# Huawei

**Huawei RH5885H v3 (Intel Xeon E7-4890 v2)**

<table>
<thead>
<tr>
<th>SPECint_rate2006</th>
<th>Not Run</th>
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<tbody>
<tr>
<td>SPECint_rate_base2006</td>
<td>2320</td>
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**CPU2006 license:** 13  
**Test sponsor:** Huawei  
**Tested by:** Huawei  
**Test date:** Feb-2014  
**Hardware Availability:** Feb-2014  
**Software Availability:** Nov-2013

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Software</th>
</tr>
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<tbody>
<tr>
<td><strong>CPU Name:</strong></td>
<td><strong>Operating System:</strong> Red Hat Enterprise Linux Server release 6.5 (Santiago)</td>
</tr>
<tr>
<td><strong>CPU Characteristics:</strong> Intel Xeon E7-4890 v2</td>
<td><strong>Compiler:</strong> C/C++: Version 14.0.0.080 of Intel C++ Studio XE for Linux</td>
</tr>
<tr>
<td><strong>CPU MHz:</strong> 2800</td>
<td><strong>Auto Parallel:</strong> No</td>
</tr>
<tr>
<td><strong>FPU:</strong> Integrated</td>
<td><strong>File System:</strong> ext4</td>
</tr>
<tr>
<td><strong>CPU(s) enabled:</strong> Intel Turbo Boost Technology up to 3.40 GHz</td>
<td><strong>System State:</strong> Run level 3 (multi-user)</td>
</tr>
<tr>
<td><strong>CPU(s) orderable:</strong> 2.4 chips</td>
<td><strong>Base Pointers:</strong> 32-bit</td>
</tr>
<tr>
<td><strong>Primary Cache:</strong> 32 KB I + 32 KB D on chip per core</td>
<td><strong>Peak Pointers:</strong> 32/64-bit</td>
</tr>
<tr>
<td><strong>Secondary Cache:</strong> 256 KB I+D on chip per core</td>
<td><strong>Other Software:</strong> Microquill SmartHeap V10.0</td>
</tr>
<tr>
<td><strong>L3 Cache:</strong> 37.5 MB I+D on chip per chip</td>
<td><strong>Other Hardware:</strong> None</td>
</tr>
<tr>
<td><strong>Other Cache:</strong> None</td>
<td><strong>Memory:</strong> 512 GB (64 x 8 GB 2Rx4 PC3-10600R-9, ECC)</td>
</tr>
<tr>
<td><strong>Disk Subsystem:</strong> 1 x 300 GB SAS, 10 K RPM</td>
<td><strong>CPU Name:</strong></td>
</tr>
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---

**Software**

**Operating System:** Red Hat Enterprise Linux Server release 6.5 (Santiago)  
**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  
**Other Hardware:** None
# SPEC CINT2006 Result

**Huawei**

Huawei RH5885H v3 (Intel Xeon E7-4890 v2)

**SPECint_rate2006 = Not Run**

**SPECint_rate_base2006 = 2320**

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## Results Table

<table>
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<tr>
<th>Benchmark</th>
<th>Base</th>
<th></th>
<th>Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Copies</td>
<td>Seconds</td>
<td>Ratio</td>
</tr>
<tr>
<td>400.perlbrcnch</td>
<td>120</td>
<td>620</td>
<td>1890</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>120</td>
<td>941</td>
<td>1230</td>
</tr>
<tr>
<td>403.gcc</td>
<td>120</td>
<td>560</td>
<td>1730</td>
</tr>
<tr>
<td>429.mcf</td>
<td>120</td>
<td>349</td>
<td>3140</td>
</tr>
<tr>
<td>445.gobmk</td>
<td>120</td>
<td>684</td>
<td>1840</td>
</tr>
<tr>
<td>456.hmmer</td>
<td>120</td>
<td>335</td>
<td>3340</td>
</tr>
<tr>
<td>458.sjeng</td>
<td>120</td>
<td>799</td>
<td>1820</td>
</tr>
<tr>
<td>462.libquantum</td>
<td>120</td>
<td>152</td>
<td>16300</td>
</tr>
<tr>
<td>464.h264ref</td>
<td>120</td>
<td>827</td>
<td>3210</td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>120</td>
<td>704</td>
<td>1060</td>
</tr>
<tr>
<td>473.astar</td>
<td>120</td>
<td>647</td>
<td>1300</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>120</td>
<td>343</td>
<td>2420</td>
</tr>
</tbody>
</table>

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 speccpu Sun Feb 9 20:10:41 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 E7-4890 v2 @ 2.80GHz
- 4 "physical id"s (chips)
- 120 "processors"
- cores, siblings (Caution: counting these is hw and system dependent. The Continued on next page
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### Platform Notes (Continued)

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

- **cpu cores:** 15  
- **siblings:** 30  
- **physical 0:** cores: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
- **physical 1:** cores: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
- **physical 2:** cores: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
- **physical 3:** cores: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

- **cache size:** 38400 KB

From /proc/meminfo

- **MemTotal:** 529098336 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 speccpu 2.6.32-431.el6.x86_64 #1 SMP Sun Nov 10 22:19:54 EST 2013
tax6_64 x86_64 x86_64 GNU/Linux
```

```
run-level 3 Feb 9 19:50
```

**SPEC is set to:** /spec

<table>
<thead>
<tr>
<th>Filesystem</th>
<th>Type</th>
<th>Size</th>
<th>Used</th>
<th>Avail</th>
<th>Use%</th>
<th>Mounted on</th>
</tr>
</thead>
<tbody>
<tr>
<td>/dev/sda1</td>
<td>ext4</td>
<td>241G</td>
<td>8.6G</td>
<td>220G</td>
<td>4%</td>
<td>/</td>
</tr>
</tbody>
</table>

Additional information from dmidecode:

- **BIOS American Megatrends Inc. BLISV099 02/09/2014**
- **Memory:**  
  - 64x 8 GB  
  - 12x Hynix HMT31GR7A8FR4C-H9 8 GB 1333 MHz 2 rank  
  - 52x Hynix HMT31GR7A8FR4C-H9 8 GB 1333 MHz 2 rank  
  - 32x NO DIMM NO DIMM

(End of data from sysinfo program)

### 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:

Continued on next page
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General Notes (Continued)

```
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.perlbmk: -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
```

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

```
http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64.20140128.html
```

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

```
http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64.20140128.xml
http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-revE.20121120.xml
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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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