# OMPM2001 Result



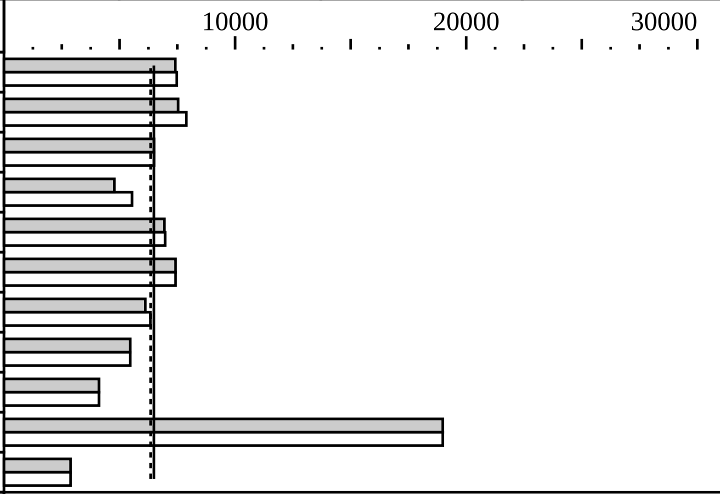
## Sun Microsystems
## Sun Fire V40z

SPECompMpeak2001 = 6486

SPECompMbase2001 = 6344

| SPEC license #: HPG0010 | Tested by: Sun Microsystems, Santa Clara | Test site: Menlo Park | Test date: Feb-2005 | Hardware Avail: Apr-2005 | Software Avail: Apr-2005 |
|---|---|---|---|---|---|

| Benchmark | Reference Time | Base Runtime | Base Ratio | Peak Runtime | Peak Ratio |
|---|---|---|---|---|---|
| 310.wupwise_m | 6000 | 809 | 7412 | 803 | 7475 |
| 312.swim_m | 6000 | 796 | 7535 | 761 | 7889 |
| 314.mgrid_m | 7300 | 1124 | 6494 | 1124 | 6494 |
| 316.applu_m | 4000 | 837 | 4777 | 722 | 5540 |
| 318.galgel_m | 5100 | 735 | 6941 | 731 | 6973 |
| 320.equake_m | 2600 | 350 | 7422 | 350 | 7422 |
| 324.apsi_m | 3400 | 556 | 6116 | 537 | 6336 |
| 326.gafort_m | 8700 | 1593 | 5462 | 1593 | 5462 |
| 328.fma3d_m | 4600 | 1119 | 4111 | 1119 | 4111 |
| 330.art_m | 6400 | 337 | 18984 | 337 | 18984 |
| 332.ammp_m | 7000 | 2430 | 2881 | 2430 | 2881 |




### Hardware

| | |
|---|---|
| CPU: | AMD Opteron (TM) 852 |
| CPU MHz: | 2600 |
| FPU: | Integrated |
| CPU(s) enabled: | 2 cores, 2 chips, 1 core/chip |
| CPU(s) orderable: | 1,2,4 |
| Primary Cache: | 64KBI + 64KBD on chip |
| Secondary Cache: | 1024KB (I+D) on chip |
| L3 Cache: | None |
| Other Cache: | None |
| Memory: | 8GB (4x2GB, PC3200 CL3 DDR SDRAM ECC Registered) |
| Disk Subsystem: | SCSI, 73GB, 10K RPM |
| Other Hardware: | None |

### Software

| | |
|---|---|
| OpenMP Threads: | 2 |
| Parallel: | OpenMP |
| Operating System: | SUSE LINUX Enterprise Server 9 |
| Compiler: | PathScale EKOPath Compiler Suite, Release 2.1 |
| File System: | ufs |
| System State: | Multi-User |

## Notes/Tuning Information

```
Baseline Optimization Flags:
  Fortran : -Ofast -OPT:early_mp=on -mcmodel=medium -mp
  C       : -Ofast -mp

Peak Optimization Flags:
  310.wupwise_m : -mp -Ofast -mcmodel=medium -LNO:prefetch_ahead=5:prefetch=3 -TENV:X=4
                   -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
  312.swim_m    : -mp -O3 -OPT:Ofast -m3dnow -mcmodel=medium -LNO:simd=0
  314.mgrid_m   :  basepeak=yes
  316.applu_m   :  -mp -Ofast -mcmodel=medium -CG:local_fwd_sched=on
                   -LNO:fusion=2:fission=2:full_unroll_size=10000:prefetch=3 -TENV:X=3
  318.galgel_m  :  -Ofast -mp -OPT:early_mp=on
  320.equake_m  :  basepeak=yes
  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    :  basepeak=yes

Alternate Source:
  330.art_m  :  required srcalt purdue1 used for base and peak
  316.applu_m:  approved srcalt ompl.32 used for peak
  324.apsi_m :  approved srcalt ompl.32 used for peak
```

## Notes/Tuning Information (Continued)

```
Portability Flags:
  318.galgel_m      : -fixedform -extend_source
  330.art_m         : Extra Flag: -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8

Base and Peak User Environment:
  export OMP_NUM_THREADS=2
  export OMP_GUIDED_CHUNK_MAX=300
  ulimit -s unlimited

Default BIOS settings used; Only 2 CPUs were present on the system.

For a description of PathScale EKOPath Compiler Suite, Release 2.1 flags,
portability flags and system parameters used to generate this result,
please refer to SUN-20050302-PathScale2.1-SuSE-opteron.txt file in the
flags directory.
```