SPEC® OMPG2012 Result

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Supermicro
(Test Sponsor: HZDR)

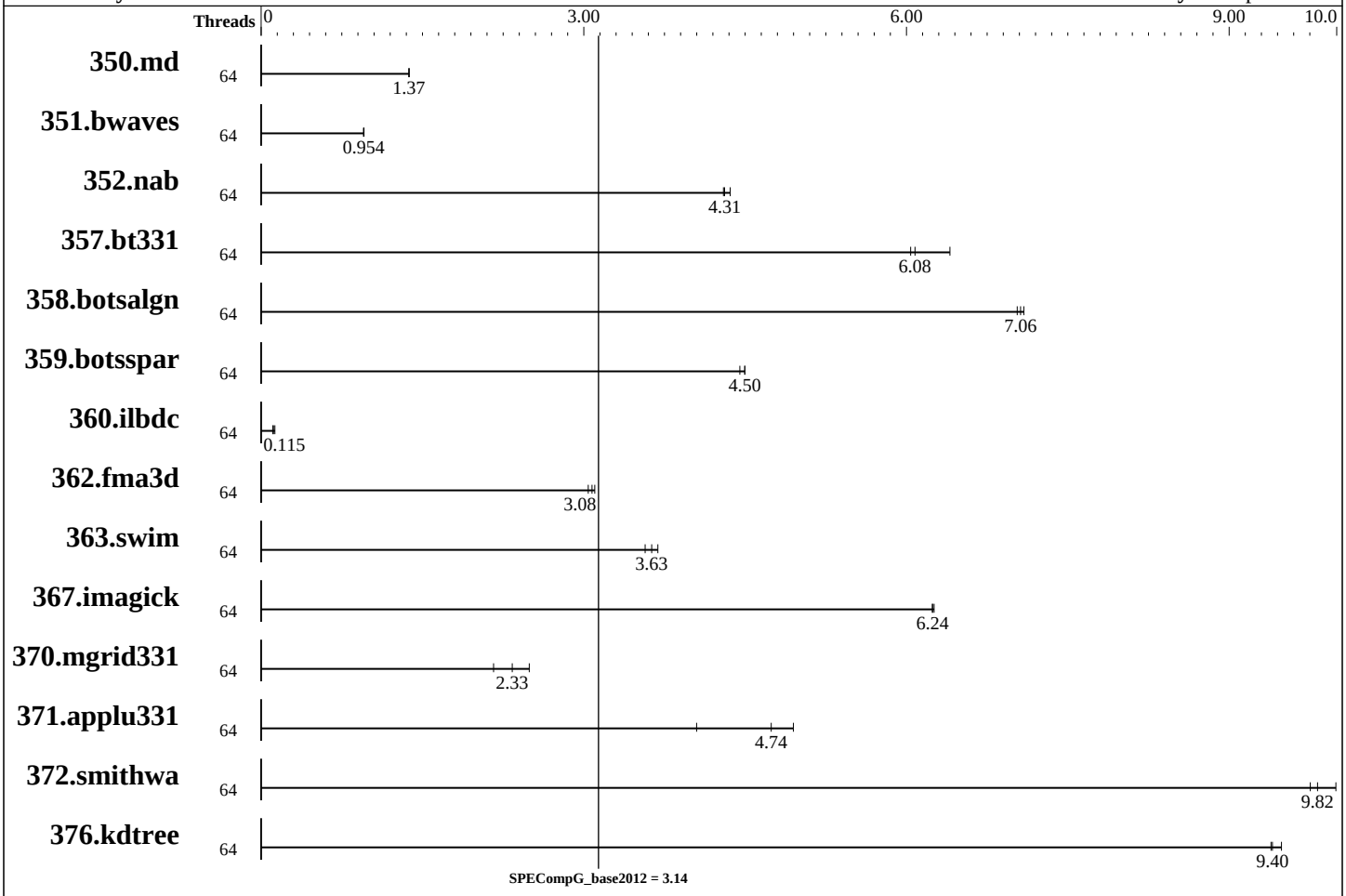
Supermicro H8QGi+-F

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 3.14

OMP2012 license: 65A
Test sponsor: HZDR
Tested by: HZDR

Test date: Jul-2017
Hardware Availability: Nov-2011
Software Availability: Sep-2016



Hardware

CPU Name:	AMD Opteron 6276
CPU Characteristics:	AMD Turbo CORE technology up to 3.20 GHz
CPU MHz:	2300
CPU MHz Maximum:	3200
FPU:	Integrated
CPU(s) enabled:	64 cores, 4 chips, 16 cores/chip
CPU(s) orderable:	2,4 chips
Primary Cache:	512 KB I on chip per chip, 64 KB I shared / 2 cores; 16 KB D on chip per core
Secondary Cache:	16 MB I+D on chip per chip, 2 MB shared / 2 cores
L3 Cache:	16 MB I+D on chip per chip, 8 MB shared / 8 cores
Other Cache:	None
Memory:	256 GB (32 x 8 GB 2Rx4 PC3-10600R-9, ECC)
Disk Subsystem:	500 GB (1 x 500 GB SATA 7200rpm)
Other Hardware:	--

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Software

Operating System:	Ubuntu 14.04 LTS Kernel 4.4.0-38-generic
Compiler:	C/C++/Fortran: Version 6.2 of the GNU Compilers
Auto Parallel:	No
File System:	ext3
System State:	run-level 5
Base Pointers:	64-bit
Peak Pointers:	Not Applicable
Other Software:	None

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Base Threads Run: 64
Minimum Peak Threads: --
Maximum Peak Threads: --

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
350.md	64	**3368**	**1.37**	3369	1.37	3367	1.38							
351.bwaves	64	4756	0.953	4737	0.956	**4749**	**0.954**							
352.nab	64	**903**	**4.31**	905	4.30	892	4.36							
357.bt331	64	785	6.04	**780**	**6.08**	740	6.40							
358.botsalgn	64	619	7.03	**616**	**7.06**	613	7.09							
359.botsspar	64	1167	4.50	**1168**	**4.50**	1180	4.45							
360.ilbdc	64	**31036**	**0.115**	27818	0.128	33016	0.108							
362.fma3d	64	**1235**	**3.08**	1225	3.10	1250	3.04							
363.swim	64	**1248**	**3.63**	1269	3.57	1228	3.69							
367.imagick	64	1124	6.26	1127	6.24	**1126**	**6.24**							
370.mgrid331	64	2045	2.16	**1893**	**2.33**	1773	2.49							
371.applu331	64	**1278**	**4.74**	1225	4.95	1497	4.05							
372.smithwa	64	536	9.99	**546**	**9.82**	549	9.75							
376.kdtree	64	**479**	**9.40**	474	9.49	479	9.39							

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

Platform Notes

```
Sysinfo program /tmp/spec/1.1/Docs/sysinfo
Revision 563 of 2016-06-10 (097295389cf6073d8c3b03fa376740a5)
running on laser084 Wed Jul  5 09:44:24 2017

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/omp2012/Docs/config.html#sysinfo

From /proc/cpuinfo
   model name : AMD Opteron(TM) Processor 6276
      4 "physical id"s (chips)
      64 "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 : 8
      siblings  : 16
      physical 0: cores 0 1 2 3 4 5 6 7
      physical 1: cores 0 1 2 3 4 5 6 7
      physical 2: cores 0 1 2 3 4 5 6 7
      physical 3: cores 0 1 2 3 4 5 6 7
```

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Platform Notes (Continued)

```
      cache size : 2048 KB

   From /proc/meminfo
      MemTotal:       264017344 kB
      HugePages_Total:       0
      Hugepagesize:       2048 kB

   /usr/bin/lsb_release -d
      Ubuntu 14.04.5 LTS

   From /etc/*release* /etc/*version*
      debian_version: jessie/sid
      os-release:
         NAME="Ubuntu"
         VERSION="14.04.5 LTS, Trusty Tahr"
         ID=ubuntu
         ID_LIKE=debian
         PRETTY_NAME="Ubuntu 14.04.5 LTS"
         VERSION_ID="14.04"
         HOME_URL="http://www.ubuntu.com/"
         SUPPORT_URL="http://help.ubuntu.com/"
      rh-release: Red Hat Enterprise Linux Server release 7.2 (Maipo)

   uname -a:
      Linux laser084 4.4.0-38-generic #57~14.04.1-Ubuntu SMP Tue Sep 6 17:20:43 UTC
      2016 x86_64 x86_64 x86_64 GNU/Linux

   run-level 5 Jul 5 09:38

   SPEC is set to: /tmp/spec/1.1
      Filesystem     Type  Size  Used Avail Use% Mounted on
      /dev/sda1      ext3   37G  8.0G   27G  23% /

   Cannot run dmidecode; consider saying 'chmod +s /usr/sbin/dmidecode'

   (End of data from sysinfo program)
```

General Notes

```
   Environment:
     ENV_OMP_DYNAMIC=FALSE
     ENV_OMP_NESTED=FALSE
```

Base Compiler Invocation

C benchmarks:
gcc

Continued on next page

Base Compiler Invocation (Continued)

C++ benchmarks:
g++

Fortran benchmarks:
gfortran

Base Portability Flags

350.md: -ffree-form -fno-range-check

Base Optimization Flags

C benchmarks:
-fopenmp -O3

C++ benchmarks:
-fopenmp -O3

Fortran benchmarks:
-fopenmp -O3

The flags file that was used to format this result can be browsed at
http://www.spec.org/omp2012/flags/gcc62_linux_flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/omp2012/flags/gcc62_linux_flags.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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