



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Fujitsu Siemens Computers
CELSIUS V810, Opteron (TM) 252, Linux 64-bit

SPECfp_rate2000 = 46.8
SPECfp_rate_base2000 = 42.5

SPEC license #: 22 | Tested by: Fujitsu Siemens Computers | Test date: Feb-2005 | Hardware Avail: Mar-2005 | Software Avail: Jan-2005

| Benchmark | Base Copies | Base Runtime | Base Ratio | Copies | Runtime | Ratio |
|--------------|-------------|--------------|------------|--------|---------|-------|
| 168.wupwise | 2 | 66.5 | 55.8 | 2 | 55.9 | 66.4 |
| 171.swim | 2 | 123 | 58.3 | 2 | 121 | 59.6 |
| 172.mgrid | 2 | 106 | 39.4 | 2 | 97.2 | 43.0 |
| 173.applu | 2 | 124 | 39.3 | 2 | 105 | 46.5 |
| 177.mesa | 2 | 70.8 | 45.9 | 2 | 66.0 | 49.2 |
| 178.galgel | 2 | 98.7 | 68.2 | 2 | 91.4 | 73.6 |
| 179.art | 2 | 130 | 46.6 | 2 | 75.2 | 80.2 |
| 183.equake | 2 | 79.8 | 37.8 | 2 | 75.6 | 39.9 |
| 187.facerec | 2 | 88.2 | 50.0 | 2 | 86.3 | 51.1 |
| 188.amp | 2 | 151 | 33.9 | 2 | 140 | 36.4 |
| 189.lucas | 2 | 94.7 | 49.0 | 2 | 94.6 | 49.1 |
| 191.fma3d | 2 | 132 | 36.8 | 2 | 131 | 37.1 |
| 200.sixtrack | 2 | 132 | 19.3 | 2 | 130 | 19.7 |
| 301.apsi | 2 | 159 | 37.9 | 2 | 152 | 39.7 |

Hardware

CPU: AMD Opteron (TM) 252
 CPU MHz: 2600
 FPU: Integrated
 CPU(s) enabled: 2 cores, 2 chips, 1 core/chip
 CPU(s) orderable: 1,2
 Parallel: No
 Primary Cache: 64KBI + 64KBD on chip
 Secondary Cache: 1024KB(I+D) on chip
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 4 x 512 MB PC3200 CL3-3-3 DDR SDRAM
 Disk Subsystem: S-ATA 7200 rpm
 Other Hardware: None

Software

Operating System: SuSE Linux 9.1 (AMD64) 2.6.4-52-smp
 Compiler: PathScale EKOPath (TM) Compiler Suite, Release 2.0
 - (both for C and Fortran)
 ACML (AMD Core Math Library) for AMD64, Version 2.1
 - available from AMD
 File System: Linux/ReiserFS
 System State: Multi-user SuSE Run level 3

Notes/Tuning Information

Tested by Fujitsu Siemens Computers

+FDO: PASS1= -fb_create fbdata PASS2= -fb_opt fbdata
 +ACML: -lacml -lg2c
 for linking with AMD Core Math Library, Version 2.1.0
 (ACML requires g2c, the Fortran Compatibility Library;
 g2c comes with GNU Fortran compiler in SuSE's distribution)

Portability Flags:
 178.galgel: -fixedform

Baseline optimization flags:
 C programs: -Ofast -WOPT:mem_opnds=on +FDO
 Fortran programs: -Ofast -LNO:fusion=2 -OPT:fast_complex +FDO

Peak tuning:
 168.wupwise: -Ofast -LNO:prefetch Ahead=5:prefetch=3



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Fujitsu Siemens Computers
CELSIUS V810, Opteron (TM) 252, Linux 64-bit

SPECfp_rate2000 = 46.8
SPECfp_rate_base2000 = 42.5

SPEC license #: 22 | Tested by: Fujitsu Siemens Computers | Test date: Feb-2005 | Hardware Avail: Mar-2005 | Software Avail: Jan-2005

Notes/Tuning Information (Continued)

```

-OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
-TENV:X=4
-IPA:space=1000:linear=on:plimit=50000:callee_limit=5000
-INLINE:aggressive=on
171.swim: -Ofast -LNO:fusion=2 -m3dnow
172.mgrid: -O3 -LNO:fusion=2:blocking=off
-OPT:Ofast:unroll_times_max=8:unroll_size=256:ro=3
-CG:gcm=off:cflow=off -m3dnow
173.applu: -Ofast -CG:local_fwd_sched=on
-LNO:fusion=2:fission=2:full_unroll_size=10000:prefetch=3
-OPT:ro=3 -TENV:X=3 -WOPT:val=2
177.mesa: -O2 -ipa -OPT:Ofast -fno-math-errno
-CG:local_fwd_sched=on +FDO
178.galgel: -Ofast -OPT:fast_complex -CG:use_movlpd=on +FDO +ACML
179.art: -O3 -OPT:ro=2:div_split=on:alias=typed -fno-math-errno -m32
183.earthquake: -Ofast -WOPT:mem_opnds=on -m32
187.facerec: -Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3
-CG:load_exe=0 -LNO:fusion=2 -IPA:plimit=1500 +FDO
188.ammp: -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
-fno-math-errno -TENV:X=4 +FDO
189.lucas: -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 +FDO
191.fma3d: -O2 -ipa -CG:load_exe=1 -OPT:Ofast:IEEE_arith=3:ro=3
-WOPT:mem_opnds=on:retype_expr=on -IPA:pu_reorder=1 +FDO
200.sixtrack: -O3 -OPT:Ofast:Olimit=6000 -fno-math-errno
-CG:load_exe=1 +FDO
301.apsi: -Ofast -TENV:X=4 -LNO:fusion=2:prefetch=0

```

BIOS Version 1.06, default settings except:

ECC memory checking enabled

For information about Fujitsu Siemens Computers in your country please see:

<http://www.fujitsu-siemens.com/countries>