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

SPEC license #: 49
Tested by: AMD Austin, Texas
Test date: Mar-2006

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

SPECfp2000 = 2365
SPECfp_base2000 = 2122

Notes/Tuning Information (Continued)

-LNO:fusion=2:fission=1:blocking=off:prefetch_ahead=2
-WOPT:mem_opnds=on:aggstr=0
173.aplu: -Ofast -CG:local_fwd_sched=on -OPT:ro=3 -TENV:X=3
-LNO:fusion=2:fission=2:full_unroll_size=10000 +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.facrece: -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
-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.