



CFP2000 Result

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Advanced Micro Devices

MSI K8N Neo2 Platinum Motherboard, AMD Athlon (TM) 64 FX-55

SPECfp2000 = 1878

SPECfp_base2000 = 1695

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
168.wupwise	1600	83.6	1915	70.7	2262	
171.swim	3100	134	2320	135	2303	
172.mgrid	1800	112	1606	102	1763	
173.applu	2100	120	1754	105	2005	
177.mesa	1400	88.9	1575	64.4	2174	
178.galgel	2900	101	2874	91.8	3159	
179.art	2600	141	1848	100	2597	
183.earth	1300	82.8	1570	82.8	1570	
187.facerec	1900	94.8	2004	88.0	2160	
188.amp	2200	144	1532	137	1607	
189.lucas	2000	126	1583	112	1788	
191.fma3d	2100	136	1542	132	1586	
200.sixtrack	1100	139	792	138	795	
301.apsi	2600	157	1661	155	1677	

Hardware

CPU: AMD Athlon (TM) 64 FX-55 (ADAFX55DEI5AS)
CPU MHz: 2600
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 CL2.0
Disk Subsystem: IDE, Western Digital WD1200
Other Hardware: None

Software

Operating System: SuSE Linux Enterprise Server for AMD64 (SP3)
Compiler: PathScale EKO Compiler Suite, Release 1.3
File System: Linux/ext3
System State: Multi-user SuSE Run level 3

Notes/Tuning Information

```
+FDO: PASS1= -fb_create fbdata PASS2= -fb_opt fbdata
+ACML is linking with AMD Core Math Library
```

Baseline optimization

```
C programs: -Ofast -WOPT:mem_opnds=on +FDO
Fortran programs: -Ofast -LNO:fusion=2
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 -TENV:X=4
-IPA:space=1000:linear=on:plimit=50000:callee_limit=5000
-INLINE:aggressive=on
171.swim: -Ofast -LNO:fusion=2:prefetch=2
```



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Notes/Tuning Information (Continued)

```

172.mgrid:  -O3 -LNO:fusion=2:blocking=off:prefetch=2
             -OPT:Ofast:unroll_times_max=8:unroll_size=256:ro=3
             -CG:gcm=off:cflow=off
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:load_exe=0:use_movlpd=on +ACML
179.art:     -O3 -OPT:ro=2:div_split=on:alias=typed -fno-math-errno -m32 +FDO
183.earthquake: basepeak = true
187.facerec: -Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3 -CG:load_exe=0
             -LNO:fusion=2:prefetch=0 +FDO -IPA:plimit=1800
188.ammp:    -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3 -LNO:prefetch=0
             -fno-math-errno -TENV:X=4 +FDO
189.lucas:   -Ofast -CG:prefetch=off:load_exe=2:local_fwd_sched
             -TENV:X=4 -WOPT:retype_expr=on +FDO
191.fma3d:   -O2 -ipa -WOPT:mem_opnds=on:retype_expr=on -OPT:Ofast:IEEE_arith=3:ro=3
             +FDO -IPA:pu_reorder=1
200.sixtrack:= -Ofast +FDO
301.apsi:    -Ofast -TENV:X=4 -LNO:fusion=2:prefetch=0

```

The tested system can be assembled using an ATX case such as the Antec P160, a 550W power supply such as the Antec True Power 550, and a PCI or AGP video card. BIOS rev. v1.3

High Performance defaults set in BIOS

Memory timings manually set in BIOS: CAS=2.0, TRCD=2, TRAS=5, TRP=2

Dynamic Overclocking Disabled in BIOS

Memory used is Corsair CMX512-3200XLP, configured in dual channel mode