



# SPEC® CINT2006 Result

Copyright 2006-2017 Standard Performance Evaluation Corporation

## Huawei

## SPECint®\_rate2006 = Not Run

## Kunlun 9016(Intel Xeon E7-8891 v4)

## SPECint\_rate\_base2006 = 8280

CPU2006 license: 3175

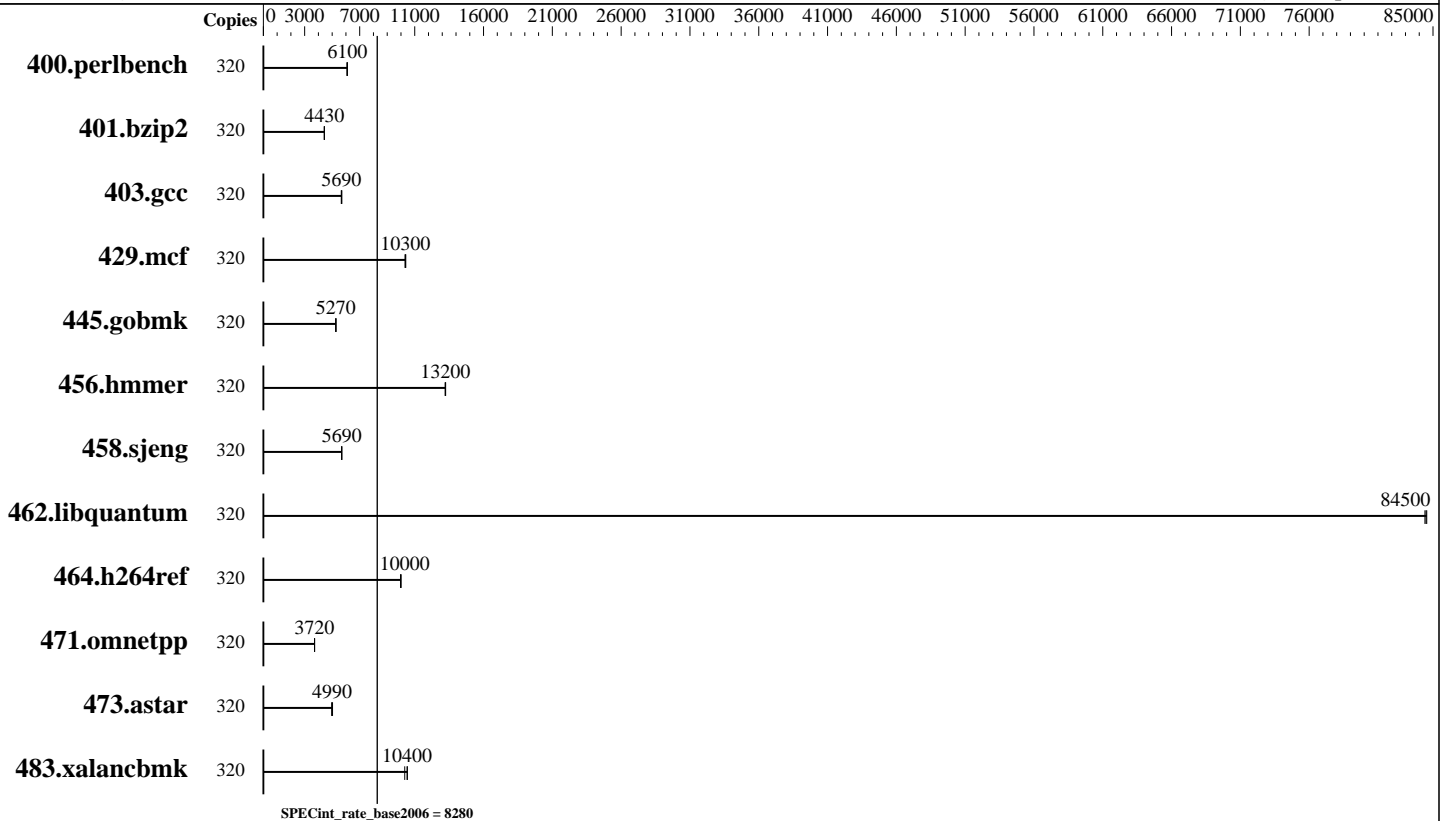
Test sponsor: Huawei

Tested by: Huawei

Test date: May-2017

Hardware Availability: Jan-2016

Software Availability: Sep-2016



### Hardware

CPU Name: Intel Xeon E7-8891 v4  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.50 GHz  
 CPU MHz: 2800  
 FPU: Integrated  
 CPU(s) enabled: 160 cores, 16 chips, 10 cores/chip, 2 threads/core  
 CPU(s) orderable: 4,8,16 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: 60 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 2 TB (128 x 16 GB 2Rx4 PC4-2133P-R, running at 1600 MHz)  
 Disk Subsystem: 2 x 600 GB SAS, 10K RPM  
 Other Hardware: None

### Software

Operating System: SUSE Linux Enterprise Server 12 (x86\_64) SP1 3.12.49-11-default  
 Compiler: C/C++: Version 17.0.0.098 of Intel C/C++ Compiler for Linux  
 Auto Parallel: No  
 File System: ext4  
 System State: Run level 5 (multi-user)  
 Base Pointers: 32-bit  
 Peak Pointers: 32/64-bit  
 Other Software: Microquill SmartHeap V10.2



# SPEC CINT2006 Result

Copyright 2006-2017 Standard Performance Evaluation Corporation

## Huawei

SPECint\_rate2006 = Not Run

## Kunlun 9016(Intel Xeon E7-8891 v4)

SPECint\_rate\_base2006 = 8280

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: May-2017

Hardware Availability: Jan-2016

Software Availability: Sep-2016

### Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	320	515	6070	<u>512</u>	<u>6100</u>	512	6100							
401.bzip2	320	<u>696</u>	<u>4430</u>	696	4430	698	4430							
403.gcc	320	452	5700	<u>453</u>	<u>5690</u>	455	5660							
429.mcf	320	282	10300	<u>282</u>	<u>10300</u>	284	10300							
445.gobmk	320	636	5280	638	5260	<u>637</u>	<u>5270</u>							
456.hammer	320	225	13200	226	13200	<u>226</u>	<u>13200</u>							
458.sjeng	320	<u>680</u>	<u>5690</u>	680	5690	680	5690							
462.libquantum	320	<u>78.5</u>	<u>84500</u>	78.4	84500	78.5	84400							
464.h264ref	320	<u>708</u>	<u>10000</u>	708	10000	711	9960							
471.omnetpp	320	538	3720	537	3720	<u>538</u>	<u>3720</u>							
473.astar	320	<u>450</u>	<u>4990</u>	447	5030	452	4970							
483.xalancbmk	320	215	10300	<u>211</u>	<u>10400</u>	211	10500							

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"  
Turbo mode set with:  
cpupower -c all frequency-set -g performance

### Platform Notes

BIOS configuration:  
Set Power Efficiency Mode to Performance  
Baseboard Management Controller used to adjust the fan speed to 100%  
Sysinfo program /spec/config/sysinfo.rev6993  
Revision 6993 of 2015-11-06 (b5e8d4b4eb51ed28d7f98696cbe290c1)  
running on linux-ew80 Tue May 9 07:49:48 2017

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 E7-8891 v4 @ 2.80GHz  
16 "physical id"s (chips)  
320 "processors"

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2017 Standard Performance Evaluation Corporation

Huawei

SPECint\_rate2006 = Not Run

Kunlun 9016(Intel Xeon E7-8891 v4)

SPECint\_rate\_base2006 = 8280

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: May-2017

Hardware Availability: Jan-2016

Software Availability: Sep-2016

## Platform Notes (Continued)

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 : 10
siblings  : 20
physical 0: cores 5 9 10 11 13 18 24 26 28 29
physical 1: cores 5 9 10 11 13 18 24 26 28 29
physical 2: cores 5 9 10 11 13 18 24 26 28 29
physical 3: cores 5 9 10 11 13 18 24 26 28 29
physical 4: cores 5 9 10 11 13 18 24 26 28 29
physical 5: cores 5 9 10 11 13 18 24 26 28 29
physical 6: cores 5 9 10 11 13 18 24 26 28 29
physical 7: cores 5 9 10 11 13 18 24 26 28 29
physical 8: cores 5 9 10 11 13 18 24 26 28 29
physical 9: cores 5 9 10 11 13 18 24 26 28 29
physical 10: cores 5 9 10 11 13 18 24 26 28 29
physical 11: cores 5 9 10 11 13 18 24 26 28 29
physical 12: cores 5 9 10 11 13 18 24 26 28 29
physical 13: cores 5 9 10 11 13 18 24 26 28 29
physical 14: cores 5 9 10 11 13 18 24 26 28 29
physical 15: cores 5 9 10 11 13 18 24 26 28 29
cache size : 61440 KB

```

From /proc/meminfo

```

MemTotal:      2117107116 kB
HugePages_Total: 153600
Hugepagesize:  2048 kB

```

/usr/bin/lsb\_release -d

SUSE Linux Enterprise Server 12 SP1

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

SuSE-release:

```

SUSE Linux Enterprise Server 12 (x86_64)
VERSION = 12
PATCHLEVEL = 1

```

```

# This file is deprecated and will be removed in a future service pack or
release.
# Please check /etc/os-release for details about this release.

```

os-release:

```

NAME="SLES"
VERSION="12-SP1"
VERSION_ID="12.1"
PRETTY_NAME="SUSE Linux Enterprise Server 12 SP1"
ID="sles"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:12:sp1"

```

uname -a:

```

Linux linux-ew80 3.12.49-11-default #1 SMP Wed Nov 11 20:52:43 UTC 2015
(8d714a0) x86_64 x86_64 x86_64 GNU/Linux

```

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2017 Standard Performance Evaluation Corporation

Huawei

SPECint\_rate2006 = Not Run

Kunlun 9016(Intel Xeon E7-8891 v4)

SPECint\_rate\_base2006 = 8280

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: May-2017

Hardware Availability: Jan-2016

Software Availability: Sep-2016

## Platform Notes (Continued)

run-level 5 May 9 07:31

SPEC is set to: /spec

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/sda3	ext4	1.1T	95G	961G	9%	/

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. BLXSV207 04/17/2017

Memory:

128x Micron 36ASF2G72PZ-2G1A2 16 GB 2 rank 2133 MHz, configured at 1600 MHz  
256x 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/shl0.2"

Binaries compiled on a system with 1x Intel Core i7-4790K CPU + 32GB RAM memory using Redhat Enterprise Linux 7.2

Transparent Huge Pages enabled by default

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/compilers\_and\_libraries\_2017/linux/lib/ia32

C++ benchmarks:

icpc -m32 -L/opt/intel/compilers\_and\_libraries\_2017/linux/lib/ia32

## Base Portability Flags

400.perlbench: -D\_FILE\_OFFSET\_BITS=64 -DSPEC\_CPU\_LINUX\_IA32

401.bzip2: -D\_FILE\_OFFSET\_BITS=64

403.gcc: -D\_FILE\_OFFSET\_BITS=64

429.mcf: -D\_FILE\_OFFSET\_BITS=64

Continued on next page

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org/

Page 4



# SPEC CINT2006 Result

Copyright 2006-2017 Standard Performance Evaluation Corporation

Huawei

SPECint\_rate2006 = Not Run

Kunlun 9016(Intel Xeon E7-8891 v4)

SPECint\_rate\_base2006 = 8280

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: May-2017

Hardware Availability: Jan-2016

Software Availability: Sep-2016

## Base Portability Flags (Continued)

```

445.gobmk: -D_FILE_OFFSET_BITS=64
456.hmmer: -D_FILE_OFFSET_BITS=64
458.sjeng: -D_FILE_OFFSET_BITS=64
462.libquantum: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX
464.h264ref: -D_FILE_OFFSET_BITS=64
471.omnetpp: -D_FILE_OFFSET_BITS=64
473.astar: -D_FILE_OFFSET_BITS=64
483.xalancbmk: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX

```

## Base Optimization Flags

C benchmarks:

```

-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch
-qopt-mem-layout-trans=3

```

C++ benchmarks:

```

-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch
-qopt-mem-layout-trans=3 -Wl,-z,muldefs -L/sh10.2 -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-ic17.0-official-linux64.html>

<http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-V1.2-BDW-RevG.20170404.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic17.0-official-linux64.xml>

<http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-V1.2-BDW-RevG.20170404.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 Mon Oct 9 12:04:15 2017 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 9 October 2017.