SPEC® CFP2006 Result
Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

SuperServer 6018R-MT
(X10DRL-i , Intel Xeon E5-2667 v3)

$SPECfp^{®}2006 =$ 114
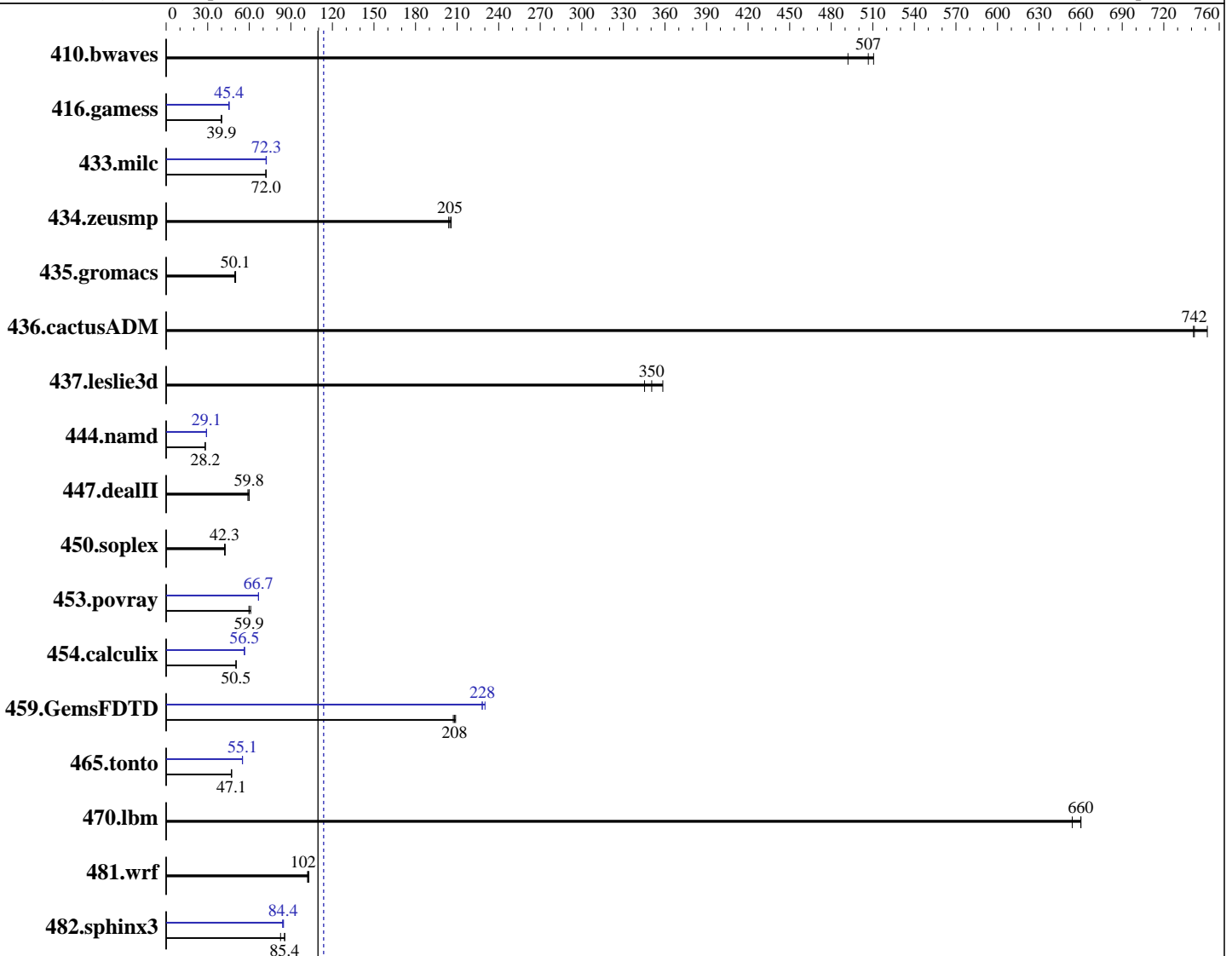
$SPECfp\_base2006 =$ 110

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

Test date: Dec-2014
Hardware Availability: Nov-2014
Software Availability: Sep-2013

Benchmark	Result
410.bwaves	507
416.gamess	45.4 / 39.9
433.milc	72.3 / 72.0
434.zeusmp	205
435.gromacs	50.1
436.cactusADM	742
437.leslie3d	350
444.namd	29.1 / 28.2
447.dealII	59.8
450.soplex	42.3
453.povray	66.7 / 59.9
454.calculix	56.5 / 50.5
459.GemsFDTD	228 / 208
465.tonto	55.1 / 47.1
470.lbm	660
481.wrf	102
482.sphinx3	84.4 / 85.4

SPECfp_base2006 = 110
SPECfp2006 = 114

Hardware

CPU Name:	Intel Xeon E5-2667 v3
CPU Characteristics:	Intel Turbo Boost Technology up to 3.60 GHz
CPU MHz:	3200
FPU:	Integrated
CPU(s) enabled:	16 cores, 2 chips, 8 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	256 KB I+D on chip per core

Continued on next page

Software

Operating System:	Red Hat Enterprise Linux Server release 6.4, Kernel 2.6.32-431.17.1.el6.x86_64
Compiler:	C/C++: Version 14.0.0.080 of Intel C++ Studio XE for Linux; Fortran: Version 14.0.0.080 of Intel Fortran Studio XE for Linux
Auto Parallel:	Yes
File System:	ext4
System State:	Run level 3 (multi-user)

Continued on next page

SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

SuperServer 6018R-MT
(X10DRL-i , Intel Xeon E5-2667 v3)

SPECfp2006 =	114
SPECfp_base2006 =	110

CPU2006 license: 001176　　　　　　　　　　　　　　　　　　　　　　　**Test date:** Dec-2014
Test sponsor: Supermicro　　　　　　　　　　　　　　　　**Hardware Availability:** Nov-2014
Tested by: Supermicro　　　　　　　　　　　　　　　　　**Software Availability:** Sep-2013

L3 Cache:	20 MB I+D on chip per chip	Base Pointers:	64-bit
Other Cache:	None	Peak Pointers:	32/64-bit
Memory:	128 GB (8 x 16 GB 2Rx4 PC4-2133P-R)	Other Software:	None
Disk Subsystem:	1 x 500 GB SATA III, 7200 RPM		
Other Hardware:	None		

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	26.6	511	27.6	492	**26.8**	**507**	26.6	511	27.6	492	**26.8**	**507**
416.gamess	490	39.9	**490**	**39.9**	490	39.9	**431**	**45.4**	433	45.2	431	45.5
433.milc	127	72.3	**127**	**72.0**	128	71.9	127	72.3	127	72.1	**127**	**72.3**
434.zeusmp	44.2	206	**44.4**	**205**	44.6	204	44.2	206	**44.4**	**205**	44.6	204
435.gromacs	**143**	**50.1**	144	49.5	142	50.2	**143**	**50.1**	144	49.5	142	50.2
436.cactusADM	15.9	751	16.1	741	**16.1**	**742**	15.9	751	16.1	741	**16.1**	**742**
437.leslie3d	26.2	358	27.2	345	**26.8**	**350**	26.2	358	27.2	345	**26.8**	**350**
444.namd	**284**	**28.2**	284	28.2	284	28.2	275	29.1	275	29.1	**275**	**29.1**
447.dealII	**191**	**59.8**	191	59.9	194	59.0	**191**	**59.8**	191	59.9	194	59.0
450.soplex	196	42.6	197	42.2	**197**	**42.3**	196	42.6	197	42.2	**197**	**42.3**
453.povray	88.9	59.9	**88.8**	**59.9**	87.1	61.1	**79.8**	**66.7**	79.9	66.6	79.8	66.7
454.calculix	**163**	**50.5**	163	50.5	163	50.5	146	56.6	146	56.5	**146**	**56.5**
459.GemsFDTD	51.2	207	**51.0**	**208**	50.8	209	**46.5**	**228**	46.5	228	46.1	230
465.tonto	208	47.3	**209**	**47.1**	209	47.1	179	55.1	179	55.0	**179**	**55.1**
470.lbm	21.0	654	20.8	660	**20.8**	**660**	21.0	654	20.8	660	**20.8**	**660**
481.wrf	**109**	**102**	109	102	108	103	**109**	**102**	109	102	108	103
482.sphinx3	236	82.6	228	85.6	**228**	**85.4**	232	84.1	**231**	**84.4**	230	84.7

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"
```

Platform Notes

```
   BIOS settings:
   Enforce POR = Disable
   Memory Frequency = 2133
   Hyper-Threading (ALL) = Disable

   Memory info from dmidecode is incorrect. There are only 8x 16GB Samsung memory DIMMs installed

    Sysinfo program /root/cpu2006/config/sysinfo.rev6818
    $Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
    running on 23-125.hnet Tue Dec 16 22:55:07 2014
```

Supermicro

SuperServer 6018R-MT
(X10DRL-i , Intel Xeon E5-2667 v3)

$SPECfp2006 =$ 114

$SPECfp\_base2006 =$ 110

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

Test date: Dec-2014
Hardware Availability: Nov-2014
Software Availability: Sep-2013

Platform Notes (Continued)

```
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) CPU E5-2667 v3 @ 3.20GHz
      2 "physical id"s (chips)
      16 "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 : 8
      siblings  : 8
      physical 0: cores 0 1 2 3 4 5 6 7
      physical 1: cores 0 1 2 3 4 5 6 7
   cache size : 20480 KB

From /proc/meminfo
   MemTotal:       132051032 kB
   HugePages_Total:        0
   Hugepagesize:        2048 kB

/usr/bin/lsb_release -d
   Red Hat Enterprise Linux Server release 6.4 (Santiago)

From /etc/*release* /etc/*version*
   redhat-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
   system-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
   system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

uname -a:
   Linux 23-125.hnet 2.6.32-431.17.1.el6.x86_64 #1 SMP Fri Apr 11 17:27:00 EDT
   2014 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Dec 16 15:20

SPEC is set to: /root/cpu2006
   Filesystem     Type     Size  Used Avail Use% Mounted on
   /dev/sda3      ext4     260G   13G  234G   6% /

Additional information from dmidecode:
  BIOS American Megatrends Inc. 1.0a 08/01/2014
  Memory:
   8x   16 GB
   8x Samsung (date:14/16) M393A2G40DB0-CPB 16 GB 2133 MHz 2 rank

(End of data from sysinfo program)
```

SPEC CFP2006 Result
Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

SuperServer 6018R-MT
(X10DRL-i , Intel Xeon E5-2667 v3)

$SPECfp2006 = $ 114

$SPECfp_base2006 = $ 110

CPU2006 license: 001176		**Test date:**	Dec-2014
Test sponsor:	Supermicro	**Hardware Availability:**	Nov-2014
Tested by:	Supermicro	**Software Availability:**	Sep-2013

General Notes

```
Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,compact,0,1"
LD_LIBRARY_PATH = "/root/cpu2006/libs/32:/root/cpu2006/libs/64:/root/cpu2006/sh"
OMP_NUM_THREADS = "16"

 Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
 memory using RedHat EL 6.4
 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

Fortran benchmarks:
    ifort -m64

Benchmarks using both Fortran and C:
    icc   -m64 ifort -m64

Base Portability Flags

```
    410.bwaves: -DSPEC_CPU_LP64
    416.gamess: -DSPEC_CPU_LP64
      433.milc: -DSPEC_CPU_LP64
    434.zeusmp: -DSPEC_CPU_LP64
   435.gromacs: -DSPEC_CPU_LP64 -nofor_main
  436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
   437.leslie3d: -DSPEC_CPU_LP64
      444.namd: -DSPEC_CPU_LP64
     447.dealII: -DSPEC_CPU_LP64
    450.soplex: -DSPEC_CPU_LP64
    453.povray: -DSPEC_CPU_LP64
   454.calculix: -DSPEC_CPU_LP64 -nofor_main
  459.GemsFDTD: -DSPEC_CPU_LP64
     465.tonto: -DSPEC_CPU_LP64
      470.lbm: -DSPEC_CPU_LP64
       481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
   482.sphinx3: -DSPEC_CPU_LP64
```

SPEC CFP2006 Result
Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

SuperServer 6018R-MT
(X10DRL-i , Intel Xeon E5-2667 v3)

$SPECfp2006 =$ 114

$SPECfp\_base2006 =$ 110

CPU2006 license: 001176		**Test date:**	Dec-2014
Test sponsor:	Supermicro	**Hardware Availability:**	Nov-2014
Tested by:	Supermicro	**Software Availability:**	Sep-2013

Base Optimization Flags

C benchmarks:
```
-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch
-ansi-alias
```

C++ benchmarks:
```
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -ansi-alias
```

Fortran benchmarks:
```
-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch
```

Benchmarks using both Fortran and C:
```
-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch
-ansi-alias
```

Peak Compiler Invocation

C benchmarks:
```
icc    -m64
```

C++ benchmarks:
```
icpc   -m64
```

Fortran benchmarks:
```
ifort -m64
```

Benchmarks using both Fortran and C:
```
icc    -m64 ifort -m64
```

Peak Portability Flags

```
Same as Base Portability Flags
```

Peak Optimization Flags

C benchmarks:

```
      433.milc: -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 -ansi-alias

      470.lbm: basepeak = yes

    482.sphinx3: -xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -ansi-alias
                -parallel
```

Continued on next page

Supermicro

SuperServer 6018R-MT
(X10DRL-i , Intel Xeon E5-2667 v3)

$SPECfp2006 =$ 114

$SPECfp\_base2006 =$ 110

CPU2006 license: 001176	**Test date:** Dec-2014
Test sponsor: Supermicro	**Hardware Availability:** Nov-2014
Tested by: Supermicro	**Software Availability:** Sep-2013

Peak Optimization Flags (Continued)

C++ benchmarks:

    444.namd: `-xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)`
           `-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)`
           `-fno-alias -auto-ilp32`

    447.dealII: basepeak = yes

    450.soplex: basepeak = yes

    453.povray: `-xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)`
           `-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll4`
           `-ansi-alias`

Fortran benchmarks:

    410.bwaves: basepeak = yes

    416.gamess: `-xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)`
           `-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2`
           `-inline-level=0 -scalar-rep-`

    434.zeusmp: basepeak = yes

    437.leslie3d: basepeak = yes

  459.GemsFDTD: `-xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)`
           `-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2`
           `-inline-level=0 -opt-prefetch -parallel`

    465.tonto: `-xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)`
           `-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)`
           `-inline-calloc -opt-malloc-options=3 -auto -unroll4`

Benchmarks using both Fortran and C:

    435.gromacs: basepeak = yes

    436.cactusADM: basepeak = yes

    454.calculix: `-xCORE-AVX2 -ipo -O3 -no-prec-div -auto-ilp32 -ansi-alias`

    481.wrf: basepeak = yes

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64.20140128.html
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revD.html

SPEC CFP2006 Result
Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

SuperServer 6018R-MT
(X10DRL-i , Intel Xeon E5-2667 v3)

$SPECfp2006 =$ 114

$SPECfp\_base2006 =$ 110

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

Test date: Dec-2014
Hardware Availability: Nov-2014
Software Availability: Sep-2013

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 Wed Jan 14 10:25:33 2015 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 13 January 2015.