**SPEC® CINT2006 Result**

Tyan
(Test Sponsor: Advanced Micro Devices)

Tyan Thunder n425QE (S4985E), AMD Opteron 8360 SE

<table>
<thead>
<tr>
<th>SPECint®_rate2006 = NC</th>
<th>SPECint_rate_base2006 = NC</th>
</tr>
</thead>
</table>

CPU2006 license: 49  
Test sponsor: Advanced Micro Devices  
Tested by: Advanced Micro Devices

---

**SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the 3 month availability requirement in the SPEC CPU2006 run rules due to a change in the availability date of the processor.**

---

<table>
<thead>
<tr>
<th>Copies</th>
</tr>
</thead>
<tbody>
<tr>
<td>400.perlbench</td>
</tr>
<tr>
<td>401.bzip2</td>
</tr>
<tr>
<td>403.gcc</td>
</tr>
<tr>
<td>429.mcf</td>
</tr>
<tr>
<td>445.gobmk</td>
</tr>
<tr>
<td>456.hmmer</td>
</tr>
<tr>
<td>458.sjeng</td>
</tr>
<tr>
<td>462.libquantum</td>
</tr>
<tr>
<td>464.h264ref</td>
</tr>
<tr>
<td>471.omnetpp</td>
</tr>
<tr>
<td>473.astar</td>
</tr>
<tr>
<td>483.xalancbmk</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hardware</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name: AMD Opteron 8360 SE</td>
</tr>
<tr>
<td>CPU Characteristics:</td>
</tr>
<tr>
<td>CPU MHz: 2500</td>
</tr>
<tr>
<td>FPU: Integrated</td>
</tr>
<tr>
<td>CPU(s) enabled: 16 cores, 4 chips, 4 cores/chip</td>
</tr>
<tr>
<td>CPU(s) orderable: 2,4 chips</td>
</tr>
<tr>
<td>Primary Cache: 64 KB I + 64 KB D on chip per core</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System: SuSE Linux Enterprise Server 10 SP1 64-bit kernel</td>
</tr>
</tbody>
</table>
| Compiler: The Portland Group (PGI)  
PGI pgcc 7.1-0 C Compiler  
PGI pgCC 7.1-0 C++ Compiler  
The PathScale Compiler v3.0  
PathScale pathcc 3.0 C Compiler  
PathScale pathCC 3.0 C++ Compiler |

---

Non-Compliant
SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Tyan
(Test Sponsor: Advanced Micro Devices)

Tyan Thunder n425QE (S4985E), AMD Opteron 8360 SE

SPECint_rate2006 = NC
SPECint_rate_base2006 = NC

CPU2006 license: 49
Test sponsor: Advanced Micro Devices
Tested by: Advanced Micro Devices

Test date: Sep-2007
Hardware Availability: Dec-2007
Software Availability: Oct-2007

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the 3 month availability requirement in the SPEC CPU2006 run rules due to a change in the availability date of the processor.

Secondary Cache: 512 KB I+D on chip per core
L3 Cache: 2 MB I+D on chip per chip
Other Cache: None
Memory: 32 GB (16x2GB, DDR2-667 CL5 Reg Dual Rank)
Disk Subsystem: 1x250GB SATA, 7200 RPM
Other Hardware: None

Auto Parallel: No
File System: ReiserFS
System State: Multi-user, run level 3
Base Pointers: 32/64-bit
Peak Pointers: 32/64-bit
Other Software: SmartHeap 8.0 32-bit Library for Linux

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Base</th>
<th>Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>400.perlbench</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>403.gcc</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>429.mcf</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>445.gobmk</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>456.hmmer</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>458.sjeng</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>462.libquantum</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>464.h264ref</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>473.astar</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>483.x264</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.

Operating System Notes

'ulimit -s unlimited' used to set environment stack size
'ulimit -l 4915200' was used to set environment lock pages quantity
'numactl' was used to bind copies to the cores
Set vm/nr_hugepages=2400 in /etc/sysctl.conf
mount -t hugetlbfs nodev /mnt/hugepages
Environment variable PGI_HUGE_PAGES set to 150

Non-Compliant

Standard Performance Evaluation Corporation
info@spec.org
http://www.spec.org/
SPEC CINT2006 Result

Tyan
(Test Sponsor: Advanced Micro Devices)

Tyan Thunder n425QE (S4985E), AMD Opteron 8360 SE

SPECint_rate2006 = NC
SPECint_rate_base2006 = NC

CPU2006 license: 49
Test sponsor: Advanced Micro Devices
Tested by: Advanced Micro Devices

Test date: Sep-2007
Hardware Availability: Dec-2007
Software Availability: Oct-2007

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the 3 month availability requirement in the SPEC CPU2006 run rules due to a change in the availability date of the processor.

General Notes
The tested system can be assembled using a PC Power & Cooling T1KWSR 1000W Turbo-Cool 12V power supply.

Base Compiler Invocation

C benchmarks:
pgcc

C++ benchmarks:
pgcpp

Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
429.mcf: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
56.hmmer: -DSPEC_CPU_LP64
58.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref: -DSPEC_CPU_LP64
464.hmmer: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
-fast -Mipa=fast -Mipa=inline -Mipa=noarg -Mfprelaxed
-Msmartalloc=huge:840 -tp barcelona-64 -Bstatic_pgi

C++ benchmarks:
-fastsse -Mipa=fast -Mipa=inline -Mfprelaxed -Msmartalloc=huge:448
--zc_eh -tp barcelona -Bstatic_pgi

Standard Performance Evaluation Corporation
info@spec.org
http://www.spec.org/
SPEC CINT2006 Result

Tyan
(Test Sponsor: Advanced Micro Devices)

Tyan Thunder n425QE (S4985E), AMD Opteron 8360 SE

SPECint_rate2006 = NC
SPECint_rate_base2006 = NC

CPU2006 license: 49
Test sponsor: Advanced Micro Devices
Tested by: Advanced Micro Devices
Test date: Sep-2007
Hardware Availability: Dec-2007
Software Availability: Oct-2007

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the 3 month availability requirement in the SPEC CPU2006 run rules due to a change in the availability date of the processor.

Base Other Flags

C benchmarks:
- w

C++ benchmarks:
- w

Peak Compiler Invocation

C benchmarks (except as noted below):
pgcc
400.perlbench: pathcc
403.gcc: pathcc
445.gobmk: pathcc
464.h264ref: pathcc

C++ benchmarks (except as noted below):
pgepp
483.xalancbmk: pathcc

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the 3 month availability requirement in the SPEC CPU2006 run rules due to a change in the availability date of the processor.

Peak Portability Flags (Continued)

464.h264ref: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -Ofast -LNO:opt=0
401.bzip2: -Mfpi(pass 1) -Mfpo(pass 2) -fast -O4
-Msmartalloc huge:448 -tp barcelona-64 -Bstatic_pgi
403.gcc: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -m32 -O3 -OPT:fast
451.gobmk: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -O3
-OPT:alias=disjoint -LNO:simd=0 -LNO:minvariant=off -LNO:retype_expr=on
-fast -Msmartalloc huge:448 -Mfprelaxed -Msafeptr
-Mipa=const -Mipa=ptr -Mipa=arg -tp barcelona-64 -Bstatic_pgi
458.jenn: -Mfpi(pass 1) -Mipa=fast(pass 2) -Mipa=inline:1(pass 2)
-Mipa=noarg(pass 2) -Mfpo(pass 2) -fast
-Msmartalloc huge:448 -Mfprelaxed -tp barcelona-64 -Bstatic_pgi
462.libquantum: -fast -Mfprelaxed -Msmartalloc huge:448 -Munroll=m:4
-Mipa=fast -Mipa=inline -Mipa=noarg -Bstatic_pgi

Continued on next page
SPEC CINT2006 Result

Tyan
(Test Sponsor: Advanced Micro Devices)

Tyan Thunder n425QE (S4985E), AMD Opteron 8360 SE

SPECint_rate2006 = NC
SPECint_rate_base2006 = NC

CPU2006 license: 49
Test sponsor: Advanced Micro Devices
Tested by: Advanced Micro Devices

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the 3 month availability requirement in the SPEC CPU2006 run rules due to a change in the availability date of the processor.

Peak Optimization Flags (Continued)

464.h264ref: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -03
-IPA:plimit=20000 -OPT:alias=disjoint -LNO:prefetch=0

C++ benchmarks:

471.omnetpp: basepeak = y
473.astar: basepeak = y
483.xalancbmk: -Ofast -m32 -O3 -unroll_times_max=8
-L/cpu2006/work/cpu2006/SmartHeap -lsmartheap

Peak Other Flags

C benchmarks (except as noted below):
-w
400.perlbench: No flags used
403.gcc: No flags used
445.gobmk: No flags used
No flags used

C++ benchmarks (except as noted below):
-w
483.xalancbmk: No flags used

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/amd814GH-flags.20090714.html
SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the 3 month availability requirement in the SPEC CPU2006 run rules due to a change in the availability date of the processor.

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/amd814GH-flags.20090714.xml

SPEC and SPECint 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 v1.0.
Report generated on Tue Jul 22 14:01:34 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 2 October 2007.