Supermicro
SuperServer 5019S-WR
(X11SSW-F, Intel Core i3-6100TE)

SPECint\_rate2006 = 107
SPECint\_rate_base2006 = 103

CPU2006 license: 001176
Test date: Dec-2015
Test sponsor: Supermicro
Hardware Availability: Oct-2015
Tested by: Supermicro
Software Availability: Sep-2015

<table>
<thead>
<tr>
<th>SPECint_rate2006</th>
<th>SPECint_rate_base2006</th>
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<td>107</td>
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**SPECint**

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<tr>
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<tr>
<td>400.perlbench</td>
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<td>429.mcf</td>
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<td>464.h264ref</td>
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<td>471.omnetpp</td>
<td>4</td>
<td>63.1</td>
</tr>
<tr>
<td>473.astar</td>
<td>4</td>
<td>57.6</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>4</td>
<td>127</td>
</tr>
</tbody>
</table>

Hardware
- CPU Name: Intel Core i3-6100TE
- CPU Characteristics:
  - CPU MHz: 2700
  - FPU: Integrated
  - CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip, 2 threads/core
  - CPU(s) orderable: 1 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: 4 MB I+D on chip per chip
  - Other Cache: None
- Memory: 64 GB (4 x 16 GB 2Rx8 PC4-2133P-E)
- Disk Subsystem: 1 x 1000 GB SATA III, 7200 RPM
- Other Hardware: None

Software
- Operating System: Red Hat Enterprise Linux Server release 7.1, Kernel 3.10.0-229.el7.x86_64
- Compiler: C/C++: Version 15.0.0.090 of Intel C++ Studio XE for Linux
- Auto Parallel: No
- File System: xfs
- System State: Run level 3 (multi-user)
- Base Pointers: 32-bit
- Peak Pointers: 32/64-bit
- Other Software: Microquill SmartHeap V10.0
Supermicro
SuperServer 5019S-WR
(X11SSW-F, Intel Core i3-6100TE)

SPECint_rate2006 = 107
SPECint_rate_base2006 = 103

Results Table

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<td>128</td>
<td>217</td>
<td>127</td>
<td>217</td>
<td>127</td>
</tr>
</tbody>
</table>

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

Submit Notes
The taskset mechanism was used to bind copies to processors. The config file option 'submit' was used to generate taskset 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
Sysinfo program /home/cpu2006/config/sysinforev6914
$Rev: 6914 $ $Date:: 2014-06-25 $e3fbb8667b5a285932ceab81e28219e1
running on localhost.localdomain Sat Dec 26 08:45:17 2015

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) Core(TM) i3-6100TE CPU @ 2.70GHz
  1 "physical id"s (chips)
     4 "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 : 2
      siblings : 4

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SPEC CINT2006 Result

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CPU2006 license: 001176
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Test date: Dec-2015
Hardware Availability: Oct-2015
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Platform Notes (Continued)

    physical 0: cores 0 1
    cache size : 4096 KB

From /proc/meminfo
    MemTotal: 65759892 kB
    HugePages_Total: 0
    Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*
    os-release:
    NAME="Red Hat Enterprise Linux Server"
    VERSION="7.1 (Maipo)"
    ID="rhel"
    ID_LIKE="fedora"
    VERSION_ID="7.1"
    PRETTY_NAME="Red Hat Enterprise Linux Server 7.1 (Maipo)"
    ANSI_COLOR="0;31"
    CPE_NAME="cpe:/o:redhat:enterprise_linux:7.1:GA:server"
    redhat-release: Red Hat Enterprise Linux Server release 7.1 (Maipo)
    system-release: Red Hat Enterprise Linux Server release 7.1 (Maipo)

    uname -a:
    Linux localhost.localdomain 3.10.0-229.el7.x86_64 #1 SMP Thu Jan 29 18:37:38 EST 2015 x86_64 x86_64 x86_64 GNU/Linux

    run-level 3 Dec 26 02:54
    SPEC is set to: /home/cpu2006
    Filesystem            Type      Size  Used Avail Use% Mounted on
    /dev/mapper/rhel-home  xfs      865G  170G  696G  20%   /home

    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. 1.0 11/03/2015
    Memory:
    4x Samsung M391A2K43BB1-CPB 16 GB 2 rank 2133 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/libs/32:/home/cpu2006/libs/64:/home/cpu2006/sh"

    Binaries compiled on a system with 1x Core i5-4670K CPU + 16GB
    memory using RedHat EL 7.0

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SPEC CINT2006 Result

Supermicro
SuperServer 5019S-WR
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CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

General Notes (Continued)
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/transparent_hugepage/enabled

Base Compiler Invocation
C benchmarks:
icc -m32 -L/opt/intel/composer_xe_2015/lib/ia32
C++ benchmarks:
icpc -m32 -L/opt/intel/composer_xe_2015/lib/ia32

Base Portability Flags
400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags
C benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-opt-mem-layout-trans=3
C++ benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-opt-mem-layout-trans=3 -W1,-z,muldefs -L/sh -lsmartheap

Base Other Flags
C benchmarks:
403.gcc: -Dalloca=_alloca

Peak Compiler Invocation
C benchmarks (except as noted below):
icc -m32 -L/opt/intel/composer_xe_2015/lib/ia32
400.perlbench: icc -m64
401.bzip2: icc -m64

Test date: Dec-2015
Hardware Availability: Oct-2015
Software Availability: Sep-2015
## SPEC CINT2006 Result

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| SPECint_rate2006 | 107 |
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### Peak Compiler Invocation (Continued)

456.hmmer: `icc -m64`
458.sjeng: `icc -m64`

C++ benchmarks:
```
icpc -m32 -L/opt/intel/composer_xe_2015/lib/ia32
```

### 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`: `-xCORE-AVX2(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`: `-xCORE-AVX2(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`: `-xCORE-AVX2 -ipo -O3 -no-prec-div`
- `429.mcf`: `basepeak = yes`
- `445.gobmk`: `-xCORE-AVX2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)`
  `-ansi-alias -opt-mem-layout-trans=3`
- `456.hmmer`: `-xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32`
- `458.sjeng`: `-xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)`
  `-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)`
  `-unroll4 -auto-ilp32`
- `462.libquantum`: `basepeak = yes`
- `464.h264ref`: `-xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)`
  `-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)`
  `-unroll2 -ansi-alias`

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Peak Optimization Flags (Continued)

C++ benchmarks:

471.omnetpp: -xCORE-AVX2(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-ic15.0-official-linux64.html
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revG.20141230.00.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.xml
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revG.20141230.00.xml

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

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