**SPEC® CINT2006 Result**

Supermicro
SuperServer SYS-2049U-TR4 (X11QPH+, Intel Xeon Platinum 8180)

<table>
<thead>
<tr>
<th>SPECint_rate2006</th>
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<tbody>
<tr>
<td>SPECint_rate_base2006</td>
<td>5260</td>
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</tbody>
</table>

| Test date: | Jul-2017 |
| Hardware Availability: | Jul-2017 |
| Software Availability: | Apr-2017 |

| Test sponsor: | Supermicro |
| Tested by: | Supermicro |

CPU2006 license: 001176

| 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: | 1,2,4 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 |
| Memory: | 1536 GB (48 x 32 GB 2Rx4 PC4-2666V-R) |
| Disk Subsystem: | 1 x 3.2 TB SAS3 (RAID0, 2 x 1.8TB SAS3, 10K RPM) |
| Other Hardware: | None |

Software

| Operating System: | SUSE Linux Enterprise Server 12 SP2 4.4.21-69-default |
| Compiler: | C/C++: Version 17.0.1.132 of Intel C/C++ Compiler 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 V10.2 |

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<th>Copies</th>
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<th>401.bzip2</th>
<th>403.gcc</th>
<th>429.mcf</th>
<th>445.gobmk</th>
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**SPECint_rate_base2006 = 5260**
## SPEC CINT2006 Result

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(X11QPH+, Intel Xeon Platinum 8180)

### SPEC CINT2006 Result

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</table>

### Results 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 Settings:
  - Hardware P-states = Disable
  - Intel Virtualization Technology = Disable
  - SNC = Enable
  - IMC Interleaving = 1Way Interleave
  - LLC dead line alloc = Disable
  - Stale AtoS = Enable
  - Sysinfo program /home/cpu2006/config/sysinfo.rev6993
  - Revision 6993 of 2015-11-06 (b5e8d4b4eb51ed28d7f98696cbe290c1)
  - running on linux-kepk Sat Jul 8 19:07:23 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

```markdown
model name: Intel(R) Xeon(R) Platinum 8180 CPU @ 2.50GHz
```

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info@spec.org

http://www.spec.org/
Supermicro
SuperServer SYS-2049U-TR4 (X11QPH+, Intel Xeon Platinum 8180)

SPECint_rate2006 =  Not Run
SPECint_rate_base2006 = 5260

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Platform Notes (Continued)

4 "physical id"s (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: 1583923692 kB
HugePages_Total: 0
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.

cpe_name: cpe:/o:suse:sles:12:sp2

uname -a:
(x86_64) x86_64 x86_64 GNU/Linux
run-level 3 Jul 8 18:57

SPEC is set to: /home/cpu2006
Filesystem Type Size Used Avail Use% Mounted on
/dev/sda4 ext4 3.2T 428G 2.8T 14% /home

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Platform Notes (Continued)

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. 0.9 06/22/2017
Memory:
48x Hynix HMA84GR7AFR4N-VK 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/cpu2006/lib/ia32:/home/cpu2006/lib/intel64:/home/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:
  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
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
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471.omnetpp: -D_FILE_OFFSETBITS=64
473.astar: -D_FILE_OFFSET_BITS=64

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**Base Portability Flags (Continued)**

483.xalancbmk: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX

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**Base Optimization Flags**

C benchmarks:
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch  
-qopt-mem-layout-trans=3

C++ benchmarks:
-xCORE-AVX512 -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: -Malloca=_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/Supermicro-Platform-Settings-V1.2-SKL-revA.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/Supermicro-Platform-Settings-V1.2-SKL-revA.xml

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For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.2.  
Report generated on Fri Sep 1 11:38:59 2017 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 31 August 2017.