SPEC® CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperServer 2026TT-HIBQRF (X8DTT-HIBQF+, Intel Xeon E5607)

$SPECfp^{®}\_rate2006 =$ 138
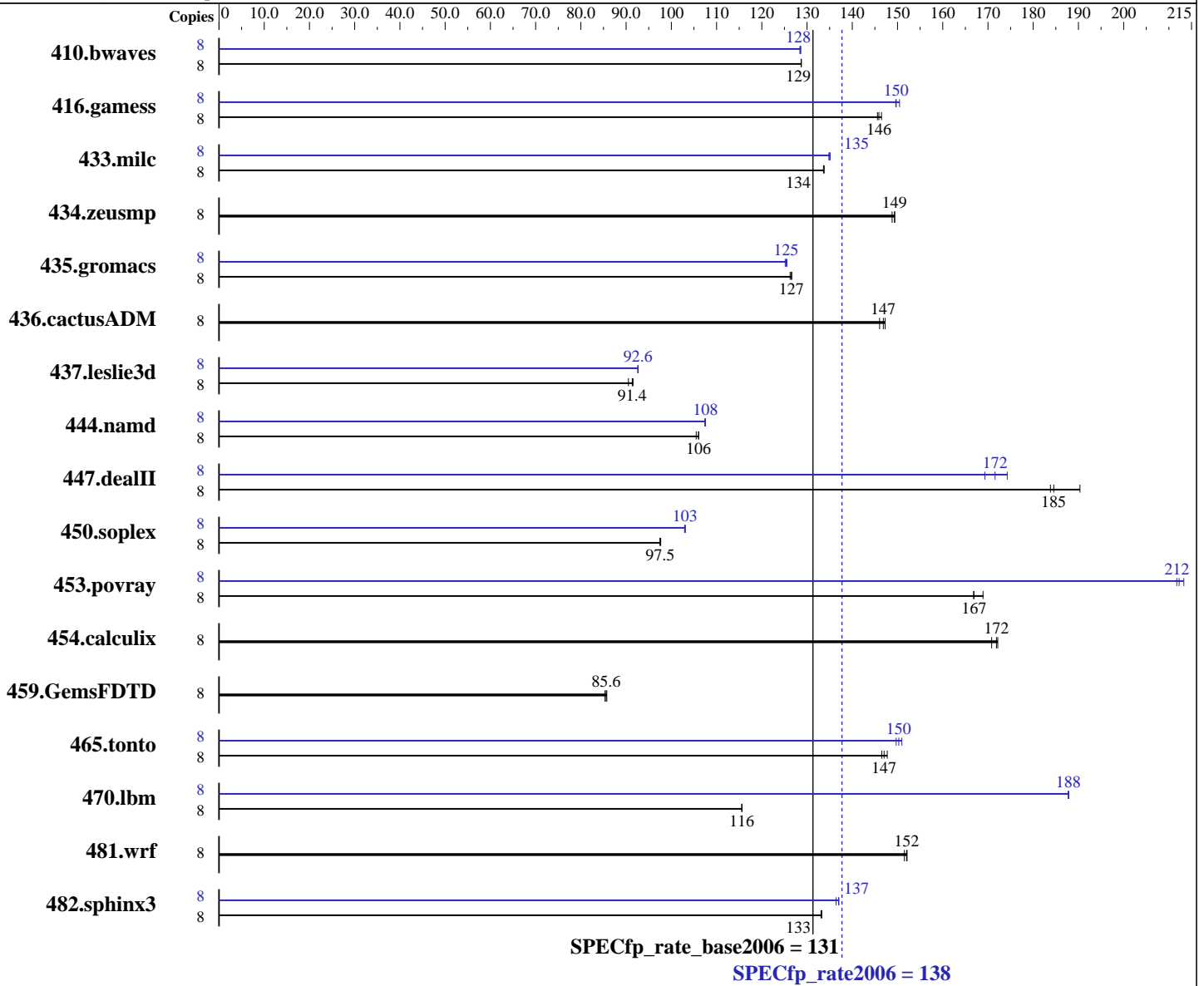
SPECfp_rate_base2006 =   131

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Apr-2011

Hardware Availability: Feb-2011

Software Availability: Jan-2011

Benchmark	Copies	Result
410.bwaves	8	128
	8	129
416.gamess	8	150
	8	146
433.milc	8	135
	8	134
434.zeusmp	8	149
435.gromacs	8	125
	8	127
436.cactusADM	8	147
437.leslie3d	8	92.6
	8	91.4
444.namd	8	108
	8	106
447.dealII	8	172
	8	185
450.soplex	8	103
	8	97.5
453.povray	8	212
	8	167
454.calculix	8	172
459.GemsFDTD	8	85.6
465.tonto	8	150
	8	147
470.lbm	8	188
	8	116
481.wrf	8	152
482.sphinx3	8	137
	8	133

SPECfp_rate_base2006 = 131

SPECfp_rate2006 = 138

Hardware

CPU Name: Intel Xeon E5607

CPU Characteristics:

CPU MHz: 2267

FPU: Integrated

CPU(s) enabled: 8 cores, 2 chips, 4 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: SUSE Linux Enterprise Server 11 (x86_64) SP1 Kernel 2.6.32.12-0.7-default

Compiler: Intel C++ and Fortran Intel 64 Compiler XE for applications running on Intel 64 Version 12.0.1.116 Build 20101116

Auto Parallel: No

File System: ext3

System State: Run level 3 (multi-user)

Base Pointers: 64-bit

Continued on next page

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperServer 2026TT-HIBQRF (X8DTT-HIBQF+, Intel Xeon E5607)

$SPECfp\_rate2006 =$ 138

$SPECfp\_rate\_base2006 =$ 131

CPU2006 license: 001176	**Test date:** Apr-2011
Test sponsor: Supermicro	**Hardware Availability:** Feb-2011
Tested by: Supermicro	**Software Availability:** Jan-2011

L3 Cache:	8 MB I+D on chip per chip	Peak Pointers:	32/64-bit
Other Cache:	None	Other Software:	None
Memory:	48 GB (12 x 4 GB 2Rx4 PC3-10600R-9, ECC, running at 1067 MHz)		
Disk Subsystem:	1 x 500 GB SATA II, 7200 RPM		
Other Hardware:	None		

Results Table

Benchmark	Base						Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	844	129	845	129	**845**	**129**	8	846	128	845	129	**846**	**128**
416.gamess	8	1076	146	**1074**	**146**	1069	146	8	1041	150	1047	150	**1046**	**150**
433.milc	8	**549**	**134**	549	134	550	134	8	545	135	544	135	**544**	**135**
434.zeusmp	8	487	149	**488**	**149**	489	149	8	487	149	**488**	**149**	489	149
435.gromacs	8	**451**	**127**	452	126	451	127	8	455	126	456	125	**456**	**125**
436.cactusADM	8	655	146	649	147	**651**	**147**	8	655	146	649	147	**651**	**147**
437.leslie3d	8	831	90.5	822	91.5	**823**	**91.4**	8	**812**	**92.6**	812	92.6	811	92.7
444.namd	8	608	105	605	106	**605**	**106**	8	597	107	**597**	**108**	597	108
447.dealII	8	481	190	498	184	**496**	**185**	8	525	174	541	169	**533**	**172**
450.soplex	8	**684**	**97.5**	683	97.7	684	97.5	8	**648**	**103**	648	103	647	103
453.povray	8	**255**	**167**	252	169	255	167	8	200	213	201	212	**201**	**212**
454.calculix	8	383	172	**384**	**172**	386	171	8	383	172	**384**	**172**	386	171
459.GemsFDTD	8	995	85.3	**992**	**85.6**	990	85.7	8	995	85.3	**992**	**85.6**	990	85.7
465.tonto	8	**535**	**147**	533	148	537	147	8	**524**	**150**	521	151	526	150
470.lbm	8	951	116	**951**	**116**	951	116	8	585	188	**585**	**188**	585	188
481.wrf	8	**588**	**152**	590	152	587	152	8	**588**	**152**	590	152	587	152
482.sphinx3	8	1170	133	1172	133	**1171**	**133**	8	1143	136	1138	137	**1138**	**137**

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

Submit Notes

```
   The config file option 'submit' was used.
    numactl was used to bind copies to the cores
```

Operating System Notes

```
    'ulimit -s unlimited' was used to set the stack size to unlimited prior to run
    Hugepages was enabled with the following:
    nodev   /mnt/hugepages   hugetlbfs  defaults   0 0' added to /etc/fstab
    echo 3600 > /proc/sys/vm/nr_hugepages
    export HUGETLB_MORECORE=yes
```

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperServer 2026TT-HIBQRF (X8DTT-HIBQF+, Intel Xeon E5607)

$SPECfp\_rate2006 =$	138
$SPECfp\_rate\_base2006 =$	131

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

Test date: Apr-2011
Hardware Availability: Feb-2011
Software Availability: Jan-2011

Platform Notes

Fan speed set to Full Speed and Data Reuse Optimization disabled in BIOS Setup.

General Notes

Binaries compiled on RHEL5.5 with binutils-2.17.50.0.6-14.el5

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
```

Base Optimization Flags

C benchmarks:
      -xSSE4.2 -ipo -O3 -no-prec-div -static -ansi-alias

Continued on next page

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperServer 2026TT-HIBQRF (X8DTT-HIBQF+, Intel Xeon E5607)

$SPECfp\_rate2006 = 138$

$SPECfp\_rate\_base2006 = 131$

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

Test date: Apr-2011
Hardware Availability: Feb-2011
Software Availability: Jan-2011

Base Optimization Flags (Continued)

C++ benchmarks:
```
-xSSE4.2 -ipo -O3 -no-prec-div -static -ansi-alias
```

Fortran benchmarks:
```
-xSSE4.2 -ipo -O3 -no-prec-div -static
```

Benchmarks using both Fortran and C:
```
-xSSE4.2 -ipo -O3 -no-prec-div -static -ansi-alias
```

Peak Compiler Invocation

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

482.sphinx3: `icc -m32`

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

450.soplex: `icpc -m32`

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

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

Peak 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
     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
```

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperServer 2026TT-HIBQRF (X8DTT-HIBQF+, Intel Xeon E5607)

$SPECfp\_rate2006 =$ 138

$SPECfp\_rate\_base2006 =$ 131

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

Test date: Apr-2011
Hardware Availability: Feb-2011
Software Availability: Jan-2011

Peak Optimization Flags

C benchmarks:

    433.milc: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
            -no-prec-div(pass 2) -prof-use(pass 2) -static -auto-ilp32

    470.lbm: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
            -no-prec-div(pass 2) -prof-use(pass 2) -opt-malloc-options=3
            -ansi-alias -opt-prefetch -static -auto-ilp32

    482.sphinx3: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2

C++ benchmarks:

    444.namd: -xSSE4.2(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: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
            -no-prec-div(pass 2) -prof-use(pass 2) -static -auto-ilp32

    450.soplex: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
            -no-prec-div(pass 2) -prof-use(pass 2) -opt-malloc-options=3
            -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

    453.povray: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
            -no-prec-div(pass 2) -prof-use(pass 2) -unroll4 -ansi-alias
            -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

Fortran benchmarks:

    410.bwaves: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
            -no-prec-div(pass 2) -prof-use(pass 2) -static

    416.gamess: -xSSE4.2(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- -static

    434.zeusmp: basepeak = yes

    437.leslie3d: -xSSE4.2 -ipo -O3 -no-prec-div
            -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

    459.GemsFDTD: basepeak = yes

    465.tonto: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
            -no-prec-div(pass 2) -prof-use(pass 2) -unroll4 -auto
            -inline-calloc -opt-malloc-options=3
            -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

Supermicro

SuperServer 2026TT-HIBQRF (X8DTT-HIBQF+, Intel Xeon E5607)

$SPECfp\_rate2006 =$ 138

$SPECfp\_rate\_base2006 =$ 131

CPU2006 license: 001176		**Test date:**	Apr-2011
Test sponsor:	Supermicro	**Hardware Availability:**	Feb-2011
Tested by:	Supermicro	**Software Availability:**	Jan-2011

Peak Optimization Flags (Continued)

Benchmarks using both Fortran and C:

435.gromacs: `-xSSE4.2`(pass 2) `-prof-gen`(pass 1) `-ipo`(pass 2) `-O3`(pass 2)
`-no-prec-div`(pass 2) `-prof-use`(pass 2) `-opt-prefetch`
`-static -auto-ilp32`

436.cactusADM: `basepeak = yes`

454.calculix: `basepeak = yes`

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-ic12.0-linux64-revB.html
http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.20110308.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.xml
http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.20110308.xml

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2006 v1.1.
Report generated on Wed Jul 23 20:59:45 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 10 May 2011.