to ES mode  
Sysinfo program /spec15/config/sysinfo.rev6914  
\$Rev: 6914 \$ \$Date:: 2014-06-25 # \$ e3fbb8667b5a285932ceab81e28219e1  
running on localhost.localdomain Fri Apr 17 15:19:15 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 E5-2667 v3 @ 3.20GHz  
2 "physical id"s (chips)  
32 "processors"  
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with  
Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Huawei

SPECint\_rate2006 = 846

Huawei RH1288 V3 (Intel Xeon E5-2667 v3)

SPECint\_rate\_base2006 = 811

CPU2006 license: 3175  
Test sponsor: Huawei  
Tested by: Huawei

Test date: Apr-2015  
Hardware Availability: Sep-2014  
Software Availability: Sep-2014

## Platform Notes (Continued)

```
caution.)
  cpu cores : 8
  siblings  : 16
  physical 0: cores 0 1 2 3 4 5 6 7
  physical 1: cores 0 1 2 3 4 5 6 7
cache size : 20480 KB
```

```
From /proc/meminfo
MemTotal:      263577516 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 Apr 17 14:27
```

```
SPEC is set to: /spec15
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda2       ext4  448G  107G  319G  25% /
```

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. 1.20 10/25/2014
Memory:
 8x Micron 36ASF2G72PZ-2G1A2 16 GB 1 rank 2133 MHz
 8x Micron 36ASF2G72PZ-2G1A2 16 GB 2 rank 2133 MHz
```

(End of data from sysinfo program)



# SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Huawei

SPECint\_rate2006 = 846

Huawei RH1288 V3 (Intel Xeon E5-2667 v3)

SPECint\_rate\_base2006 = 811

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Apr-2015

Hardware Availability: Sep-2014

Software Availability: Sep-2014

## General Notes

Environment variables set by runspec before the start of the run:  
LD\_LIBRARY\_PATH = "/spec15/libs/32:/spec15/libs/64:/spec15/sh"

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

Filesystem page cache cleared with:

echo 1> /proc/sys/vm/drop\_caches

runspec command invoked through numactl i.e.:

numactl --interleave=all runspec <etc>

## 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



# SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Huawei

SPECint\_rate2006 = 846

Huawei RH1288 V3 (Intel Xeon E5-2667 v3)

SPECint\_rate\_base2006 = 811

CPU2006 license: 3175  
Test sponsor: Huawei  
Tested by: Huawei

Test date: Apr-2015  
Hardware Availability: Sep-2014  
Software Availability: Sep-2014

## 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

456.hmmer: 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.hmmer: -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: basepeak = yes

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.hmmer: -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

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Huawei

SPECint\_rate2006 = 846

Huawei RH1288 V3 (Intel Xeon E5-2667 v3)

SPECint\_rate\_base2006 = 811

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Apr-2015

Hardware Availability: Sep-2014

Software Availability: Sep-2014

## Peak Optimization Flags (Continued)

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

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/Huawei-Platform-Settings-HASWELL-V1.4.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-HASWELL-V1.4.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 May 19 18:17:00 2015 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 19 May 2015.