### SPEC® OMPG2012 Result

#### NEC HPC 1812Rg

**Test Sponsor:** RWTH University Aachen  
**NEC HPC 1812Rg**  
**SPECompG_peak2012 = Not Run**  
**SPECompG_base2012 = 19.5**

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**SpecCompG_base2012 = 19.5**

#### Hardware

**CPU Name:** Intel Xeon E7-8860 v4  
**CPU Characteristics:** Intel Turbo Boost Technology up to 3.2 GHz (single)/2.2 GHz (all), 9.6 GT/s QPI, Hyper-Threading enabled 2200  
**CPU MHz:** 3200  
**CPU MHz Maximum:** 4,8 chips  
**FPU:** Integrated  
**CPU(s) enabled:** 144 cores, 8 chips, 18 cores/chip, 2 threads/core  
**CPU(s) orderable:** None  
**Primary Cache:** 32 KB I + 32 KB D on chip per core  
**Secondary Cache:** 256 KB I+D on chip per core  
**L2 Cache:** 45 MB I+D on chip per chip  
**Other Cache:** None  
**Memory:** 1 TB (64x16 GB 2Rx4 PC4-2400T-R)  
**Disk Subsystem:** SATA, Samsung SM863, 2x1.92TB, NVMe SSD  
**Other Hardware:** None

#### Software

**Operating System:** CentOS Linux release 7.3.1611 (Core)  
**Compiler:** C/C++/Fortran: Version 16.0.2.181 of Intel Parallel Studio XE  
**Auto Parallel:** No  
**File System:** nfs  
**System State:** Multi-User  
**Base Pointers:** 64-bit  
**Peak Pointers:** 64-bit  
**Other Software:** None

Continued on next page
## SPEC OMPG2012 Result

### NEC HPC 1812Rg

(The Test Sponsor: RWTH University Aachen)

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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 /rwthfs/rz/cluster/home/jw331215/work/claixspec/Docs/sysinfo
Revision 563 of 2016-06-10 (097295389cf6073d8c3b03fa376740a5)
running on lns02.hpc.itc.rwth-aachen.de Wed Sep 13 13:58:09 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) CPU E7-8860 v4 @ 2.20GHz
  8 "physical id"s (chips)
  288 "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 : 18
siblings : 36
physical 0: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
physical 1: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
physical 2: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
physical 3: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
```

Continued on next page
SPEC OMPG2012 Result

NEC
(Test Sponsor: RWTH University Aachen)

NEC HPC 1812Rg

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 19.5

OMP2012 license: 055A
Test sponsor: RWTH University Aachen
Test date: Sep-2017
Hardware Availability: Oct-2016
Tested by: Jennifer Witham, Bo Wang
Software Availability: Feb-2016

Platform Notes (Continued)

physical 4: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
physical 5: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
physical 6: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
physical 7: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27

From /proc/meminfo
MemTotal: 1056480804 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

From /usr/bin/lsb_release -d
CentOS Linux release 7.3.1611 (Core)

From /etc/*release* /etc/*version*
centos-release: CentOS Linux release 7.3.1611 (Core)
centos-release-upstream: Derived from Red Hat Enterprise Linux 7.3 (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 7.3.1611 (Core)
system-release: CentOS Linux release 7.3.1611 (Core)
system-release-cpe: cpe:/o:centos:centos:7

uname -a:
Linux lns02.hpc.itc.rwth-aachen.de 3.10.0-514.26.2.el7.x86_64 #1 SMP Tue Jul 4 15:04:05 UTC 2017 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Aug 7 20:25

SPEC is set to: /rwthfs/rz/cluster/home/jw331215/work/claixspec
Filesystem Type Size Used Avail Use%
Mounted on
isi.isi.hpc.itc.rwth-aachen.de:/home/jw331215 nfs 150G 65G 86G 43%
rwthfs/rz/cluster/home/jw331215

Additional information from dmidecode:

Warning: Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.

(End of data from sysinfo program)
SPEC OMPG2012 Result

NEC HPC 1812Rg

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 19.5

OMP2012 license: 055A
Test sponsor: RWTH University Aachen
Tested by: Jennifer Witham, Bo Wang

General Notes

BIOS settings:
- Intel Hyper-Threading Technology (SMT): Enabled
- Intel Turbo Boost Technology (Turbo): Enabled
- ENV_OMP_SCHEDULE=static
- ENV_KMP_BLOCKTIME=200
- ENV_KMP_STACKSIZE=8192M
- ENV_OMP_DYNAMIC=FALSE

Base Compiler Invocation

C benchmarks:
- icc

C++ benchmarks:
- icpc

Fortran benchmarks:
- ifort

Base Portability Flags

- 350.md: -free
- 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 all

The flags file that was used to format this result can be browsed at
http://www.spec.org/omp2012/flags/Intel-linux64.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/omp2012/flags/Intel-linux64.xml
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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.