CFP2000 Result

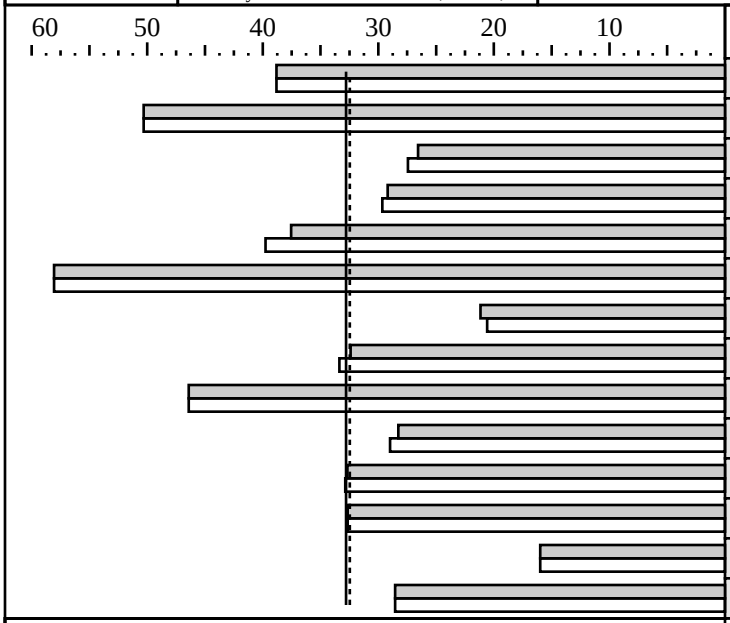
Advanced Micro Devices

Rioworks HDAMA Motherboard, AMD Opteron (TM) 248

SPECfp_rate2000 = 32.8

SPECfp_rate_base2000 = 32.5

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	95.7	38.8	2	95.7	38.8
171.swim	2	143	50.3	2	143	50.3
172.mgrid	2	157	26.6	2	152	27.4
173.applu	2	167	29.2	2	164	29.6
177.mesa	2	86.5	37.5	2	81.7	39.8
178.galgel	2	116	58.1	2	116	58.1
179.art	2	285	21.2	2	293	20.6
183.equake	2	93.1	32.4	2	90.4	33.4
187.facerec	2	95.0	46.4	2	95.0	46.4
188.ammp	2	181	28.3	2	176	29.0
189.lucas	2	142	32.7	2	141	32.9
191.fma3d	2	149	32.6	2	149	32.6
200.sixtrack	2	160	16.0	2	160	16.0
301.apsi	2	211	28.5	2	211	28.5

Hardware

CPU:	AMD Opteron (TM) 248
CPU MHz:	2200
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 chips, 1 core/chip
CPU(s) orderable:	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 512MB PC3200 DDR SDRAM, ECC Registered
Disk Subsystem:	Seagate Cheetah ST336753LW SCSI, Ultra 320
Other Hardware:	None

Software

Operating System:	SuSE Linux 8.0 SLES 64 bit Kernel 2.4.19 (SP2)
Compiler:	PGI Fortran 5.1-0 and SuSE gcc33 optional compiler (from SLES8 SP2)
File System:	Linux/ext3
System State:	Multi-user SuSE Run level 3

Notes/Tuning Information

```
Tested by Advanced Micro Devices
  +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:   basepeak=true
    179.art:       gcc -O3 -funroll-all-loops -ffast-math -finline-limit=1500 +FDO
```

Notes/Tuning Information (Continued)

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    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
The tested system can be assembled using an ATX case such as the Antec KS-282,
a 480W power supply, and a PCI or AGP video card.
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