SPEC® OMPG2012 Result

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Supermicro
(Test Sponsor: HZDR)

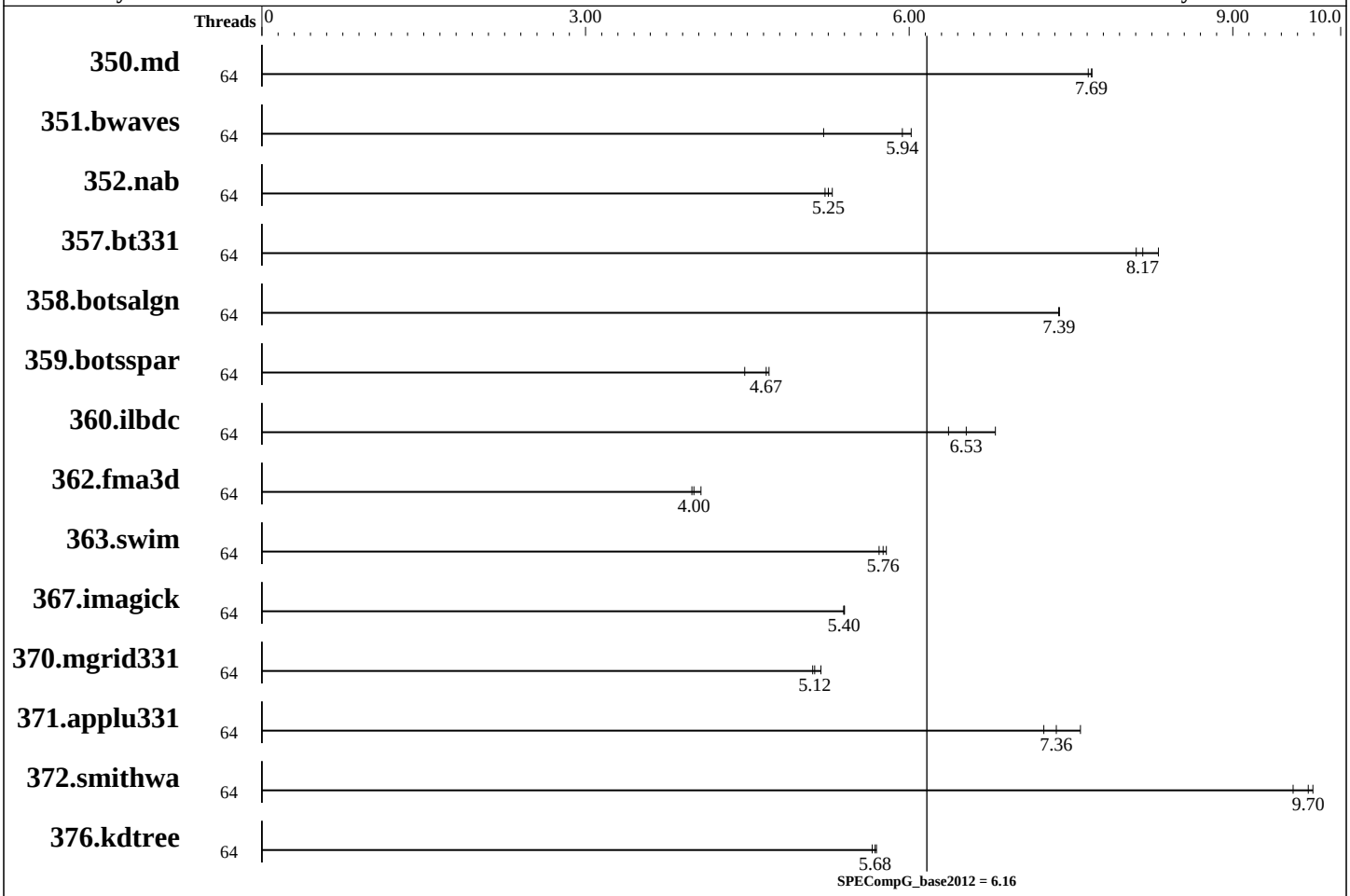
Supermicro H8QGi+-F

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 6.16

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

Test date: Jun-2017
Hardware Availability: Nov-2011
Software Availability: Feb-2017



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 17.0.2.174 of the Intel Compilers Build 20170213
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	**602**	**7.69**	604	7.66	602	7.69							
351.bwaves	64	870	5.21	**763**	**5.94**	753	6.02							
352.nab	64	745	5.22	**741**	**5.25**	736	5.29							
357.bt331	64	570	8.31	585	8.10	**580**	**8.17**							
358.botsalgn	64	588	7.39	589	7.39	**589**	**7.39**							
359.botsspar	64	1173	4.48	**1123**	**4.67**	1117	4.70							
360.ilbdc	64	559	6.36	524	6.80	**545**	**6.53**							
362.fma3d	64	934	4.07	**949**	**4.00**	953	3.99							
363.swim	64	**787**	**5.76**	792	5.72	783	5.79							
367.imagick	64	**1303**	**5.40**	1304	5.39	1302	5.40							
370.mgrid331	64	853	5.18	866	5.11	**863**	**5.12**							
371.applu331	64	836	7.25	799	7.59	**823**	**7.36**							
372.smithwa	64	550	9.74	561	9.56	**553**	**9.70**							
376.kdtree	64	790	5.70	795	5.66	**792**	**5.68**							

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 Thu Jun 29 11:52:20 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
```

Continued on next page

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 Jan 13 08:40

   SPEC is set to: /tmp/spec/1.1
      Filesystem     Type  Size  Used Avail Use% Mounted on
      /dev/sda1      ext3   37G  8.1G   27G  24% /

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

   (End of data from sysinfo program)
```

General Notes

```
Environment:
  KMP_LIBRARY=turnaround
  KMP_BLOCKTIME=infinite
  KMP_STACKSIZE=190M
  OMP_DYNAMIC=FALSE
  OMP_NESTED=FALSE
```

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Base Portability Flags

350.md: -FR
357.bt331: -mcmodel=medium
363.swim: -mcmodel=medium
367.imagick: -std=c99

Base Optimization Flags

C benchmarks:
-O2 -openmp -ipo -ansi-alias

C++ benchmarks:
-O2 -openmp -ipo -ansi-alias

Fortran benchmarks:
-O2 -openmp -ipo -align array64byte

The flags file that was used to format this result can be browsed at
http://www.spec.org/omp2012/flags/Intel-17.2-linux_flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/omp2012/flags/Intel-17.2-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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