



OMPM2001 Result

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Asus
KFSN4-DRE

SPECompMpeak2001 = 19475

SPECompMbase2001 = 19125

SPEC license #HPG0017 | Tested by: Advanced Micro Devices | Test site: Austin TX | Test date: Mar-2008 | Hardware AvailJun-2008 | Software AvailFeb-2008

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio	
310.wupwise_m	6000	247	24279	218	27559	
312.swim_m	6000	435	13782	374	16044	
314.mgrid_m	7300	417	17497	417	17497	
316.applu_m	4000	303	13204	303	13204	
318.galgel_m	5100	260	19595	260	19595	
320.quake_m	2600	131	19879	134	19361	
324.apsi_m	3400	137	24813	145	23379	
326.gafort_m	8700	448	19417	448	19417	
328.fma3d_m	4600	353	13030	353	13030	
330.art_m	6400	115	55793	115	55793	
332.ammp_m	7000	590	11872	586	11955	

Hardware

CPU: Quad-Core AMD Opteron(tm) Processor 2360 SE
 CPU MHz: 2500
 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 -mcmmodel=medium
 Fortran : pathf90 -mp -Ofast -OPT:early_mp=on -mcmmodel=medium
 ONESTEP=yes

Peak tuning:

ONESTEP=yes for all peak tests.
 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 -mcmmodel=medium -LNO:simd=0
 314.mgrid_m: basepeak=yes
 316.applu_m: basepeak=yes
 318.galgel_m: basepeak=yes
 320.quake_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=barcelona -mcmmodel=medium



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Notes/Tuning Information (Continued)

Alternate Sources:

314.mgrid_m (base and peak): intel

Portability 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-Jun2008-psc31_flags.txt
Default BIOS settings used, except PowerNow! disabled in Bios