# SPEC® CFP2006 Result

## Supermicro

### Motherboard H8DM8-2

<table>
<thead>
<tr>
<th>SPECfp®_rate2006 = 42.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECfp_rate_base2006 = 42.3</td>
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</table>

**CPU2006 license:** 001176  
**Test sponsor:** Supermicro  
**Tested by:** Supermicro  
**Test date:** Mar-2007  
**Hardware Availability:** Jan-2007  
**Software Availability:** Sep-2006

<table>
<thead>
<tr>
<th>Copies</th>
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<tr>
<td>410.bwaves</td>
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<td>433.milc</td>
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<td>435.gromacs</td>
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<tr>
<td>437.leslie3d</td>
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<td>444.namd</td>
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<td>447.dealII</td>
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<td>450.soplex</td>
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<td>453.povray</td>
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<td>454.calculix</td>
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<td>459.GemsFDTD</td>
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<td>470.lbm</td>
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<tr>
<td>481.wrf</td>
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<td>482.sphinx3</td>
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</tbody>
</table>

### Hardware

- **CPU Name:** AMD Opteron 2220 SE  
- **CPU Characteristics:** 2.8GHz  
- **CPU MHz:** 2800  
- **FPU:** Integrated  
- **CPU(s) enabled:** 4 cores, 2 chips, 2 cores/chip  
- **CPU(s) orderable:** 1,2 chips  
- **Primary Cache:** 64 KB I + 64 KB D on chip per core  
- **Secondary Cache:** 1 MB I+D on chip per core  

### Software

- **Operating System:** SuSE 10.0 (Kernel 2.6.16.21-0.8-smp x86_64)  
- **Compiler:** The Portland Group (PGI)  
  - PGI pgcc 6.2-4 C Compiler  
  - PGI pgcc 6.2-4 C++ Compiler  
- **Auto Parallel:** No  
- **File System:** ext3  
- **System State:** Multi-user

---

Standard Performance Evaluation Corporation  
info@spec.org  
http://www.spec.org/
Supermicro
Motherboard H8DM8-2

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SPECfp_rate_base2006 = 42.3

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L3 Cache: None
Other Cache: None
Memory: 64 GB (16x4GB, ECC REG PC25300 CLS)
Disk Subsystem: 250GB IDE, 7200RPM
Other Hardware: None

Base Pointers: 64-bit
Peak Pointers: 64-bit
Other Software: None

Results Table

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</tbody>
</table>

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

General Notes

Environment stack size set to 'unlimited'
Tested systems can be used with CSE-825S2-560LPV case,
To ensure system stability, a 550W (minimum) ATX power supply [ 4-pin (+12V), 8-pin (+12V) and 24-pin are required]

Base Compiler Invocation

C benchmarks:
/opt/pgi/624/linux64-64/6.2/bin/pgcc

C++ benchmarks:
/opt/pgi/624/linux64-64/6.2/bin/pgCC

Continued on next page
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Base Compiler Invocation (Continued)

Fortran benchmarks:

/opt/pgi/624/linux86-64/6.2/bin/pgf90

Benchmarks using both Fortran and C:
/opt/pgi/624/linux86-64/6.2/bin/pgcc
/opt/pgi/624/linux86-64/6.2/bin/pgf90

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
333.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -Mnomain
436.cactusADM: -DSPEC_CPU_LP64 -Mnomain
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
450.soplex: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -Mnomain
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
-ffastsse -Mipa=fast -Mipa=inline -Mfprelaxed=rsqrt -Msmartalloc
-Msignextend -tp k8-64

C++ benchmarks:
-ffastsse -Mipa=fast -Mipa=inline -Mfprelaxed=rsqrt -Msmartalloc
-tp k8-64

Fortran benchmarks:
-ffastsse -Mipa=fast -Mipa=inline -Mfprelaxed=rsqrt -Msmartalloc
-tp k8-64

Benchmarks using both Fortran and C:
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-Msignextend -tp k8-64
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Base Other Flags

C benchmarks:
- -w

C++ benchmarks:
- -w

Fortran benchmarks:
- -w

Benchmarks using both Fortran and C:
- -w

Peak Compiler Invocation

C benchmarks:
/opt/pgi/624/linux86-64/6.2/bin/pgcc

C++ benchmarks:
/opt/pgi/624/linux86-64/6.2/bin/pgCC

Fortran benchmarks:
/opt/pgi/624/linux86-64/6.2/bin/pgf90

Benchmarks using both Fortran and C:
/opt/pgi/624/linux86-64/6.2/bin/pgcc
/opt/pgi/624/linux86-64/6.2/bin/pgf90

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:
433.milc: basepeak = yes
470.lbm: basepeak = yes
482.sphinx3: basepeak = yes

C++ benchmarks:

Continued on next page
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**SPECfp_rate2006** = 42.3
**SPECfp_rate_base2006** = 42.3

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### Peak Optimization Flags (Continued)

- 444.namd: basepeak = yes
- 447.dealII: basepeak = yes
- 450.soplex: basepeak = yes
- 453.povray: basepeak = yes

#### Fortran benchmarks:
- 410.bwaves: basepeak = yes
- 416.gamess: basepeak = yes
- 434.zeusmp: basepeak = yes
- 437.leslie3d: basepeak = yes
- 459.GemsFDTD: basepeak = yes
- 465.tonto: basepeak = yes

#### Benchmarks using both Fortran and C:
- 435.gromacs: basepeak = yes
- 436.cactusADM: basepeak = yes
- 454.calculix: basepeak = yes
- 481.wrf: basepeak = yes

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### Peak Other Flags

- **C benchmarks:**
  - `-w`

- **C++ benchmarks:**
  - `-w`

- **Fortran benchmarks:**
  - `-w`

- **Benchmarks using both Fortran and C:**
  - `-w`
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The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/pgi62_flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/pgi62_flags.xml

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.0.