



CFP2000 Result

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Advanced Micro Devices

Tyan Thunder K9HM (S3992), AMD Opteron (TM) 2210

SPECfp_rate2000 = 16.9

SPECfp_rate_base2000 = 15.6

SPEC license #: 49 | Tested by: AMD Austin, TX | Test date: Jul-2006 | Hardware Avail: Sep-2006 | Software Avail: Oct-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	1	78.5	23.6	1	78.2	23.7
171.swim	1	141	25.5	1	150	24.0
172.mgrid	1	150	14.0	1	150	13.9
173.applu	1	172	14.1	1	168	14.5
177.mesa	1	197	8.24	1	97.4	16.7
178.galgel	1	131	25.7	1	119	28.2
179.art	1	73.8	40.9	1	73.8	40.9
183.quake	1	95.3	15.8	1	93.3	16.2
187.facerec	1	127	17.4	1	127	17.4
188.amp	1	252	10.1	1	218	11.7
189.lucas	1	132	17.6	1	115	20.3
191.fma3d	1	178	13.7	1	176	13.8
200.sixtrack	1	200	6.37	1	200	6.38
301.apsi	1	253	11.9	1	254	11.9

Hardware

CPU: AMD Opteron (TM) 2210
 CPU MHz: 1800
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip
 CPU(s) orderable: 1,2
 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: 4x512MB, DDR2-667 CL4 ECC Reg
 Disk Subsystem: IDE, 120 GB
 Other Hardware: None

Software

Operating System: Windows Server 2003 Enterprise Edition SP1 (32-bit)
 Compiler: Intel C++ 9.0 build 20050912Z for IA32, Intel Fortran 9.0 build 20050912Z for IA32, Microsoft Visual Studio .NET 7.0.9466 (libraries) PGI Fortran compiler 6.0-5 for Windows XP, PGI C compiler 6.0-5 for Windows XP, ACML Version 2.5.3 (bundled with PGI 6.0-5)
 File System: NTFS
 System State: default

Notes/Tuning Information

+FDO:
 icl, ifort : PASS1=-Qprof_gen PASS2=-Qprof_use
 pgf90 : PASS1=-Mpfi PASS2=-Mpfo
 ifort is the Intel Fortran compiler, icl is the Intel C++ compiler and pgf90 is the PGI Fortran 90 compiler.
 pgcc is the PGI C compiler.
 ONESTEP is set to 1 for every compile with the PGI compilers.
 Portability:
 178.galgel: -Mfixed
 Baseline: C : pgcc -fastsse -Mipa=fast,inline
 Baseline: Fortran: pgf90 -fastsse -Mipa=fast,inline +FDO
 Peak tuning:
 168.wupwise: pgf90 -fastsse -Mipa=fast,inline -Mvect
 171.swim: ifort -Qipo -O3 -QaxN -QxW -Qunroll0 +FDO
 172.mgrid: pgf90 -fastsse -Mipa=fast,inline
 173.applu: ifort -Qipo -O3 -QaxN -QxW -auto +FDO
 177.mesa: icl -Qipo -QxW -Qunroll1 -Qansi_alias +FDO



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Notes/Tuning Information (Continued)

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-Qoption,c,-ip_ninl_max_stats=1500,-ip_ninl_max_total_stats=4500
178.galgel:      pgf90  -fastsse -Mipa=fast,safe -Munix -lacml
                  RM_SOURCES=lapak.f90
179.art:         pgcc   basepeak=yes
183.quake:      icl    -O3 -Qipo -QxW +FDO
187.facerec:    pgf90  basepeak=1
188.amp:        icl    -Oa  -QxW  -Zp4 -Qansi_alias
189.lucas:      ifort  -Qipo -QxW -Qunroll1
191.fma3d:      pgf90  -Mipa=fast,inline -fastsse -Mnovect +FDO
200.sixtrack:   pgf90  -fastsse -Mipa=fast,inline
301.apsi:       pgf90  -fastsse -Mipa=fast,inline
system can be built using a standard ATX case and a Zippy 700W PSL-6701P power supply
Half memory slots populated on CPU in dual channel configuration

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