SPEC® CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Tyan
(Test Sponsor: Advanced Micro Devices)

Tyan Thunder n4250QE (S4985E), AMD Opteron 8350

SPECfp®_rate2006 = NA

SPECfp_rate_base2006 = NA

CPU2006 license: 49
Test sponsor: Advanced Micro Devices
Tested by: Advanced Micro Devices

Test date: Aug-2007
Hardware Availability: Oct-2007
Software Availability: Oct-2007

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the SPEC OSG requirements for continued availability.

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

Not Available

SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Tyan
(Test Sponsor: Advanced Micro Devices)

Tyan Thunder n4250QE (S4985E), AMD Opteron 8350

SPECfp_rate2006 = NA

SPECfp_rate_base2006 = NA

CPU2006 license: 49
Test sponsor: Advanced Micro Devices
Tested by: Advanced Micro Devices

Test date: Aug-2007
Hardware Availability: Oct-2007
Software Availability: Oct-2007

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the SPEC OSG requirements for continued availability.

Not Available

Hardware

CPU Name:	AMD Opteron 8350
CPU Characteristics:	
CPU MHz:	2000
FPU:	Integrated
CPU(s) enabled:	16 cores, 4 chips, 4 cores/chip
CPU(s) orderable:	1 to 4 chips
Primary Cache:	64 KB I + 64 KB D on chip per core
Secondary Cache:	512 KB I+D on chip per core
L3 Cache:	2 MB I+D on chip per chip
Other Cache:	None
Memory:	32 GB (16x2GB, DDR2-667 CL5 Reg ECC)
Disk Subsystem:	SATA, 250 GB, 7200 RPM
Other Hardware:	None

Software

Operating System:	SUSE Linux Enterprise Server 10 SP1 64-bit kernel
Compiler:	The Portland Group (PGI) PGI pgf90 7.1-0 Fortran Compiler PGI pgcc 7.1-0 C Compiler QLogic PathScale Compiler Suite PathScale pathf95 3.0 Fortran Compiler PathScale pathcc 3.0 C Compiler PathScale pathCC 3.0 C++ Compiler
Auto Parallel:	No
File System:	ReiserFS
System State:	Multi-user, run level 3
Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	none

SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Tyan
(Test Sponsor: Advanced Micro Devices)

Tyan Thunder n4250QE (S4985E), AMD Opteron 8350

SPECfp_rate2006 = NA

SPECfp_rate_base2006 = NA

CPU2006 license: 49
Test sponsor: Advanced Micro Devices
Tested by: Advanced Micro Devices

Test date: Aug-2007
Hardware Availability: Oct-2007
Software Availability: Oct-2007

Not Available

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the SPEC OSG requirements for continued availability.

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	16	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA
416.gamess	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
433.milc	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
434.zeusmp	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
435.gromacs	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
436.cactusADM	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
437.leslie3d	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
444.namd	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
447.dealII	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
450.soplex	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
453.povray	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
454.calculix	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
459.GemsFDTD	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
465.tonto	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
470.lbm	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
481.wrf	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
482.sphinx3	16	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA

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

Operating System Notes

```
'ulimit -s unlimited' was used to set environment stack size
'ulimit -l 4915200' was used to set environment locked pages in memory quantity
'numactl' was used to bind copies to the cores
Set vm/nr_hugepages=2400 in /etc/sysctl.conf
mount -t hugetlbfs nodev /mnt/hugepages
Environment variable PGI_HUGE_PAGES set to 150
```

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the SPEC OSG requirements for continued availability.

Not Available

General Notes

```
The tested system can be assembled using an
EMACS PSL-6701P-SATA 700-Watt 12V power supply.
```

Base Compiler Invocation

C benchmarks:
pgcc

C++ benchmarks:
pgcpp

Fortran benchmarks:
pgf95

Benchmarks using both Fortran and C:
pgcc pgf95

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 -Mnomain
436.cactusADM: -DSPEC_CPU_LP64 -Mnomain
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 -Mnomain
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 has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the SPEC OSG requirements for continued availability.

Not Available

Base Optimization Flags

C benchmarks:
```
-fast -Mipa=fast -Mipa=inline -Mfprelaxed -Msmartalloc=huge:448
-tp barcelona-64 -Bstatic_pgi
```

C++ benchmarks:
```
-fast -Mipa=fast -Mipa=inline -Mfprelaxed -Msmartalloc=huge:448
--zc_eh -tp barcelona-64 -Bstatic_pgi
```

Fortran benchmarks:
```
-fast -Mipa=fast -Mipa=inline -Mfprelaxed -Msmartalloc=huge:448
-tp barcelona-64 -Bstatic_pgi
```

Benchmarks using both Fortran and C:
```
-fast -Mipa=fast -Mipa=inline -Mfprelaxed -Msmartalloc=huge:448
-tp barcelona-64 -Bstatic_pgi
```

Base Other Flags

C benchmarks:
```
-w
```

C++ benchmarks:
```
-w
```

Fortran benchmarks:
```
-w
```

Benchmarks using both Fortran and C:
```
-w
```

Peak Compiler Invocation

C benchmarks (except as noted below):
```
pathcc
```

Continued on next page

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the SPEC OSG requirements for continued availability.

Not Available

Peak Compiler Invocation (Continued)

433.milc: `pgcc`

C++ benchmarks (except as noted below):
`pathCC`

444.namd: `pgcpp`

453.povray: `pgcpp`

Fortran benchmarks (except as noted below):
`pathf95`

434.zeusmp: `pgf95`

465.tonto: `pgf95`

Benchmarks using both Fortran and C (except as noted below):
`pgcc pgf95`

436.cactusADM: `pathcc pathf95`

Peak Portability Flags

410.bwaves: `-DSPEC_CPU_LP64`
416.gamess: `-DSPEC_CPU_LP64`
[illegible]: `-DSPEC_CPU_LP64`
434.zeusmp: `-DSPEC_CPU_LP64`
435.gromacs: `-DSPEC_CPU_LP64 -Mnomain`
436.cactusADM: `-DSPEC_CPU_LP64 -fno-second-underscore`
437.leslie3d: `-DSPEC_CPU_LP64`
444.namd: `-DSPEC_CPU_LP64`
453.povray: `-DSPEC_CPU_LP64`
454.calculix: `-DSPEC_CPU_LP64 -Mnomain`
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`

Continued on next page

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the SPEC OSG requirements for continued availability.

Not Available

Peak Portability Flags (Continued)

482.sphinx3: -DSPEC_CPU_LP64

Peak Optimization Flags

C benchmarks:

433.milc: -Mpfi(pass 1) -Mipa=fast(pass 2) -Mipa=inline(pass 2) -Mipa=noarg(pass 2) -Mpfo -fast -O4 -Mdse -Mfprelaxed -Msmartalloc=huge:448 -tp barcelona-64 -Bstatic_pgi

470.lbm: -Ofast

482.sphinx3: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -O3 -OPT:Ofast -WOPT:aggstr=0 -m32

C++ benchmarks:

444.namd: -fast -Mfprelaxed -Msmartalloc=huge:448 --zc_eh -tp barcelona-64 -Mnodepchk -Mprefetch -Msafe_lastval -Msafeptr=static -Mstride0 -Munroll=n:4 -Mvect=noidiom -Mvect=prefetch -Bstatic_pgi

447.dealII: -Ofast -INLINE:aggressive=on -OPT:malloc_alg=1 -m32 -fno-exceptions

450.soplex: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -m32 -O3 -OPT:IEEE_arith=3 -CG:load_exe=0 -CG:movnti=1 -LNO:minvariant=off -LNO:prefetch=1 -fno-exceptions

453.povray: basepeak = yes

Fortran benchmarks:

410.bwaves: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -O3 -OPT:Ofast -OPT:IEEE_arith=3 -LNO:blocking=off -LNO:ignore_feedback=off

Continued on next page

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the SPEC OSG requirements for continued availability.

Not Available

Peak Optimization Flags (Continued)

416.gamess: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -O2
-OPT:Ofast -OPT:ro=3 -OPT:unroll_size=256

434.zeusmp: basepeak = yes

437.leslie3d: -Ofast -OPT:malloc_alg=1

459.GemsFDTD: -Ofast -LNO:fission=2 -LNO:prefetch=0

465.tonto: -fast -O4 -Mprerelaxed -Msmartalloc=huge:448 -Mipa=fast
-Mipa=inline -Mvect=noaltcode -tp barcelona-64 -Bstatic_pgi

Benchmarks using both Fortran and C:

435.gromacs: -fast -Mfpapprox=rsqrt -Mipa=fast -Mipa=inline -Mfprelaxed
-Msmartalloc=huge:448 -tp barcelona-64 -Bstatic_pgi

436.cactusADM: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -O3
-LNO:prefetch=3 -LNO:prefetch_ahead=5 -LNO:ou_prod_max=10
-LNO:full_unroll=5 -ipa

454.calculix: basepeak = yes

481.wrf: -fast -Mprerelaxed -Msmartalloc=huge:448 -Mvect=noaltcode
-tp barcelona-64 -Bstatic_pgi

Peak Other Flags

C benchmarks:

433.milc: -w

C++ benchmarks (except as noted below):
-w

447.dealII: -static

Continued on next page

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the SPEC OSG requirements for continued availability.

Peak Other Flags (Continued)

450.soplex: `No flags used`

Fortran benchmarks:

434.zeusmp: `-w`

465.tonto: `-w`

Benchmarks using both Fortran and C (except as noted below):
`-w`

436.cactusADM: `No flags used`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/amd814GH-flags.20090714.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/amd814GH-flags.20090714.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 v1.0.
Report generated on Tue Sep 13 11:28:46 2016 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 4 September 2007.

Not Available