CFP2000 Result

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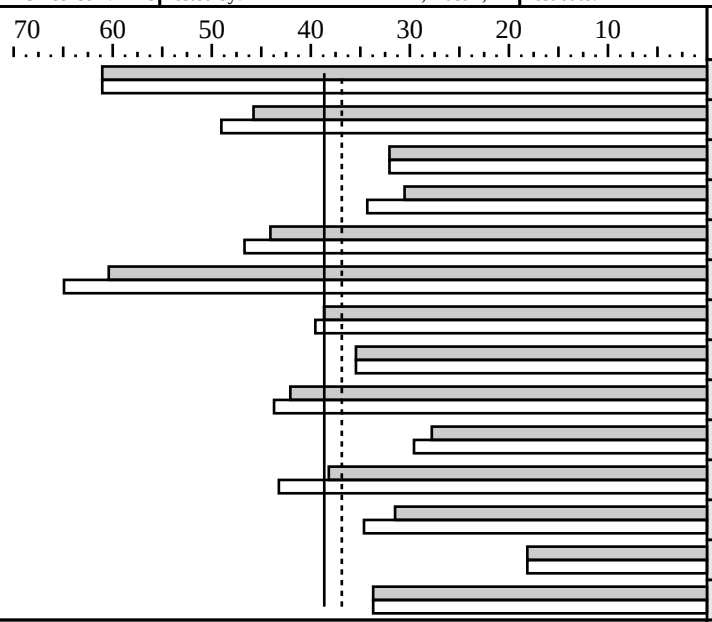
Advanced Micro Devices

TYAN Thunder K8S Pro S2882, AMD Opteron (TM) 252

SPECfp_rate2000 = 38.6

SPECfp_rate_base2000 = 36.9

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	60.8	61.1	2	60.8	61.1
171.swim	2	157	45.8	2	147	49.0
172.mgrid	2	130	32.1	2	130	32.1
173.applu	2	160	30.5	2	142	34.3
177.mesa	2	73.7	44.1	2	69.6	46.7
178.galgel	2	111	60.4	2	104	64.9
179.art	2	156	38.7	2	153	39.5
183.equake	2	85.1	35.4	2	85.1	35.4
187.facerec	2	105	42.1	2	101	43.7
188.ammp	2	184	27.8	2	173	29.6
189.lucas	2	122	38.2	2	107	43.2
191.fma3d	2	155	31.5	2	141	34.6
200.sixtrack	2	141	18.1	2	141	18.1
301.apsi	2	179	33.7	2	179	33.7

Hardware

CPU:	AMD Opteron (TM) 252
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 chips, 1 core/chip
CPU(s) orderable:	1-2
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB(I+D) on chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	8x512 MB PC3200 (Kingston) CL2.5 ECC Reg
Disk Subsystem:	IDE, Western Digital WD2000JB, 7200 rpm
Other Hardware:	None

Software

Operating System:	Microsoft Windows Server 2003, Enterprise Edition
Compiler:	Intel C++ 8.0 build 20040714Z, Intel Fortran 8.1 build 20041019Z, PGI Fortran compiler 5.2-4 for Windows XP, AMD Core Math library Version 2.1 (ACML), Microsoft Visual Studio .NET 7.0.9466 (libraries), MicroQuill Smartheap Library 7.0
File System:	NTFS
System State:	Default

Notes/Tuning Information

```
+FDO: PASS1=-Qprof_gen  PASS2=-Qprof_use
+ACML is linking with AMD Core Math Library V2.1
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.
The Intel C++ 8.0 and the Intel Fortran 8.1 compilers are setup in the following order:
   "c:program filesintel ortrancompiler80ia32 inifortvars.bat"
   "c:program filesintelcppcompiler80ia32 iniclvars.bat"
To make sure that the correct libraries are selected, the following link option is
added for the peak runs where Intel Fortran 8.1 compiler is used:
    LDOPT = -Fe$@ -link -LIBPATH:"c:program filesintel ortrancompiler80ia32lib"
 (denoted by +LIBPATH:INTEL8.1 in the optimization flags listed below)
Portability:
  178.galgel: -Mfixed
Baseline: C      : icl   -fast -arch:SSE2 -QaxW +FDO
Baseline: Fortran: pgf90 -fastsse -Mipa=fast,inline
```

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Notes/Tuning Information (Continued)

```
Peak tuning:
168.wupwise:       pgf90 basepeak=yes
171.swim:          ifort -Qipo  -O3  -QaxN -QxW +FDO -Qunroll0     +LIBPATH:INTEL8.1
172.mgrid:         pgf90 basepeak=yes
173.applu:         ifort -Qipo  -O3  -QaxN -QxW +FDO -auto         +LIBPATH:INTEL8.1
177.mesa:          icl   -Qipo -arch:SSE2       +FDO -Qunroll1 -Qansi_alias
                       -Qoption,f,-ip_ninl_max_stats=1500,-ip_ninl_max_total_stats=4500
179.art:           icl   -Qipo             -Zp4 +FDO
183.equake:        icl   basepeak=yes
178.galgel:        pgf90 -fastsse -Mipa=fast,safe RM_SOURCES=lapak.f90 -Munix +ACML
187.facerec:       ifort -Qipo             -QxW +FDO -Qunroll3     +LIBPATH:INTEL8.1
                       -Qoption,f,-ip_ninl_max_stats=2500,-ip_ninl_max_total_stats=7000
188.ammp:          icl   -Oa   -arch:SSE2  -Zp4      -Qansi_alias
189.lucas:         ifort -Qipo             -QxW      -Qunroll1     +LIBPATH:INTEL8.1
191.fma3d:         ifort -Qipo       -QaxN -QxW +FDO -Qansi-alias- +LIBPATH:INTEL8.1
200.sixtrack:      pgf90 basepeak=yes
301.apsi:          pgf90 basepeak=yes
Bios Rev v3.E
ANTEC True 550Watt EPS12V power supply
The tested system can be assembled using an Extended ATX footprint
Physical Address Extension (PAE) enabled
```