



# OMPL2001 Result

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Supermicro Corporation  
Supermicro H8QM8

SPECompLpeak2001 = --  
SPECompLbase2001 = 121270

SPEC license #HPG0017 | Tested by: Advanced Micro Devices | Test site: Austin TX | Test date: May-2008 | Hardware AvailJun-2008 | Software AvailNov-2007

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_l	9200	938	156972		
313.swim_l	12500	2185	91517		
315.mgrid_l	13500	1654	130617		
317.applu_l	13500	3494	61827		
321.quake_l	13000	2419	85985		
325.apsi_l	10500	2149	78166		
327.gafort_l	11000	1169	150521		
329.fma3d_l	23500	3323	113158		
331.art_l	25000	936	427123		

Hardware	Software
CPU: Quad-Core AMD Opteron(tm) Processor 8347 HE CPU MHz: 1900 FPU: Integrated CPU(s) enabled: 16 cores, 4 chips, 4 cores/chip CPU(s) orderable: 1-4 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: 32GB (16x2GB, PC2-5300, CL5 dual-rank) Disk Subsystem: 120GB 7200 RPM SATA Other Hardware: None	OpenMP Threads: 16 Parallel: OpenMP Operating System: SUSE Linux Enterprise Server 10 (x86_64) SP1 2.6.16.46-0.12-smp Compiler: PathScale Compiler Suite ver. 3.1 File System: Linux/Ext3 System State: Multi-User

## Notes/Tuning Information

Extra art Base Flags

331.art\_l (extra): -DINTS\_PER\_CACHELINE=16 -DDBLS\_PER\_CACHELINE=8

Alternate Sources:

315.mgrid\_l: intel

Base tuning:

```

C      : pathcc -gnu3 -mp -Ofast -mcpu=barcelona -mcmmodel=medium
Fortran : pathf90 -mp -Ofast -mcpu=barcelona -OPT:early_mp=on -CG:movnti=2500 -mcmmodel=medium
ONESTEP=yes

```

Base and Peak User Environment (bash):

```

export OMP_NUM_THREADS=16
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-Jul2008-psc31\_flags.txt

Default BIOS settings used, except PowerNow! disabled in Bios and OS set to "linux"