



# SPEC® OMPG2012 Result

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## Cisco Systems

Cisco UCS C240 M5 (Intel Xeon Platinum 8180,  
2.50  
GHz)

SPECompG\_peak2012 = Not Run

SPECompG\_base2012 = 22.0

OMP2012 license:9019

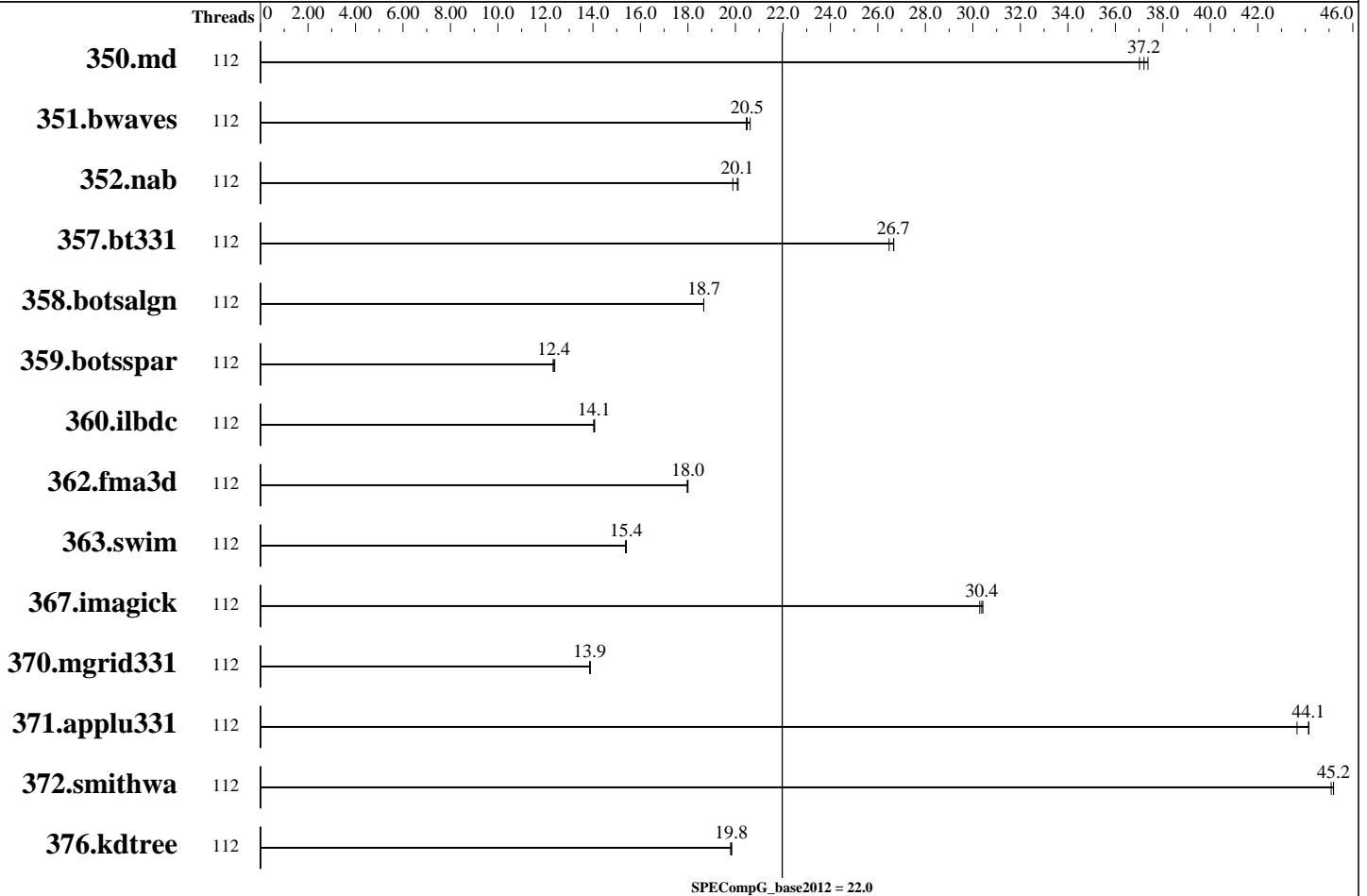
Test sponsor: Cisco Systems

Tested by: Cisco Systems

Test date: Jun-2017

Hardware Availability: Jul-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: 56 cores, 2 chips, 28 cores/chip, 2 threads/core  
 CPU(s) orderable: 1,2 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: 384 GB (24 x 16 GB 2Rx4 PC4-2666V-R)  
 Disk Subsystem: 1 X 800 GB SSD SAS  
 Other Hardware: None  
 Base Threads Run: 112  
 Minimum Peak Threads: --

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### Software

Operating System: SUSE Linux Enterprise Server 12 SP2 (x86\_64)  
 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	112	124	37.4	125	37.0	<b>124</b>	<b>37.2</b>							
351.bwaves	112	221	20.5	<b>221</b>	<b>20.5</b>	220	20.6							
352.nab	112	193	20.1	196	19.9	<b>194</b>	<b>20.1</b>							
357.bt331	112	178	26.7	179	26.5	<b>178</b>	<b>26.7</b>							
358.botsalgn	112	<b>233</b>	<b>18.7</b>	233	18.7	233	18.7							
359.botsspar	112	<b>425</b>	<b>12.4</b>	424	12.4	426	12.3							
360.ilbdc	112	253	14.1	254	14.0	<b>253</b>	<b>14.1</b>							
362.fma3d	112	211	18.0	211	18.0	<b>211</b>	<b>18.0</b>							
363.swim	112	<b>294</b>	<b>15.4</b>	295	15.4	294	15.4							
367.imagick	112	231	30.4	232	30.3	<b>231</b>	<b>30.4</b>							
370.mgrid331	112	<b>319</b>	<b>13.9</b>	318	13.9	319	13.9							
371.applu331	112	139	43.7	137	44.1	<b>137</b>	<b>44.1</b>							
372.smithwa	112	119	45.1	<b>119</b>	<b>45.2</b>	119	45.2							
376.kdtree	112	227	19.8	<b>227</b>	<b>19.8</b>	227	19.8							

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-0s5q Mon Jun 19 11:21:18 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
 2 "physical id"s (chips)
 112 "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
cache size : 39424 KB

```

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### Platform Notes (Continued)

```

From /proc/meminfo
MemTotal:      394863296 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-0s5q 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 19 11:20

SPEC is set to: /opt/ompg2012
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sdb2        xfs   700G  29G  672G   5% /

Additional information from dmidecode:
BIOS Cisco Systems, Inc. C240M5.3.1.0.275.0519172339 05/19/2017
Memory:
  24x 16 GB
  24x 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:
Intel Turbo Boost Technology (Turbo) : Enabled
CPU performance set to Enterprise
Power Performance Tuning set to OS
SNC set to Disabled

```

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### General Notes (Continued)

```

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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