CFP2000 Result

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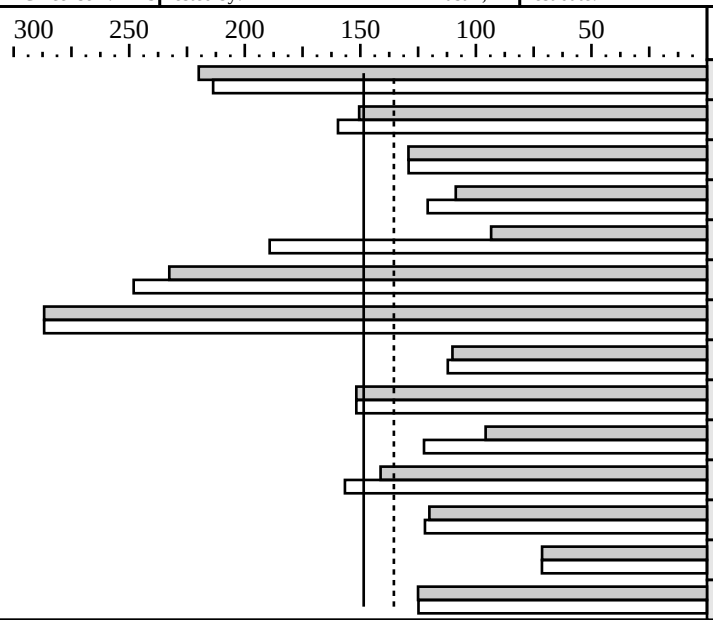
Advanced Micro Devices

Tyan Thunder K9QE (S4985) AMD Opteron (TM) 8218

SPECfp_rate2000 = 149

SPECfp_rate_base2000 = 135

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	8	67.5	220	8	69.5	214
171.swim	8	191	151	8	180	160
172.mgrid	8	129	129	8	129	129
173.applu	8	179	109	8	161	121
177.mesa	8	139	93.4	8	68.7	189
178.galgel	8	116	233	8	108	248
179.art	8	84.1	287	8	84.1	287
183.equake	8	110	110	8	108	112
187.facerec	8	116	152	8	116	152
188.ammp	8	213	95.8	8	167	122
189.lucas	8	131	141	8	118	157
191.fma3d	8	162	120	8	160	122
200.sixtrack	8	143	71.4	8	143	71.4
301.apsi	8	193	125	8	193	125

Hardware

CPU:	AMD Opteron (TM) 8218
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	8 cores, 4 chips, 2 cores/chip
CPU(s) orderable:	1,2,4
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:	16x512MB, DDR2-667 CL4 ECC Reg
Disk Subsystem:	SATA, 74Gb
Other Hardware:	None

Software

Operating System:	Windows Server 2003 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 -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
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
 178.galgel:         pgf90   -fastsse -Mipa=fast,safe -Munix -lacml
                             RM_SOURCES=lapak.f90
 179.art:            pgcc     basepeak=yes
 183.equake:         icl     -O3 -Qipo -QxW +FDO
 187.facerec:        pgf90   basepeak=1
 188.ammp:           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
All memory slots populated on all CPU(s)
'start /b /wait /affinity' command is used to bind CPU(s) to processes
The system can be built using a Zippy 700W EPS12V power supply and any SSI-MEB case.
BIOS Changes: Enable Basic ECC
```