Intel Corporation

Intel Desktop Board DQ35JO (Intel Core 2 Duo E8400)

**SPECfp** rate2006 = 30.9

**SPECfp_rate_base2006** = 29.5

---

### Hardware

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name</td>
<td>Intel Core 2 Duo E8400</td>
</tr>
<tr>
<td>CPU Characteristics</td>
<td>3.00 GHz, 1333 FSB</td>
</tr>
<tr>
<td>CPU MHZ</td>
<td>3000</td>
</tr>
<tr>
<td>FPU</td>
<td>Integrated</td>
</tr>
<tr>
<td>CPU(s) enabled</td>
<td>2 cores, 1 chip, 2 cores/chip</td>
</tr>
<tr>
<td>CPU(s) orderable</td>
<td>1 chip</td>
</tr>
<tr>
<td>Primary Cache</td>
<td>32 KB I + 32 KB D on chip per core</td>
</tr>
<tr>
<td>Secondary Cache</td>
<td>6 MB I+D on chip per chip</td>
</tr>
</tbody>
</table>

### Software

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>Windows Vista Ultimate (64-bit)</td>
</tr>
<tr>
<td>Compiler</td>
<td>Intel C++ Compiler for IA32 version 10.1</td>
</tr>
<tr>
<td></td>
<td>Build 20070913 Package ID: w_cc_p_10.1.011</td>
</tr>
<tr>
<td></td>
<td>Intel Fortran Compiler for IA32 version 10.1</td>
</tr>
<tr>
<td></td>
<td>Build 20070913 Package ID: w_fc_p_10.1.011</td>
</tr>
<tr>
<td></td>
<td>Microsoft Visual Studio 2005 SP1 (for libraries)</td>
</tr>
<tr>
<td>Auto Parallel</td>
<td>No</td>
</tr>
<tr>
<td>File System</td>
<td>NTFS</td>
</tr>
<tr>
<td>System State</td>
<td>Default</td>
</tr>
</tbody>
</table>

---

Software continued on next page.
Intel Corporation
Intel Desktop Board DQ35JO (Intel Core 2 Duo E8400)

SPEC CFP2006 Result
SPECfp\_rate2006 = 30.9
SPECfp\_rate\_base2006 = 29.5

CPU2006 license: 13
Test sponsor: Intel Corporation
Tested by: Intel Corporation

Intel Corporation
E8400)

SPECfp\_rate2006 = 30.9
SPECfp\_rate\_base2006 = 29.5

Test date: Feb-2008
Hardware Availability: Feb-2008
Software Availability: Nov-2007

L3 Cache: None
Other Cache: None
Memory: 2 GB (2x1GB Micron DDR2-800 CL5)
Disk Subsystem: Seagate 320GB NCQ SATA, 16MB cache, 7200 RPM
Other Hardware: None

Base Pointers: 32-bit
Peak Pointers: 32-bit
Other Software: SmartHeap Library Version 8.1 from http://www.microquill.com/

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>410.bwaves</td>
<td>2</td>
<td>937</td>
<td>29.0</td>
<td>937</td>
<td>29.0</td>
<td>937</td>
<td>29.0</td>
<td>937</td>
<td>29.0</td>
<td>937</td>
<td>29.0</td>
</tr>
<tr>
<td>416.gamess</td>
<td>2</td>
<td>1069</td>
<td>36.6</td>
<td>1069</td>
<td>36.6</td>
<td>1069</td>
<td>36.6</td>
<td>1069</td>
<td>36.6</td>
<td>1069</td>
<td>36.6</td>
</tr>
<tr>
<td>433.milc</td>
<td>2</td>
<td>929</td>
<td>19.8</td>
<td>930</td>
<td>19.7</td>
<td>930</td>
<td>19.7</td>
<td>930</td>
<td>19.7</td>
<td>930</td>
<td>19.7</td>
</tr>
<tr>
<td>434.zeusmp</td>
<td>2</td>
<td>528</td>
<td>34.5</td>
<td>524</td>
<td>34.7</td>
<td>523</td>
<td>34.8</td>
<td>485</td>
<td>37.6</td>
<td>491</td>
<td>37.1</td>
</tr>
<tr>
<td>435.gromacs</td>
<td>2</td>
<td>404</td>
<td>35.4</td>
<td>404</td>
<td>35.4</td>
<td>403</td>
<td>35.4</td>
<td>407</td>
<td>35.1</td>
<td>406</td>
<td>35.1</td>
</tr>
<tr>
<td>436.cactusADM</td>
<td>2</td>
<td>559</td>
<td>42.7</td>
<td>559</td>
<td>42.8</td>
<td>561</td>
<td>42.6</td>
<td>595</td>
<td>40.2</td>
<td>595</td>
<td>40.2</td>
</tr>
<tr>
<td>437.leslie3d</td>
<td>2</td>
<td>919</td>
<td>20.5</td>
<td>920</td>
<td>20.4</td>
<td>920</td>
<td>20.4</td>
<td>936</td>
<td>20.1</td>
<td>935</td>
<td>20.1</td>
</tr>
<tr>
<td>444.namd</td>
<td>2</td>
<td>522</td>
<td>30.7</td>
<td>522</td>
<td>30.7</td>
<td>522</td>
<td>30.7</td>
<td>521</td>
<td>30.8</td>
<td>520</td>
<td>30.9</td>
</tr>
<tr>
<td>447.dealII</td>
<td>2</td>
<td>646</td>
<td>35.4</td>
<td>647</td>
<td>35.4</td>
<td>645</td>
<td>35.5</td>
<td>645</td>
<td>35.5</td>
<td>649</td>
<td>35.3</td>
</tr>
<tr>
<td>450.soplex</td>
<td>2</td>
<td>713</td>
<td>23.4</td>
<td>712</td>
<td>23.4</td>
<td>711</td>
<td>23.5</td>
<td>713</td>
<td>23.4</td>
<td>713</td>
<td>23.4</td>
</tr>
<tr>
<td>453.povray</td>
<td>2</td>
<td>243</td>
<td>43.8</td>
<td>243</td>
<td>43.7</td>
<td>242</td>
<td>43.9</td>
<td>238</td>
<td>44.8</td>
<td>238</td>
<td>44.7</td>
</tr>
<tr>
<td>454.calculix</td>
<td>2</td>
<td>606</td>
<td>27.2</td>
<td>606</td>
<td>27.2</td>
<td>607</td>
<td>27.2</td>
<td>431</td>
<td>38.3</td>
<td>430</td>
<td>38.4</td>
</tr>
<tr>
<td>459.GemsFDTD</td>
<td>2</td>
<td>1186</td>
<td>17.9</td>
<td>1184</td>
<td>17.9</td>
<td>1186</td>
<td>17.9</td>
<td>1151</td>
<td>18.4</td>
<td>1157</td>
<td>18.3</td>
</tr>
<tr>
<td>465.tonto</td>
<td>2</td>
<td>568</td>
<td>34.7</td>
<td>571</td>
<td>34.5</td>
<td>572</td>
<td>34.4</td>
<td>549</td>
<td>35.9</td>
<td>553</td>
<td>35.6</td>
</tr>
<tr>
<td>470.ibm</td>
<td>2</td>
<td>1597</td>
<td>17.2</td>
<td>1597</td>
<td>17.2</td>
<td>1595</td>
<td>17.2</td>
<td>568</td>
<td>24.2</td>
<td>568</td>
<td>24.2</td>
</tr>
<tr>
<td>481.wrf</td>
<td>2</td>
<td>657</td>
<td>34.0</td>
<td>657</td>
<td>34.0</td>
<td>653</td>
<td>34.2</td>
<td>657</td>
<td>34.0</td>
<td>653</td>
<td>34.2</td>
</tr>
<tr>
<td>482.sphinx3</td>
<td>2</td>
<td>981</td>
<td>39.7</td>
<td>980</td>
<td>39.8</td>
<td>976</td>
<td>39.9</td>
<td>974</td>
<td>40.0</td>
<td>977</td>
<td>39.9</td>
</tr>
</tbody>
</table>

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

General Notes
Tested systems can be used with Shin-G ATX case, Antec NeoPower 480W power supply
Product description located as of 03/2008:
The system bus runs at 1333 MHz
System was configured with Asus EN8800GTX discrete graphics card
Binaries were built on Windows Vista Ultimate (32-bit)
The following VS 2005 SP1 updates were applied: KB926601 and KB932232
The start command with the /affinity switch was used to bind processes to cores
Intel Corporation
Intel Desktop Board DQ35JO (Intel Core 2 Duo E8400)

SPECfp_rate2006 = 30.9
SPECfp_rate_base2006 = 29.5

CPU2006 license: 13
Test sponsor: Intel Corporation
Test date: Feb-2008
Hardware Availability: Feb-2008
Tested by: Intel Corporation
Software Availability: Nov-2007

Base Compiler Invocation

C benchmarks:
icl -Qvc8 -Qc99

C++ benchmarks:
icl -Qvc8

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qvc8 -Qc99 ifort

Base Portability Flags

436.cactusADM: -Qlowercase /assume:underscore
444.namd: -TP
447.dealII: -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
453.povray: -DSPEC_CPU_WINDOWS_ICL
454.calculix: -DSPEC_CPU_NOZMODIFIER -Qlowercase
481.wrf: -DSPEC_CPU_WINDOWS_ICL

Base Optimization Flags

C benchmarks:
-fast /F1000000000

C++ benchmarks:
-fast -Qcxx_features /F1000000000 shlw32m.lib
-link /FORCE:MULTIPLE

Fortran benchmarks:
-fast /F1000000000

Benchmarks using both Fortran and C:
-fast /F1000000000

Peak Compiler Invocation

C benchmarks:
icl -Qvc8 -Qc99

C++ benchmarks:
icl -Qvc8
Intel Corporation
Intel Desktop Board DQ35JO (Intel Core 2 Duo E8400)

SPECfp_rate2006 = 30.9
SPECfp_rate_base2006 = 29.5

CPU2006 license: 13
Test sponsor: Intel Corporation
Tested by: Intel Corporation

Test date: Feb-2008
Hardware Availability: Feb-2008
Software Availability: Nov-2007

Peak Compiler Invocation (Continued)

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qvc8 -Qc99 ifort

Peak Portability Flags

436.cactusADM: -Qlowercase /assume:underscore
444.namd: -TP
447.dealII: -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
453.povray: -DSPEC_CPU_WINDOWS_ICL
454.calculix: -DSPEC_CPU_NOZMODIFIER -Qlowercase
481.wrf: -DSPEC_CPU_WINDOWS_ICL

Peak Optimization Flags

C benchmarks:
433.milc: -fast -Qunroll12 -Oa /F1000000000
470.lbm: -fast -Qunroll12 -Qscalar-rep -Qprefetch /F1000000000
482.sphinx3: -fast -Qunroll12 /F1000000000

C++ benchmarks:
444.namd: -fast -Oa -Qcxx_features /F1000000000 shlw32m.lib
- link /FORCE:MULTIPLE
447.dealII: -fast -Qunroll12 -Qprefetch -Qcxx_features /F1000000000
shlw32m.lib - link /FORCE:MULTIPLE
450.soplex: -fast -Qcxx_features /F1000000000 shlw32m.lib
- link /FORCE:MULTIPLE
453.povray: -fast -Qunroll14 -Qansi-alias -Qcxx_features /F1000000000
shlw32m.lib - link /FORCE:MULTIPLE

Fortran benchmarks:
410.bwaves: basepeak = yes
416.gamess: -fast -Qunroll12 -Ob0 -Qansi-alias -Qscalar-rep- /F1000000000

Continued on next page
Intel Corporation
Intel Desktop Board DQ35JO (Intel Core 2 Duo E8400)

SPEC CFP2006 Result

<table>
<thead>
<tr>
<th>SPECfp_rate2006 = 30.9</th>
<th>SPECfp_rate_base2006 = 29.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test date: Feb-2008</td>
<td>Test sponsor: Intel Corporation</td>
</tr>
<tr>
<td>Hardware Availability: Feb-2008</td>
<td>Tested by: Intel Corporation</td>
</tr>
<tr>
<td>Software Availability: Nov-2007</td>
<td></td>
</tr>
</tbody>
</table>

CPU2006 license: 13

Peak Optimization Flags (Continued)

434.zeusmp: -QxT -O2 -Qprec-div- -Qunroll10 -Qscalar-rep- /F1000000000

437.leslie3d: -fast -Qprefetch /F1000000000

459.GemsFDTD: -fast -Qunroll2 -Ob0 -Qprefetch /F1000000000

465.tonto: -fast -Qunroll14 -Qauto /F1000000000

Benchmarks using both Fortran and C:

435.gromacs: -fast -Oa -Qprefetch /F1000000000

436.cactusADM: -fast -Qunroll2 -Qprefetch /F1000000000

454.calculix: -fast -Qunroll-aggressive /F1000000000

481.wrf: basepeak = yes

The flags file that was used to format this result can be browsed at

You can also download the XML flags source by saving the following link:

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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