CFP2000 Result

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Advanced Micro Devices

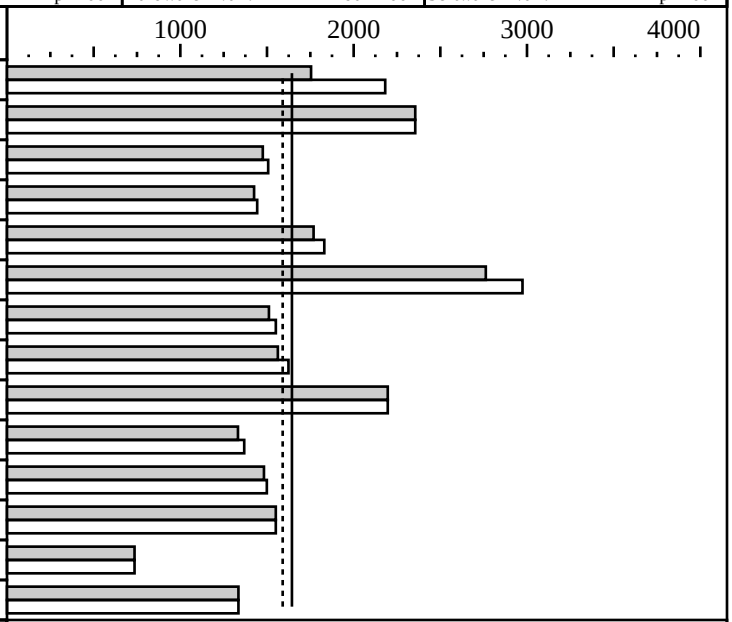
ASUS SK8V Motherboard, AMD Opteron (TM) 150

SPECfp2000 = 1644

SPECfp_base2000 = 1591

SPEC license #: 49 | Tested by: AMD, Austin, TX | Test date: Apr-2004 | Hardware Avail: Jun-2004 | Software Avail: Apr-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	91.2	1754	73.3	2182
171.swim	3100	132	2355	132	2355
172.mgrid	1800	122	1476	119	1507
173.applu	2100	147	1425	145	1443
177.mesa	1400	79.2	1769	76.5	1831
178.galgel	2900	105	2762	97.5	2974
179.art	2600	172	1511	168	1551
183.equake	1300	83.2	1563	80.1	1624
187.facerec	1900	86.5	2197	86.5	2197
188.ammp	2200	165	1333	161	1369
189.lucas	2000	135	1482	133	1499
191.fma3d	2100	135	1551	135	1551
200.sixtrack	1100	149	736	149	736
301.apsi	2600	195	1335	195	1335



Hardware

CPU:	AMD Opteron (TM) 150
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB(I+D) on chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	2x512 MB PC3200 DDR SDRAM ECC Reg CL2
Disk Subsystem:	IDE, Western Digital WD2000
Other Hardware:	None

Software

Operating System:	SuSE Linux 8.0 SLES 64 bit (SP3)
Compiler:	PGI Fortran 5.1-3 SuSE gcc33 optional compiler (from SLES8 SP3) AMD Core Math Library (Version 1.5) for AMD64
File System:	Linux/ext3
System State:	Multi-user SuSE Run level 3

Notes/Tuning Information

```
+FDO: PASS1=-fprofile-arcs PASS2=-fbranch-probabilities
+ACML is linking with AMD Core Math Library
pgf90 is the PGI Fortran compiler
gcc is the SuSE optional gcc 3.3 compiler (from SLES8 SP3)
Portability:
                PORTABILITY=-DSPEC_CPU2000_LP64 is applied to all the C benchmarks.
  178.galgel:    -Mfixed
Baseline: C      gcc   -O3 -funroll-all-loops +FDO
Baseline: Fortran pgf90 -fastsse  -Mipa=fast
Peak tuning:
  168.wupwise:   pgf90 -fastsse -Mipa=fast -Minline=levels:2
  171.swim:      basepeak=true
  172.mgrid:     pgf90 -fast -Mipa=fast
  173.applu:     pgf90 -fast -Mipa=fast
  177.mesa:      gcc   -O3 -funroll-all-loops -finline-limit=2000 +FDO
  178.galgel:    pgf90 -fastsse -O3 -mp RM_SOURCES=lapak.f90 +ACML
  179.art:       gcc   -O3 -funroll-all-loops -ffast-math -finline-limit=1500 +FDO
```

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Notes/Tuning Information (Continued)

```
     183.equake:     gcc   -O3 -funroll-all-loops -ffast-math -finline-limit=2000
     187.facerec:    basepeak=true
     188.ammp:       gcc   -O3 -funroll-all-loops -ffast-math -finline-limit=2000 +FDO
     189.lucas:      pgf90 -fastsse -Mipa=fast -Mnosmart
     191.fma3d:      basepeak=true
     200.sixtrack:   basepeak=true
     301.apsi:       basepeak=true
   ONESTEP is used for all base and peak runs
BIOS rev.: 1001
 Memory used is Corsair CMX512R-3200C2.
Cas Latency manually set to 2.0 in BIOS
```