



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Huawei

**SPECint®\_rate2006 = 1180**

Huawei RH5885H V3 (Intel Xeon E7-8893 v2)

**SPECint\_rate\_base2006 = 1140**

CPU2006 license: 3175

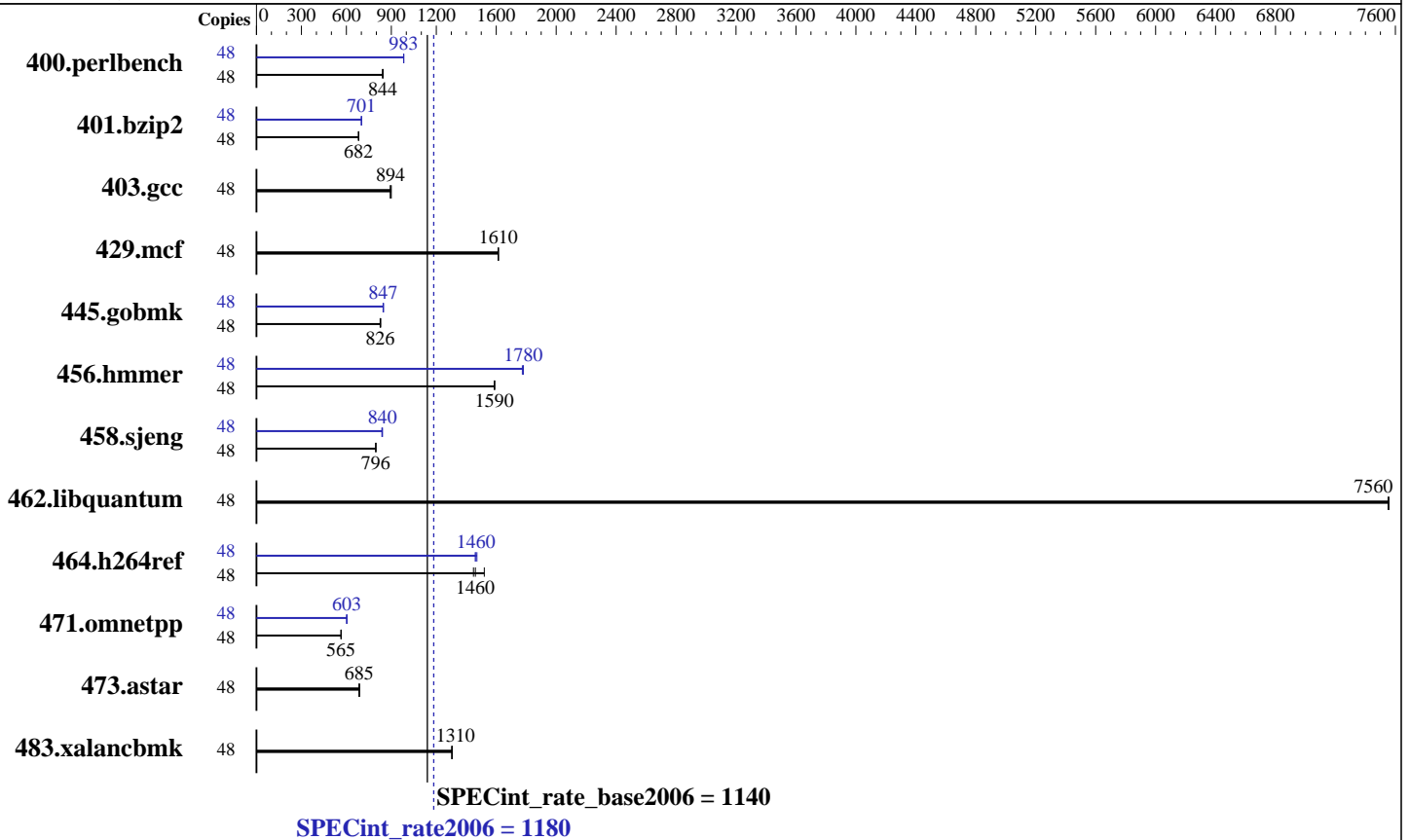
Test date: Jul-2014

Test sponsor: Huawei

Hardware Availability: Feb-2014

Tested by: Huawei

Software Availability: Nov-2013



### Hardware

CPU Name: Intel Xeon E7-8893 v2  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.70 GHz  
 CPU MHz: 3400  
 FPU: Integrated  
 CPU(s) enabled: 24 cores, 4 chips, 6 cores/chip, 2 threads/core  
 CPU(s) orderable: 2,4 chips  
 Primary Cache: 32 KB I + 32 KB D on chip per core  
 Secondary Cache: 256 KB I+D on chip per core  
 L3 Cache: 37.5 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 1 TB (64 x 16 GB 2Rx4 PC3-12800R-11, ECC)  
 Disk Subsystem: 2 x 300 GB SAS, 10K RPM  
 Other Hardware: None

### Software

Operating System: Red Hat Enterprise Linux Server release 6.5 (Santiago)  
 2.6.32-431.el6.x86\_64  
 Compiler: C/C++: Version 14.0.0.080 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 2006-2014 Standard Performance Evaluation Corporation

## Huawei

SPECint\_rate2006 = 1180

Huawei RH5885H V3 (Intel Xeon E7-8893 v2)

SPECint\_rate\_base2006 = 1140

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Jul-2014

Hardware Availability: Feb-2014

Software Availability: Nov-2013

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	48	<b>556</b>	<b>844</b>	558	841	555	844	48	<b>477</b>	<b>983</b>	478	982	477	983
401.bzip2	48	681	680	679	682	<b>680</b>	<b>682</b>	48	<b>661</b>	<b>701</b>	662	700	660	701
403.gcc	48	432	894	<b>432</b>	<b>894</b>	429	900	48	432	894	<b>432</b>	<b>894</b>	429	900
429.mcf	48	<b>271</b>	<b>1610</b>	271	1610	271	1610	48	<b>271</b>	<b>1610</b>	271	1610	271	1610
445.gobmk	48	<b>610</b>	<b>826</b>	610	825	607	830	48	596	845	<b>595</b>	<b>847</b>	594	848
456.hammer	48	282	1590	<b>282</b>	<b>1590</b>	282	1590	48	<b>252</b>	<b>1780</b>	252	1770	251	1780
458.sjeng	48	<b>729</b>	<b>796</b>	730	796	728	797	48	694	837	691	840	<b>691</b>	<b>840</b>
462.libquantum	48	132	7560	<b>132</b>	<b>7560</b>	132	7550	48	132	7560	<b>132</b>	<b>7560</b>	132	7550
464.h264ref	48	734	1450	<b>727</b>	<b>1460</b>	699	1520	48	722	1470	<b>725</b>	<b>1460</b>	728	1460
471.omnetpp	48	<b>531</b>	<b>565</b>	532	564	531	565	48	498	602	<b>498</b>	<b>603</b>	497	604
473.astar	48	<b>492</b>	<b>685</b>	492	685	490	688	48	<b>492</b>	<b>685</b>	492	685	490	688
483.xalancbmk	48	<b>254</b>	<b>1310</b>	254	1300	253	1310	48	<b>254</b>	<b>1310</b>	254	1300	253	1310

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 Lock_step to disabled
Baseboard Management Controller used to adjust the fan speed to 100%
Sysinfo program /spec/config/sysinfo.rev6818
$Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
running on RH5885HV3 Thu Jul 17 05:52:04 2014

```

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 E7-8893 v2 @ 3.40GHz
4 "physical id"s (chips)
48 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
Continued on next page

```



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint\_rate2006 = 1180

Huawei RH5885H V3 (Intel Xeon E7-8893 v2)

SPECint\_rate\_base2006 = 1140

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

Test date: Jul-2014  
Hardware Availability: Feb-2014  
Software Availability: Nov-2013

## Platform Notes (Continued)

following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)

```
cpu cores : 6
siblings  : 12
physical 0: cores 3 4 5 6 10 11
physical 1: cores 3 4 5 6 10 11
physical 2: cores 3 4 5 6 10 11
physical 3: cores 3 4 5 6 10 11
cache size : 38400 KB
```

```
From /proc/meminfo
MemTotal:      1058604944 kB
HugePages_Total: 0
Hugepagesize:  2048 kB
```

```
/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.5 (Santiago)
```

```
From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.5 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.5 (Santiago)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server
```

```
uname -a:
Linux RH5885HV3 2.6.32-431.el6.x86_64 #1 SMP Sun Nov 10 22:19:54 EST 2013
x86_64 x86_64 x86_64 GNU/Linux
```

```
run-level 3 Jul 17 05:50
```

```
SPEC is set to: /spec
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda2       ext4  433G   57G  354G  14% /spec
```

```
Additional information from dmidecode:
BIOS American Megatrends Inc. BLISV038 04/24/2014
Memory:
64x 16 GB
63x Hynix HMT42GR7AFR4C-PB 16 GB 1333 MHz 2 rank
1x Hynix HMT42GR7MFR4C-PB 16 GB 1333 MHz 2 rank
32x NO DIMM NO DIMM
```

(End of data from sysinfo program)

Regarding the sysinfo display about the memory installed, the correct amount of memory is 1 TB and the dmidecode description should have two lines reading as:

```
63x Hynix HMT42GR7AFR4C-PB 16 GB 1333 MHz 2 rank
1x Hynix HMT42GR7MFR4C-PB 16 GB 1333 MHz 2 rank
```



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint\_rate2006 = 1180

Huawei RH5885H V3 (Intel Xeon E7-8893 v2)

SPECint\_rate\_base2006 = 1140

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Jul-2014

Hardware Availability: Feb-2014

Software Availability: Nov-2013

## General Notes

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

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RedHat EL 6.4  
Transparent Huge Pages enabled with:  
echo always > /sys/kernel/mm/redhat\_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

C++ benchmarks:  
icpc -m32

## Base Portability Flags

400.perlbench: -DSPEC\_CPU\_LINUX\_IA32  
462.libquantum: -DSPEC\_CPU\_LINUX  
483.xalancbmk: -DSPEC\_CPU\_LINUX

## Base Optimization Flags

C benchmarks:  
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3

C++ benchmarks:  
-xSSE4.2 -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 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint\_rate2006 = 1180

Huawei RH5885H V3 (Intel Xeon E7-8893 v2)

SPECint\_rate\_base2006 = 1140

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

Test date: Jul-2014  
Hardware Availability: Feb-2014  
Software Availability: Nov-2013

## Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m32  
  
400.perlbench: icc -m64  
401.bzip2: icc -m64  
456.hmmer: icc -m64  
458.sjeng: icc -m64

C++ benchmarks:

icpc -m32

## 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: -xSSE4.2(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: -xSSE4.2(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: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)  
-ansi-alias -opt-mem-layout-trans=3  
  
456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32  
  
458.sjeng: -xSSE4.2(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 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint\_rate2006 = 1180

Huawei RH5885H V3 (Intel Xeon E7-8893 v2)

SPECint\_rate\_base2006 = 1140

CPU2006 license: 3175

Test date: Jul-2014

Test sponsor: Huawei

Hardware Availability: Feb-2014

Tested by: Huawei

Software Availability: Nov-2013

## Peak Optimization Flags (Continued)

462.libquantum: basepeak = yes

464.h264ref: -xSSE4.2(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: -xSSE4.2(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-ic14.0-official-linux64-revC.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-ic14.0-official-linux64-revC.xml>  
<http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-V1.0-IVB-RevG.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 Sep 2 13:38:56 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 2 September 2014.