



SPEC® CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Intel Corporation
Intel S9256WK1HLC

SPECrate2017_fp_base = 521

SPECrate2017_fp_peak = 554

CPU2017 License: 13

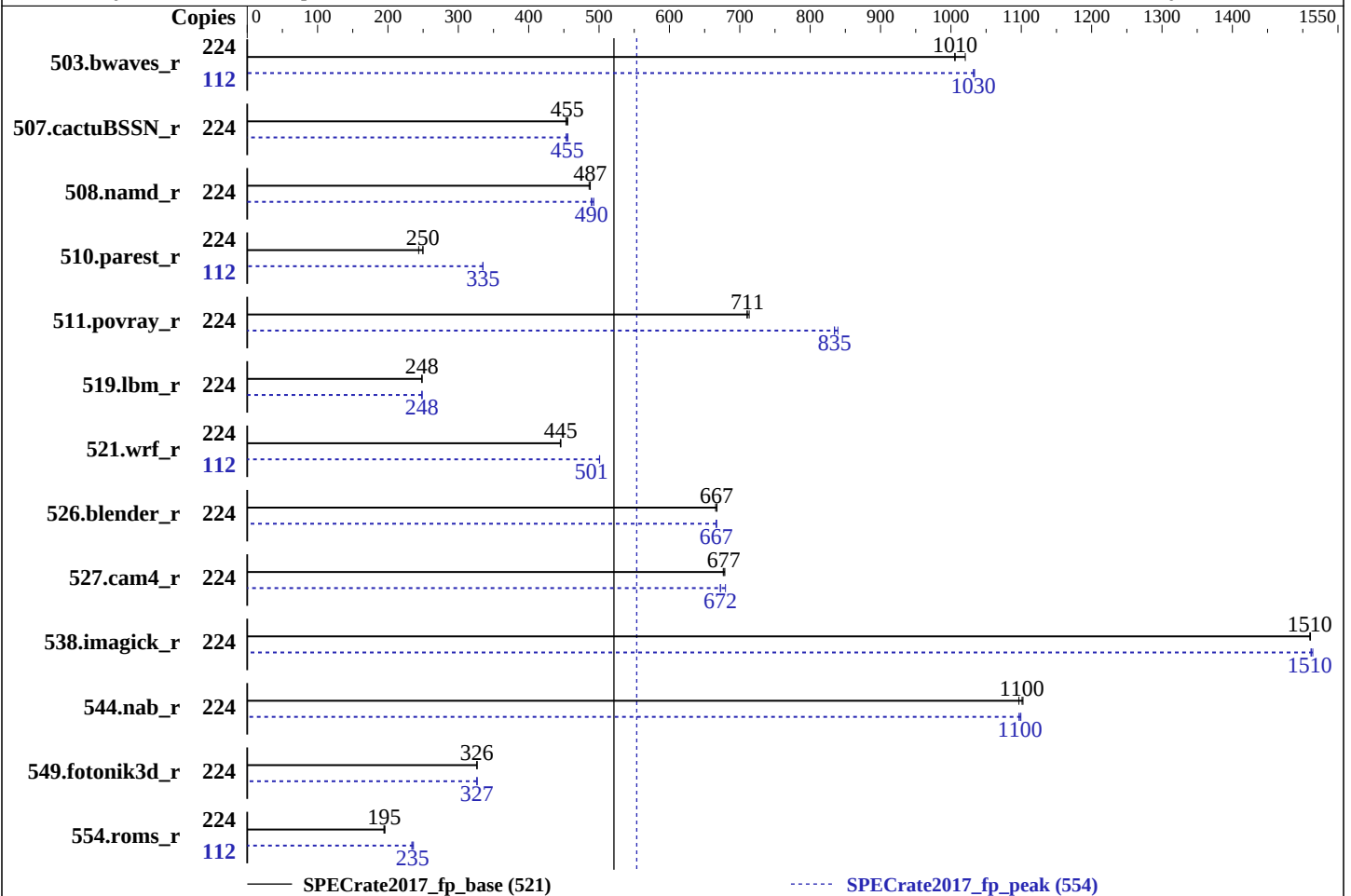
Test Sponsor: Intel Corporation

Tested by: Intel Corporation

Test Date: May-2019

Hardware Availability: Jun-2019

Software Availability: Mar-2019



Hardware

CPU Name: Intel Xeon Platinum 9282
Max MHz.: 3800
Nominal: 2600
Enabled: 112 cores, 2 chips, 2 threads/core
Orderable: 2 chips
Cache L1: 32 KB I + 32 KB D on chip per core
L2: 1 MB I+D on chip per core
L3: 77 MB I+D on chip per chip, 38.5 MB shared / 28 cores
Other: None
Memory: 768 GB (24 x 32 GB 2Rx8 PC4-2933Y-R, running at 2933)
Storage: Toshiba XG5 NVMe SSD 512GB, M.2 PCIe
Other: None

Software

OS: CentOS Linux release 7.6.1810 (Core)
3.10.0-957.10.1.el7.x86_64
Compiler: C/C++: Version 19.0.1.144 of Intel C/C++
Compiler Build 20181018 for Linux;
Fortran: Version 19.0.1.144 of Intel Fortran
Compiler Build 20181018 for Linux
Parallel: No
Firmware: Version SE5C620.86B.0D.01.0492.042220190420 Released Apr-2019
File System: xfs
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other: None



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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
503.bwaves_r	224	<u>2233</u>	<u>1010</u>	2234	1010	2201	1020	112	1088	1030	1087	1030	<u>1088</u>	<u>1030</u>
507.cactuBSSN_r	224	626	453	623	456	<u>624</u>	<u>455</u>	224	622	456	626	453	<u>624</u>	<u>455</u>
508.namd_r	224	438	486	<u>437</u>	<u>487</u>	436	488	224	<u>434</u>	<u>490</u>	435	489	432	493
510.parest_r	224	<u>2347</u>	<u>250</u>	2405	244	2346	250	112	874	335	<u>874</u>	<u>335</u>	875	335
511.povray_r	224	<u>736</u>	<u>711</u>	736	710	733	713	224	623	839	627	834	<u>627</u>	<u>835</u>
519.lbm_r	224	951	248	<u>951</u>	<u>248</u>	951	248	224	951	248	<u>951</u>	<u>248</u>	950	248
521.wrf_r	224	<u>1126</u>	<u>445</u>	1126	446	1128	445	112	501	501	<u>501</u>	<u>501</u>	501	501
526.blender_r	224	513	666	511	668	<u>511</u>	<u>667</u>	224	512	667	512	666	<u>512</u>	<u>667</u>
527.cam4_r	224	<u>578</u>	<u>677</u>	577	679	579	676	224	<u>583</u>	<u>672</u>	576	680	583	672
538.imagick_r	224	<u>369</u>	<u>1510</u>	369	1510	369	1510	224	368	1510	368	1510	<u>368</u>	<u>1510</u>
544.nab_r	224	342	1100	<u>342</u>	<u>1100</u>	344	1100	224	343	1100	344	1100	<u>343</u>	<u>1100</u>
549.fotonik3d_r	224	2674	326	2673	327	<u>2674</u>	<u>326</u>	224	2673	327	<u>2673</u>	<u>327</u>	2673	327
554.roms_r	224	1831	194	1818	196	<u>1828</u>	<u>195</u>	112	753	236	<u>757</u>	<u>235</u>	761	234

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

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

General Notes

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/DCPerfKit/src/cpu2017/lib/intel64"

Binaries compiled on a system with 1x Intel Core i9-7900X CPU + 32GB RAM
memory using Redhat Enterprise Linux 7.5
Transparent Huge Pages enabled by default
Prior to runcpu invocation
Filesystem page cache synced and cleared with:
sync; echo 3> /proc/sys/vm/drop_caches
runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>

NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.

(Continued on next page)



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General Notes (Continued)

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.

Platform Notes

BIOS Configuration:

CPU Power and Performance Policy set to Performance

Advanced -> Power & Performance -> CPU Power and Performance Policy -> Performance

IMC Interleaving set to 1-way Interleave

Advanced -> Memory Configuration -> IMC Interleaving -> 1-way Interleave

Sub_NUMA Cluster set to Enabled

Advanced -> Memory Configuration -> Memory RAS and Performance Configuration -> Sub_NUMA Cluster -> Enabled

Sysinfo program /home/DCPerfKit/src/cpu2017/bin/sysinfo

Rev: r5974 of 2018-05-19 9bcde8f2999c33d61f64985e45859ea9

running on localhost.localdomain Thu May 2 08:17:49 2019

SUT (System Under Test) info as seen by some common utilities.

For more information on this section, see

<https://www.spec.org/cpu2017/Docs/config.html#sysinfo>

From /proc/cpuinfo

model name : Genuine Intel(R) CPU 00000%

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

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

From lscpu:

Architecture: x86_64

CPU op-mode(s): 32-bit, 64-bit

Byte Order: Little Endian

CPU(s): 224

On-line CPU(s) list: 0-223

Thread(s) per core: 2

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Platform Notes (Continued)

Core(s) per socket: 28
Socket(s): 4
NUMA node(s): 8
Vendor ID: GenuineIntel
CPU family: 6
Model: 85
Model name: Genuine Intel(R) CPU 0000%
Stepping: 6
CPU MHz: 999.914
CPU max MHz: 3800.0000
CPU min MHz: 1000.0000
BogoMIPS: 5200.00
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 1024K
L3 cache: 39424K
NUMA node0 CPU(s): 0-3, 7-9, 14-17, 21-23, 112-115, 119-121, 126-129, 133-135
NUMA node1 CPU(s): 4-6, 10-13, 18-20, 24-27, 116-118, 122-125, 130-132, 136-139
NUMA node2 CPU(s): 28-31, 35-37, 42-45, 49-51, 140-143, 147-149, 154-157, 161-163
NUMA node3 CPU(s): 32-34, 38-41, 46-48, 52-55, 144-146, 150-153, 158-160, 164-167
NUMA node4 CPU(s): 56-59, 63-65, 70-73, 77-79, 168-171, 175-177, 182-185, 189-191
NUMA node5 CPU(s): 60-62, 66-69, 74-76, 80-83, 172-174, 178-181, 186-188, 192-195
NUMA node6 CPU(s): 84-87, 91-93, 98-101, 105-107, 196-199, 203-205, 210-213, 217-219
NUMA node7 CPU(s): 88-90, 94-97, 102-104, 108-111, 200-202, 206-209, 214-216, 220-223
Flags: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov
pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp
lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc
aperfmpperf eagerfpu pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg
fma cx16 xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes
xsave avx f16c rdrand lahf_lm abm 3dnowprefetch epb cat_l3 cdp_l3 intel_pt ssbd mba
ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid fsgsbase
tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid rtm cqm mpx rdt_a avx512dq
rdseed adx smap clflushopt clwb avx512cd avx512bw avx512vl xsaveopt xsavec xgetbv1
cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local dtherm ida arat pln pts hwp
hwp_act_window hwp_epp hwp_pkg_req pku ospke avx512_vnni spec_ctrl intel_stibp
flush_l1d arch_capabilities

```
/proc/cpuinfo cache data  
cache size : 39424 KB
```

```
From numactl --hardware WARNING: a numactl 'node' might or might not correspond to a  
physical chip.  
available: 8 nodes (0-7)  
node 0 cpus: 0 1 2 3 7 8 9 14 15 16 17 21 22 23 112 113 114 115 119 120 121 126 127 128  
129 133 134 135  
node 0 size: 96973 MB
```

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Platform Notes (Continued)

```
node 0 free: 94315 MB
node 1 cpus: 4 5 6 10 11 12 13 18 19 20 24 25 26 27 116 117 118 122 123 124 125 130 131
132 136 137 138 139
node 1 size: 98304 MB
node 1 free: 95869 MB
node 2 cpus: 28 29 30 31 35 36 37 42 43 44 45 49 50 51 140 141 142 143 147 148 149 154
155 156 157 161 162 163
node 2 size: 98304 MB
node 2 free: 95828 MB
node 3 cpus: 32 33 34 38 39 40 41 46 47 48 52 53 54 55 144 145 146 150 151 152 153 158
159 160 164 165 166 167
node 3 size: 98304 MB
node 3 free: 95894 MB
node 4 cpus: 56 57 58 59 63 64 65 70 71 72 73 77 78 79 168 169 170 171 175 176 177 182
183 184 185 189 190 191
node 4 size: 98304 MB
node 4 free: 95887 MB
node 5 cpus: 60 61 62 66 67 68 69 74 75 76 80 81 82 83 172 173 174 178 179 180 181 186
187 188 192 193 194 195
node 5 size: 98304 MB
node 5 free: 95888 MB
node 6 cpus: 84 85 86 87 91 92 93 98 99 100 101 105 106 107 196 197 198 199 203 204 205
210 211 212 213 217 218 219
node 6 size: 98304 MB
node 6 free: 95912 MB
node 7 cpus: 88 89 90 94 95 96 97 102 103 104 108 109 110 111 200 201 202 206 207 208
209 214 215 216 220 221 222 223
node 7 size: 98304 MB
node 7 free: 95852 MB
node distances:
node 0 1 2 3 4 5 6 7
0: 10 11 21 21 21 21 21 21
1: 11 10 21 21 21 21 21 21
2: 21 21 10 11 21 21 21 21
3: 21 21 11 10 21 21 21 21
4: 21 21 21 21 10 11 21 21
5: 21 21 21 21 11 10 21 21
6: 21 21 21 21 21 21 10 11
7: 21 21 21 21 21 21 11 10
```

From /proc/meminfo

MemTotal: 790947532 kB

HugePages_Total: 0

Hugepagesize: 2048 kB

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

centos-release: CentOS Linux release 7.6.1810 (Core)

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Platform Notes (Continued)

centos-release-upstream: Derived from Red Hat Enterprise Linux 7.6 (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 7.6.1810 (Core)

system-release: CentOS Linux release 7.6.1810 (Core)

system-release-cpe: cpe:/o:centos:centos:7

uname -a:

Linux localhost.localdomain 3.10.0-957.10.1.el7.x86_64 #1 SMP Mon Mar 18 15:06:45 UTC 2019 x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:

CVE-2017-5754 (Meltdown): Not affected

CVE-2017-5753 (Spectre variant 1): Mitigation: Load fences, __user pointer sanitization

CVE-2017-5715 (Spectre variant 2): Mitigation: Enhanced IBRS

run-level 3 May 2 08:13

SPEC is set to: /home/DCPerfKit/src/cpu2017

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/mapper/centos-home	xfs	395G	169G	226G	43%	/home

Additional information from dmidecode follows. 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.

BIOS Intel Corporation SE5C620.86B.0D.01.0492.042220190420 04/22/2019

Memory:

24x Micron 36ASF4G72PZ-2G9E2 32 GB 2 rank 2933, configured at 2934

(End of data from sysinfo program)

The inconsistent CPU information under Platform notes is due to Kernel not recognizing the CPU model. The correct name of CPU is Intel Xeon Platinum 9282

The correct number of chips is 2, total number of threads is 224

More info about the CPU being used at [https://](https://ark.intel.com/content/www/us/en/ark/products/194146/intel-xeon-platinum-9282-processor-77m-cache-2-60-ghz.html)

ark.intel.com/content/www/us/en/ark/products/194146/intel-xeon-platinum-9282-processor-77m-cache-2-60-ghz.html



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Compiler Version Notes

=====
CC 519.lbm_r(base) 538.imagick_r(base, peak) 544.nab_r(base, peak)
=====

Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

=====
CC 519.lbm_r(peak)
=====

Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

=====
CXXC 508.namd_r(base) 510.parest_r(base, peak)
=====

Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

=====
CXXC 508.namd_r(peak)
=====

Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

=====
CC 511.povray_r(base) 526.blender_r(base, peak)
=====

Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

=====
CC 511.povray_r(peak)
=====

Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,

(Continued on next page)



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Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
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=====

FC 507.cactuBSSN_r(base, peak)

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Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
64, Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

=====

FC 503.bwaves_r(base, peak) 549.fotonik3d_r(base, peak) 554.roms_r(base)

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
64, Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

=====

FC 554.roms_r(peak)

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
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Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

=====

CC 521.wrf_r(base) 527.cam4_r(base)

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
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Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
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Compiler Version Notes (Continued)

```
=====
CC    521.wrf_r(peak) 527.cam4_r(peak)
-----
```

```
Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
64, Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
-----
```

Base Compiler Invocation

C benchmarks:

```
icc -m64 -std=c11
```

C++ benchmarks:

```
icpc -m64
```

Fortran benchmarks:

```
ifort -m64
```

Benchmarks using both Fortran and C:

```
ifort -m64 icc -m64 -std=c11
```

Benchmarks using both C and C++:

```
icpc -m64 icc -m64 -std=c11
```

Benchmarks using Fortran, C, and C++:

```
icpc -m64 icc -m64 -std=c11 ifort -m64
```

Base Portability Flags

```
503.bwaves_r: -DSPEC_LP64
```

```
507.cactuBSSN_r: -DSPEC_LP64
```

```
508.namd_r: -DSPEC_LP64
```

```
510.parest_r: -DSPEC_LP64
```

```
511.povray_r: -DSPEC_LP64
```

```
519.lbm_r: -DSPEC_LP64
```

```
521.wrf_r: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
```

```
526.blender_r: -DSPEC_LP64 -DSPEC_LINUX -funsigned-char
```

```
527.cam4_r: -DSPEC_LP64 -DSPEC_CASE_FLAG
```

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Base Portability Flags (Continued)

538.imagick_r: -DSPEC_LP64

544.nab_r: -DSPEC_LP64

549.fotonik3d_r: -DSPEC_LP64

554.roms_r: -DSPEC_LP64

Base Optimization Flags

C benchmarks:

-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch

-ffinite-math-only -qopt-mem-layout-trans=4

C++ benchmarks:

-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch

-ffinite-math-only -qopt-mem-layout-trans=4

Fortran benchmarks:

-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch

-ffinite-math-only -qopt-mem-layout-trans=4 -auto

-nostandard-realloc-lhs -align array32byte

Benchmarks using both Fortran and C:

-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch

-ffinite-math-only -qopt-mem-layout-trans=4 -auto

-nostandard-realloc-lhs -align array32byte

Benchmarks using both C and C++:

-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch

-ffinite-math-only -qopt-mem-layout-trans=4

Benchmarks using Fortran, C, and C++:

-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch

-ffinite-math-only -qopt-mem-layout-trans=4 -auto

-nostandard-realloc-lhs -align array32byte

Peak Compiler Invocation

C benchmarks:

icc -m64 -std=c11

C++ benchmarks:

icpc -m64

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Peak Compiler Invocation (Continued)

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

ifort -m64 icc -m64 -std=c11

Benchmarks using both C and C++:

icpc -m64 icc -m64 -std=c11

Benchmarks using Fortran, C, and C++:

icpc -m64 icc -m64 -std=c11 ifort -m64

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

519.lbm_r: -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512
-O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4

538.imagick_r: -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4

544.nab_r: Same as 538.imagick_r

C++ benchmarks:

508.namd_r: -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512
-O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4

510.parest_r: -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4

Fortran benchmarks:

503.bwaves_r: -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -auto

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

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Intel Corporation
Intel S9256WK1HLC

SPECrate2017_fp_base = 521

SPECrate2017_fp_peak = 554

CPU2017 License: 13

Test Sponsor: Intel Corporation

Tested by: Intel Corporation

Test Date: May-2019

Hardware Availability: Jun-2019

Software Availability: Mar-2019

Peak Optimization Flags (Continued)

503.bwaves_r (continued):

-nostandard-realloc-lhs -align array32byte

549.fotonik3d_r: Same as 503.bwaves_r

554.roms_r: -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512

-O3 -no-prec-div -qopt-prefetch -ffinite-math-only

-qopt-mem-layout-trans=4 -auto -nostandard-realloc-lhs

-align array32byte

Benchmarks using both Fortran and C:

-prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512 -O3

-no-prec-div -qopt-prefetch -ffinite-math-only

-qopt-mem-layout-trans=4 -auto -nostandard-realloc-lhs

-align array32byte

Benchmarks using both C and C++:

511.povray_r: -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512

-O3 -no-prec-div -qopt-prefetch -ffinite-math-only

-qopt-mem-layout-trans=4

526.blender_r: -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch

-ffinite-math-only -qopt-mem-layout-trans=4

Benchmarks using Fortran, C, and C++:

-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch

-ffinite-math-only -qopt-mem-layout-trans=4 -auto

-nostandard-realloc-lhs -align array32byte

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

<http://www.spec.org/cpu2017/flags/Intel-ic19.0u1-official-linux64.html>

<http://www.spec.org/cpu2017/flags/Intel-Platform-Settings-V1.1.html>

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

<http://www.spec.org/cpu2017/flags/Intel-ic19.0u1-official-linux64.xml>

<http://www.spec.org/cpu2017/flags/Intel-Platform-Settings-V1.1.xml>

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