



SPEC® OMPG2012 Result

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Uniwise Technologies

(Test Sponsor: Telecommunications Technology Association)

SPECompG_peak2012 = Not Run

RB128 (Intel Xeon E5-2600 v4 1U Server)

SPECompG_base2012 = 9.50

OMP2012 license:068A

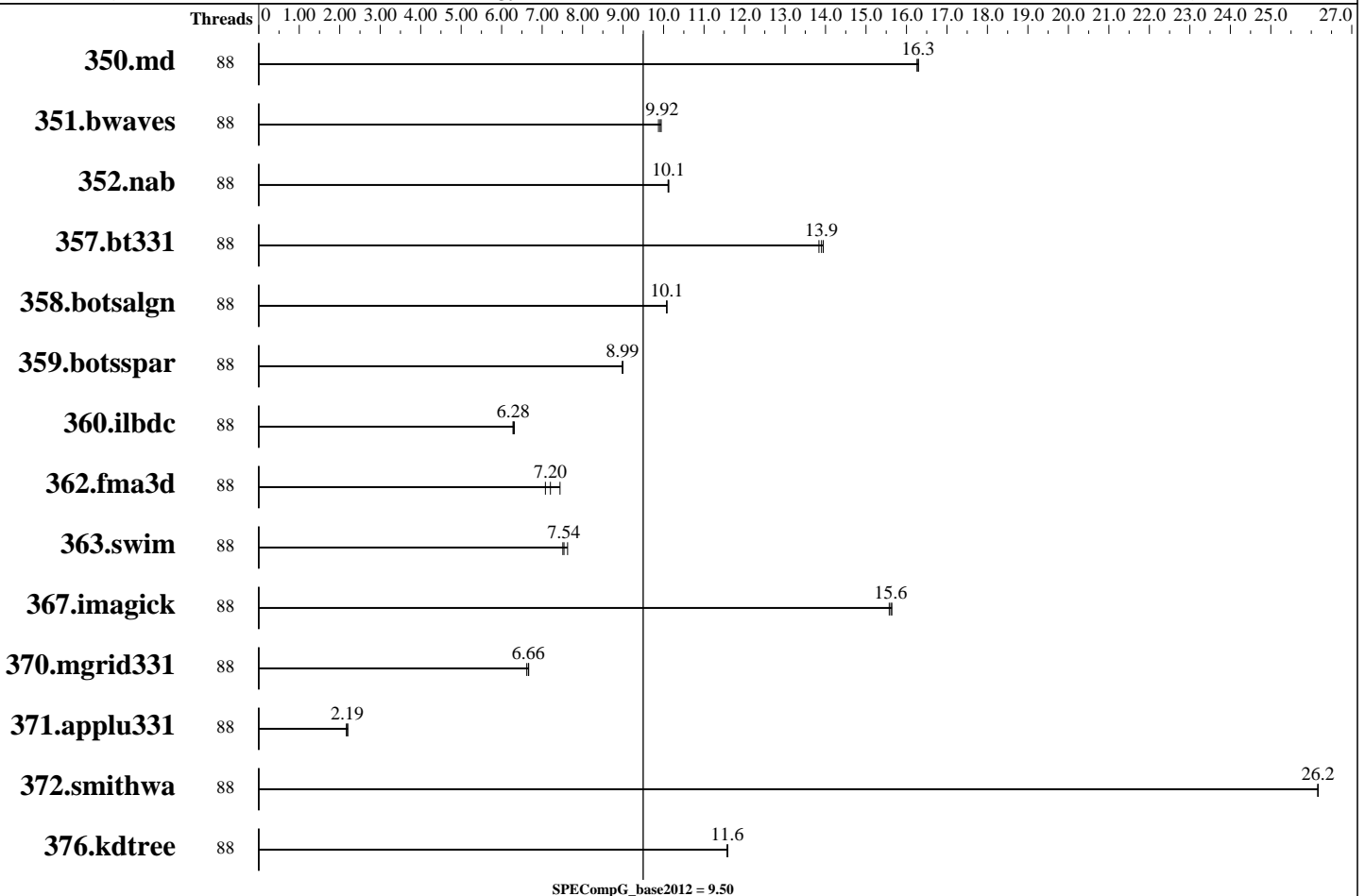
Test sponsor: Telecommunications Technology Association

Tested by: Telecommunications Technology Association

Test date: Nov-2019

Hardware Availability: May-2017

Software Availability: Dec-2018



Hardware

CPU Name: Intel Xeon E5-2699 v4
 CPU Characteristics: Intel Turbo Boost Technology up to 3.60 GHz
 Hyper-threading off.
 CPU MHz: 2200
 CPU MHz Maximum: 3600
 FPU: Integrated
 CPU(s) enabled: 44 cores, 2 chips, 22 cores/chip
 CPU(s) orderable: 1,2 Chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 256 KB I+D on chip per core
 L3 Cache: 55 MB I+D on chip per chip
 Other Cache: None
 Memory: 384 GB (12 x 32 GB 2Rx4 PC4-2400T-R)
 Disk Subsystem: 2 x 300GB SEAGATE ST300MM0048 SAS RAID0
 Other Hardware: None
 Base Threads Run: 88

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Software

Operating System: CentOS Linux release 7.7.1908 (Core)
 Compiler: C/C++/Fortran: Version 18.0.1.163 of Intel
 Composer XE for Linux Build 20171018
 Auto Parallel: No
 File System: xfs
 System State: Multi-user, run level 3
 Base Pointers: 64-bit
 Peak Pointers: Not Applicable
 Other Software: None



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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	88	285	16.3	<u>284</u>	<u>16.3</u>	284	16.3									
351.bwaves	88	459	9.87	<u>457</u>	<u>9.92</u>	456	9.94									
352.nab	88	<u>384</u>	<u>10.1</u>	385	10.1	384	10.1									
357.bt331	88	340	13.9	<u>341</u>	<u>13.9</u>	343	13.8									
358.botsalgn	88	432	10.1	<u>432</u>	<u>10.1</u>	432	10.1									
359.botsspar	88	<u>584</u>	<u>8.99</u>	584	8.98	584	8.99									
360.ilbdc	88	564	6.31	567	6.28	<u>566</u>	<u>6.28</u>									
362.fma3d	88	537	7.08	<u>527</u>	<u>7.20</u>	511	7.44									
363.swim	88	<u>601</u>	<u>7.54</u>	603	7.51	594	7.63									
367.imagick	88	449	15.6	451	15.6	<u>450</u>	<u>15.6</u>									
370.mgrid331	88	668	6.62	663	6.67	<u>664</u>	<u>6.66</u>									
371.applu331	88	2801	2.16	2755	2.20	<u>2768</u>	<u>2.19</u>									
372.smithwa	88	<u>205</u>	<u>26.2</u>	205	26.2	205	26.2									
376.kdtree	88	389	11.6	<u>389</u>	<u>11.6</u>	389	11.6									

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

Platform Notes

```

Sysinfo program /usr/omp2012/Docs/sysinfo
$Rev: 395 $ $Date:: 2012-07-25 #$ 8f8c0fe9e19c658963ale67685e50647
running on uniwide-rb128 Wed Nov 13 13:08:54 2019

```

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) CPU E5-2699 v4 @ 2.20GHz
 2 "physical id"s (chips)
 44 "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 : 22
siblings : 22
physical 0: cores 0 1 2 3 4 5 8 9 10 11 12 16 17 18 19 20 21 24 25 26 27
28
physical 1: cores 0 1 2 3 4 5 8 9 10 11 12 16 17 18 19 20 21 24 25 26 27
28
cache size : 56320 KB

```

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Platform Notes (Continued)

From /proc/meminfo

MemTotal: 395982468 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

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

centos-release: CentOS Linux release 7.7.1908 (Core)
centos-release-upstream: Derived from Red Hat Enterprise Linux 7.7 (Source)
os-release:
NAME="CentOS Linux"
VERSION="7 (Core)"
ID="centos"
ID_LIKE="rhel fedora"
VERSION_ID="7"
PRETTY_NAME="CentOS Linux 7 (Core)"
ANSI_COLOR="0;31"
CPE_NAME="cpe:/o:centos:centos:7"
redhat-release: CentOS Linux release 7.7.1908 (Core)
system-release: CentOS Linux release 7.7.1908 (Core)
system-release-cpe: cpe:/o:centos:centos:7

uname -a:

Linux uniwide-rb128 3.10.0-957.el7.x86_64 #1 SMP Thu Nov 8 23:39:32 UTC 2018
x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Oct 28 11:04

SPEC is set to: /usr/omp2012

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/mapper/centos-root	xfs	50G	6.5G	44G	13%	/

Additional information from dmidecode:

BIOS American Megatrends Inc. 3407 01/11/2017
Memory:
12x 32 GB
9x Hynix Semiconductor HMA84GR7AFR4N-UH 32 GB 2133 MT/s 2 rank
3x Hynix Semiconductor HMA84GR7MFR4N-UH 32 GB 2133 MT/s 2 rank
12x NO DIMM NO DIMM

(End of data from sysinfo program)

General Notes

System settings notes:

Intel Turbo Boost Technology (Turbo) : Enabled

General OMP Library Settings

KMP_AFFINITY=compact,0

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General Notes (Continued)

```
KMP_LIBRARY=turnaround
KMP_STACKSIZE=512M
KMP_BLOCKTIME=infinite
OMP_DYNAMIC=FALSE
OMP_NESTED=FALSE
OMP_SCHEDULE=static
```

```
=====  
Environment Variables Settings  
ulimit -s unlimited  
  
=====
```

Spectre and Meltdown

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.

Base Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

Fortran benchmarks:

ifort

Base Portability Flags

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

Base Optimization Flags

C benchmarks:

```
-ansi-alias -qopenmp -ipo -O3 -no-prec-div -no-prec-sqrt
-fp-model fast=2 -xHost
```

C++ benchmarks:

```
-ansi-alias -qopenmp -ipo -O3 -no-prec-div -no-prec-sqrt
-fp-model fast=2 -xHost
```

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Base Optimization Flags (Continued)

Fortran benchmarks:

```
-qopenmp -ipo -O3 -no-prec-div -no-prec-sqrt -fp-model fast=2
-xHost
```

The flags file that was used to format this result can be browsed at

http://www.spec.org/omp2012/flags/icc_linux_flags.html

You can also download the XML flags source by saving the following link:

http://www.spec.org/omp2012/flags/icc_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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