CFP2000 Result

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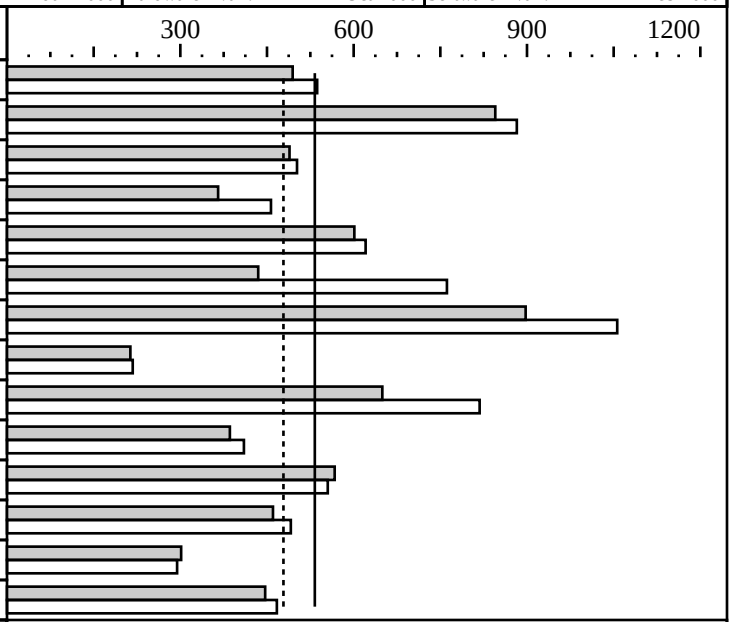
Alpha Processor, Inc.
API UP2000 750 MHz

SPECfp2000 = 533

SPECfp_base2000 = 478

SPEC license #: 537 | Tested by: API | Test date: Jun-2000 | Hardware Avail: Oct-2000 | Software Avail: Feb-2000

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	324	494	298	537
171.swim	3100	367	845	351	882
172.mgrid	1800	368	489	359	502
173.applu	2100	575	365	460	457
177.mesa	1400	233	601	226	621
178.galgel	2900	667	435	381	761
179.art	2600	290	898	246	1056
183.equake	1300	609	214	597	218
187.facerec	1900	292	650	232	818
188.ammp	2200	570	386	537	410
189.lucas	2000	353	567	360	555
191.fma3d	2100	456	460	427	491
200.sixtrack	1100	365	301	374	294
301.apsi	2600	582	447	557	467



Hardware

CPU:	Alpha 21264A
CPU MHz:	750
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1 to 2
Parallel:	No
Primary Cache:	64KB(I)+64KB(D) on chip
Secondary Cache:	8MB off chip
L3 Cache:	None
Other Cache:	None
Memory:	512 MB (8x64MB)
Disk Subsystem:	1x9GB
Other Hardware:	Ethernet

Software

Operating System:	Tru64 UNIX V4.0F UNIX V4.0F Patch Kit 1
Compiler:	Compaq C X6.2-259-449AT Compaq Fortran V5.3 /usr/bin/f77: fort (not fort90) KAP Fortran V4.2 KAP C 4.0
File System:	ufs
System State:	Multi-user

Notes/Tuning Information

```
Tested by Alpha Processor, Inc.
 Baseline   C: cc   -arch ev6 -fast -O4 ONESTEP
      Fortran: kf90 -arch ev6 -O5 -fkapargs='-ur=-1' ONESTEP

 Peak: -v -g3 -arch ev6 -non_shared ONESTEP plus:
    168.wupwise: f77 -fast -O4 -pipeline -unroll 2
       171.swim: f90 -fast -O5 -transform_loops
      172.mgrid: kf77 -O5 -transform_loops -tune ev6 -unroll 8
      173.applu: f77 -fast -O5 -transform_loops -unroll 14
       177.mesa: cc -fast -O4
     178.galgel: kf90 -O4 -unroll 2 -ldxml
                 RM_SOURCES = lapak.f90
        179.art: kcc -fast -O4 -ckapargs='-arl=4 -ur=4' -unroll 10
     183.equake: kcc -fast -ckapargs='-arl=4' -xtaso_short
    187.facerec: f90 -fast -O4
       188.ammp: cc -fast -O4 -xtaso_short
      189.lucas: kf90 -fast -O5 -fkapargs='-ur=1' -unroll 1
```

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Notes/Tuning Information (Continued)

```
      191.fma3d: kf90 -O4
   200.sixtrack: f90 -fast -O5 -transform_loops
       301.apsi: kf90 -O5 -transform_loops -unroll 8 -fkapargs='-ur=1'

Portability: galgel: -fixed

Information on UNIX V4.0F Patch Kit 1 is available at
http://ftp1.service.digital.com/public/unix/v4.0f/
```