



CFP2000 Result

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Advanced Micro Devices
TYAN Thunder K8SD Pro (S2882-D), AMD Opteron (TM) 256

SPECfp2000 = 2365
SPECfp_base2000 = 2122

SPEC license #: 49 Tested by: AMD Austin, Texas Test date: Mar-2006 Hardware Avail: Apr-2006 Software Avail: Jan-2006

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	1000 2000 3000 4000			
168.wupwise	1600	53.4	2996	47.9	3343	[Bar chart showing ratio 3343]			
171.swim	3100	120	2586	115	2705	[Bar chart showing ratio 2705]			
172.mgrid	1800	96.2	1871	88.8	2027	[Bar chart showing ratio 2027]			
173.applu	2100	94.2	2229	81.6	2572	[Bar chart showing ratio 2572]			
177.mesa	1400	71.4	1961	54.2	2581	[Bar chart showing ratio 2581]			
178.galgel	2900	82.5	3516	73.0	3970	[Bar chart showing ratio 3970]			
179.art	2600	95.4	2724	65.4	3975	[Bar chart showing ratio 3975]			
183.quake	1300	72.6	1792	66.2	1963	[Bar chart showing ratio 1963]			
187.facerec	1900	67.7	2806	67.8	2804	[Bar chart showing ratio 2804]			
188.amp	2200	128	1719	120	1836	[Bar chart showing ratio 1836]			
189.lucas	2000	93.7	2134	84.5	2367	[Bar chart showing ratio 2367]			
191.fma3d	2100	116	1807	116	1817	[Bar chart showing ratio 1817]			
200.sixtrack	1100	110	998	105	1043	[Bar chart showing ratio 1043]			
301.apsi	2600	140	1861	132	1970	[Bar chart showing ratio 1970]			

Hardware

CPU: AMD Opteron (TM) 256
CPU MHz: 3000
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 1-2
Parallel: No
Primary Cache: 64KBI + 64KBD on chip
Secondary Cache: 1024KB (I+D) on chip
L3 Cache: N/A
Other Cache: N/A
Memory: 2x512MB, DDR400 CL2 ECC Reg
Disk Subsystem: SATA, 250 GB
Other Hardware: None

Software

Operating System: SuSE Linux Enterprise Server 9 SP3 (64-bit)
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)

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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.quake: -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 CMX512RE-3200LL (XMS3200REv2.1) memory used in Dual Channel configuration.
 BIOS rev 3.06
 The tested system can be assembled using a standard ATX case and an Antec True 550
 watt EPS12V Power Supply.
 Single-processor kernel (2.6.5-7.244-default) was used.