



CFP2000 Result

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Advanced Micro Devices
Tyan Thunder K8QS Pro (S4882), AMD Opteron (TM) 850

SPECfp2000 = **1531**
SPECfp_base2000 = **1492**

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	1000 2000 3000 4000			
168.wupwise	1600	75.5	2121	75.5	2121	[Bar chart showing ratio 2121]			
171.swim	3100	142	2182	142	2182	[Bar chart showing ratio 2182]			
172.mgrid	1800	150	1201	150	1201	[Bar chart showing ratio 1201]			
173.applu	2100	170	1237	170	1237	[Bar chart showing ratio 1237]			
177.mesa	1400	81.6	1715	76.0	1841	[Bar chart showing ratio 1841]			
178.galgel	2900	122	2378	115	2518	[Bar chart showing ratio 2518]			
179.art	2600	144	1808	144	1808	[Bar chart showing ratio 1808]			
183.quake	1300	90.3	1439	90.3	1439	[Bar chart showing ratio 1439]			
187.facerec	1900	118	1613	118	1613	[Bar chart showing ratio 1613]			
188.ampp	2200	192	1149	174	1264	[Bar chart showing ratio 1264]			
189.lucas	2000	121	1658	118	1694	[Bar chart showing ratio 1694]			
191.fma3d	2100	164	1278	147	1429	[Bar chart showing ratio 1429]			
200.sixtrack	1100	159	693	159	693	[Bar chart showing ratio 693]			
301.apsi	2600	190	1366	190	1367	[Bar chart showing ratio 1367]			

Hardware

CPU: AMD Opteron (TM) 850
CPU MHz: 2400
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 4
Parallel: No
Primary Cache: 64KBI + 64KBD on chip
Secondary Cache: 1024KB(I+D) on chip
L3 Cache: N/A
Other Cache: N/A
Memory: 4x512 MB PC3200 CL3.0 ECC Registered
Disk Subsystem: SCSI, Seagate Cheetah ST336753LW
Ultra 320, 15K rpm
Other Hardware: None

Software

Operating System: Microsoft Windows Server 2003, Enterprise Edition
Compiler: Intel C++ 8.0 build 20040611Z, Intel Fortran 8.0 build 20040519Z, PGI Fortran compiler 5.2-1 for Windows XP, AMD Core Math library Version 2.0 (ACML), Microsoft Visual Studio .NET 7.0.9466 (libraries), MicroQuill Smartheap Library 7.0
File System: NTFS
System State: Default

Notes/Tuning Information

Tested by Advanced Micro Devices
+FDO: PASS1=-Qprof_gen PASS2=-Qprof_use
+ACML is the AMD Core Math Library V2.0
ONESTEP is set for all peak runs.
ifort is the Intel Fortran compiler, icl is the Intel C++ compiler and
pgf90 is the PGI Fortran compiler.
Portability:
178.galgel: -Mfixed
Baseline: C : icl -fast -arch:SSE2 -QaxW +FDO
Baseline: Fortran: pgf90 -fastsse -Mipa=fast,inline
Peak tuning:
168.wupwise: pgf90 basepeak=yes
171.swim: ifort basepeak=yes
172.mgrid: pgf90 basepeak=yes
173.applu: pgf90 basepeak=yes
177.mesa: icl -Qipo -arch:SSE2 +FDO -Qunroll1 -Qansi_alias



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Notes/Tuning Information (Continued)

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-Qoption,f,-ip_ninl_max_stats=1500,-ip_ninl_max_total_stats=4500
179.art:          icl  basepeak=yes
183.quake:       icl  basepeak=yes
178.galgel:      pgf90 -fastsse -Mipa=fast,safe -mp RM_SOURCES=lapak.f90 -Munix +ACML
187.facerec:     pgf90 basepeak=yes
188.ammp:        icl  -Oa  -arch:SSE2 -Zp4          -Qansi_alias
189.lucas:       ifort          -QxW          -Qunroll1
191.fma3d:       ifort -fast          -QxW  +FDO -Qscalar_rep-
-Qoption,f,-ip_ninl_max_stats=1000,-ip_ninl_max_total_stats=3500
200.sixtrack:   pgf90 basepeak=yes
301.apsi:       pgf90 -fastsse -Mipa=fast,align
BIOS rev. 1.02
All memory slots populated on CPU0
The tested system can be assembled using an SSI MEB footprint case, such as the CCSI RC0352 3U
rackmount case, and a Tyan recommended 650W EPS-12V power supply, such as the Enermax
660W power supply (PEG851AX-VH)
Physical Address Extension (PAE) enabled

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