Supermicro SuperServer 5019S-L (X11SSL-F, Intel Core i3-6100TE) SPECint\_rate\_2006 = 109
SPECint\_rate\_base2006 = 104

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

Hardware

- CPU Name: Intel Core i3-6100TE
- CPU Characteristics: 2 cores, 1 chip, 2 cores/chip, 2 threads/core
- CPU MHz: 2700
- FPU: Integrated
- CPU(s) enabled: 2 cores, 1 chip
- 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: 32 GB (4 x 8 GB 2Rx8 PC4-2133P-E)
- Disk Subsystem: 1 x 200 GB SATA III SSD
- 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 16.0.0.101 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 V10.2

Test date: Dec-2015
Hardware Availability: Oct-2015
Software Availability: Sep-2015

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

SPEC\_int\_rate\_2006 = 109
SPEC\_int\_rate\_base2006 = 104
SPEC CINT2006 Result

Supermicro
SuperServer 5019S-L
(X11SSL-F, Intel Core i3-6100TE)

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

SPECint_rate2006 = 109
SPECint_rate_base2006 = 104

Test date: Dec-2015
Hardware Availability: Oct-2015
Software Availability: Sep-2015

Results Table

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<th>Ratio</th>
<th>Seconds</th>
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<th>Seconds</th>
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<td>87.9</td>
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<td>45.6</td>
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<td>272</td>
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<td><strong>135</strong></td>
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<td><strong>68.2</strong></td>
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<td>147</td>
<td>187</td>
<td>147</td>
<td><strong>188</strong></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 /usr/cpu2006/config/sysinfo.rev6914
$Rev: 6914 $ $Date:: 2014-06-25 #$ e3fbb8667b5a285932ceab81e28219e1
running on X11SSL-01 Fri Dec 18 00:37:54 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

Continued on next page
Supermicro
SuperServer 5019S-L
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SPECint_rate2006 = 109
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CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Platform Notes (Continued)

 physical 0: cores 0 1
 cache size : 4096 KB

From /proc/meminfo
 MemTotal: 32898228 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 X11SSL-01 3.10.0-229.e17.x86_64 #1 SMP Thu Jan 29 18:37:38 EST 2015
   x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Dec 17 19:03

SPEC is set to: /usr/cpu2006
 Filesystem Type Size Used Avail Use% Mounted on
 /dev/sda2 xfs 183G 60G 123G 33% /

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. 1.0a 10/23/2015
 Memory:
   4x Micron 18ASF1G72AZ-2G1A1 8 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 = "/usr/cpu2006/libs/32:/usr/cpu2006/libs/64:/usr/cpu2006/sh"

 Binaries compiled on a system with 1x Intel Core i5-4670K CPU + 32GB
 memory using RedHat EL 7.1

Continued on next page
Supermicro
SuperServer 5019S-L
(X11SSL-F, Intel Core i3-6100TE)

SPECint_rate2006 = 109
SPECint_rate_base2006 = 104

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

Test date: Dec-2015
Hardware Availability: Oct-2015
Software Availability: Sep-2015

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/compilers_and_libraries_2016/linux/compiler/lib/ia32_lin
C++ benchmarks:
icpc -m32 -L/opt/intel/compilers_and_libraries_2016/linux/compiler/lib/ia32_lin

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
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 -opt-prefetch
C++ benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/sh -Ismartheap

Base Other Flags
C benchmarks:
403.gcc: -Dalloca=_alloca
## SPEC CINT2006 Result

**Supermicro**  
SuperServer 5019S-L  
(X11SSL-F, Intel Core i3-6100TE)

<table>
<thead>
<tr>
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**CPU2006 license**: 001176  
**Test date**: Dec-2015  
**Test sponsor**: Supermicro  
**Tested by**: Supermicro  
**Software Availability**: Sep-2015  
**Hardware Availability**: Oct-2015

### Peak Compiler Invocation

**C benchmarks** (except as noted below):

- `icc -m32 -L/opt/intel/compilers_and_libraries_2016/linux/compiler/lib/ia32_lin`
  - `400.perlbench: icc -m64`
  - `401.bzip2: icc -m64`
  - `456.hmmer: icc -m64`
  - `458.sjeng: icc -m64`

**C++ benchmarks**:

- `icpc -m32 -L/opt/intel/compilers_and_libraries_2016/linux/compiler/lib/ia32_lin`

### Peak Portability Flags

```
400.perlbench: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LP64
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 -DSPEC_CPU_LP64
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
```

### Peak Optimization Flags

**C benchmarks**:

```
400.perlbench: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -par-num-threads=1(pass 1) -prof-use(pass 2) -auto-ilp32
401.bzip2: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -par-num-threads=1(pass 1) -prof-use(pass 2) -opt-prefetch -auto-ilp32 -ansi-alias
403.gcc: -xCORE-AVX2 -ipo -O3 -no-prec-div
429.mcf: basepeak = yes
```

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Supermicro
SuperServer 5019S-L
(X11SSL-F, Intel Core i3-6100TE)

SPEC int_rate2006 = 109
SPEC int_rate_base2006 = 104

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

Test date: Dec-2015
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Peak Optimization Flags (Continued)

445.gobmk: -xCORE-AVX2(pass 2) -prof-gen:threaddsafe(pass 1)
           -prof-use(pass 2) -par-num-threads=1(pass 1) -ansi-alias

456.hmmer: -xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32

458.sjeng: -xCORE-AVX2(pass 2) -prof-gen:threaddsafe(pass 1)
           -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)
           -par-num-threads=1(pass 1) -prof-use(pass 2) -unroll4
           -auto-ilp32

462.libquantum: basepeak = yes

464.h264ref: -xCORE-AVX2(pass 2) -prof-gen:threaddsafe(pass 1)
              -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)
              -par-num-threads=1(pass 1) -prof-use(pass 2) -unroll2
              -ansi-alias

C++ benchmarks:

471.omnetpp: -xCORE-AVX2(pass 2) -prof-gen:threaddsafe(pass 1)
              -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)
              -par-num-threads=1(pass 1) -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-ic16.0-official-linux64.html
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revH.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic16.0-official-linux64.xml
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revH.xml
**Supermicro**

SuperServer 5019S-L  
(X11SSL-F, Intel Core i3-6100TE)  

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- **Test sponsor:** Supermicro
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For other inquiries, please contact webmaster@spec.org.

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