



SPEC® CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed2017_fp_base = 167

PowerEdge R840 (Intel Xeon Gold 6230, 2.10GHz)

SPECspeed2017_fp_peak = 168

CPU2017 License: 55

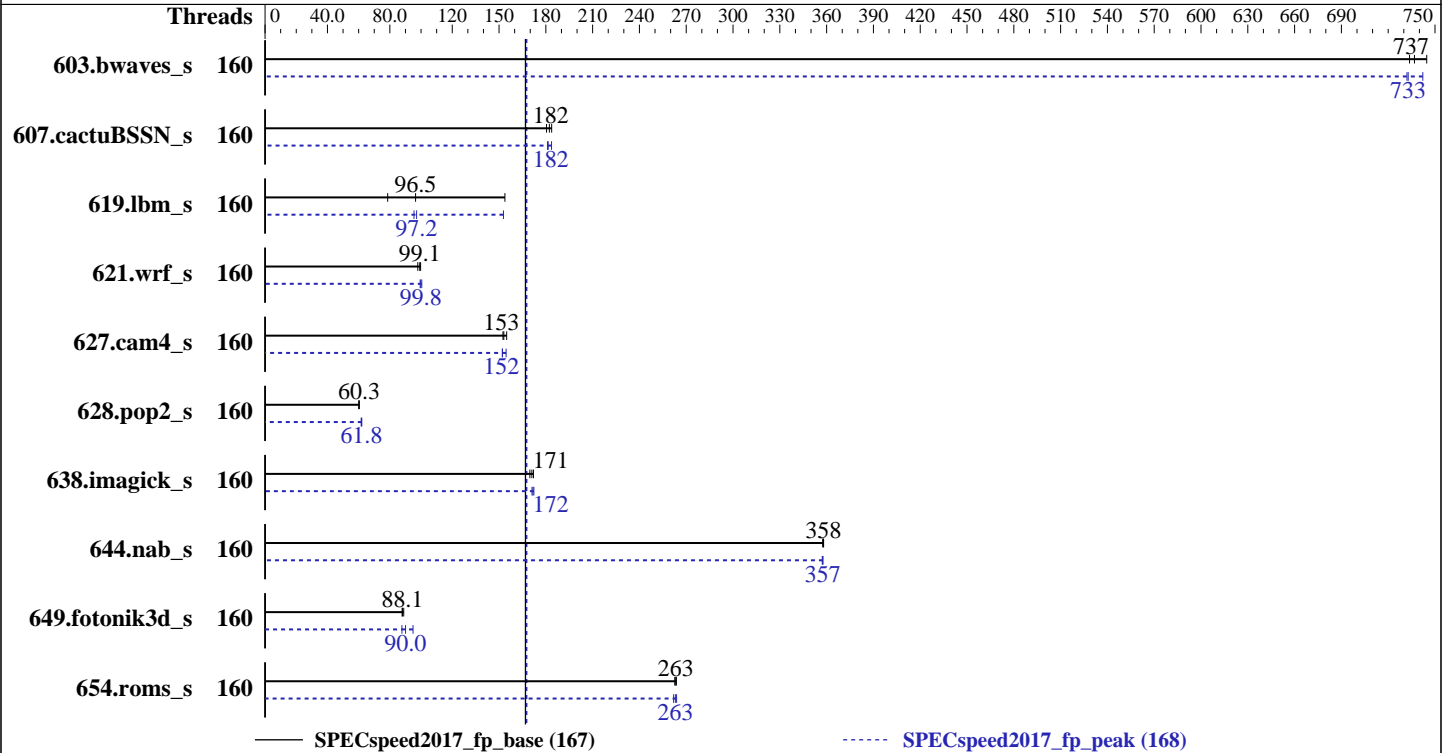
Test Date: Jun-2019

Test Sponsor: Dell Inc.

Hardware Availability: Apr-2019

Tested by: Dell Inc.

Software Availability: May-2019



Hardware

CPU Name: Intel Xeon Gold 6230
 Max MHz.: 3900
 Nominal: 2100
 Enabled: 80 cores, 4 chips, 2 threads/core
 Orderable: 2,4 chips
 Cache L1: 32 KB I + 32 KB D on chip per core
 L2: 1 MB I+D on chip per core
 L3: 27.5 MB I+D on chip per chip
 Other: None
 Memory: 768 GB (24 x 32 GB 2Rx4 PC4-2933Y-R)
 Storage: 1 x 1.6 TB NVMe SSD
 Other: None

Software

OS: Ubuntu 18.04.2 LTS
 kernel 4.15.0-45-generic
 Compiler: C/C++: Version 19.0.4.227 of Intel C/C++
 Compiler Build 20190416 for Linux;
 Fortran: Version 19.0.4.227 of Intel Fortran
 Compiler Build 20190416 for Linux
 Parallel: Yes
 Firmware: Version 2.2.9 released May-2019
 File System: ext4
 System State: Run level 5 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 64-bit
 Other: None



SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed2017_fp_base = 167

PowerEdge R840 (Intel Xeon Gold 6230, 2.10GHz)

SPECspeed2017_fp_peak = 168

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Test Date: Jun-2019
Hardware Availability: Apr-2019
Software Availability: May-2019

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
603.bwaves_s	160	80.1	737	79.2	745	80.4	734	160	79.5	742	80.5	733	80.6	732
607.cactuBSSN_s	160	91.5	182	92.4	180	90.7	184	160	92.1	181	91.8	182	90.8	184
619.lbm_s	160	54.3	96.5	66.6	78.6	34.1	154	160	53.9	97.2	54.9	95.5	34.3	153
621.wrf_s	160	133	99.1	135	97.9	133	99.7	160	132	100	133	99.4	133	99.8
627.cam4_s	160	57.9	153	58.1	153	57.2	155	160	57.4	155	58.3	152	58.2	152
628.pop2_s	160	197	60.3	197	60.3	197	60.1	160	193	61.6	192	61.8	191	62.0
638.imagick_s	160	83.8	172	85.0	170	84.3	171	160	84.0	172	83.7	172	84.3	171
644.nab_s	160	48.8	358	48.9	357	48.8	358	160	48.9	358	48.9	357	48.9	357
649.fotonik3d_s	160	103	88.9	104	87.9	104	88.1	160	101	90.0	104	87.7	96.1	94.9
654.roms_s	160	59.7	264	60.0	263	59.8	263	160	59.9	263	59.7	264	60.1	262

SPECspeed2017_fp_base = 167

SPECspeed2017_fp_peak = 168

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

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:

```
KMP_AFFINITY = "granularity=fine,compact"
LD_LIBRARY_PATH = "/home/cpu2017/lib/intel64"
OMP_STACKSIZE = "192M"
```

Binaries compiled on a system with 1x Intel Core i9-799X 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

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

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 settings:
ADDDC setting disabled
Virtualization Technology disabled

(Continued on next page)



SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed2017_fp_base = 167

PowerEdge R840 (Intel Xeon Gold 6230, 2.10GHz)

SPECspeed2017_fp_peak = 168

CPU2017 License: 55

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Jun-2019

Hardware Availability: Apr-2019

Software Availability: May-2019

Platform Notes (Continued)

DCU Streamer Prefetcher disabled
 System Profile set to Custom
 CPU Performance set to Maximum Performance
 C States set to Autonomous
 ClE disabled
 Uncore Frequency set to Dynamic
 Energy Efficiency Policy set to Performance
 Memory Patrol Scrub disabled
 Logical Processor enabled
 CPU Interconnect Bus Link Power Management disabled
 PCI ASPM L1 Link Power Management disabled
 Sysinfo program /home/cpu2017/bin/sysinfo
 Rev: r5974 of 2018-05-19 9bcde8f2999c33d61f64985e45859ea9
 running on intel-sut Fri Jun 21 06:27:18 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 : Intel(R) Xeon(R) Gold 6230 CPU @ 2.10GHz
 4 "physical id"s (chips)
160 "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 : 20
  siblings  : 40
  physical 0: cores 0 1 2 3 4 8 9 10 11 12 16 17 18 19 20 24 25 26 27 28
  physical 1: cores 0 1 2 3 4 8 9 10 11 12 16 17 18 19 20 24 25 26 27 28
  physical 2: cores 0 1 2 3 4 8 9 10 11 12 16 17 18 19 20 24 25 26 27 28
  physical 3: cores 0 1 2 3 4 8 9 10 11 12 16 17 18 19 20 24 25 26 27 28

```

From lscpu:

```

Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:             Little Endian
CPU(s):                 160
On-line CPU(s) list:   0-159
Thread(s) per core:    2
Core(s) per socket:    20
Socket(s):              4
NUMA node(s):          8
Vendor ID:              GenuineIntel
CPU family:             6
Model:                  85
Model name:             Intel(R) Xeon(R) Gold 6230 CPU @ 2.10GHz
Stepping:               6

```

(Continued on next page)



SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed2017_fp_base = 167

PowerEdge R840 (Intel Xeon Gold 6230, 2.10GHz)

SPECspeed2017_fp_peak = 168

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Test Date: Jun-2019
Hardware Availability: Apr-2019
Software Availability: May-2019

Platform Notes (Continued)

CPU MHz: 1971.520
BogoMIPS: 4200.00
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 1024K
L3 cache: 28160K

NUMA node0 CPU(s):
0, 8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152
NUMA node1 CPU(s):
1, 9, 17, 25, 33, 41, 49, 57, 65, 73, 81, 89, 97, 105, 113, 121, 129, 137, 145, 153
NUMA node2 CPU(s):
2, 10, 18, 26, 34, 42, 50, 58, 66, 74, 82, 90, 98, 106, 114, 122, 130, 138, 146, 154
NUMA node3 CPU(s):
3, 11, 19, 27, 35, 43, 51, 59, 67, 75, 83, 91, 99, 107, 115, 123, 131, 139, 147, 155
NUMA node4 CPU(s):
4, 12, 20, 28, 36, 44, 52, 60, 68, 76, 84, 92, 100, 108, 116, 124, 132, 140, 148, 156
NUMA node5 CPU(s):
5, 13, 21, 29, 37, 45, 53, 61, 69, 77, 85, 93, 101, 109, 117, 125, 133, 141, 149, 157
NUMA node6 CPU(s):
6, 14, 22, 30, 38, 46, 54, 62, 70, 78, 86, 94, 102, 110, 118, 126, 134, 142, 150, 158
NUMA node7 CPU(s):
7, 15, 23, 31, 39, 47, 55, 63, 71, 79, 87, 95, 103, 111, 119, 127, 135, 143, 151, 159

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 cpuid
aperfperf 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 aes xsave avx f16c rdrand
lahf_lm abm 3dnowprefetch cpuid_fault epb cat_l3 cdp_l3 invpcid_single intel_ppin
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 avx512f
avx512dq rdseed adx smap clflushopt clwb intel_pt avx512cd avx512bw avx512vl
xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local
dtherm ida arat pln pts pku ospke avx512_vnni flush_lld arch_capabilities

/proc/cpuinfo cache data
cache size : 28160 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 8 16 24 32 40 48 56 64 72 80 88 96 104 112 120 128 136 144 152
node 0 size: 95146 MB
node 0 free: 94699 MB
node 1 cpus: 1 9 17 25 33 41 49 57 65 73 81 89 97 105 113 121 129 137 145 153
node 1 size: 96764 MB
node 1 free: 96379 MB

(Continued on next page)



SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed2017_fp_base = 167

PowerEdge R840 (Intel Xeon Gold 6230, 2.10GHz)

SPECspeed2017_fp_peak = 168

CPU2017 License: 55

Test Date: Jun-2019

Test Sponsor: Dell Inc.

Hardware Availability: Apr-2019

Tested by: Dell Inc.

Software Availability: May-2019

Platform Notes (Continued)

```

node 2 cpus: 2 10 18 26 34 42 50 58 66 74 82 90 98 106 114 122 130 138 146 154
node 2 size: 96764 MB
node 2 free: 96414 MB
node 3 cpus: 3 11 19 27 35 43 51 59 67 75 83 91 99 107 115 123 131 139 147 155
node 3 size: 96764 MB
node 3 free: 96033 MB
node 4 cpus: 4 12 20 28 36 44 52 60 68 76 84 92 100 108 116 124 132 140 148 156
node 4 size: 96764 MB
node 4 free: 95778 MB
node 5 cpus: 5 13 21 29 37 45 53 61 69 77 85 93 101 109 117 125 133 141 149 157
node 5 size: 96764 MB
node 5 free: 95680 MB
node 6 cpus: 6 14 22 30 38 46 54 62 70 78 86 94 102 110 118 126 134 142 150 158
node 6 size: 96743 MB
node 6 free: 93537 MB
node 7 cpus: 7 15 23 31 39 47 55 63 71 79 87 95 103 111 119 127 135 143 151 159
node 7 size: 96762 MB
node 7 free: 95086 MB
node distances:
node  0  1  2  3  4  5  6  7
 0:  10  21  21  21  11  21  21  21
 1:  21  10  21  21  21  11  21  21
 2:  21  21  10  21  21  21  11  21
 3:  21  21  21  10  21  21  21  11
 4:  11  21  21  21  10  21  21  21
 5:  21  11  21  21  21  10  21  21
 6:  21  21  11  21  21  21  10  21
 7:  21  21  21  11  21  21  21  10

```

```

From /proc/meminfo
MemTotal:      791012840 kB
HugePages_Total:      0
Hugepagesize:    2048 kB

```

```

/usr/bin/lsb_release -d
Ubuntu 18.04.2 LTS

```

```

From /etc/*release* /etc/*version*
debian_version: buster/sid
os-release:
  NAME="Ubuntu"
  VERSION="18.04.2 LTS (Bionic Beaver)"
  ID=ubuntu
  ID_LIKE=debian
  PRETTY_NAME="Ubuntu 18.04.2 LTS"
  VERSION_ID="18.04"
  HOME_URL="https://www.ubuntu.com/"

```

(Continued on next page)



SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed2017_fp_base = 167

PowerEdge R840 (Intel Xeon Gold 6230, 2.10GHz)

SPECspeed2017_fp_peak = 168

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Test Date: Jun-2019
Hardware Availability: Apr-2019
Software Availability: May-2019

Platform Notes (Continued)

SUPPORT_URL="https://help.ubuntu.com/"

```
uname -a:
Linux intel-sut 4.15.0-45-generic #48-Ubuntu SMP Tue Jan 29 16:28:13 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: __user pointer sanitization
CVE-2017-5715 (Spectre variant 2): Mitigation: Enhanced IBRS, IBPB
```

run-level 5 Jun 21 01:24

```
SPEC is set to: /home/cpu2017
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda2       ext4  439G   39G  379G  10% /
```

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 Dell Inc. 2.2.9 05/08/2019
Memory:
24x 00AD00B300AD HMA84GR7CJR4N-WM 32 GB 2 rank 2933
24x Not Specified Not Specified
```

(End of data from sysinfo program)

Compiler Version Notes

```
=====  
CC 619.lbm_s(base, peak) 638.imagick_s(base, peak) 644.nab_s(base, peak)  
=====
```

```
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.  
=====
```

```
=====  
FC 607.cactuBSSN_s(base, peak)  
=====
```

```
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.  
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
```

(Continued on next page)



SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed2017_fp_base = 167

PowerEdge R840 (Intel Xeon Gold 6230, 2.10GHz)

SPECspeed2017_fp_peak = 168

CPU2017 License: 55

Test Date: Jun-2019

Test Sponsor: Dell Inc.

Hardware Availability: Apr-2019

Tested by: Dell Inc.

Software Availability: May-2019

Compiler Version Notes (Continued)

Version 19.0.4.227 Build 20190416
 Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
 Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
 64, Version 19.0.4.227 Build 20190416
 Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

=====

FC 603.bwaves_s(base) 649.fotonik3d_s(base) 654.roms_s(base, peak)

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
 64, Version 19.0.4.227 Build 20190416
 Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

=====

FC 603.bwaves_s(peak) 649.fotonik3d_s(peak)

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
 64, Version 19.0.4.227 Build 20190416
 Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

=====

CC 621.wrf_s(base) 627.cam4_s(base, peak) 628.pop2_s(base)

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
 64, Version 19.0.4.227 Build 20190416
 Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
 Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
 Version 19.0.4.227 Build 20190416
 Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

=====

CC 621.wrf_s(peak) 628.pop2_s(peak)

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
 64, Version 19.0.4.227 Build 20190416
 Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
 Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
 Version 19.0.4.227 Build 20190416
 Copyright (C) 1985-2019 Intel Corporation. All rights reserved.



SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed2017_fp_base = 167

PowerEdge R840 (Intel Xeon Gold 6230, 2.10GHz)

SPECspeed2017_fp_peak = 168

CPU2017 License: 55

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Jun-2019

Hardware Availability: Apr-2019

Software Availability: May-2019

Base Compiler Invocation

C benchmarks:

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

Fortran benchmarks:

```
ifort -m64
```

Benchmarks using both Fortran and C:

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

Benchmarks using Fortran, C, and C++:

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

Base Portability Flags

```
603.bwaves_s: -DSPEC_LP64
```

```
607.cactuBSSN_s: -DSPEC_LP64
```

```
619.lbm_s: -DSPEC_LP64
```

```
621.wrf_s: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
```

```
627.cam4_s: -DSPEC_LP64 -DSPEC_CASE_FLAG
```

```
628.pop2_s: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
```

```
-assume byterecl
```

```
638.imagick_s: -DSPEC_LP64
```

```
644.nab_s: -DSPEC_LP64
```

```
649.fotonik3d_s: -DSPEC_LP64
```

```
654.roms_s: -DSPEC_LP64
```

Base Optimization Flags

C benchmarks:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only
```

```
-qopt-mem-layout-trans=4 -qopenmp -DSPEC_OPENMP
```

Fortran benchmarks:

```
-DSPEC_OPENMP -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch
```

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

```
-nostandard-realloc-lhs
```

Benchmarks using both Fortran and C:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only
```

```
-qopt-mem-layout-trans=4 -qopenmp -DSPEC_OPENMP
```

```
-nostandard-realloc-lhs
```

(Continued on next page)



SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed2017_fp_base = 167

PowerEdge R840 (Intel Xeon Gold 6230, 2.10GHz)

SPECspeed2017_fp_peak = 168

CPU2017 License: 55

Test Date: Jun-2019

Test Sponsor: Dell Inc.

Hardware Availability: Apr-2019

Tested by: Dell Inc.

Software Availability: May-2019

Base Optimization Flags (Continued)

Benchmarks using Fortran, C, and C++:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4 -qopenmp -DSPEC_OPENMP
-nostandard-realloc-lhs
```

Peak Compiler Invocation

C benchmarks:

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

Fortran benchmarks:

```
ifort -m64
```

Benchmarks using both Fortran and C:

```
ifort -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:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4 -qopenmp -DSPEC_OPENMP
```

Fortran benchmarks:

```
603.bwaves_s: -prof-gen(pass 1) -prof-use(pass 2) -DSPEC_SUPPRESS_OPENMP
-DSPEC_OPENMP -O2 -xCORE-AVX2 -qopt-prefetch -ipo -O3
-ffinite-math-only -no-prec-div -qopt-mem-layout-trans=4
-qopenmp -nostandard-realloc-lhs
```

649.fotonik3d_s: Same as 603.bwaves_s

```
654.roms_s: -DSPEC_OPENMP -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4
```

(Continued on next page)



SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed2017_fp_base = 167

PowerEdge R840 (Intel Xeon Gold 6230, 2.10GHz)

SPECspeed2017_fp_peak = 168

CPU2017 License: 55

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Jun-2019

Hardware Availability: Apr-2019

Software Availability: May-2019

Peak Optimization Flags (Continued)

654.roms_s (continued):

-qopenmp -nostandard-realloc-lhs

Benchmarks using both Fortran and C:

621.wrf_s: -prof-gen(pass 1) -prof-use(pass 2) -O2 -xCORE-AVX2
-qopt-prefetch -ipo -O3 -ffinite-math-only -no-prec-div
-qopt-mem-layout-trans=4 -DSPEC_SUPPRESS_OPENMP -qopenmp
-DSPEC_OPENMP -nostandard-realloc-lhs

627.cam4_s: -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -qopenmp
-DSPEC_OPENMP -nostandard-realloc-lhs

628.pop2_s: Same as 621.wrf_s

Benchmarks using Fortran, C, and C++:

-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4 -qopenmp -DSPEC_OPENMP
-nostandard-realloc-lhs

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

<http://www.spec.org/cpu2017/flags/Intel-ic19.0u1-official-linux64.2019-07-09.html>

<http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge14G-revE3.html>

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

<http://www.spec.org/cpu2017/flags/Intel-ic19.0u1-official-linux64.2019-07-09.xml>

<http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge14G-revE3.xml>

SPEC is a registered trademark of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2017 v1.0.5 on 2019-06-21 02:27:17-0400.

Report generated on 2019-08-21 12:04:29 by CPU2017 PDF formatter v6067.

Originally published on 2019-08-20.