OMPM2001 Result

Advanced Micro Devices

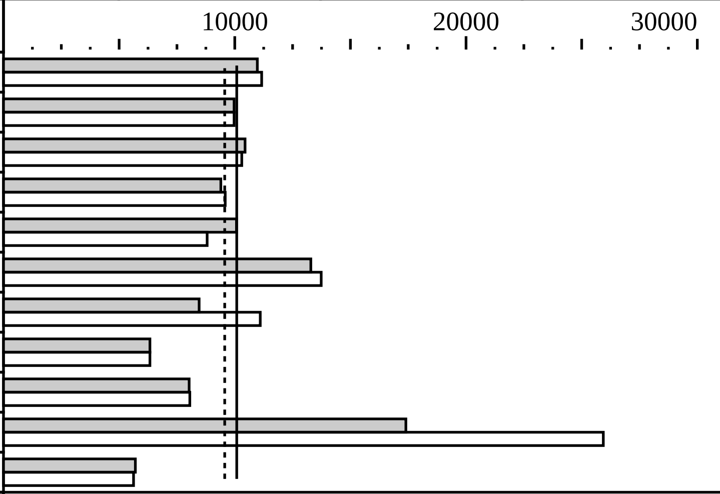
Tyan Thunder n6650w (S2915) (AMD Opteron 8220)

SPECompMpeak2001 = 10085

SPECompMbase2001 = 9565

SPEC license #: HPG0017	Tested by: AMD	Test site: Austin TX	Test date: Nov-2006	Hardware Avail: Nov-2006	Software Avail: Oct-2006

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	547	10975	537	11163
312.swim_m	6000	602	9970	602	9970
314.mgrid_m	7300	699	10445	709	10303
316.applu_m	4000	426	9397	417	9587
318.galgel_m	5100	506	10074	579	8805
320.equake_m	2600	196	13289	189	13737
324.apsi_m	3400	402	8459	306	11102
326.gafort_m	8700	1374	6331	1374	6331
328.fma3d_m	4600	573	8027	571	8056
330.art_m	6400	368	17398	247	25935
332.ammp_m	7000	1228	5701	1245	5623



Hardware

CPU:	AMD Opteron(tm) Processor 8220
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB (I+D) on chip
L3 Cache:	None
Other Cache:	None
Memory:	8x512MB, PC2-5300 CL4
Disk Subsystem:	250GB 7200 rpm SATA
Other Hardware:	None

Software

OpenMP Threads:	4
Parallel:	OpenMP + Auto Concurrentization
Operating System:	SLES9 SP3 64bit
Compiler:	PGI Fortran 6.2-4
File System:	Linux/ext3
System State:	Multi-User

Notes/Tuning Information

```
Extra art Base Flags
  330.art_m (extra): -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8

Base tuning:
  C       : pgcc  -mp -tp=k8-64 -fastsse -O4 -Minline=levels:8 -mcmodel=medium
  Fortran : pgf90 -mp -tp=k8-64 -fastsse -O4 -Minline=levels:8 -mcmodel=medium
  ONESTEP=yes

Peak tuning:
 ONESTEP=yes for all peak tests.

 310.wupwise_m   : -mp -tp=k8-64 -fastsse -Minline=level:8  -mcmodel=medium
 312.swim_m      : basepeak=yes
 314.mgrid_m     : -mp -tp=k8-64 -fastsse    -Mnofptrap -Mlongbranch
 316.applu_m     :  -mp -tp=k8-64 -fastsse -O4  -Minline=levels:8 -Mipa=fast,inline -Mfprelaxed=rsqrt -mcmodel=medium
                   srcalt = ompl.32
 318.galgel_m    : -mp -tp=k8-64 -fastsse -Mconcur -Mipa=fast,inline -Mfprelaxed=rsqrt -mcmodel=medium
                   -I/opt/acml3.5.0/pgi64/include -L/opt/acml3.5.0/pgi64/lib -lacml
                   RM_SOURCES=lapak.f90
 320.equake_m    : -mp -tp=k8-64 -fastsse -Mipa=fast,inline -Mfprelaxed=rsqrt -mcmodel=medium
                   srcalt = ompl.32
 324.apsi_m      : -mp -tp=k8-64 -fastsse -O4 -Minline=levels:8 -mcmodel=medium
                   srcalt = ompl.32
```

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Notes/Tuning Information (Continued)

```
 326.gafort_m    : basepeak=yes
 328.fma3d_m     : -mp -tp=k8-64 -fastsse -O4  -Mvect=assoc -Minline -mcmodel=medium
 330.art_m       : -mp -fast  -Mscalarsse -Mcache_align -Mflushz -Minline -Mpa=fast,inline -Mfprelaxed=rsqrt -mcmodel=medium
 332.ammp_m      : -mp -tp=k8-64 -fastsse  -O -Minline  -Mframe -Mipa=fast,inline -Mfprelaxed=rsqrt
Portability flags:
 318.galgel_m    : -Mfixed -Mextend

Base and Peak User Environment (bash):
  export OMP_NUM_THREADS=4
  export OMP_DYNAMIC=FALSE
  export PGI=/opt/pgi
  export LD_LIBRARY_PATH=/opt/acml3.5.0/pgi64/lib
  ulimit -s unlimited

Default BIOS settings used.
System can be built using a standard EATX case, Matrox Millennium G450 PCI
graphics adapter and an Antec True550 EPS12V power supply.
PGI compiler flags are in AMD-20061107-pgi62_flags.txt.
```