



SPEC® OMPG2012 Result

Copyright 2012-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology ThinkSystem SR950

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 40.6

OMP2012 license:28

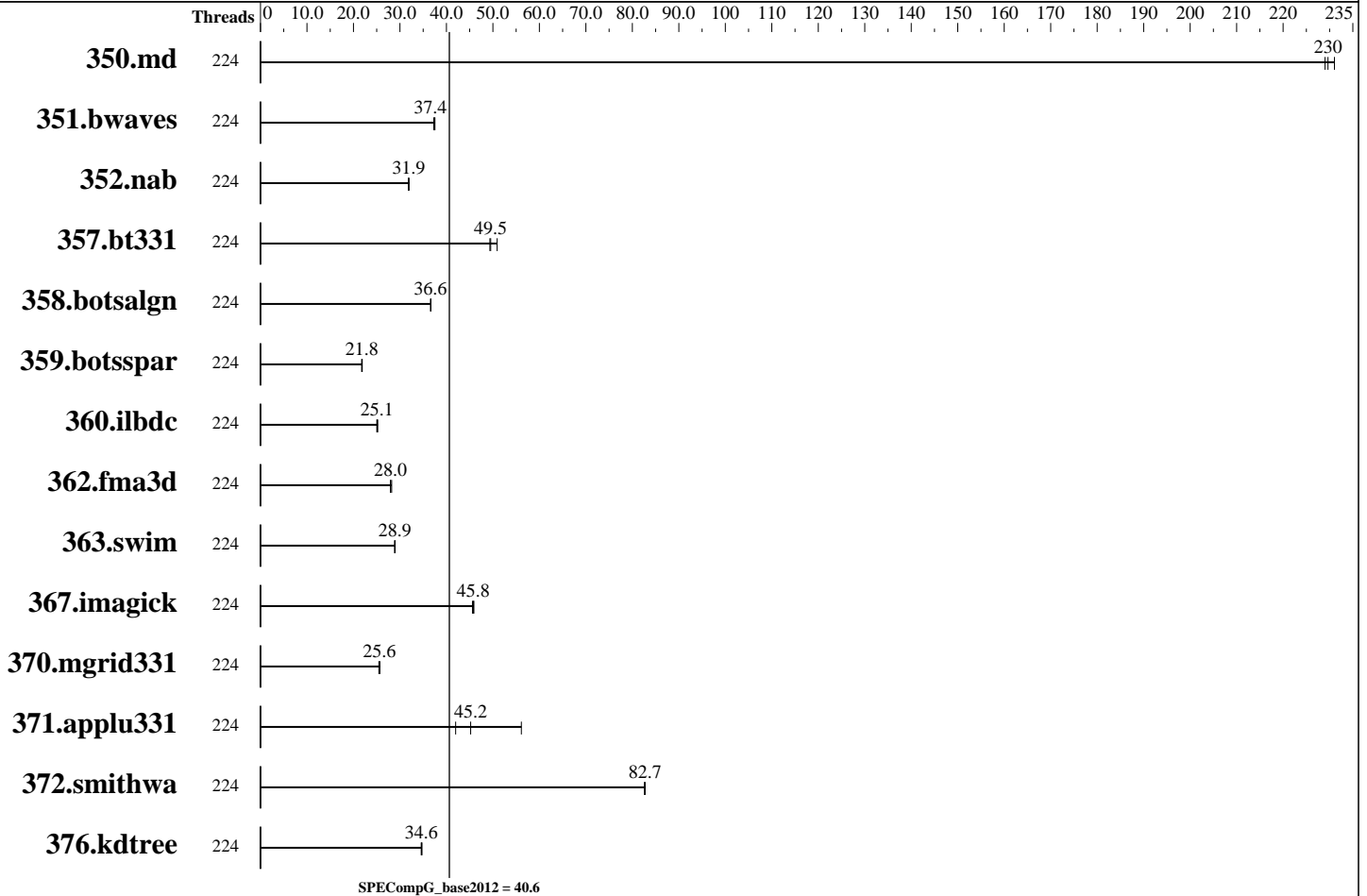
Test sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test date: Jul-2018

Hardware Availability: Aug-2017

Software Availability: Aug-2018



Hardware

CPU Name: Intel Xeon Platinum 8180
 CPU Characteristics: Intel Turbo Boost Technology up to 3.80 GHz
 CPU MHz: 2500
 CPU MHz Maximum: 3800
 FPU: Integrated
 CPU(s) enabled: 112 cores, 4 chips, 28 cores/chip, 2 threads/core
 CPU(s) orderable: 2,3,4,6,8 Chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 1 MB I+D on chip per core
 L3 Cache: 39424 KB I+D on chip per chip
 Other Cache: None
 Memory: 768 GB (48 x 16 GB 2Rx8 PC4-2666V)
 Disk Subsystem: 0.96TB NVMe SSD
 Other Hardware: None
 Base Threads Run: 224
 Minimum Peak Threads: --

Continued on next page

Software

Operating System: Red Hat Enterprise Linux Server release 7.5, Kernel 3.10.0-862.3.2.el7.x86_64
 Compiler: C/C++/Fortran: Version 18.0.3.222 of Intel Composer XE for Linux Build 20180516
 Auto Parallel: No
 File System: ext3
 System State: Default
 Base Pointers: 64-bit
 Peak Pointers: Not Applicable
 Other Software: None



SPEC OMPG2012 Result

Copyright 2012-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology
ThinkSystem SR950

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 40.6

OMP2012 license:28

Test sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test date: Jul-2018

Hardware Availability: Aug-2017

Software Availability: Aug-2018

Maximum Peak Threads: --

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
350.md	224	20.2	230	20.0	231	20.2	229							
351.bwaves	224	122	37.3	121	37.4	121	37.5							
352.nab	224	122	31.8	122	31.9	122	32.0							
357.bt331	224	95.7	49.5	96.0	49.4	93.1	50.9							
358.botsalgn	224	119	36.6	119	36.7	119	36.6							
359.botsspar	224	240	21.9	241	21.8	241	21.8							
360.ilbdc	224	142	25.1	142	25.0	141	25.2							
362.fma3d	224	136	28.0	136	28.0	135	28.2							
363.swim	224	157	28.9	157	28.9	156	29.0							
367.imagick	224	153	45.9	154	45.6	154	45.8							
370.mgrid331	224	173	25.6	172	25.7	174	25.5							
371.applu331	224	134	45.2	108	56.1	144	42.0							
372.smithwa	224	64.8	82.7	64.8	82.7	64.9	82.6							
376.kdtree	224	130	34.6	130	34.6	130	34.7							

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

Operating System Notes

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1) is mitigated in the system as tested and documented.

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2) is mitigated in the system as tested and documented.

ulimit -s unlimited

Platform Notes

```
Sysinfo program /home/omp2012/Docs/sysinfo
$Rev: 395 $ $Date:: 2012-07-25 $# 8f8c0fe9e19c658963ale67685e50647
running on localhost.localdomain Tue Jul 24 20:09:25 2018
```

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 : Intel(R) Xeon(R) Platinum 8180 CPU @ 2.50GHz
4 "physical id"s (chips)
224 "processors"
```

Continued on next page



SPEC OMPG2012 Result

Copyright 2012-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology ThinkSystem SR950

SPECCompG_peak2012 = Not Run

SPECCompG_base2012 = 40.6

OMP2012 license:28

Test sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test date: Jul-2018

Hardware Availability: Aug-2017

Software Availability: Aug-2018

Platform Notes (Continued)

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 : 28
siblings  : 56
physical 0: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
physical 1: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
physical 2: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
physical 3: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
cache size : 39424 KB

```

From /proc/meminfo

```

MemTotal:      791969344 kB
HugePages_Total:      0
Hugepagesize:    2048 kB

```

From /etc/*release* /etc/*version*

```

os-release:
NAME="Red Hat Enterprise Linux Server"
VERSION="7.5 (Maipo)"
ID="rhel"
ID_LIKE="fedora"
VARIANT="Server"
VARIANT_ID="server"
VERSION_ID="7.5"
PRETTY_NAME="Red Hat Enterprise Linux Server 7.5 (Maipo)"
redhat-release: Red Hat Enterprise Linux Server release 7.5 (Maipo)
system-release: Red Hat Enterprise Linux Server release 7.5 (Maipo)
system-release-cpe: cpe:/o:redhat:enterprise_linux:7.5:ga:server

```

uname -a:

```

Linux localhost.localdomain 3.10.0-862.el7.x86_64 #1 SMP Wed Mar 21 18:14:51
EDT 2018 x86_64 x86_64 x86_64 GNU/Linux

```

run-level 3 Jul 24 13:40

SPEC is set to: /home/omp2012

```

Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs      839G   16G  823G   2% /home

```

Additional information from dmidecode:

```

BIOS Lenovo  -[PSE113P-1.30]- 06/14/2018
Memory:
48x NO DIMM NO DIMM
48x Samsung M393A2K43BB1-CTD 16 GB 2666 MHz 2 rank

```

(End of data from sysinfo program)



SPEC OMPG2012 Result

Copyright 2012-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology
ThinkSystem SR950

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 40.6

OMP2012 license:28

Test sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test date: Jul-2018

Hardware Availability: Aug-2017

Software Availability: Aug-2018

General Notes

=====
General base OMP Library Settings
ENV_KMP_AFFINITY=compact,1

=====
General OMP Library Settings
KMP_LIBRARY=turnaround
KMP_STACKSIZE=16G
KMP_BLOCKTIME=infinite
OMP_DYNAMIC=FALSE
OMP_NESTED=FALSE
OMP_SCHEDULE=static

=====
BIOS setting notes:
Operating Mode set to Maximum Performance Mode
=====

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Base Portability Flags

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

Base Optimization Flags

C benchmarks:
-O2 -qopenmp -ipo -xHOST -ansi-alias

C++ benchmarks:
-O2 -qopenmp -ipo -xHOST -ansi-alias

Fortran benchmarks:
-O2 -qopenmp -ipo -xHOST -align array64byte



SPEC OMPG2012 Result

Copyright 2012-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology
ThinkSystem SR950

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 40.6

OMP2012 license:28

Test sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test date: Jul-2018

Hardware Availability: Aug-2017

Software Availability: Aug-2018

The flags files that were used to format this result can be browsed at

<http://www.spec.org/omp2012/flags/Lenovo-Platform-Flags-V1.2-SKL-C.html>

<http://www.spec.org/omp2012/flags/lenovo.20180912.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/omp2012/flags/Lenovo-Platform-Flags-V1.2-SKL-C.xml>

<http://www.spec.org/omp2012/flags/lenovo.20180912.xml>

SPEC is a registered trademark 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 OMP2012 v1.0.
Report generated on Wed Sep 12 12:15:48 2018 by SPEC OMP2012 PS/PDF formatter v541.
Originally published on 12 September 2018.