Collfax International
(Test Sponsor: Indiana University)
Intel Xeon Phi 7210, 1.30GHz,
SMT on, Turbo off, MCDRAM Cache

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 8.23

OMP2012 license: 3440A
Test sponsor: Indiana University
Tested by: Indiana University

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SPECompG_base2012 = 8.23

Hardware
CPU Name: Intel Xeon Phi 7210
CPU Characteristics: Intel Turbo Boost Technology off, Simultaneous Multithreading (SMT) on
CPU MHz: 1300
CPU MHz Maximum: 1500
FPU: Integrated
CPU(s) enabled: 64 cores, 1 chip, 64 cores/chip, 4 threads/core
CPU(s) orderable: 1 chip
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 1 MB I+D on chip per two cores
L3 Cache: None
Other Cache: None
Memory: 96 GB (6 x 16 GB 2Rx8 PC4-2400T-REB-11, ECC)
Disk Subsystem: Intel S3510 SSD 800GB, SATA3
Other Hardware: None
Base Threads Run: 256

Software
Operating System: CentOS Linux release 7.2.1511
Compiler: C/C++/Fortran: Version 16.0.3.210 of Intel Composer XE 2016 for Linux Build 20160415
Auto Parallel: No
File System: ext4
System State: Runlevel 3 (multi-user with networking)
Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other Software: None

Continued on next page
Colfax International
(Test Sponsor: Indiana University)
Intel Xeon Phi 7210, 1.30GHz,
SMT on, Turbo off, MCDRAM Cache

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 8.23

OMP2012 license: 3440A
Test sponsor: Indiana University
Tested by: Indiana University

Minimum Peak Threads: --
Maximum Peak Threads: --

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

Platform Notes

Sysinfo program /home/lijunj/SPEC/omp2012-1.1-run/Docs/sysinfo
Revision 563 of 2016-06-10 (097295389cf6073d8c3b03fa376740a5)
running on knl1.uits.indiana.edu Thu Oct 6 09:19:29 2016

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 Phi(TM) CPU 7210 @ 1.30GHz
  1 "physical id"s (chips)
  256 "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 : 64
siblings : 256
physical 0: cores 0 1 2 3 6 7 10 11 12 13 14 15 18 19 20 21 22 23 24 25 26
  27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
  52 53 56 57 58 59 60 61 62 63 64 65 68 69 70 71 72 73
cache size : 1024 KB
**Platform Notes (Continued)**

From /proc/meminfo
- MemTotal: 98679320 kB
- HugePages_Total: 0
- Hugepagesize: 2048 kB

```
/usr/bin/lsb_release -d
CentOS Linux release 7.2.1511 (Core)
```

From /etc/*release* /etc/*version*
- centos-release: CentOS Linux release 7.2.1511 (Core)
- centos-release-upstream: Derived from Red Hat Enterprise Linux 7.2 (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 7.2.1511 (Core)
- system-release: CentOS Linux release 7.2.1511 (Core)
- system-release-cpe: cpe:/o:centos:centos:7

```
uname -a:
Linux knl1.uits.indiana.edu 3.10.0-327.13.1.el7.xppsl_1.3.3.151.x86_64 #1 SMP
Fri Jun 10 15:04:35 UTC 2016 x86_64 x86_64 x86_64 GNU/Linux
run-level 3 Oct 5 12:52
```

**General Notes**

BIOS settings:
- Intel Simultaneous Multithreading (SMT): on
- Intel Turbo Boost Technology (Turbo): off
- Cluster Mode: quadrant
- Memory Mode: cache

---

**SPEC OMPG2012 Result**

Colfax International
(Test Sponsor: Indiana University)
Intel Xeon Phi 7210, 1.30GHz,
SMT on, Turbo off, MCDRAM Cache

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**Test date:** Oct-2016
**Test sponsor:** Indiana University
**Tested by:** Indiana University

**Hardware Availability:** Aug-2016
**Software Availability:** Apr-2016

---

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

(End of data from sysinfo program)
**SPEC OMPG2012 Result**

**Colfax International**  
(Test Sponsor: Indiana University)  
Intel Xeon Phi 7210, 1.30GHz,  
SMT on, Turbo off, MCDRAM Cache

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**Base Compiler Invocation**

- C benchmarks:
  - icc

- C++ benchmarks:
  - icpc

- Fortran benchmarks:
  - ifort

**Base Portability Flags**

- 350.md: -free
- 357.bt331: -mcmodel=medium
- 363.swim: -mcmodel=medium
- 367.imagick: -std=c99

**Base Optimization Flags**

- C benchmarks:
  - -O3 -ansi-alias -no-prec-div -qopenmp -ipo -xMIC-AVX512
  - -fp-model fast=2

- C++ benchmarks:
  - -O3 -ansi-alias -no-prec-div -qopenmp -ipo -xMIC-AVX512
  - -fp-model fast=2

- Fortran benchmarks:
  - -O3 -no-prec-div -qopenmp -ipo -xMIC-AVX512 -fp-model fast=2

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

- [http://www.spec.org/omp2012/flags/Intel-ic16.0-linux64.html](http://www.spec.org/omp2012/flags/Intel-ic16.0-linux64.html)

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

- [http://www.spec.org/omp2012/flags/Intel-ic16.0-linux64.xml](http://www.spec.org/omp2012/flags/Intel-ic16.0-linux64.xml)
### SPEC OMPG2012 Result

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC OMP2012 v1.1.
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