



SPEC® CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Epsilon Sp. z o.o. Sp. Komandytowa

SPECrate2017_fp_base = 72.7

eterio 210 RE1 (Intel Xeon Silver 4108, 1.80 GHz)

SPECrate2017_fp_peak = 73.6

CPU2017 License: 9081

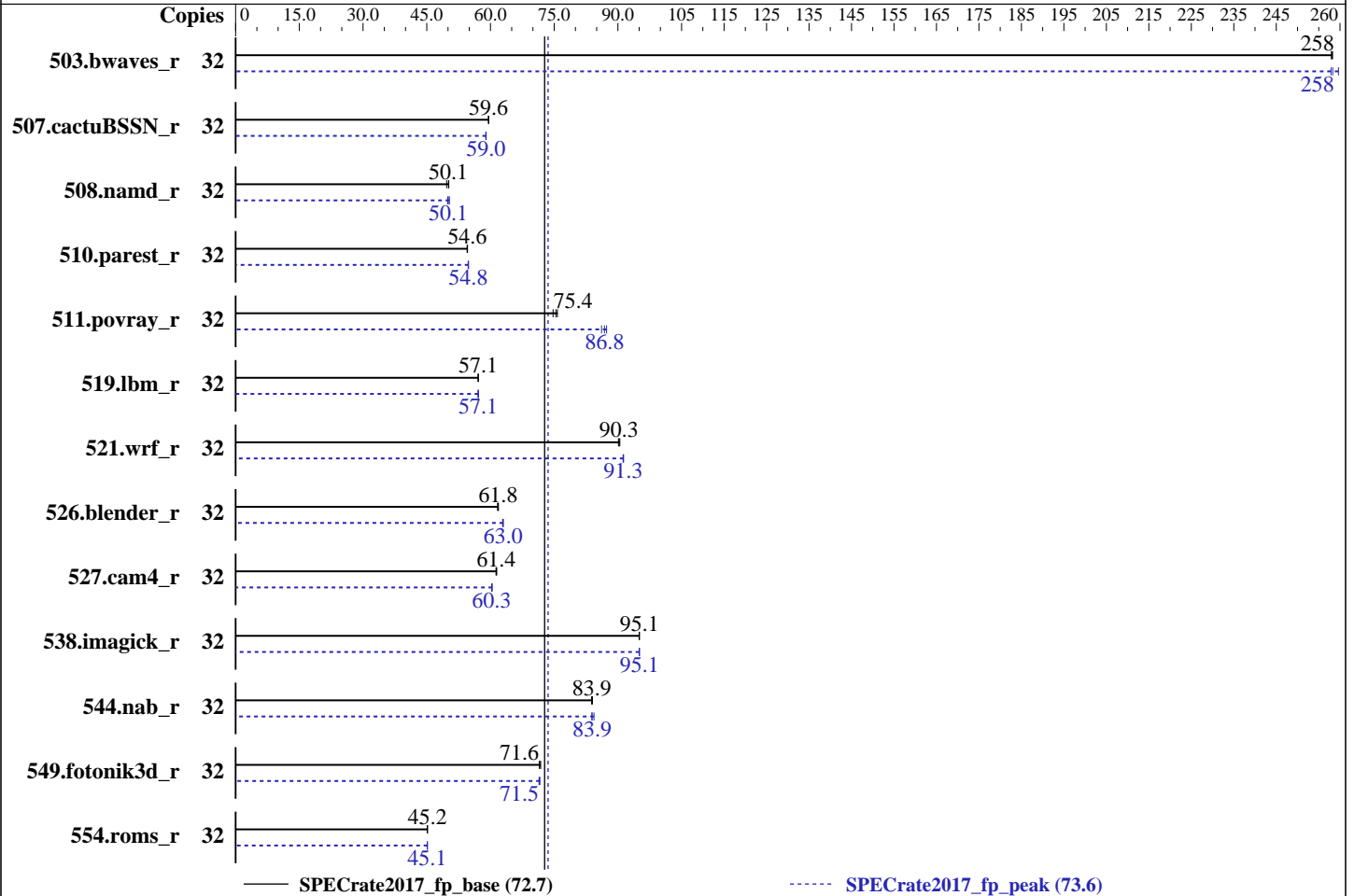
Test Date: Mar-2018

Test Sponsor: Epsilon Sp. z o.o. Sp. Komandytowa

Hardware Availability: Sep-2017

Tested by: Epsilon Sp. z o.o. Sp. Komandytowa

Software Availability: Mar-2018



Hardware

CPU Name: Intel Xeon Silver 4108
 Max MHz.: 3000
 Nominal: 1800
 Enabled: 16 cores, 2 chips, 2 threads/core
 Orderable: 1,2 chips
 Cache L1: 32 KB I + 32 KB D on chip per core
 L2: 1 MB I+D on chip per core
 L3: 11 MB I+D on chip per chip
 Other: None
 Memory: 128 GB (8 x 16 GB 2Rx4 PC4-2666V-R, running at 2400)
 Storage: 1 x 960 GB SSD SATA III
 Other: None

Software

OS: Red Hat Enterprise Linux Server release 7.4 (Maipo)
 3.10.0-693.21.1.el7.x86_64
 Compiler: C/C++: Version 18.0.0.128 of Intel C/C++ Compiler for Linux;
 Fortran: Version 18.0.0.128 of Intel Fortran Compiler for Linux
 Parallel: No
 Firmware: Version BIOS 2.0b released Mar-2018
 File System: ext4
 System State: Run level 3 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 64-bit
 Other: None



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Epsilon Sp. z o.o. Sp. Komandytowa
eterio 210 RE1 (Intel Xeon Silver 4108, 1.80 GHz)

SPECrate2017_fp_base = 72.7
SPECrate2017_fp_peak = 73.6

CPU2017 License: 9081

Test Sponsor: Epsilon Sp. z o.o. Sp. Komandytowa

Tested by: Epsilon Sp. z o.o. Sp. Komandytowa

Test Date: Mar-2018

Hardware Availability: Sep-2017

Software Availability: Mar-2018

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
503.bwaves_r	32	1243	258	1243	258	1244	258	32	1236	260	1242	258	1244	258
507.cactuBSSN_r	32	681	59.5	680	59.6	680	59.6	32	688	58.9	687	59.0	687	59.0
508.namd_r	32	612	49.7	607	50.1	606	50.2	32	609	49.9	607	50.1	604	50.3
510.parest_r	32	1533	54.6	1534	54.6	1536	54.5	32	1527	54.8	1528	54.8	1529	54.7
511.povray_r	32	986	75.8	1000	74.7	991	75.4	32	867	86.2	860	86.8	856	87.3
519.lbm_r	32	591	57.1	591	57.1	590	57.1	32	591	57.1	590	57.2	591	57.1
521.wrf_r	32	794	90.3	792	90.5	795	90.1	32	786	91.3	786	91.2	785	91.3
526.blender_r	32	788	61.9	790	61.7	789	61.8	32	775	62.9	774	63.0	774	63.0
527.cam4_r	32	910	61.5	913	61.3	912	61.4	32	928	60.3	929	60.3	926	60.4
538.imagick_r	32	837	95.1	838	95.0	837	95.1	32	837	95.1	838	95.0	837	95.1
544.nab_r	32	641	84.0	643	83.8	642	83.9	32	642	83.9	642	83.9	638	84.4
549.fotonik3d_r	32	1742	71.6	1743	71.5	1736	71.8	32	1746	71.4	1744	71.5	1741	71.6
554.roms_r	32	1127	45.1	1126	45.2	1126	45.2	32	1126	45.2	1127	45.1	1127	45.1

SPECrate2017_fp_base = 72.7

SPECrate2017_fp_peak = 73.6

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 = "/cpu2017.1.0/lib/ia32:/cpu2017.1.0/lib/intel64:/cpu2017.1.0/je5.0.1-32:/cpu2017.1.0/je5.0.1-64"

Binaries compiled on a system with 1x Intel Core i7-4790 CPU + 32 GB RAM
memory using Redhat Enterprise Linux 7.4

Yes: 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.

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Epsilon Sp. z o.o. Sp. Komandytowa

SPECrate2017_fp_base = 72.7

eterio 210 RE1 (Intel Xeon Silver 4108, 1.80 GHz)

SPECrate2017_fp_peak = 73.6

CPU2017 License: 9081

Test Date: Mar-2018

Test Sponsor: Epsilon Sp. z o.o. Sp. Komandytowa

Hardware Availability: Sep-2017

Tested by: Epsilon Sp. z o.o. Sp. Komandytowa

Software Availability: Mar-2018

General Notes (Continued)

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>

Platform Notes

BIOS Settings:
 Power Technology = Custom
 Turbo Mode = Enable
 Enhanced Halt State (C1E) = Disable
 CPU C6 report = Disabled
 Package C State = No limit
 Software Controlled T-States = Disable
 Hyper-Threading (All) = Enable
 Enforce POR = Disable
 Memory Frequency = Auto
 Patrol Scrub = Disabled
 IMC Interleaving = Auto
 SNC = Disabled

Sysinfo program /cpu2017.1.0/bin/sysinfo
 Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f
 running on SUT Thu Mar 29 23:45:49 2018

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) Silver 4108 CPU @ 1.80GHz
 2 "physical id"s (chips)
 32 "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 : 8
 siblings : 16
 physical 0: cores 0 1 2 3 4 5 6 7
 physical 1: cores 0 1 2 3 4 5 6 7

From lscpu:
 Architecture: x86_64
 CPU op-mode(s): 32-bit, 64-bit

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Epsilon Sp. z o.o. Sp. Komandytowa

SPECrate2017_fp_base = 72.7

eterio 210 RE1 (Intel Xeon Silver 4108, 1.80 GHz)

SPECrate2017_fp_peak = 73.6

CPU2017 License: 9081

Test Date: Mar-2018

Test Sponsor: Epsilon Sp. z o.o. Sp. Komandytowa

Hardware Availability: Sep-2017

Tested by: Epsilon Sp. z o.o. Sp. Komandytowa

Software Availability: Mar-2018

Platform Notes (Continued)

```

Byte Order:                Little Endian
CPU(s):                    32
On-line CPU(s) list:      0-31
Thread(s) per core:       2
Core(s) per socket:       8
Socket(s):                 2
NUMA node(s):             2
Vendor ID:                 GenuineIntel
CPU family:                6
Model:                     85
Model name:                Intel(R) Xeon(R) Silver 4108 CPU @ 1.80GHz
Stepping:                  4
CPU MHz:                   1801.000
CPU max MHz:               1801.0000
CPU min MHz:               800.0000
BogoMIPS:                  3600.00
Virtualization:           VT-x
L1d cache:                 32K
L1i cache:                 32K
L2 cache:                  1024K
L3 cache:                  11264K
NUMA node0 CPU(s):        0-7,16-23
NUMA node1 CPU(s):        8-15,24-31
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 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 invpcid_single
intel_pt spec_ctrl ibpb_support 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 avx512cd avx512bw avx512vl xsaveopt xsavec xgetbv1
cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local dtherm ida arat pln pts

```

```

/proc/cpuinfo cache data
cache size : 11264 KB

```

From numactl --hardware WARNING: a numactl 'node' might or might not correspond to a physical chip.

```

available: 2 nodes (0-1)
node 0 cpus: 0 1 2 3 4 5 6 7 16 17 18 19 20 21 22 23
node 0 size: 65196 MB
node 0 free: 63170 MB
node 1 cpus: 8 9 10 11 12 13 14 15 24 25 26 27 28 29 30 31
node 1 size: 65536 MB
node 1 free: 63823 MB
node distances:

```

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Epsilon Sp. z o.o. Sp. Komandytowa

SPECrate2017_fp_base = 72.7

eterio 210 RE1 (Intel Xeon Silver 4108, 1.80 GHz)

SPECrate2017_fp_peak = 73.6

CPU2017 License: 9081

Test Date: Mar-2018

Test Sponsor: Epsilon Sp. z o.o. Sp. Komandytowa

Hardware Availability: Sep-2017

Tested by: Epsilon Sp. z o.o. Sp. Komandytowa

Software Availability: Mar-2018

Platform Notes (Continued)

```
node    0    1
0:    10   21
1:    21   10
```

From /proc/meminfo

```
MemTotal:    131460424 kB
HugePages_Total:    0
Hugepagesize:    2048 kB
```

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

```
os-release:
NAME="Red Hat Enterprise Linux Server"
VERSION="7.4 (Maipo)"
ID="rhel"
ID_LIKE="fedora"
VARIANT="Server"
VARIANT_ID="server"
VERSION_ID="7.4"
PRETTY_NAME="Red Hat Enterprise Linux"
redhat-release: Red Hat Enterprise Linux Server release 7.4 (Maipo)
system-release: Red Hat Enterprise Linux Server release 7.4 (Maipo)
system-release-cpe: cpe:/o:redhat:enterprise_linux:7.4:ga:server
```

uname -a:

```
Linux SUT 3.10.0-693.21.1.el7.x86_64 #1 SMP Fri Feb 23 18:54:16 UTC 2018 x86_64 x86_64
x86_64 GNU/Linux
```

run-level 3 Mar 29 11:13

SPEC is set to: /cpu2017.1.0

```
Filesystem      Type      Size      Used Avail Use% Mounted on
/dev/sdal        ext4      825G      90G   694G  12% /
```

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 American Megatrends Inc. 2.0b 03/06/2018

Memory:

8x Samsung M393A2G40EB2-CTD 16 GB 2 rank 2666, configured at 2400

(End of data from sysinfo program)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Epsilon Sp. z o.o. Sp. Komandytowa

SPECrate2017_fp_base = 72.7

eterio 210 RE1 (Intel Xeon Silver 4108, 1.80 GHz)

SPECrate2017_fp_peak = 73.6

CPU2017 License: 9081

Test Date: Mar-2018

Test Sponsor: Epsilon Sp. z o.o. Sp. Komandytowa

Hardware Availability: Sep-2017

Tested by: Epsilon Sp. z o.o. Sp. Komandytowa

Software Availability: Mar-2018

Compiler Version Notes

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

icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

=====
CC 519.lbm_r(peak) 544.nab_r(peak)

icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

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

icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

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

icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

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

icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

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

icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Epsilon Sp. z o.o. Sp. Komandytowa

SPECrate2017_fp_base = 72.7

eterio 210 RE1 (Intel Xeon Silver 4108, 1.80 GHz)

SPECrate2017_fp_peak = 73.6

CPU2017 License: 9081

Test Date: Mar-2018

Test Sponsor: Epsilon Sp. z o.o. Sp. Komandytowa

Hardware Availability: Sep-2017

Tested by: Epsilon Sp. z o.o. Sp. Komandytowa

Software Availability: Mar-2018

Compiler Version Notes (Continued)

FC 507.cactuBSSN_r(base)

```
-----
icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
-----
```

FC 507.cactuBSSN_r(peak)

```
=====
icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
-----
```

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

```
-----
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
-----
```

FC 554.roms_r(peak)

```
=====
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
-----
```

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

```
-----
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
-----
```

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

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Epsilon Sp. z o.o. Sp. Komandytowa

SPECrate2017_fp_base = 72.7

eterio 210 RE1 (Intel Xeon Silver 4108, 1.80 GHz)

SPECrate2017_fp_peak = 73.6

CPU2017 License: 9081

Test Date: Mar-2018

Test Sponsor: Epsilon Sp. z o.o. Sp. Komandytowa

Hardware Availability: Sep-2017

Tested by: Epsilon Sp. z o.o. Sp. Komandytowa

Software Availability: Mar-2018

Compiler Version Notes (Continued)

ifort (IFORT) 18.0.0 20170811

Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

icc (ICC) 18.0.0 20170811

Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

Base Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

ifort icc

Benchmarks using both C and C++:

icpc icc

Benchmarks using Fortran, C, and C++:

icpc icc ifort

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

538.imagick_r: -DSPEC_LP64

544.nab_r: -DSPEC_LP64

549.fotonik3d_r: -DSPEC_LP64

554.roms_r: -DSPEC_LP64



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Epsilon Sp. z o.o. Sp. Komandytowa

SPECrate2017_fp_base = 72.7

eterio 210 RE1 (Intel Xeon Silver 4108, 1.80 GHz)

SPECrate2017_fp_peak = 73.6

CPU2017 License: 9081

Test Sponsor: Epsilon Sp. z o.o. Sp. Komandytowa

Tested by: Epsilon Sp. z o.o. Sp. Komandytowa

Test Date: Mar-2018

Hardware Availability: Sep-2017

Software Availability: Mar-2018

Base Optimization Flags

C benchmarks:

```
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3
```

C++ benchmarks:

```
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3
```

Fortran benchmarks:

```
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3 -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=3 -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=3
```

Benchmarks using Fortran, C, and C++:

```
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3 -nostandard-realloc-lhs  
-align array32byte
```

Base Other Flags

C benchmarks:

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

C++ benchmarks:

```
-m64
```

Fortran benchmarks:

```
-m64
```

Benchmarks using both Fortran and C:

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

Benchmarks using both C and C++:

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

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Epsilon Sp. z o.o. Sp. Komandytowa

SPECrate2017_fp_base = 72.7

eterio 210 RE1 (Intel Xeon Silver 4108, 1.80 GHz)

SPECrate2017_fp_peak = 73.6

CPU2017 License: 9081

Test Date: Mar-2018

Test Sponsor: Epsilon Sp. z o.o. Sp. Komandytowa

Hardware Availability: Sep-2017

Tested by: Epsilon Sp. z o.o. Sp. Komandytowa

Software Availability: Mar-2018

Base Other Flags (Continued)

Benchmarks using Fortran, C, and C++:

-m64 -std=c11

Peak Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

ifort icc

Benchmarks using both C and C++:

icpc icc

Benchmarks using Fortran, C, and C++:

icpc icc ifort

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=3

538.imagick_r: -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3

544.nab_r: Same as 519.lbm_r

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Epsilon Sp. z o.o. Sp. Komandytowa

SPECrate2017_fp_base = 72.7

eterio 210 RE1 (Intel Xeon Silver 4108, 1.80 GHz)

SPECrate2017_fp_peak = 73.6

CPU2017 License: 9081

Test Date: Mar-2018

Test Sponsor: Epsilon Sp. z o.o. Sp. Komandytowa

Hardware Availability: Sep-2017

Tested by: Epsilon Sp. z o.o. Sp. Komandytowa

Software Availability: Mar-2018

Peak Optimization Flags (Continued)

C++ benchmarks:

```
-prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512 -O3
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=3
```

Fortran benchmarks:

```
503.bwaves_r: -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3
-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=3 -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=3 -nostandard-realloc-lhs -align array32byte
```

Benchmarks using both C 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=3
```

Benchmarks using Fortran, C, 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=3 -nostandard-realloc-lhs -align array32byte
```

Peak Other Flags

C benchmarks:

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

C++ benchmarks:

```
-m64
```

Fortran benchmarks:

```
-m64
```

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Epsilon Sp. z o.o. Sp. Komandytowa

SPECrate2017_fp_base = 72.7

eterio 210 RE1 (Intel Xeon Silver 4108, 1.80 GHz)

SPECrate2017_fp_peak = 73.6

CPU2017 License: 9081

Test Date: Mar-2018

Test Sponsor: Epsilon Sp. z o.o. Sp. Komandytowa

Hardware Availability: Sep-2017

Tested by: Epsilon Sp. z o.o. Sp. Komandytowa

Software Availability: Mar-2018

Peak Other Flags (Continued)

Benchmarks using both Fortran and C:

-m64 -std=c11

Benchmarks using both C and C++:

-m64 -std=c11

Benchmarks using Fortran, C, and C++:

-m64 -std=c11

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

<http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.2017-10-19.html>

<http://www.spec.org/cpu2017/flags/Epsilon-Platform-Flags-RevA-Mar-2018-For-Supermicro-Platform.html>

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

<http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.2017-10-19.xml>

<http://www.spec.org/cpu2017/flags/Epsilon-Platform-Flags-RevA-Mar-2018-For-Supermicro-Platform.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 v1.0.2 on 2018-03-29 17:45:49-0400.

Report generated on 2018-10-31 17:44:50 by CPU2017 PDF formatter v6067.

Originally published on 2018-05-01.