Acer Incorporated

Acer AR320 F2 (Intel Xeon E3-1230 v2)

**SPECfp®_rate2006 =** 126

**SPECfp_rate_base2006 =** 122

<table>
<thead>
<tr>
<th>Software</th>
<th>Hardware</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name: Intel Xeon E3-1230 v2</td>
<td>Operating System: Red Hat Enterprise Linux Server release 6.1 (Santiago)</td>
</tr>
<tr>
<td>CPU Characteristics: Intel Turbo Boost Technology up to 3.70 GHz</td>
<td>Compiler: C/C++: Version 12.1.0.225 of Intel C++ Studio XE for Linux; Fortran: Version 12.1.0.225 of Intel Fortran Studio XE for Linux</td>
</tr>
<tr>
<td>CPU MHz: 3300</td>
<td>Auto Parallel: No</td>
</tr>
<tr>
<td>FPU: Integrated</td>
<td>File System: ext4</td>
</tr>
<tr>
<td>CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip, 2 threads/core</td>
<td></td>
</tr>
<tr>
<td>CPU(s) orderable: 1 chip</td>
<td></td>
</tr>
<tr>
<td>Primary Cache: 32 KB I + 32 KB D on chip per core</td>
<td></td>
</tr>
<tr>
<td>Secondary Cache: 256 KB I+D on chip per core</td>
<td></td>
</tr>
</tbody>
</table>

Cores

![Image of SPECfp results](image-url)
Acer Incorporated

Acer AR320 F2 (Intel Xeon E3-1230 v2)

SPECfp_rate2006 = 126
SPECfp_rate_base2006 = 122

CPU2006 license: 97
Test sponsor: Acer Incorporated
Tested by: Acer Incorporated

L3 Cache: 8 MB I+D on chip per chip
Other Cache: None
Memory: 16 GB (2 x 8 GB 2Rx8 PC3-10600E-9,ECC)
Disk Subsystem: 1 x 500 GB SATA, 7200 RPM
Other Hardware: None

System State: Run level 3 (multi-user)
Base Pointers: 32/64-bit
Peak Pointers: 32/64-bit
Other Software: None

Test date: Jun-2012
Hardware Availability: Jan-2012
Test sponsor: Acer Incorporated
Software Availability: Dec-2011

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>
</tr>
</thead>
<tbody>
<tr>
<td>410.bwaves</td>
<td>8</td>
<td>1145</td>
<td>95.0</td>
<td>1143</td>
<td>95.1</td>
<td>1145</td>
<td>95.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>416.game7</td>
<td>8</td>
<td>1002</td>
<td>156</td>
<td>1000</td>
<td>157</td>
<td>1007</td>
<td>156</td>
<td></td>
<td></td>
</tr>
<tr>
<td>433.milc</td>
<td>8</td>
<td>756</td>
<td>97.1</td>
<td>756</td>
<td>97.1</td>
<td>756</td>
<td>97.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>434.reusmp</td>
<td>8</td>
<td>505</td>
<td>144</td>
<td>507</td>
<td>144</td>
<td>504</td>
<td>144</td>
<td></td>
<td></td>
</tr>
<tr>
<td>435.gromacs</td>
<td>8</td>
<td>460</td>
<td>124</td>
<td>460</td>
<td>124</td>
<td>460</td>
<td>124</td>
<td></td>
<td></td>
</tr>
<tr>
<td>436.cactusADM</td>
<td>8</td>
<td>659</td>
<td>145</td>
<td>662</td>
<td>145</td>
<td>661</td>
<td>145</td>
<td></td>
<td></td>
</tr>
<tr>
<td>437.leslie3d</td>
<td>8</td>
<td>1209</td>
<td>62.2</td>
<td>1212</td>
<td>62.1</td>
<td>1207</td>
<td>62.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>444.namd</td>
<td>8</td>
<td>522</td>
<td>123</td>
<td>521</td>
<td>123</td>
<td>523</td>
<td>123</td>
<td></td>
<td></td>
</tr>
<tr>
<td>447.dealII</td>
<td>8</td>
<td>370</td>
<td>247</td>
<td>374</td>
<td>245</td>
<td>364</td>
<td>252</td>
<td></td>
<td></td>
</tr>
<tr>
<td>450.soplex</td>
<td>8</td>
<td>944</td>
<td>70.7</td>
<td>945</td>
<td>70.6</td>
<td>944</td>
<td>70.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>453.povray</td>
<td>8</td>
<td>199</td>
<td>214</td>
<td>198</td>
<td>215</td>
<td>199</td>
<td>213</td>
<td></td>
<td></td>
</tr>
<tr>
<td>454.calculix</td>
<td>8</td>
<td>327</td>
<td>202</td>
<td>327</td>
<td>202</td>
<td>328</td>
<td>201</td>
<td></td>
<td></td>
</tr>
<tr>
<td>459.GemsFDTD</td>
<td>8</td>
<td>1400</td>
<td>60.6</td>
<td>1398</td>
<td>60.7</td>
<td>1400</td>
<td>60.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>465.tonto</td>
<td>8</td>
<td>540</td>
<td>146</td>
<td>567</td>
<td>139</td>
<td>544</td>
<td>145</td>
<td></td>
<td></td>
</tr>
<tr>
<td>470.lbm</td>
<td>8</td>
<td>874</td>
<td>126</td>
<td>875</td>
<td>126</td>
<td>876</td>
<td>125</td>
<td></td>
<td></td>
</tr>
<tr>
<td>481.wrf</td>
<td>8</td>
<td>786</td>
<td>114</td>
<td>789</td>
<td>113</td>
<td>789</td>
<td>113</td>
<td></td>
<td></td>
</tr>
<tr>
<td>482.sphinx3</td>
<td>8</td>
<td>1427</td>
<td>109</td>
<td>1370</td>
<td>114</td>
<td>1370</td>
<td>114</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Submit Notes

The taskset mechanism was used to bind copies to processors. The config file option 'submit' was used to generate taskset commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

Sysinfo program /usr/cpu2006/config/sysinfo.rev6800
$Rev: 6800 $ $Date:: 2011-10-11 #$ 6f2ebdf5032aaa4e583f96b07f99d3
running on localhost.localdomain Thu Jun 14 11:02:41 2012

Continued on next page
Acer AR320 F2 (Intel Xeon E3-1230 v2)

SPECfp_rate2006 = 126  
SPECfp_rate_base2006 = 122

Platform Notes (Continued)

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see: http://www.spec.org/cpu2006/Docs/config.html#sysinfo

From /proc/cpuinfo

model name : Intel(R) Xeon(R) CPU E3-1230 V2 @ 3.30GHz
  1 "physical id"s (chips)
  8 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
  cpu cores : 4
  siblings : 8
  physical 0: cores 0 1 2 3
  cache size : 8192 KB

From /proc/meminfo

MemTotal:       16300896 kB
HugePages_Total:       0
Hugepagesize:       2048 kB

/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.1 (Santiago)

From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.1 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.1 (Santiago)

uname -a:
Linux localhost.localdomain 2.6.32-131.0.15.el6.x86_64 #1 SMP Tue May 10 15:42:40 EDT 2011 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Jun 14 00:38

SPEC is set to: /usr/cpu2006

  Filesystem  Type  Size  Used Avail Use% Mounted on
  /dev/mapper/VolGroup-lv_root  ext4  50G  42G  8G  90% /

Additional information from dmidecode:
Memory:
  2x Hynix/Hyundai HMT41GU7MFR8A-H9 8 GB 1333 MHz 2 rank

(End of data from sysinfo program)
Acer Incorporated

Acer AR320 F2 (Intel Xeon E3-1230 v2)

**SPEC CFP2006 Result**

| SPECfp_rate2006 = | 126 |
| SPECfp_rate_base2006 = | 122 |

**CPU2006 license:** 97

**Test sponsor:** Acer Incorporated

**Test date:** Jun-2012

**Tested by:** Acer Incorporated

**Hardware Availability:** Jan-2012

**Software Availability:** Dec-2011

**General Notes**

Environment variables set by runspec before the start of the run:

LD_LIBRARY_PATH = "/usr/cpu2006/libs/32:/usr/cpu2006/libs/64"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RHEL5.5

Transparent Huge Pages disabled with:

echo never > /sys/kernel/mm/redhat_transparent_hugepage/enabled

**Base Compiler Invocation**

C benchmarks:

\[ \text{icc} \ -m64 \]

C++ benchmarks:

\[ \text{icpc} \ -m64 \]

Fortran benchmarks:

\[ \text{ifort} \ -m64 \]

Benchmarks using both Fortran and C:

\[ \text{icc} \ -m64 \ \text{ifort} \ -m64 \]

**Base Portability Flags**

410. bwaves: -DSPEC_CPU_LP64

416. gamess: -DSPEC_CPU_LP64

433. milc: -DSPEC_CPU_LP64

434. zeusmp: -DSPEC_CPU_LP64

435. gromacs: -DSPEC_CPU_LP64 -nofor_main

436. cactusADM: -DSPEC_CPU_LP64 -nofor_main

437. leslie3d: -DSPEC_CPU_LP64

444. namd: -DSPEC_CPU_LP64

447. dealII: -DSPEC_CPU_LP64

450. soplex: -DSPEC_CPU_LP64 -no-prec-div

453. povray: -DSPEC_CPU_LP64 --static

454. calculix: -DSPEC_CPU_LP64 -nofor_main

459. GmshFDTD: -DSPEC_CPU_LP64

465. toonto: -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:

\[ -xAVX \ -ipo \ -O3 \ -no-prec-div \ -static \ -opt-prefetch \ -auto-p32 \]

\[ -ansi-alias \]

Continued on next page
SPEC CFP2006 Result

Acer Incorporated
Acer AR320 F2 (Intel Xeon E3-1230 v2)

SPECfp_rate2006 = 126
SPECfp_rate_base2006 = 122

CPU2006 license: 97
Test sponsor: Acer Incorporated
Test date: Jun-2012
Tested by: Acer Incorporated
Hardware Availability: Jan-2012
Software Availability: Dec-2011

Base Optimization Flags (Continued)

C++ benchmarks:
- xAVX -ipo -O3 -no-prec-div -static -opt-prefetch -auto-p32
- -ansi-alias

Fortran benchmarks:
- xAVX -ipo -O3 -no-prec-div -static -opt-prefetch

Benchmarks using both Fortran and C:
- xAVX -ipo -O3 -no-prec-div -static -opt-prefetch -auto-p32
- -ansi-alias

Peak Compiler Invocation

C benchmarks (except as noted below):
icc -m64

482.sphinx3: icc -m32

C++ benchmarks (except as noted below):
icpc -m64

450.soplex: icpc -m32

Fortran benchmarks:
ifort -m64

Benchmarks using both Fortran and C:
icc -m64 ifort -m64

Peak Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.games: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
465.tonto: -DSPEC_CPU_LP64

Continued on next page
Acer Incorporated

Acer AR320 F2 (Intel Xeon E3-1230 v2)

SPECfp_rate2006 = 126
SPECfp_rate_base2006 = 122

CPU2006 license: 97
Test sponsor: Acer Incorporated
Tested by: Acer Incorporated

Test date: Jun-2012
Hardware Availability: Jan-2012
Software Availability: Dec-2011

Peak Portability Flags (Continued)

470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:
433.milc: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-ano-prec-div(pass 2) -prof-use(pass 2) -static -auto-ilp32

470.lbm: basepeak = yes
482.sphinx3: -xAVX -ipo -O3 -no-prec-div -unroll2

C++ benchmarks:
444.namd: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-ano-prec-div(pass 2) -prof-use(pass 2) -fno-alias
-auto-ilp32

447.dealII: basepeak = yes
450.soplex: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-ano-prec-div(pass 2) -prof-use(pass 2) -opt-malloc-options=3

Fortran benchmarks:
410.bwaves: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-ano-prec-div(pass 2) -prof-use(pass 2) -static

416.gamess: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-ano-prec-div(pass 2) -prof-use(pass 2) -unroll2
-inline-level=0 -scalar-rep -static

434.zeusmp: basepeak = yes
437.leslie3d: -xAVX -ipo -O3 -no-prec-div -static -opt-prefetch
459.GemsFDTD: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-ano-prec-div(pass 2) -prof-use(pass 2) -opt-malloc-options=3

465.tonto: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-ano-prec-div(pass 2) -prof-use(pass 2) -unroll4 -auto
-inline-calloc -opt-malloc-options=3

Continued on next page
Acer Incorporated
Acer AR320 F2 (Intel Xeon E3-1230 v2)

SPECfp_rate2006 = 126
SPECfp_rate_base2006 = 122

CPU2006 license: 97
Test sponsor: Acer Incorporated
Tested by: Acer Incorporated

Test date: Jun-2012
Hardware Availability: Jan-2012
Software Availability: Dec-2011

Peak Optimization Flags (Continued)

Benchmarks using both Fortran and C:

435.gromacs: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
-0nop-prec-div(pass 2) -prof-use(pass 2) -opt-prefetch
-static -auto-ilp32

436.cactusADM: basepeak = yes

454.calculix: -xAVX -ipo -03 -no-prec-div -static -auto-ilp32

481.wrf: Same as 454.calculix

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml

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.

Tested with SPEC CPU2006 v1.2.