CFP2000 Result

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Advanced Micro Devices

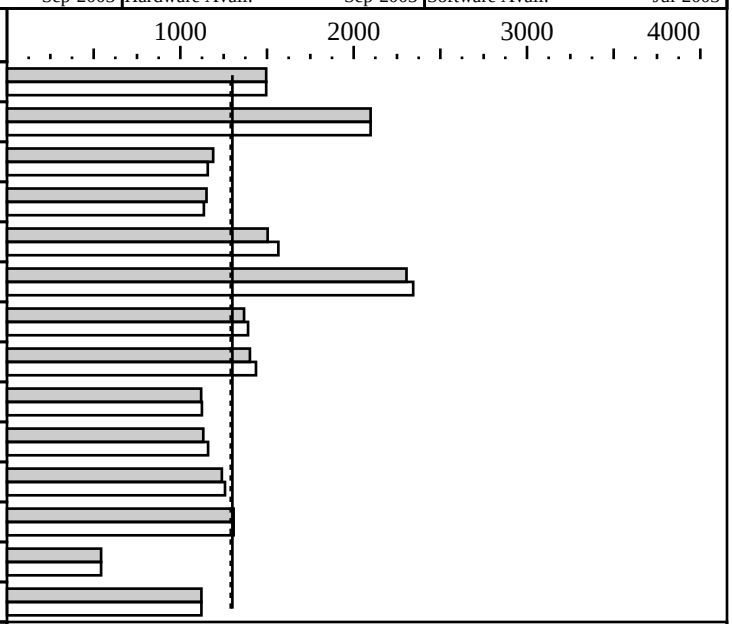
ASUS SK8N Motherboard, AMD Opteron (TM) 146

SPECfp2000 = 1300

SPECfp_base2000 = 1291

SPEC license #: 49 | Tested by: AMD, Austin, TX | Test date: Sep-2003 | Hardware Avail: Sep-2003 | Software Avail: Jul-2003

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	107	1495	107	1495
171.swim	3100	148	2098	148	2098
172.mgrid	1800	151	1189	155	1158
173.applu	2100	182	1151	185	1136
177.mesa	1400	93.1	1504	89.4	1566
178.galgel	2900	126	2305	124	2343
179.art	2600	190	1368	187	1391
183.equake	1300	92.8	1401	90.5	1436
187.facerec	1900	170	1120	169	1124
188.ammp	2200	194	1132	190	1160
189.lucas	2000	161	1240	159	1258
191.fma3d	2100	161	1308	161	1308
200.sixtrack	1100	203	543	203	543
301.apsi	2600	232	1122	232	1122



Hardware

CPU:	AMD Opteron (TM) 146
CPU MHz:	2000
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:	2x512MB PC3200 DDR ECC Registered SDRAM CL2.5
Disk Subsystem:	IDE, Western Digital WD1200JB, 120 GB
Other Hardware:	None

Software

Operating System:	SuSE Linux Enterprise Server for AMD 64 8.0 Kernel 2.4.19-249 (SP2)
Compiler:	PGI Fortran 5.0-2 and SuSE gcc33 optional compiler (20030312)
File System:	Linux/Ext3
System State:	Multi-user SuSE Run level 3

Notes/Tuning Information

```
+FDO: PASS1=-fprofile-arcs PASS2=-fbranch-probabilities
pgf90 is the PGI Fortran compiler
gcc is the SuSE optional gcc 3.3 compiler (from SLES8 SP2)
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:   basepeak=true
  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 -Mipa=fast -O3
  179.art:       gcc -O3 -funroll-all-loops -ffast-math -finline-limit=1500 +FDO
  183.equake:    gcc -O3 -funroll-all-loops -ffast-math -finline-limit=2000
```

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Notes/Tuning Information (Continued)

```
  187.facerec:    pgf90 -fastsse -Mipa=fast -O3
  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
ECC on, ECC scrubbing off, ACPI disabled at boot time
with kernel option "acpi=off"
```