CFP2000 Result

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Advanced Micro Devices

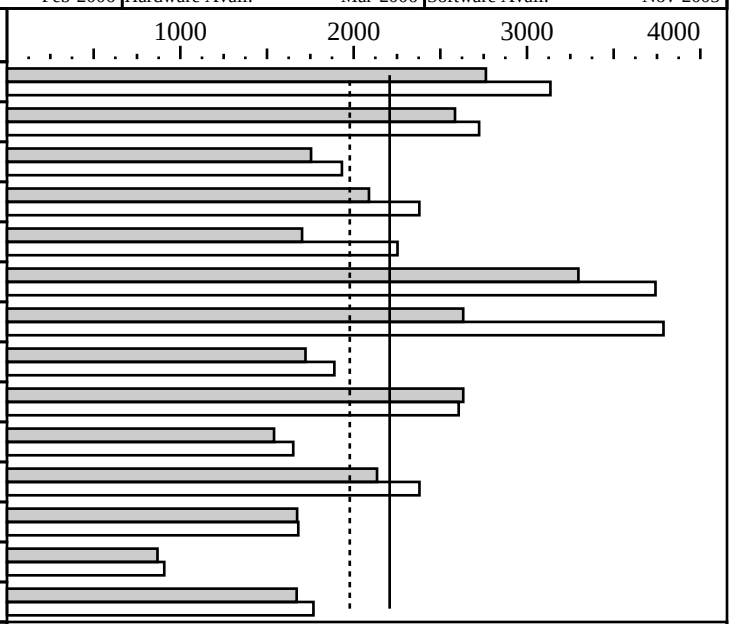
TYAN Tomcat K8E (S2865), AMD Opteron(TM) 185

SPECfp2000 = 2208

SPECfp_base2000 = 1978

SPEC license #: 49 | Tested by: AMD Austin, Texas | Test date: Feb-2006 | Hardware Avail: Mar-2006 | Software Avail: Nov-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	57.9	2763	51.0	3135
171.swim	3100	120	2585	114	2724
172.mgrid	1800	103	1754	93.2	1932
173.applu	2100	101	2088	88.3	2379
177.mesa	1400	82.2	1702	62.1	2253
178.galgel	2900	88.0	3297	77.5	3741
179.art	2600	98.8	2632	68.6	3788
183.equake	1300	75.5	1722	68.8	1889
187.facerec	1900	72.2	2632	72.9	2606
188.ammp	2200	143	1541	133	1651
189.lucas	2000	93.7	2135	84.0	2380
191.fma3d	2100	125	1674	125	1680
200.sixtrack	1100	127	868	121	907
301.apsi	2600	156	1671	147	1768



Hardware

CPU:	AMD Opteron(TM) 185 (939-pin)
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 2 cores/chip
CPU(s) orderable:	1
Parallel:	No
Primary Cache:	64KBI + 64KBD (on chip) per core
Secondary Cache:	1024KB (I+D) (on chip) per core
L3 Cache:	N/A
Other Cache:	N/A
Memory:	2x512MB, DDR400 CL2
Disk Subsystem:	SATA, 250 GB
Other Hardware:	None

Software

Operating System:	SuSE Linux Enterprise Server 9 SP3 (64-bit) Uniprocessor Kernel
Compiler:	PathScale EKOPath(TM) Compiler Suite, Release 2.3
File System:	Linux/ext3
System State:	Multi-user, run level 3

Notes/Tuning Information

```
  +FDO: PASS1= -fb_create fbdata  PASS2= -fb_opt fbdata
  +ACML  means -L<acml2.7.0-install-dir>/pathscale64/lib -lacml,
         which causes linking with AMD Core Math Library V2.7.0

  Baseline optimization
    C programs:       -Ofast -WOPT:mem_opnds=on +FDO
    Fortran programs: -Ofast -LNO:fusion=2 -OPT:fast_complex=on +FDO
  Portability Flags:
    178.galgel: -fixedform

 Peak Tuning:
  168.wupwise:  -Ofast -LNO:prefetch_ahead=5:prefetch=3
                -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
                -IPA:linear=on:plimit=50000:callee_limit=5000
                -INLINE:aggressive=on
  171.swim:     -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 -m3dnow
```

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Notes/Tuning Information (Continued)

```
172.mgrid:    -Ofast -CG:gcm=off -OPT:IEEE_arith=3:unroll_size=200
              -LNO:fusion=2:fission=1:blocking=off:prefetch_ahead=2
              -WOPT:mem_opnds=on:aggstr=0
173.applu:    -Ofast -CG:local_fwd_sched=on -OPT:ro=3 -TENV:X=3
              -LNO:fusion=2:fission=2:full_unroll_size=10000 +FDO
177.mesa:    -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on -WOPT:mem_opnds=on +FDO
178.galgel:   -Ofast -OPT:fast_complex=on +ACML +FDO
               RM_SOURCES=lapak.f90
179.art:      -O3 -OPT:Ofast -fno-math-errno -mno-sse2 -m32
183.equake:   -Ofast -CG:load_exe=2 -WOPT:mem_opnds=on -m32 +FDO
187.facerec:  -Ofast -LNO:fusion=2
              -OPT:fast_complex=on:IEEE_NaN_Inf=off:unroll_size=0 +FDO
188.ammp:     -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
              -fno-math-errno -TENV:X=4 +FDO
189.lucas:    -Ofast -OPT:ro=3:fast_nint=off:unroll_size=256 -WOPT:mem_opnds=on +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:early_intrinsics=on
              -fno-math-errno -CG:load_exe=1 +FDO
301.apsi:     -Ofast -CG:load_exe=0 -LNO:prefetch=0:simd=2

Corsair CMX512-3200XL memory used in Dual Channel configuration.
Memory timings manually set in BIOS: Command Rate=1T
BIOS rev 3.01
The tested system can be assembled using a standard ATX case and an Antec True 550
watt EPS12V Power Supply.
```