



SPEC® CINT2006 Result

Copyright 2006-2018 Standard Performance Evaluation Corporation

Huawei

SPECint®_rate2006 = Not Available

Huawei 2488H V5 (Intel Xeon Platinum 8180)

SPECint_rate_base2006 = NC

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Jun-2017

Hardware Availability: Sep-2017

Software Availability: Apr-2017

SPEC has determined that this result is not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the system was not available as required by SPEC CPU rule 1.3.2 and the SPEC Open Systems Group policy on general availability.

	Copies
400.perlbench	
401.bzip2	
403.gcc	
429.mcf	
445.gobmk	
456.hmmer	
458.sjeng	
462.libquantum	
464.h264ref	
471.omnetpp	
473.astar	
483.xalancbmk	

Non-Compliant

Hardware

CPU Name: Intel Xeon Platinum 8180
 CPU Characteristics: Intel Turbo Boost Technology up to 3.80 GHz
 CPU MHz: 2500
 FPU: Integrated
 CPU(s) enabled: 112 cores, 4 chips, 28 cores/chip, 2 threads/core
 CPU(s) orderable: 2,4 chip
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 1 MB I+D on chip per core
 L3 Cache: 38.5 MB I+D on chip per chip
 Other Cache: None

Continued on next page

Software

Operating System: SUSE Linux Enterprise Server 12 SP2
 4.4.21-69-default
 Compiler: C/C++: Version 17.0.3.191 of Intel C/C++
 Compiler for Linux
 Auto Parallel: No
 File System: tmpfs
 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 2006-2018 Standard Performance Evaluation Corporation

Huawei

SPECint_rate2006 = Not Available

Huawei 2488H V5 (Intel Xeon Platinum 8180)

SPECint_rate_base2006 = NC

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

Test date: Jun-2017
Hardware Availability: Sep-2017
Software Availability: Apr-2017

SPEC has determined that this result is not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the system was not available as required by SPEC CPU rule 1.3.2 and the SPEC Open Systems Group policy on general availability.

Memory: 768 GB (24 x 32 GB 2Rx4 PC4-2666V-R)
Disk Subsystem: 2 x 900 GB SAS, 10K RPM
Other Hardware: None

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbenc	224	NC	NC	NC	NC	NC	NC							
401.bzip2	224	NC	NC	NC	NC	NC	NC							
403.gcc	224	NC	NC	NC	NC	NC	NC							
429.mcf	224	NC	NC	NC	NC	NC	NC							
445.gobmk	224	NC	NC	NC	NC	NC	NC							
456.hmmer	224	NC	NC	NC	NC	NC	NC							
458.sjeng	224	NC	NC	NC	NC	NC	NC							
462.libquantum	224	NC	NC	NC	NC	NC	NC							
464.h264ref	224	NC	NC	NC	NC	NC	NC							
471.omnetpp	224	NC	NC	NC	NC	NC	NC							
473.astar	224	NC	NC	NC	NC	NC	NC							
483.xalancbmk	224	NC	NC	NC	NC	NC	NC							

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

Submit Notes

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"
Kernel Boot Parameter set with:
vi /boot/grub2/grub.cfg
add nohz_full=1-223 to the boot kernel parameter line
Turbo mode set with:
cpupower -c all frequency-set -g performance
Tmpfs filesystem can be set with :

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2018 Standard Performance Evaluation Corporation

Huawei

SPECint_rate2006 = Not Available

Huawei 2488H V5 (Intel Xeon Platinum 8180)

SPECint_rate_base2006 = NC

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Jun-2017

Hardware Availability: Sep-2017

Software Availability: Apr-2017

SPEC has determined that this result is not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the system was not available as required by SPEC CPU rule 1.3.2 and the SPEC Open Systems Group policy on general availability.

Operating System Notes (Continued)

```
mkdir /home/shm
mount -t tmpfs -o size=400g,rw tmpfs /home/shm
```

Platform Notes

BIOS configuration:
Set SNC to enabled
Set IMC interleaving to 1 way interleaved
Set Memory Patrol Scrub to disabled
cooling Configuration set fan speed to 100%
Sysinfo program /home/shm/cpu2006/config/sysinfo.rev6993
Revision 6993 of 2015-11-06 0b5e8d4b47b51ed28d7f98696cbe290c1
running on linux-5bjr Fri Jul 21 16:31:39 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) Platinum 8180 CPU @ 2.50GHz
4 "physical id" (chips)
224 "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 : 28
siblings : 56
physical 0: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
physical 1: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
physical 2: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
physical 3: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
cache size : 39424 KB
```

```
From /proc/meminfo:
MemTotal: 790852276 kB
HugePages_Total: 0
```

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2018 Standard Performance Evaluation Corporation

Huawei

SPECint_rate2006 = Not Available

Huawei 2488H V5 (Intel Xeon Platinum 8180)

SPECint_rate_base2006 = NC

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Jun-2017

Hardware Availability: Sep-2017

Software Availability: Apr-2017

SPEC has determined that this result is not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the system was not available as required by SPEC CPU rule 1.3.2 and the SPEC Open Systems Group policy on general availability.

Platform Notes (Continued)

Hugepagesize: 2048 kB

```
/usr/bin/lsb_release -d
```

```
SUSE Linux Enterprise Server 12 SP2
```

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

```
SuSE-release:
```

```
SUSE Linux Enterprise Server 12 (x86_64)
```

```
VERSION = 12
```

```
PATCHLEVEL = 2
```

```
# 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-SP2"
```

```
VERSION_ID="12.2"
```

```
PRETTY_NAME="SUSE Linux Enterprise Server 12 SP2"
```

```
ID="sles"
```

```
ANSI_COLOR="0;32"
```

```
CPE_NAME="cpe:/o:suse:sles:12:sp2"
```

```
uname -a:
```

```
Linux linux-5bjr 4.4.21-69-default #1 SMP Tue Oct 25 10:58:20 UTC 2016
```

```
(x86_64) x86_64 x86_64 x86_64 GNU/Linux
```

```
run-level 5 Jun 23 10:24
```

```
df -h: /home/shm/cpu2006
```

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

```
tmpfs tmpfs 400G 8.8G 392G 3% /home/shm
```

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. 0.09 03/29/2017

Memory:

8x NO DIMM NO DIMM

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2018 Standard Performance Evaluation Corporation

Huawei

SPECint_rate2006 = Not Available

Huawei 2488H V5 (Intel Xeon Platinum 8180)

SPECint_rate_base2006 = NC

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Jun-2017

Hardware Availability: Sep-2017

Software Availability: Apr-2017

SPEC has determined that this result is not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the system was not available as required by SPEC CPU rule 1.3.2 and the SPEC Open Systems Group policy on general availability.

Platform Notes (Continued)

24x Samsung M393A4K40BB2-CTD 32 GB 2 rank 2666 MHz

(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:

LD_LIBRARY_PATH = "/home/shm/cpu2006/lib/ia32:/home/shm/cpu2006/lib/intel64:/home/shm/cpu2006/sh10.2"

Binaries compiled on a system with 1x Intel Core i7-4790 CPU + 32GB RAM

memory using Redhat Enterprise Linux 7.2

Transparent Huge Pages enabled by default

Filesystem page cache cleared with:

shell invocation of 'sync; echo 3 > /proc/sys/vm/drop_caches' prior to run

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

445.gobmk: -D_FILE_OFFSET_BITS=64

456.hmmmer: -D_FILE_OFFSET_BITS=64

458.sjeng: -D_FILE_OFFSET_BITS=64

462.libquantum: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX

Continued on next page

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org/

Page 5



SPEC CINT2006 Result

Copyright 2006-2018 Standard Performance Evaluation Corporation

Huawei

SPECint_rate2006 = Not Available

Huawei 2488H V5 (Intel Xeon Platinum 8180)

SPECint_rate_base2006 = NC

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Jun-2017

Hardware Availability: Sep-2017

Software Availability: Apr-2017

SPEC has determined that this result is not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the system was not available as required by SPEC CPU rule 1.3.2 and the SPEC Open Systems Group policy on general availability.

Base Portability Flags (Continued)

464.h264ref: -D_FILE_OFFSET_BITS=64
471.omnetpp: -D_FILE_OFFSET_BITS=64
473.astar: -D_FILE_OFFSET_BITS=64
483.xalanbmk: -D_FILE_OFFSET_BITS=64 -D__GNU__ CPU: LINUX

Base Optimization Flags

C benchmarks:

-xCORE-AVX512 -ipo -O3 -fno-prec-div -qopt-prefetch
-qopt-mem-layout-trans=

C++ benchmarks:

-xCORE-AVX512 -ipo -O3 -fno-prec-div -qopt-prefetch
-qopt-mem-layout-trans= -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-revF.html>
<http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-SKL-V1.6.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-revF.xml>
<http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-SKL-V1.6.xml>



SPEC CINT2006 Result

Copyright 2006-2018 Standard Performance Evaluation Corporation

Huawei

SPECint_rate2006 = Not Available

Huawei 2488H V5 (Intel Xeon Platinum 8180)

SPECint_rate_base2006 = NC

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Jun-2017

Hardware Availability: Sep-2017

Software Availability: Apr-2017

SPEC has determined that this result is not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the system was not available as required by SPEC CPU rule 1.3.2 and the SPEC Open Systems Group policy on general availability.

Non-Compliant

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.

Tested with SPEC CPU2006 v1.2.
Report generated on Tue Jan 9 17:28:20 2018 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 13 July 2017.