Fujitsu

PRIMERGY TX140 S1p, Intel Pentium G550, 2.60 GHz

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**Hardware**
- CPU Name: Intel Celeron G550
- CPU Characteristics: 2600 MHz
- FPU: Integrated
- CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip
- CPU(s) orderable: 1 chip
- Primary Cache: 32 KB I + 32 KB D on chip per core
- Secondary Cache: 256 KB I+D on chip per core
- L3 Cache: 2 MB I+D on chip per chip
- Other Cache: None
- Memory: 16 GB (2 x 8 GB 2Rx8 PC3-12800E-11, running at 1067 MHz and CL7)
- Disk Subsystem: 1 x SATA, 500 GB, 7200 RPM
- Other Hardware: None

**Software**
- Operating System: Red Hat Enterprise Linux Server release 6.2 (Santiago) 2.6.32-220.el6.x86_64
- Compiler: C/C++: Version 12.1.0.293 of Intel C++ Studio XE for Linux; Fortran: Version 12.1.0.293 of Intel Fortran Studio XE for Linux
- Auto Parallel: Yes
- File System: ext4
- System State: Run level 3 (multi-user)
- Base Pointers: 64-bit
- Peak Pointers: 32/64-bit
- Other Software: None
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<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Base</th>
<th>Peaks</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Seconds</td>
<td>Ratio</td>
</tr>
<tr>
<td>410.bwaves</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>416.gamess</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>433.milc</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>434.zeusmp</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>435.gromacs</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>436.cactusADM</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>437.leslie3d</td>
<td>NC</td>
<td>NC</td>
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<tr>
<td>444.namd</td>
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<td>NC</td>
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<tr>
<td>447.dealII</td>
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<td>450.soplex</td>
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<tr>
<td>453.povray</td>
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<td>459.GemsFD</td>
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<td>465.tonto</td>
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<tr>
<td>470.libquantum</td>
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<tr>
<td>481.wrf</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>482.sphinx3</td>
<td>NC</td>
<td>NC</td>
</tr>
</tbody>
</table>

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

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Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"
Transparent Huge Pages enabled with:
`echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled`

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Non-Compliant
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Platform Notes

BIOS configuration:
Intel HT Technology = Disable

General Notes

Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/SPECcpu2006/libs/32:/SPECcpu2006/libs/64"
OMP_NUM_THREADS = "2"

Binaries compiled on a system with 1x E3-1270v2 CPU + 32 GB memory using RHEL6.2
For information about Fujitsu please visit: http://www.fujitsu.com

Base Compiler Invocation

C benchmarks:
icc -m64

C++ benchmarks:
icpc -m64

Fortran benchmarks:
ifort -m64

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

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64

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**Base Portability Flags (Continued)**

- 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
- 450.soplex: -DSPEC_CPU_LP64
- 453.povray: -DSPEC_CPU_LP64
- 454.calculix: -DSPEC_CPU_LP64 -nofor_main
- 459.GemsFDTD: -DSPEC_CPU_LP64 -nofor_main
- 465.tonto: -DSPEC_CPU_LP64
- 466.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: -ipo -O3 -no-prec-div -static -parallel -opt-prefetch
- C++ benchmarks: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch -ansi-alias
- Fortran benchmarks: -xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch
- Benchmarks using both Fortran and C: -xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch -ansi-alias
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Peak Compiler Invocation

C benchmarks:
\texttt{icc} -m64

C++ benchmarks:
\texttt{icpc} -m64

Fortran benchmarks:
\texttt{ifort} -m64

Benchmarks using both Fortran and C:
\texttt{icc} -m64 \texttt{ifort} -m64

Peak Portability Flags

Same as Base Portability flags

Peak Optimization Flags

C benchmarks:
- \texttt{433.milc}: -xSSE4.2\{pass 2\} -prof-gen\{pass 1\} -ipo\{pass 2\} -O3\{pass 2\}
  -no-prec-div\{pass 2\} -prof-use\{pass 2\} -static -auto-ilp32
  -ansi-alias

- \texttt{470.lbm}: basepeak = yes

- \texttt{482.sphinx3}: basepeak = yes

C++ benchmarks:
SPEC CFP2006 Result

Fujitsu

PRIMERGY TX140 S1p, Intel Pentium G550, 2.60 GHz

SPECfp2006 = NC
SPECfp_base2006 = NC

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: May-2012
Hardware Availability: Jun-2012
Software Availability: Feb-2012

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Peak Optimization Flags (Continued)

444.namd: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -fno-alias -auto-ilp32

447.dealII: basepeak = yes

450.soplex: basepeak = yes

453.povray: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll4 -ansi-alias

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2 -inline-level=0 -scalar-rep -static

435.gromacs: basepeak = yes

Benchmarks using both Fortran and C:

437.leslie3d: basepeak = yes

Continued on next page
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Peak Optimization Flags (Continued)

436.cactusADM: basepeak = yes

454.calculix: -xSSE4.2 -ipo -d -no-pre-div -auto-ilp32 -ansi-alias

481.wrf: basepeak = yes

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.html
http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20120320.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml
http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20120320.xml

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

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