CFP2000 Result

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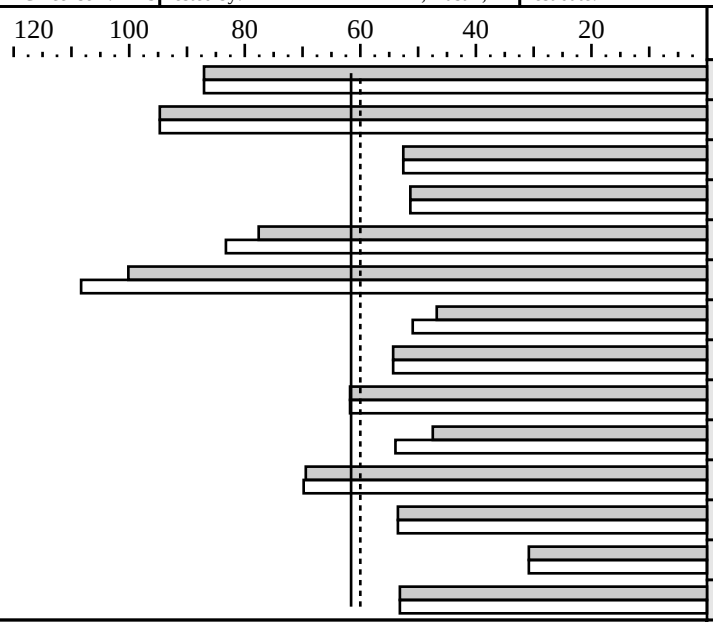
Advanced Micro Devices

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

SPECfp_rate2000 = 61.6

SPECfp_rate_base2000 = 60.0

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	85.3	87.1	4	85.3	87.1
171.swim	4	152	94.7	4	152	94.7
172.mgrid	4	159	52.6	4	159	52.6
173.applu	4	190	51.3	4	190	51.3
177.mesa	4	83.7	77.6	4	78.0	83.3
178.galgel	4	134	100	4	124	108
179.art	4	258	46.8	4	237	50.9
183.equake	4	111	54.3	4	111	54.3
187.facerec	4	143	61.8	4	143	61.8
188.ammp	4	215	47.5	4	189	53.9
189.lucas	4	134	69.4	4	133	69.8
191.fma3d	4	182	53.5	4	182	53.5
200.sixtrack	4	166	30.8	4	166	30.8
301.apsi	4	227	53.2	4	227	53.2

Hardware

CPU:	AMD Opteron (TM) 850
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 chips, 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:	16x512 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   -Qipo            -Zp4  +FDO
 183.equake:         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:          pgf90 basepeak=yes
 200.sixtrack:       pgf90 basepeak=yes
 301.apsi:           pgf90 basepeak=yes
BIOS rev. 1.02
All memory slots populated on all CPU(s)
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
```