OMPM2001 Result

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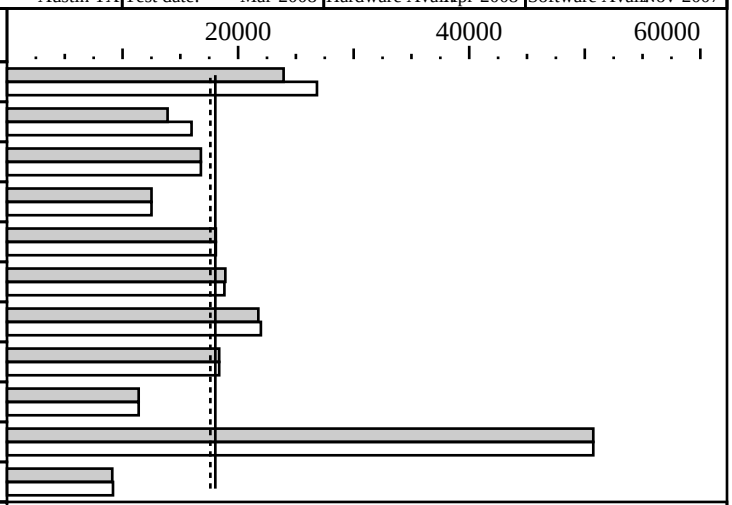
ASUS Computer International
ASUS KFSN4-DRE

SPECompMpeak2001 = 18029

SPECompMbase2001 = 17598

SPEC license #: HPG0017 | Tested by: Advanced Micro Devices | Test site: Austin TX | Test date: Mar-2008 | Hardware Avail: Apr-2008 | Software Avail: Nov-2007

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	251	23937	224	26825
312.swim_m	6000	432	13897	376	15971
314.mgrid_m	7300	435	16779	435	16779
316.applu_m	4000	320	12505	320	12505
318.galgel_m	5100	282	18073	282	18073
320.equake_m	2600	138	18895	138	18814
324.apsi_m	3400	156	21750	155	21971
326.gafort_m	8700	474	18363	474	18363
328.fma3d_m	4600	404	11395	404	11395
330.art_m	6400	126	50736	126	50736
332.ammp_m	7000	768	9109	763	9173



Hardware

CPU:	AMD Opteron Processor 2356
CPU MHz:	2300
FPU:	Integrated
CPU(s) enabled:	8 cores, 2 chips, 4 cores/chip
CPU(s) orderable:	1,2
Primary Cache:	64 KB I + 64 KB D on chip per core
Secondary Cache:	512 KB I+D on chip per core
L3 Cache:	2 MB I+D on chip per chip
Other Cache:	None
Memory:	16GB (8x2GB, PC2-5300 CL5 dual-rank)
Disk Subsystem:	160GB 7200 RPM SATA
Other Hardware:	None

Software

OpenMP Threads:	8
Parallel:	OpenMP
Operating System:	SLES10 SP1 64bit
Compiler:	PathScale Compiler Suite ver. 3.1
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       : pathcc  -mp -Ofast -mcmodel=medium
  Fortran : pathf90 -mp -Ofast -OPT:early_mp=on -mcmodel=medium
  ONESTEP=yes
Peak tuning:
   310.wupwise_m: -mp -Ofast -msse3 -LNO:prefetch_ahead=5:prefetch=3
                  -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
                  -IPA:linear=on:plimit=50000:callee_limit=5000
   312.swim_m: -mp -O3 -OPT:Ofast -m3dnow -mcmodel=medium -LNO:simd=0
   314.mgrid_m: basepeak=yes
   316.applu_m: basepeak=yes
   318.galgel_m: basepeak=yes
   320.equake_m: -Ofast -mp -OPT:alias=disjoint
   324.apsi_m: -mp -O3 -OPT:Ofast -TENV:x=4 -LNO:fusion=2:prefetch=0
   326.gafort_m: basepeak=yes
   328.fma3d_m: basepeak=yes
   330.art_m: basepeak=yes
   332.ammp_m: -mp -Ofast -mcpu=opteron -mcmodel=medium
```

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Notes/Tuning Information (Continued)

```
Portablility flags:
 318.galgel_m    : -fixedform -col80

Base and Peak User Environment (bash):
  export OMP_NUM_THREADS=8
  export OMP_DYNAMIC=FALSE
  export PSC_OMP_AFFINITY=TRUE
  export PSC_OMP_STATIC_FAIR=TRUE
  export PSC_OMP_THREAD_SPIN=1000000000
  ulimit -s unlimited

For flag descriptions, see file AMD-Apr2008-psc31_flags.txt
Phoenix BIOS version 2.02. Default BIOS settings used.
```