CFP2000 Result

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Advanced Micro Devices

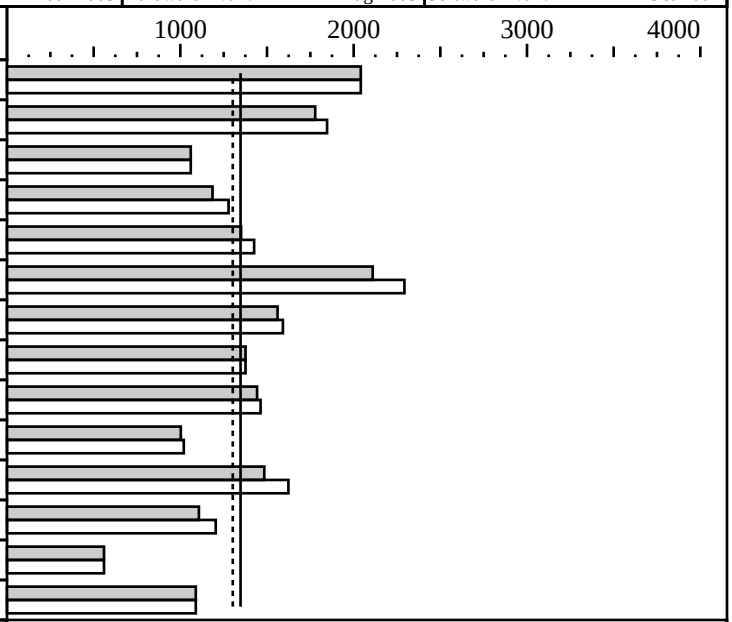
TYAN S2865 K8E Tomcat, AMD Opteron (TM) 144

SPECfp2000 = 1347

SPECfp_base2000 = 1303

SPEC license #: 49 | Tested by: AMD, Austin, TX | Test date: Jul-2005 | Hardware Avail: Aug-2005 | Software Avail: Oct-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	78.4	2041	78.4	2041
171.swim	3100	174	1778	168	1847
172.mgrid	1800	170	1060	170	1060
173.applu	2100	177	1186	164	1278
177.mesa	1400	104	1351	98.2	1426
178.galgel	2900	137	2110	126	2293
179.art	2600	167	1561	163	1592
183.equake	1300	94.5	1376	94.5	1376
187.facerec	1900	132	1443	130	1463
188.ammp	2200	219	1003	216	1020
189.lucas	2000	135	1484	123	1624
191.fma3d	2100	190	1107	174	1204
200.sixtrack	1100	197	560	197	560
301.apsi	2600	239	1089	239	1089



Hardware

CPU:	AMD Opteron (TM) 144 (939-pin)
CPU MHz:	1800
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1
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 DDR400 CL2.0
Disk Subsystem:	SATA, Western Digital WD740GD, 10000 rpm
Other Hardware:	None

Software

Operating System:	Microsoft Windows XP Pro SP2
Compiler:	Intel C++ 8.0 build 20040714Z, Intel Fortran 8.1 for IA32 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
Peak tuning:
```

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Notes/Tuning Information (Continued)

```
 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
The tested system can be assembled using a standard ATX footprint, an Antec True 550
Watt EPS12V power supply, and a PCI or PCIe graphics card.
All memory slots were populated with Corsair CMX512-3200XL.
Memory timings manually set in BIOS: CAS=2, TRCD=2, TRAS=5, TRP=2
BIOS version 1.01
```