SPEC® CFP2006 Result
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Acer Incorporated
(Test Sponsor: Acer Incorporation)

Acer AT310 F2 (Xeon E3-1220)

$SPECfp®2006 =$ 54.6

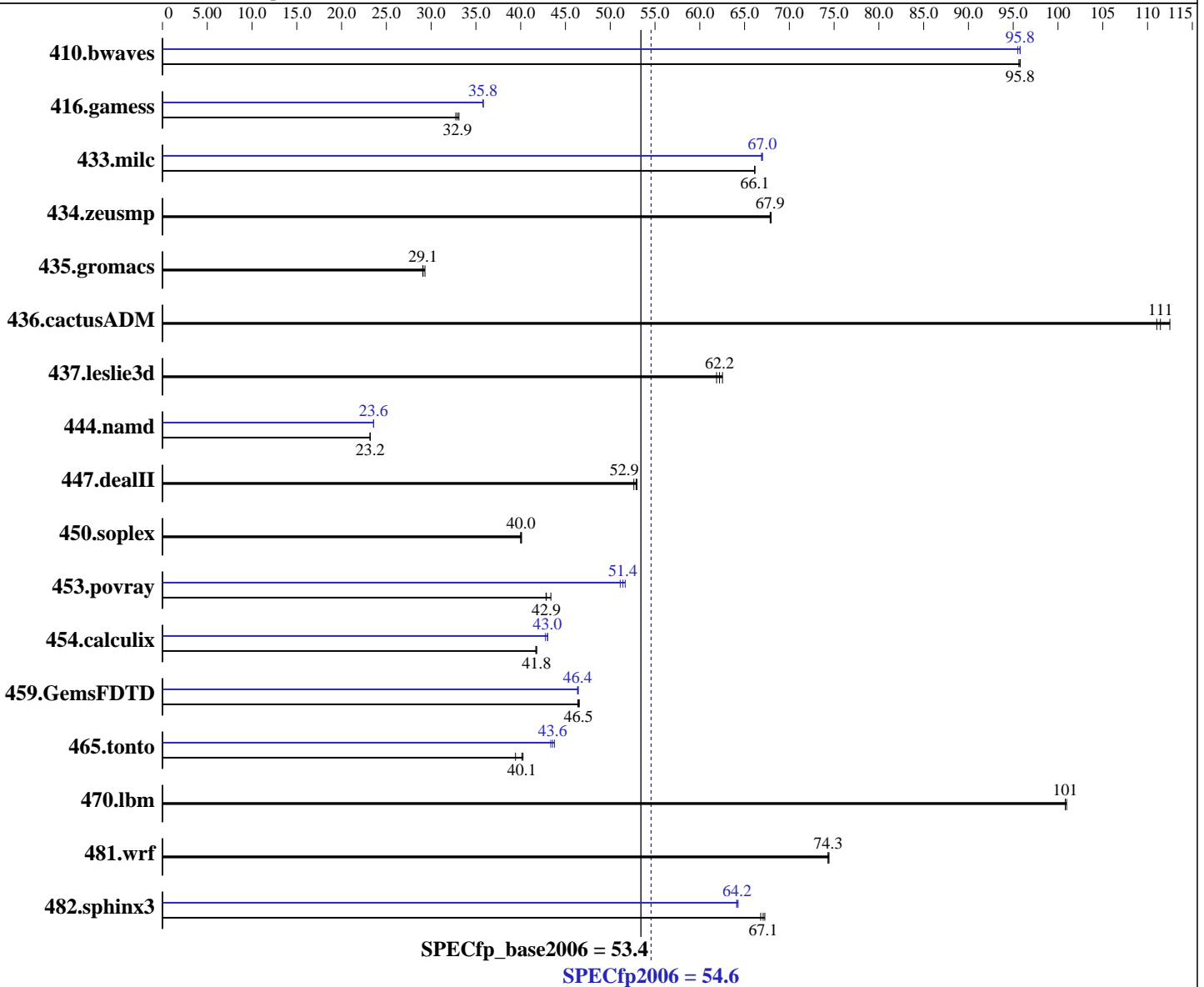$SPECfp\_base2006 =$ 53.4

CPU2006 license: 97
Test sponsor: Acer Incorporation
Tested by: Acer Incorporation

Test date: Dec-2011
Hardware Availability: Jan-2012
Software Availability: Dec-2011

SPECfp_base2006 = 53.4

SPECfp2006 = 54.6

Benchmark	base	peak
410.bwaves	95.8	95.8
416.gamess	32.9	35.8
433.milc	66.1	67.0
434.zeusmp	67.9	
435.gromacs	29.1	
436.cactusADM	111	
437.leslie3d	62.2	
444.namd	23.2	23.6
447.dealII	52.9	
450.soplex	40.0	
453.povray	42.9	51.4
454.calculix	41.8	43.0
459.GemsFDTD	46.5	46.4
465.tonto	40.1	43.6
470.lbm	101	
481.wrf	74.3	
482.sphinx3	67.1	64.2

Hardware
CPU Name: Intel Xeon E3-1220
CPU Characteristics: Intel Turbo Boost Technology up to 3.40 GHz
CPU MHz: 3100
FPU: Integrated
CPU(s) enabled: 4 cores, 1 chip, 4 cores/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
Continued on next page

Software
Operating System: Red Hat Enterprise Linux Server release 6.1
Kernel 2.6.32-131.0.15.el6.x86_64-default
Compiler: C/C++: Version 12.1.0.225 of Intel C++ Studio XE for Linux;
Fortran: Version 12.1.0.225 of Intel Fortran Studio XE for Linux
Auto Parallel: Yes
File System: ext3
System State: Run level 3 (multi-user)
Continued on next page

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L3 Cache:	8 MB I+D on chip per chip
Other Cache:	None
Memory:	8 GB (2 x 4 GB 2Rx8 PC3-10600E-9,ECC)
Disk Subsystem:	1 x 250 GB SATA, 7200 RPM
Other Hardware:	None

Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	Microquill SmartHeap V9.01

Results Table

Benchmark	Base Seconds	Base Ratio	Base Seconds	Base Ratio	Base Seconds	Base Ratio	Peak Seconds	Peak Ratio	Peak Seconds	Peak Ratio	Peak Seconds	Peak Ratio
410.bwaves	**142**	**95.8**	142	95.6	142	95.8	142	95.8	**142**	**95.8**	142	95.5
416.gamess	591	33.1	**594**	**32.9**	598	32.8	547	35.8	**547**	**35.8**	546	35.8
433.milc	139	66.1	139	66.1	**139**	**66.1**	137	66.9	137	67.0	**137**	**67.0**
434.zeusmp	134	67.9	**134**	**67.9**	134	68.0	134	67.9	**134**	**67.9**	134	68.0
435.gromacs	246	29.1	244	29.3	**245**	**29.1**	246	29.1	244	29.3	**245**	**29.1**
436.cactusADM	108	111	**107**	**111**	106	112	108	111	**107**	**111**	106	112
437.leslie3d	150	62.5	**151**	**62.2**	152	61.9	150	62.5	**151**	**62.2**	152	61.9
444.namd	346	23.2	**346**	**23.2**	346	23.2	340	23.6	**340**	**23.6**	340	23.6
447.dealII	217	52.6	**216**	**52.9**	216	53.0	217	52.6	**216**	**52.9**	216	53.0
450.soplex	209	40.0	**208**	**40.0**	208	40.1	209	40.0	**208**	**40.0**	208	40.1
453.povray	124	42.8	123	43.4	**124**	**42.9**	103	51.7	**103**	**51.4**	104	51.1
454.calculix	198	41.7	**197**	**41.8**	197	41.8	**192**	**43.0**	192	43.0	193	42.8
459.GemsFDTD	228	46.5	**228**	**46.5**	229	46.4	229	46.4	228	46.4	**229**	**46.4**
465.tonto	244	40.3	250	39.4	**245**	**40.1**	**226**	**43.6**	225	43.8	227	43.4
470.lbm	**136**	**101**	136	101	136	101	**136**	**101**	136	101	136	101
481.wrf	150	74.4	150	74.3	**150**	**74.3**	150	74.4	150	74.3	**150**	**74.3**
482.sphinx3	**291**	**67.1**	290	67.3	292	66.8	303	64.3	304	64.1	**304**	**64.2**

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

Operating System Notes

    Large pages were disabled for this run.

General Notes

    Binaries compiled on RHEL5.5

Base Compiler Invocation

C benchmarks:
    icc   -m64

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Base Compiler Invocation (Continued)

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:
    -xAVX -ipo -O3 -no-prec-div -static -parallel -opt-prefetch
    -ansi-alias

C++ benchmarks:
    -xAVX -ipo -O3 -no-prec-div -static -opt-prefetch -ansi-alias

Fortran benchmarks:
    -xAVX -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Benchmarks using both Fortran and C:
    -xAVX -ipo -O3 -no-prec-div -static -parallel -opt-prefetch
    -ansi-alias

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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: `-xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)`
> `-no-prec-div(pass 2) -prof-use(pass 2) -static -auto-ilp32`
> `-ansi-alias`

> 470.lbm: `basepeak = yes`

> 482.sphinx3: `-xAVX -ipo -O3 -no-prec-div -unroll2 -ansi-alias`
> `-parallel`

C++ benchmarks:

> 444.namd: `-xAVX(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: `-xAVX(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: `-xAVX -ipo -O3 -no-prec-div -opt-prefetch -parallel`
> `-static`

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Peak Optimization Flags (Continued)

416.gamess: -xAVX(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: basepeak = yes

459.GemsFDTD: -xAVX(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: -xAVX(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: -xAVX -ipo -O3 -no-prec-div -auto-ilp32 -ansi-alias

481.wrf: basepeak = yes

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml

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

Tested with SPEC CPU2006 v1.2.
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