SPEC® CINT2006 Result
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Supermicro

SuperServer 5038D-I (X10SLL-F, Intel Xeon E3-1230L v3, 1.80 GHz)

$SPECint^{®}2006 =$ 46.6
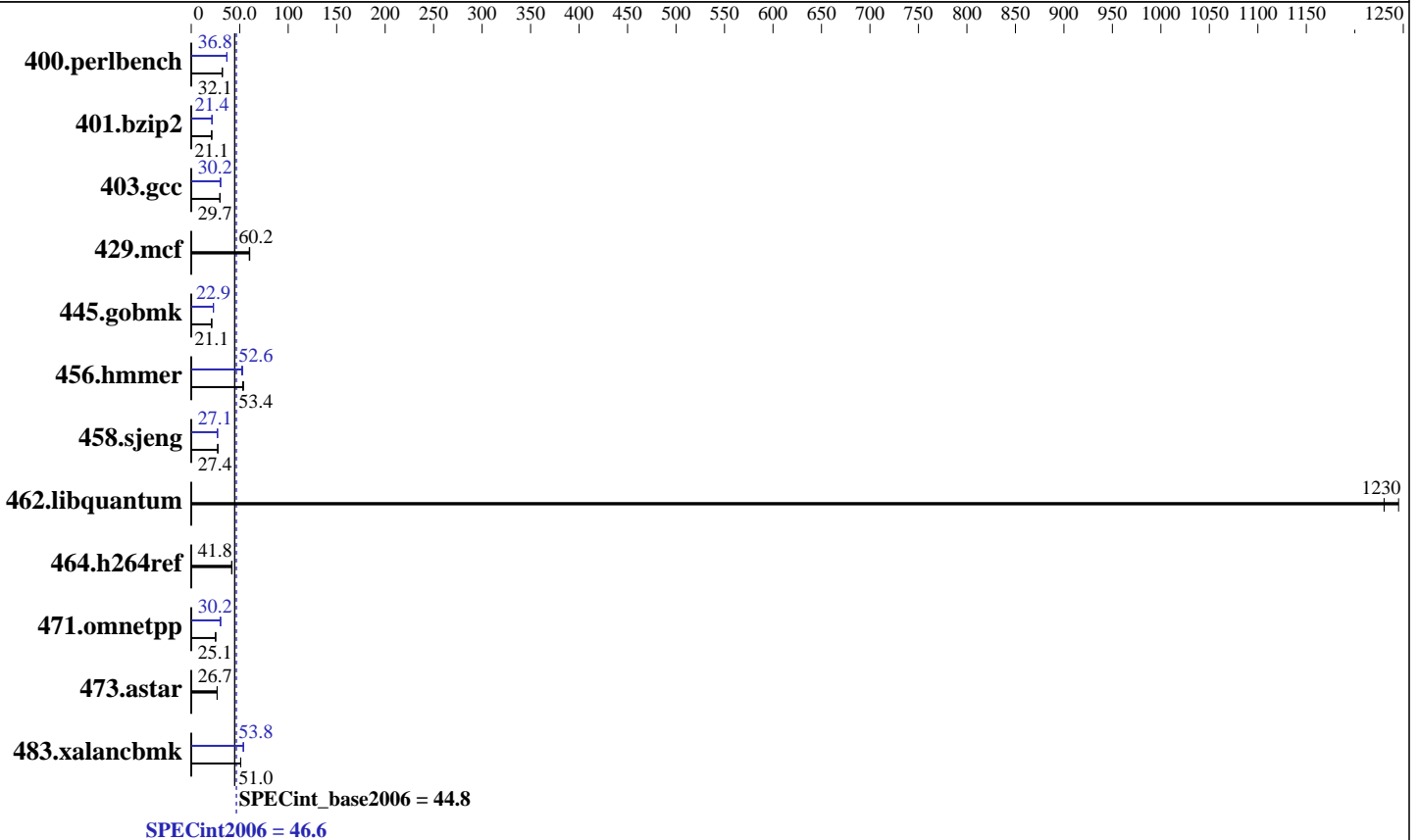
$SPECint\_base2006 =$ 44.8

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Jun-2013

Hardware Availability: Jun-2013

Software Availability: May-2013

Benchmark	Base	Peak
400.perlbench	32.1	36.8
401.bzip2	21.1	21.4
403.gcc	29.7	30.2
429.mcf	60.2	
445.gobmk	21.1	22.9
456.hmmer	53.4	52.6
458.sjeng	27.4	27.1
462.libquantum	1230	
464.h264ref	41.8	
471.omnetpp	25.1	30.2
473.astar	26.7	
483.xalancbmk	51.0	53.8

SPECint_base2006 = 44.8

SPECint2006 = 46.6

Hardware

CPU Name: Intel Xeon E3-1230L v3

CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz

CPU MHz: 1800

FPU: Integrated

CPU(s) enabled: 4 cores, 1 chip, 4 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: 8 MB I+D on chip per chip

Other Cache: None

Memory: 32 GB (4 x 8 GB 2Rx4 PC3-12800E-11, ECC)

Disk Subsystem: 1 x 250 GB SATA I, 7200 RPM

Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.4, Kernel 2.6.32-358.el6.x86_64

Compiler: C/C++: Version 13.1.1.163 of Intel C++ Studio XE for Linux

Auto Parallel: Yes

File System: ext4

System State: Run level 3 (multi-user)

Base Pointers: 32/64-bit

Peak Pointers: 32/64-bit

Other Software: Microquill SmartHeap V10.0

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Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	**305**	**32.1**	304	32.1	305	32.0	266	36.7	**265**	**36.8**	265	36.8
401.bzip2	457	21.1	457	21.1	**457**	**21.1**	450	21.4	**450**	**21.4**	450	21.5
403.gcc	272	29.6	**271**	**29.7**	271	29.7	266	30.3	**266**	**30.2**	267	30.2
429.mcf	**151**	**60.2**	152	59.9	151	60.3	**151**	**60.2**	152	59.9	151	60.3
445.gobmk	**498**	**21.1**	499	21.0	497	21.1	458	22.9	**459**	**22.9**	459	22.9
456.hmmer	173	53.9	**175**	**53.4**	176	53.1	176	53.0	179	52.1	**177**	**52.6**
458.sjeng	**442**	**27.4**	441	27.4	442	27.4	447	27.1	**447**	**27.1**	447	27.1
462.libquantum	**16.8**	**1230**	16.6	1250	16.8	1230	**16.8**	**1230**	16.6	1250	16.8	1230
464.h264ref	527	42.0	530	41.8	**530**	**41.8**	527	42.0	530	41.8	**530**	**41.8**
471.omnetpp	249	25.1	**249**	**25.1**	248	25.2	207	30.2	**207**	**30.2**	207	30.2
473.astar	262	26.8	263	26.7	**263**	**26.7**	262	26.8	263	26.7	**263**	**26.7**
483.xalancbmk	**135**	**51.0**	135	51.0	135	51.1	**128**	**53.8**	128	53.8	128	53.8

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

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

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"
OMP_NUM_THREADS = "4"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
memory using RHEL5.5
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
runspec command invoked through numactl i.e.:
numactl --interleave=all runspec <etc>

Base Compiler Invocation

C benchmarks:
    icc -m64

C++ benchmarks:
    icpc -m64

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CPU2006 license: 001176		**Test date:**	Jun-2013
Test sponsor:	Supermicro	**Hardware Availability:**	Jun-2013
Tested by:	Supermicro	**Software Availability:**	May-2013

Base Portability Flags

```
 400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
     401.bzip2: -DSPEC_CPU_LP64
       403.gcc: -DSPEC_CPU_LP64
       429.mcf: -DSPEC_CPU_LP64
    445.gobmk: -DSPEC_CPU_LP64
    456.hmmer: -DSPEC_CPU_LP64
     458.sjeng: -DSPEC_CPU_LP64
 462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
    464.h264ref: -DSPEC_CPU_LP64
   471.omnetpp: -DSPEC_CPU_LP64
      473.astar: -DSPEC_CPU_LP64
 483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
```

Base Optimization Flags

C benchmarks:

```
    -xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch -auto-p32
```

C++ benchmarks:

```
    -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32
    -Wl,-z,muldefs -L/sh -lsmartheap64
```

Base Other Flags

C benchmarks:

```
       403.gcc: -Dalloca=_alloca
```

Peak Compiler Invocation

C benchmarks (except as noted below):
```
    icc  -m64
```

```
    400.perlbench: icc -m32
```

```
      445.gobmk: icc -m32
```

C++ benchmarks (except as noted below):
```
    icpc -m32
```

```
      473.astar: icpc -m64
```

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Tested by: Supermicro		**Software Availability:**	May-2013

Peak Portability Flags

```
    400.perlbench: -DSPEC_CPU_LINUX_IA32
        401.bzip2: -DSPEC_CPU_LP64
          403.gcc: -DSPEC_CPU_LP64
          429.mcf: -DSPEC_CPU_LP64
       456.hmmer: -DSPEC_CPU_LP64
        458.sjeng: -DSPEC_CPU_LP64
    462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
      464.h264ref: -DSPEC_CPU_LP64
        473.astar: -DSPEC_CPU_LP64
    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)
               -opt-prefetch -ansi-alias

        401.bzip2: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
               -O3(pass 2) -no-prec-div -prof-use(pass 2) -auto-ilp32
               -opt-prefetch -ansi-alias

          403.gcc: -xCORE-AVX2 -ipo -O3 -no-prec-div -inline-calloc
               -opt-malloc-options=3 -auto-ilp32

          429.mcf: basepeak = yes

        445.gobmk: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
               -ansi-alias

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

        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

    462.libquantum: basepeak = yes

      464.h264ref: basepeak = yes
```

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)
               -opt-ra-region-strategy=block          -ansi-alias
               -Wl,-z,muldefs -L/sh -lsmartheap
```

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Peak Optimization Flags (Continued)

473.astar: basepeak = yes

483.xalancbmk: -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-ansi-alias -Wl,-z,muldefs -L/sh -lsmartheap

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/Supermicro-Platform-Settings-V1.2-revB.20130719.html
http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.20130702.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revB.20130719.xml
http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.20130702.xml

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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