## SPEC® CPU2017 Floating Point Rate Result

### Huawei

**Huawei 2288 V5 (Intel Xeon Bronze 3204)**

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base</th>
<th>SPECrate2017_fp_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.1</td>
<td>56.2</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 3175  
**Test Sponsor:** Huawei  
**Tested by:** Huawei  
**Test Date:** Mar-2019  
**Hardware Availability:** Apr-2019  
**Software Availability:** Dec-2018

### Hardware

<table>
<thead>
<tr>
<th>Copy</th>
<th>SPECrate2017_fp_base (55.1)</th>
<th>SPECrate2017_fp_peak (56.2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>503.bwaves_r</td>
<td>38.0</td>
<td>55.5</td>
</tr>
<tr>
<td>507.cactuBSSN_r</td>
<td>38.0</td>
<td>56.7</td>
</tr>
<tr>
<td>508.namd_r</td>
<td>30.2</td>
<td>41.8</td>
</tr>
<tr>
<td>510.parest_r</td>
<td>36.2</td>
<td>59.1</td>
</tr>
<tr>
<td>511.povray_r</td>
<td>48.0</td>
<td>60.6</td>
</tr>
<tr>
<td>519.lbm_r</td>
<td>35.5</td>
<td>61.0</td>
</tr>
<tr>
<td>521.wrf_r</td>
<td>36.2</td>
<td>56.7</td>
</tr>
<tr>
<td>526.blender_r</td>
<td>41.8</td>
<td>41.3</td>
</tr>
<tr>
<td>527.cam4_r</td>
<td>43.2</td>
<td>98.7</td>
</tr>
<tr>
<td>538.imagick_r</td>
<td>57.5</td>
<td>98.8</td>
</tr>
<tr>
<td>544.nab_r</td>
<td>57.5</td>
<td>76.8</td>
</tr>
<tr>
<td>549.fotonik3d_r</td>
<td>57.5</td>
<td>76.8</td>
</tr>
<tr>
<td>554.roms_r</td>
<td>38.0</td>
<td>76.8</td>
</tr>
</tbody>
</table>

### Software

**CPU Name:** Intel Xeon Bronze 3204  
**Max MHz.:** 1900  
**Nominal:** 1900  
**Enabled:** 12 cores, 2 chips  
**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:** 8.25 MB I+D on chip per chip  
**Memory:** 192 GB (12 x 16 GB 2Rx8 PC4-2933Y-R, running at 2133)  
**Storage:** 1 x 1200 GB SAS, 10000 RPM  
**Other:** None

**OS:** SUSE Linux Enterprise Server 12 SP4 (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  
**File System:** xfs  
**System State:** Run level 3 (multi-user)  
**Base Pointers:** 64-bit  
**Peak Pointers:** 64-bit  
**Other:** None
Huawei

Huawei 2288 V5 (Intel Xeon Bronze 3204)

SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Huawei

Huawei 2288 V5 (Intel Xeon Bronze 3204)

SPECrate2017_fp_base = 55.1

SPECrate2017_fp_peak = 56.2

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>503.bwaves_r</td>
<td>12</td>
<td>537</td>
<td>224</td>
<td>537</td>
<td>224</td>
<td>538</td>
<td>224</td>
</tr>
<tr>
<td>507.cactuBSSN_r</td>
<td>12</td>
<td>400</td>
<td>38.0</td>
<td>400</td>
<td>38.0</td>
<td>399</td>
<td>38.1</td>
</tr>
<tr>
<td>508.namd_r</td>
<td>12</td>
<td>378</td>
<td>30.2</td>
<td>376</td>
<td>30.3</td>
<td>377</td>
<td><strong>30.2</strong></td>
</tr>
<tr>
<td>510.parest_r</td>
<td>12</td>
<td>867</td>
<td>36.2</td>
<td><strong>867</strong></td>
<td><strong>36.2</strong></td>
<td>867</td>
<td>36.2</td>
</tr>
<tr>
<td>511.povray_r</td>
<td>12</td>
<td>583</td>
<td>48.1</td>
<td><strong>583</strong></td>
<td><strong>48.0</strong></td>
<td>584</td>
<td>48.0</td>
</tr>
<tr>
<td>519.lbm_r</td>
<td>12</td>
<td>208</td>
<td>60.9</td>
<td><strong>209</strong></td>
<td><strong>60.6</strong></td>
<td>209</td>
<td>60.5</td>
</tr>
<tr>
<td>521.wrf_r</td>
<td>12</td>
<td><strong>474</strong></td>
<td><strong>56.7</strong></td>
<td>473</td>
<td>56.8</td>
<td>474</td>
<td>56.7</td>
</tr>
<tr>
<td>526.blender_r</td>
<td>12</td>
<td>437</td>
<td>41.8</td>
<td><strong>437</strong></td>
<td><strong>41.8</strong></td>
<td>438</td>
<td>41.8</td>
</tr>
<tr>
<td>527.cam4_r</td>
<td>12</td>
<td><strong>508</strong></td>
<td><strong>41.3</strong></td>
<td>507</td>
<td>41.4</td>
<td>508</td>
<td>41.3</td>
</tr>
<tr>
<td>538.imagick_r</td>
<td>12</td>
<td>310</td>
<td>96.3</td>
<td><strong>302</strong></td>
<td><strong>98.7</strong></td>
<td>301</td>
<td>99.3</td>
</tr>
<tr>
<td>544.nab_r</td>
<td>12</td>
<td>352</td>
<td>57.4</td>
<td>351</td>
<td>57.6</td>
<td><strong>351</strong></td>
<td><strong>57.5</strong></td>
</tr>
<tr>
<td>549.fotonik3d_r</td>
<td>12</td>
<td>609</td>
<td>76.8</td>
<td>609</td>
<td>76.8</td>
<td>609</td>
<td>76.8</td>
</tr>
<tr>
<td>554.roms_r</td>
<td>12</td>
<td>519</td>
<td>36.7</td>
<td><strong>514</strong></td>
<td><strong>37.1</strong></td>
<td>513</td>
<td>37.2</td>
</tr>
</tbody>
</table>

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 = "*/spec2017/lib/ia32:/spec2017/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>

Yes: 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)
### SPEC CPU2017 Floating Point Rate Result

**Huawei**

Huawei 2288 V5 (Intel Xeon Bronze 3204)

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base</th>
<th>SPECrate2017_fp_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.1</td>
<td>56.2</td>
</tr>
</tbody>
</table>

**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:
Power Policy Set to Performance
XPT Prefetch Set to Enabled
Sysinfo program /spec2017/bin/sysinfo
Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f
running on linux-0o4j Wed Mar 27 15:57:01 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) Bronze 3204 CPU @ 1.90GHz
  2 "physical id"s (chips)
  12 "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 : 6
siblings : 6
physical 0: cores 0 1 2 3 4 5
physical 1: cores 0 1 2 3 4 5
```

From lscpu:

```
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:            Little Endian
CPU(s):                12
On-line CPU(s) list:   0-11
Thread(s) per core:    1
Core(s) per socket:    6
Socket(s):             2
NUMA node(s):          2
Vendor ID:             GenuineIntel
CPU family:            6
Model:                 85
Model name:            Intel(R) Xeon(R) Bronze 3204 CPU @ 1.90GHz
Stepping:              6
CPU MHz:               1900.000
CPU max MHz:           1900.000
```

(Continued on next page)
Huawei

Huawei 2288 V5 (Intel Xeon Bronze 3204)

| SPECrate2017_fp_base | 55.1 |
| SPECrate2017_fp_peak | 56.2 |

CPU2017 License: 3175
Test Sponsor: Huawei
Tested by: Huawei

CPU min MHz: 800.0000
BogoMIPS: 3800.00
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 1024K
L3 cache: 8448K
NUMA node0 CPU(s): 0-5
NUMA node1 CPU(s): 6-11

Flags:

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

From /proc/meminfo

From /proc/meminfo

From /proc/meminfo

From /proc/meminfo

(Continued on next page)
Huawei

Huawei 2288 V5 (Intel Xeon Bronze 3204)

SPECrate2017_fp_base = 55.1
SPECrate2017_fp_peak = 56.2

Copyright 2017-2019 Standard Performance Evaluation Corporation

CPU2017 License: 3175
Test Sponsor: Huawei
Tested by: Huawei
Test Date: Mar-2019
Hardware Availability: Apr-2019
Software Availability: Dec-2018

Platform Notes (Continued)

PATCHLEVEL = 4
# This file is deprecated and will be removed in a future service pack or release.
# Please check /etc/os-release for details about this release.

os-release:
  NAME="SLES"
  VERSION="12-SP4"
  VERSION_ID="12.4"
  PRETTY_NAME="SUSE Linux Enterprise Server 12 SP4"
  ID="sles"
  ANSI_COLOR="0;32"
  CPE_NAME="cpe:/o:suse:sles:12:sp4"

uname -a:
x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Mar 27 08:10

SPEC is set to: /spec2017
  /dev/sda2  xfs  919G  11G  909G  2%  /

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 INSYDE Corp. 6.52 03/16/2019
  Memory:
    4x NO DIMM NO DIMM
    12x Samsung M393A2K43CB2-CVF 16 GB 2 rank 2933, configured at 2133

(End of data from sysinfo program)

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)
==============================================================================
(Continued on next page)
Huawei
Huawei 2288 V5 (Intel Xeon Bronze 3204)

**SPEC CPU2017 Floating Point Rate Result**

<table>
<thead>
<tr>
<th>CPU2017 License:</th>
<th>3175</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor:</td>
<td>Huawei</td>
</tr>
<tr>
<td>Test Date:</td>
<td>Mar-2019</td>
</tr>
<tr>
<td>Hardware Availability:</td>
<td>Apr-2019</td>
</tr>
<tr>
<td>Software Availability:</td>
<td>Dec-2018</td>
</tr>
<tr>
<td>Tested by:</td>
<td>Huawei</td>
</tr>
</tbody>
</table>

**SPECrate2017_fp_base = 55.1**

**SPECrate2017_fp_peak = 56.2**

---

**Compiler Version Notes (Continued)**

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 19.0.0.144 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 19.0.0.144 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.

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.

---------

(Continued on next page)
## SPEC CPU2017 Floating Point Rate Result

**Huawei**

**Huawei 2288 V5 (Intel Xeon Bronze 3204)**

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base</th>
<th>SPECrate2017_fp_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.1</td>
<td>56.2</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 3175  
**Test Date:** Mar-2019  
**Test Sponsor:** Huawei  
**Tested by:** Huawei  

**Hardware Availability:** Apr-2019  
**Software Availability:** Dec-2018

---

### Compiler Version Notes (Continued)

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.

---

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) 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) 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) 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) 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.
SPEC CPU2017 Floating Point Rate Result
Copyright 2017-2019 Standard Performance Evaluation Corporation

Huawei
Huawei 2288 V5 (Intel Xeon Bronze 3204)

SPECrate2017_fp_base = 55.1
SPECrate2017_fp_peak = 56.2

CPU2017 License: 3175
Test Sponsor: Huawei
Tested by: Huawei
Test Date: Mar-2019
Hardware Availability: Apr-2019
Software Availability: Dec-2018

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

C++ benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only

(Continued on next page)
Huawei

Huawei 2288 V5 (Intel Xeon Bronze 3204)

SPECrate2017_fp_base = 55.1
SPECrate2017_fp_peak = 56.2

<table>
<thead>
<tr>
<th>CPU2017 License:</th>
<th>Test Date:</th>
<th>Test Sponsor:</th>
<th>Hardware Availability:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3175</td>
<td>Mar-2019</td>
<td>Huawei</td>
<td>Apr-2019</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tested by:</th>
<th>Software Availability:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huawei</td>
<td>Dec-2018</td>
</tr>
</tbody>
</table>

Base Optimization Flags (Continued)

C++ benchmarks (continued):
-qopt-mem-layout-trans=4

Fortran benchmarks:
-xCORE-AVX2 -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-AVX2 -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-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4

Benchmarks using Fortran, C, and C++:
-xCORE-AVX2 -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

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
Huawei

Huawei 2288 V5 (Intel Xeon Bronze 3204)

SPECrate2017_fp_base = 55.1
SPECrate2017_fp_peak = 56.2

CPU2017 License: 3175
Test Sponsor: Huawei
Test Date: Mar-2019
Hardware Availability: Apr-2019
Tested by: Huawei
Software Availability: Dec-2018

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-AVX2 -O3
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4

538.imagick_r: -xCORE-AVX2 -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-AVX2 -O3
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4

510.parest_r: -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4

Fortran benchmarks:

503.bwaves_r: -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -auto
-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-AVX2 -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-AVX2 -O3
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4 -auto -nostandard-realloc-lhs
-align array32byte

(Continued on next page)
## Huawei 2288 V5 (Intel Xeon Bronze 3204)

**CPU2017 License:** 3175  
**Test Sponsor:** Huawei  
**Tested by:** Huawei  
**Test Date:** Mar-2019  
**Hardware Availability:** Apr-2019  
**Software Availability:** Dec-2018  

### SPECrate2017_fp_base = 55.1  
### SPECrate2017_fp_peak = 56.2

### Peak Optimization Flags (Continued)

Benchmarks using both C and C++:

511.povray_r:  
-prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX2 -O3  
-no-prec-div -qopt-prefetch -ffinite-math-only  
-qopt-mem-layout-trans=4

526.blender_r:  
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=4

Benchmarks using Fortran, C, and C++:  
-xCORE-AVX2 -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:


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


---

**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 2019-03-27 03:56:59-0400.  