CFP2000 Result

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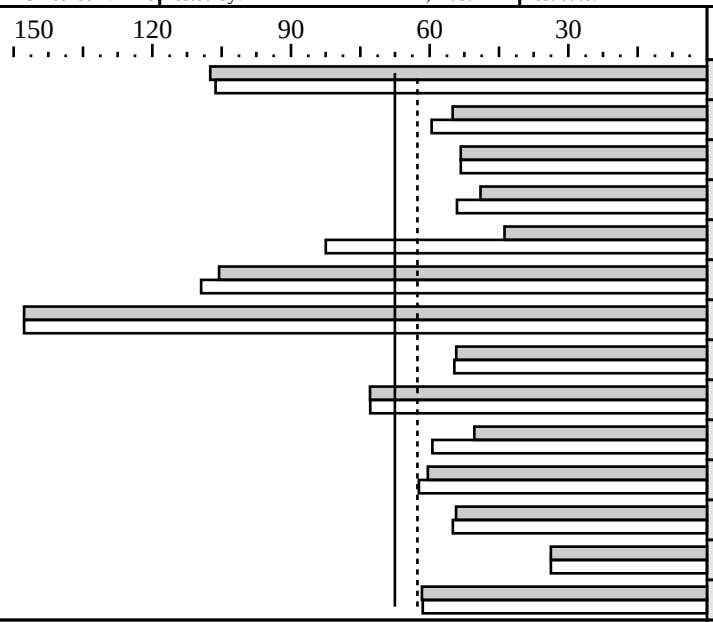
Advanced Micro Devices

TYAN Thunder K8QSD Pro (S4882-D), AMD Opteron (TM) 280

SPECfp_rate2000 = 67.5

SPECfp_rate_base2000 = 62.6

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	69.1	107	4	69.8	106
171.swim	4	261	55.0	4	241	59.6
172.mgrid	4	157	53.3	4	157	53.3
173.applu	4	199	49.0	4	180	54.1
177.mesa	4	148	43.8	4	78.8	82.5
178.galgel	4	127	106	4	123	109
179.art	4	81.7	148	4	81.7	148
183.equake	4	111	54.3	4	110	54.7
187.facerec	4	121	72.9	4	121	72.9
188.ammp	4	203	50.3	4	172	59.4
189.lucas	4	154	60.4	4	149	62.3
191.fma3d	4	180	54.3	4	177	55.0
200.sixtrack	4	151	33.8	4	151	33.8
301.apsi	4	196	61.7	4	196	61.5

Hardware

CPU:	AMD Opteron (TM) 280
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1-2
Parallel:	no
Primary Cache:	64KBI + 64KBD/core
Secondary Cache:	1024KB (I+D)/core
L3 Cache:	N/A
Other Cache:	N/A
Memory:	8x512 MB, DDR400 ECC Reg CL2
Disk Subsystem:	SATA, Western Digital WD740GD, 74 GB 10000 RPM
Other Hardware:	None

Software

Operating System:	Microsoft Windows Server 2003 Enterprise Edition SP1
Compiler:	Intel C++ 9.0 build 20050430z for IA32, Intel Fortran 9.0 build 20050430z for IA32, PGI Fortran compiler 6.0-4 for Windows XP, PGI C compiler 6.0-4 for Windows XP, ACML Version 2.5.3 (bundled with PGI 6.0-4) Microsoft Visual Studio .NET 7.0.9466 (libraries)
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 -Mnovect
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
```

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Notes/Tuning Information (Continued)

```
 177.mesa:           icl     -Qipo -arch:SSE2 -Qunroll1 -Qansi_alias +FDO
                          -Qoption,f,-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.equake:         icl     -fast -arch:SSE2 -QaxW +FDO
 187.facerec:        pgf90   -fastsse -Mipa=fast,inline +FDO
 188.ammp:           icl     -Oa   -arch:SSE2  -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
The system under test can be built using a SSI MEB case and
an Enermax EPS 12V ATX-6ES 660W power supply.
All memory slots populated on all CPU(s).
BIOS Rev E 1.03
'start /b /wait /affinity' command is used to bind CPU(s) to processes.
```