



# SPEC® OMPG2012 Result

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## Cisco Systems

Cisco UCS C480 M5 (Intel Xeon Platinum 8180,  
2.50 GHz)

SPECompG\_peak2012 = Not Run

SPECompG\_base2012 = 37.2

OMP2012 license:9019

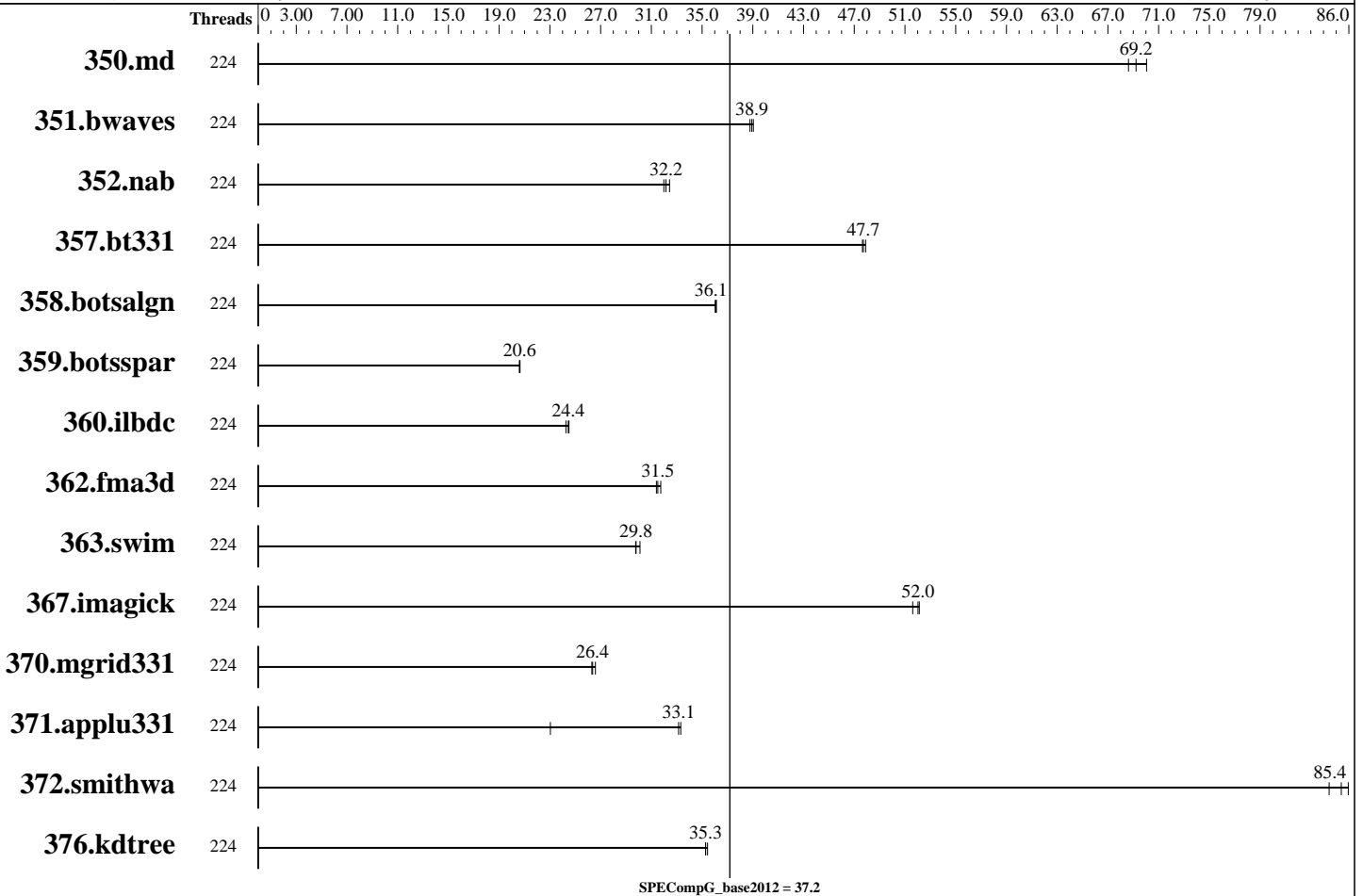
Test sponsor: Cisco Systems

Tested by: Cisco Systems

Test date: Jun-2017

Hardware Availability: Aug-2017

Software Availability: May-2017



### 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: 2,4 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: 38.5 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 768 GB (48 x 16 GB 2Rx4 PC4-2666V-R)  
 Disk Subsystem: 1 X 400 GB SSD SAS  
 Other Hardware: None  
 Base Threads Run: 224  
 Minimum Peak Threads: --

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### Software

Operating System: SUSE Linux Enterprise Server 12 SP2 (x86\_64)  
 Kernel 4.4.21-69-default  
 Compiler: C/C++/Fortran: Version 17.0.4.196 of Intel Composer for Linux Build 20170411  
 Auto Parallel: No  
 File System: xfs  
 System State: Run Level 3 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: Not Applicable  
 Other Software: None



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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	66.1	70.0	67.5	68.6	<b>66.9</b>	<b>69.2</b>							
351.bwaves	224	<b>116</b>	<b>38.9</b>	116	39.0	117	38.8							
352.nab	224	120	32.4	<b>121</b>	<b>32.2</b>	122	32.0							
357.bt331	224	<b>99.3</b>	<b>47.7</b>	99.5	47.6	99.0	47.9							
358.botsalgn	224	<b>121</b>	<b>36.1</b>	121	36.0	120	36.1							
359.botsspar	224	255	20.6	254	20.6	<b>255</b>	<b>20.6</b>							
360.ilbdc	224	147	24.3	145	24.5	<b>146</b>	<b>24.4</b>							
362.fma3d	224	121	31.4	<b>121</b>	<b>31.5</b>	120	31.7							
363.swim	224	<b>152</b>	<b>29.8</b>	152	29.8	150	30.1							
367.imagick	224	<b>135</b>	<b>52.0</b>	135	52.1	136	51.6							
370.mgrid331	224	<b>168</b>	<b>26.4</b>	168	26.3	166	26.6							
371.applu331	224	182	33.3	<b>183</b>	<b>33.1</b>	263	23.0							
372.smithwa	224	<b>62.8</b>	<b>85.4</b>	63.5	84.4	62.4	86.0							
376.kdtree	224	128	35.3	127	35.4	<b>128</b>	<b>35.3</b>							

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

## Platform Notes

```

Sysinfo program /opt/omp2012/Docs/sysinfo
$Rev: 395 $ $Date:: 2012-07-25 $# 8f8c0fe9e19c658963a1e67685e50647
running on linux-wjnw Wed Jun 14 18:26:08 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 : Intel(R) Xeon(R) Platinum 8180 CPU @ 2.50GHz
 4 "physical id"s (chips)
 224 "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 : 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

```

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### Platform Notes (Continued)

```
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:      791192456 kB
HugePages_Total:    0
Hugepagesize:   2048 kB
```

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

```
SuSE-release:
SUSE Linux Enterprise Server 12 (x86_64)
VERSION = 12
PATCHLEVEL = 2
# This file is deprecated and will be removed in a future service pack or
release.
# Please check /etc/os-release for details about this release.
```

```
os-release:
NAME="SLES"
VERSION="12-SP2"
VERSION_ID="12.2"
PRETTY_NAME="SUSE Linux Enterprise Server 12 SP2"
ID="sles"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:12:sp2"
```

```
uname -a:
Linux linux-wjnw 4.4.21-69-default #1 SMP Tue Oct 25 10:58:20 UTC 2016
(9464f67) x86_64 x86_64 x86_64 GNU/Linux
```

run-level 3 Jun 14 03:53

```
SPEC is set to: /opt/omp2012
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda2        xfs   321G  40G  282G  13% /
```

Additional information from dmidecode:

```
BIOS Cisco Systems, Inc. C480M5.3.1.0.248.0518171057 05/18/2017
Memory:
48x 16 GB
48x 0xCE00 M393A2G40EB2-CTD 16 GB 2666 MHz 2 rank
```

(End of data from sysinfo program)

### General Notes

```
=====
BIOS settings notes:
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/transparent_hugepage/enabled
BIOS settings notes:
```

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### General Notes (Continued)

```

Intel Turbo Boost Technology (Turbo) : Enabled
CPU performance set to Enterprise
Power Performance Tuning set to OS
SNC set to Disabled
IMC Interleaving set to Auto
General OMP Library Settings
ENV_KMP_LIBRARY=turnaround
ENV_OMP_SCHEDULE=static
ENV_KMP_BLOCKTIME=200
ENV_KMP_STACKSIZE=8192M
ENV_OMP_DYNAMIC=FALSE
ENV_OMP_NESTED=FALSE

```

```

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

```

### 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:
  -O3 -openmp -ipo -xCORE-AVX2 -ansi-alias

C++ benchmarks:
  -O3 -openmp -ipo -xCORE-AVX2 -ansi-alias

Fortran benchmarks:
  -O3 -openmp -ipo -xCORE-AVX2 -align array64byte

```



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

<http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20140219.html>

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

<http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20140219.xml>

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For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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