SPEC® OMPG2012 Result

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Supermicro
(Test Sponsor: HZDR)

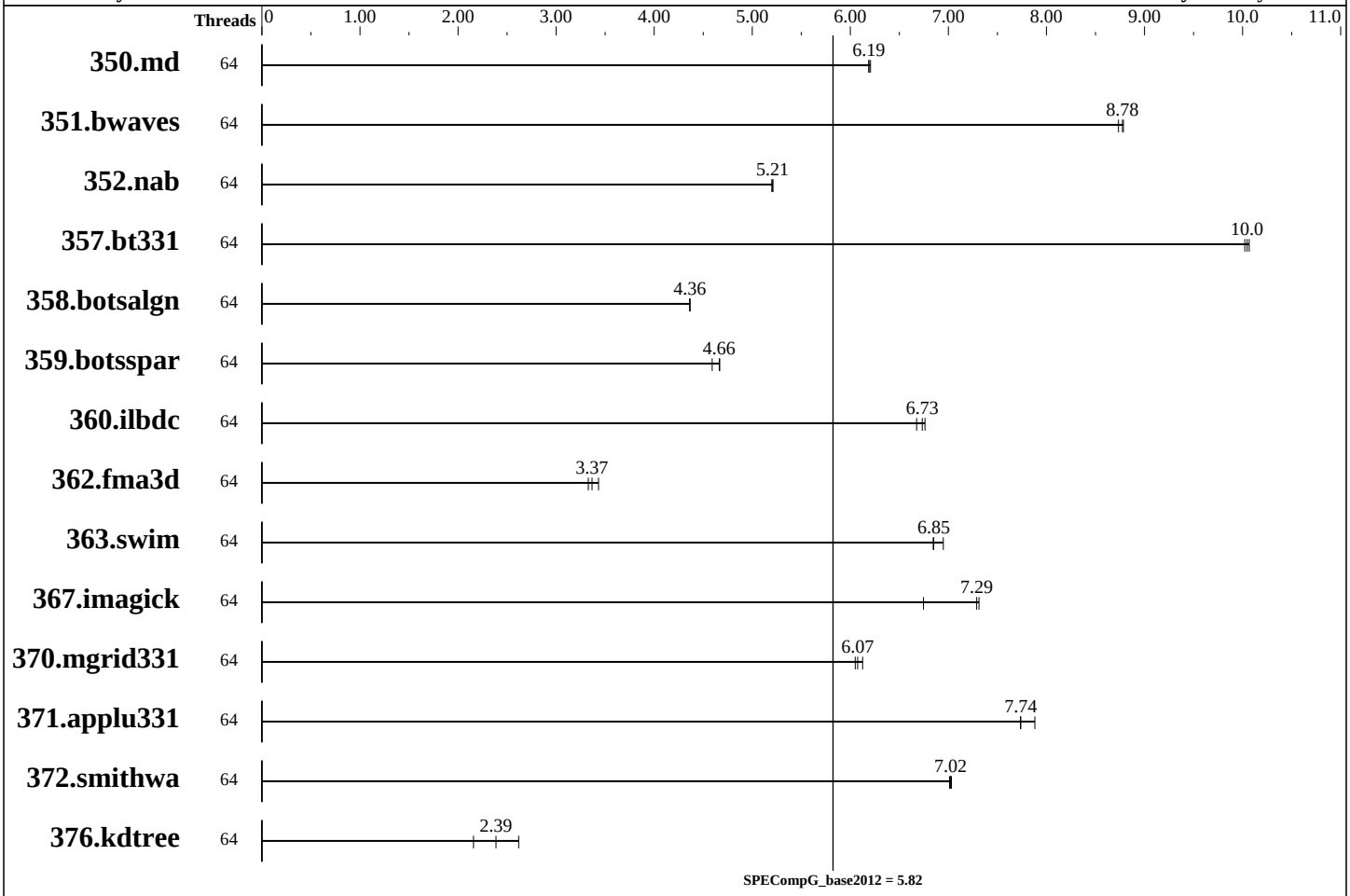
Supermicro H8QGi+-F

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 5.82

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

Test date: Jul-2017
Hardware Availability: Nov-2011
Software Availability: May-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:	250 GB (1 x 250 GB SATA 7200 rpm)
Other Hardware:	--

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Software

Operating System:	Ubuntu 14.04 LTS Kernel 4.4.0-38-generic
Compiler:	C/C++/Fortran: Version 17.5 of the PGI Compilers
Auto Parallel:	No
File System:	ext3
System State:	run-level 5
Base Pointers:	64-bit
Peak Pointers:	Not Applicable
Other Software:	None

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
350.md	64	748	6.19	**748**	**6.19**	746	6.21							
351.bwaves	64	516	8.78	519	8.73	**516**	**8.78**							
352.nab	64	748	5.20	**747**	**5.21**	747	5.21							
357.bt331	64	473	10.0	471	10.1	**472**	**10.0**							
358.botsalgn	64	997	4.36	997	4.36	**997**	**4.36**							
359.botsspar	64	**1126**	**4.66**	1125	4.67	1143	4.59							
360.ilbdc	64	533	6.68	527	6.76	**529**	**6.73**							
362.fma3d	64	1107	3.43	1142	3.33	**1129**	**3.37**							
363.swim	64	662	6.85	652	6.95	**661**	**6.85**							
367.imagick	64	961	7.31	**965**	**7.29**	1042	6.75							
370.mgrid331	64	731	6.05	**728**	**6.07**	722	6.13							
371.applu331	64	769	7.88	**783**	**7.74**	784	7.73							
372.smithwa	64	**763**	**7.02**	762	7.03	764	7.01							
376.kdtree	64	2086	2.16	1719	2.62	**1885**	**2.39**							

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 laser086 Wed Jul  5 11:59:45 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 laser086 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 5 07:52

   SPEC is set to: /tmp/spec/1.1
      Filesystem     Type  Size  Used Avail Use% Mounted on
      /dev/sda1      ext3   37G  8.4G   27G  24% /

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

   (End of data from sysinfo program)
```

General Notes

```
   Environment:
     OMP_NESTED=FALSE
     OMP_DYNAMIC=FALSE
     MP_BIND=YES
     MPSTKZ=64M
     OMP_STACKSIZE=64M
```

Base Compiler Invocation

C benchmarks:
pgcc

C++ benchmarks:
pgc++

Fortran benchmarks:
pgf90

Base Portability Flags

350.md: -Mfree

Base Optimization Flags

C benchmarks:
-mp -fast -Mvect=simd:256 -Msmartalloc=huge -mcmodel=medium

C++ benchmarks:
-mp -fast -Mvect=simd:256 -Msmartalloc=huge -mcmodel=medium

Fortran benchmarks:
-mp -fast -Mvect=simd:256 -Msmartalloc=huge -mcmodel=medium

The flags file that was used to format this result can be browsed at
http://www.spec.org/omp2012/flags/pgi175_linux_flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/omp2012/flags/pgi175_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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