



CFP2000 Result

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Advanced Micro Devices
Tyan Thunder K9HM (S3992), AMD Opteron (TM) 2210

SPECfp_rate2000 = 61.5
SPECfp_rate_base2000 = 56.4

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	4	82.7	89.8	4	83.0	89.4
171.swim	4	208	69.3	4	194	74.2
172.mgrid	4	160	52.4	4	159	52.4
173.applu	4	195	49.9	4	184	52.9
177.mesa	4	200	32.5	4	98.0	66.3
178.galgel	4	143	94.4	4	132	102
179.art	4	87.6	138	4	87.6	138
183.equake	4	113	53.6	4	109	55.3
187.facerec	4	142	62.3	4	142	62.3
188.amp	4	261	39.1	4	223	45.9
189.lucas	4	146	63.4	4	133	69.8
191.fma3d	4	198	49.1	4	194	50.1
200.sixtrack	4	202	25.3	4	201	25.4
301.apsi	4	259	46.6	4	260	46.5

Hardware

CPU: AMD Opteron (TM) 2210
 CPU MHz: 1800
 FPU: Integrated
 CPU(s) enabled: 4 cores, 2 chips, 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: 8x512MB, 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)

-Qoption,c,-ip_ninl_max_stats=1500,-ip_ninl_max_total_stats=4500

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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.ampp:      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 all CPUs in dual channel configuration
'start /b /wait /affinity' command is used to bind CPU(s) to processes