## SPEC CPU®2017 Floating Point Rate Result

### Hewlett Packard Enterprise

**Test Sponsor:** HPE  
**ProLiant DL380 Gen10**  
**CPU:** (2.40 GHz, Intel Xeon Platinum 8260L)

<table>
<thead>
<tr>
<th>SPECrate®2017_fp_base</th>
<th>251</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate®2017_fp_peak</td>
<td>Not Run</td>
</tr>
</tbody>
</table>

### CPU2017 License: 3

<table>
<thead>
<tr>
<th>Test Date:</th>
<th>May-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware Availability:</td>
<td>Apr-2019</td>
</tr>
<tr>
<td>Software Availability:</td>
<td>Nov-2018</td>
</tr>
</tbody>
</table>

### Hardware

<table>
<thead>
<tr>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS:</td>
</tr>
<tr>
<td>Compiler:</td>
</tr>
<tr>
<td>Firmware:</td>
</tr>
<tr>
<td>File System:</td>
</tr>
<tr>
<td>System State:</td>
</tr>
<tr>
<td>Base Pointers:</td>
</tr>
<tr>
<td>Peak Pointers:</td>
</tr>
<tr>
<td>Other:</td>
</tr>
<tr>
<td>Power Management:</td>
</tr>
</tbody>
</table>

### Test Sponsor: HPE  
**ProLiant DL380 Gen10**  
**CPU Name:** Intel Xeon Platinum 8260L  
**Max MHz:** 3900  
**Nominal:** 2400  
**Enabled:** 48 cores, 2 chips, 2 threads/core  
**Orderable:** 1, 2 chip(s)  
**Cache L1:** 32 KB I + 32 KB D on chip per core  
**L2:** 1 MB I+D on chip per core  
**L3:** 35.75 MB I+D on chip per chip  
**Memory:** 384 GB (24 x 16 GB 2Rx8 PC4-2933Y-R)  
**Storage:** 1 x 960 GB SATA SSD, RAID 0  
**Other:** None

### Test Date: May-2019  
**Hardware Availability:** Apr-2019  
**Software Availability:** Nov-2018

### Copies

<table>
<thead>
<tr>
<th>SPECrate®2017_fp_base (251)</th>
</tr>
</thead>
<tbody>
<tr>
<td>503.bwaves_r</td>
</tr>
<tr>
<td>507.cactuBSSN_r</td>
</tr>
<tr>
<td>508.namd_r</td>
</tr>
<tr>
<td>510.parest_r</td>
</tr>
<tr>
<td>511.povray_r</td>
</tr>
<tr>
<td>519.lbm_r</td>
</tr>
<tr>
<td>521.wrf_r</td>
</tr>
<tr>
<td>526.blender_r</td>
</tr>
<tr>
<td>527.cam4_r</td>
</tr>
<tr>
<td>538.imagick_r</td>
</tr>
<tr>
<td>544.nab_r</td>
</tr>
<tr>
<td>549.fotonik3d_r</td>
</tr>
<tr>
<td>554.roms_r</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CPU Name: Intel Xeon Platinum 8260L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max MHz: 3900</td>
</tr>
<tr>
<td>Nominal: 2400</td>
</tr>
<tr>
<td>Enabled: 48 cores, 2 chips, 2 threads/core</td>
</tr>
<tr>
<td>Orderable: 1, 2 chip(s)</td>
</tr>
<tr>
<td>Cache L1: 32 KB I + 32 KB D on chip per core</td>
</tr>
<tr>
<td>L2: 1 MB I+D on chip per core</td>
</tr>
<tr>
<td>L3: 35.75 MB I+D on chip per chip</td>
</tr>
<tr>
<td>Memory: 384 GB (24 x 16 GB 2Rx8 PC4-2933Y-R)</td>
</tr>
<tr>
<td>Storage: 1 x 960 GB SATA SSD, RAID 0</td>
</tr>
<tr>
<td>Other: None</td>
</tr>
</tbody>
</table>

### SPECrate®2017_fp_base = 251

### SPECrate®2017_fp_peak = Not Run
SPEC CPU®2017 Floating Point Rate Result

Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL380 Gen10
(2.40 GHz, Intel Xeon Platinum 8260L)

CPU2017 License: 3
Test Sponsor: HPE
Tested by: HPE

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>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>503.bwaves_r</td>
<td>96</td>
<td>1822</td>
<td>529</td>
<td>1824</td>
<td>528</td>
<td>1821</td>
<td>529</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>507.cactuBSSN_r</td>
<td>96</td>
<td>553</td>
<td>220</td>
<td>541</td>
<td>225</td>
<td>542</td>
<td>224</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>508.namd_r</td>
<td>96</td>
<td>449</td>
<td>203</td>
<td>446</td>
<td>205</td>
<td>447</td>
<td>204</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>510.parest_r</td>
<td>96</td>
<td>1911</td>
<td>131</td>
<td>1901</td>
<td>132</td>
<td>1903</td>
<td>132</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>511.povray_r</td>
<td>96</td>
<td>711</td>
<td>315</td>
<td>712</td>
<td>315</td>
<td>711</td>
<td>315</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>519.lbm_r</td>
<td>96</td>
<td>800</td>
<td>127</td>
<td>801</td>
<td>126</td>
<td>800</td>
<td>126</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>521.wrf_r</td>
<td>96</td>
<td>907</td>
<td>237</td>
<td>909</td>
<td>236</td>
<td>926</td>
<td>232</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>526.blender_r</td>
<td>96</td>
<td>476</td>
<td>307</td>
<td>476</td>
<td>307</td>
<td>477</td>
<td>306</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>527.cam4_r</td>
<td>96</td>
<td>549</td>
<td>306</td>
<td>546</td>
<td>308</td>
<td>550</td>
<td>305</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>538.imagick_r</td>
<td>96</td>
<td>356</td>
<td>670</td>
<td>355</td>
<td>672</td>
<td>366</td>
<td>652</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>544.nab_r</td>
<td>96</td>
<td>334</td>
<td>484</td>
<td>336</td>
<td>481</td>
<td>335</td>
<td>483</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>549.fotonik3d_r</td>
<td>96</td>
<td>2163</td>
<td>173</td>
<td>2176</td>
<td>172</td>
<td>2159</td>
<td>173</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>554.roms_r</td>
<td>96</td>
<td>1522</td>
<td>100</td>
<td>1526</td>
<td>100</td>
<td>1524</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SPECrate®2017_fp_base = 251
SPECrate®2017_fp_peak = Not Run

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"
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>

General Notes

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2017/lib/ia32:/home/cpu2017/lib/intel64"

Binaries compiled on a system with 1x Intel Core i9-7900X CPU + 32GB RAM
memory using Redhat Enterprise Linux 7.5
NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)

(Continued on next page)
SPECRate®2017_fp_base = 251
SPECRate®2017_fp_peak = Not Run

General Notes (Continued)

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 Configuration:
Thermal Configuration set to Maximum Cooling
Memory Patrol Scrubbing set to Disabled
LLC Prefetch set to Enabled
LLC Dead Line Allocation set to Disabled
Enhanced Processor Performance set to Enabled
Workload Profile set to General Throughput Compute
Workload Profile set to Custom
Energy/Performance Bias set to Balanced Performance
Sysinfo program /home/cpu2017_fprate/bin/sysinfo
Rev: r5974 of 2018-05-19 9bcde8f2999c33d61f64985e45859ea9
running on linux-9mbf Wed May 29 07:19:49 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 : Intel(R) Xeon(R) Platinum 8260L CPU @ 2.40GHz
  2 "physical id"s (chips)
    96 "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 : 24
siblings : 48
  physical 0: cores 0 1 2 3 4 8 9 10 11 12 13 16 17 18 19 20 21 25 26 27 28 29
  physical 1: cores 0 1 2 3 4 8 9 10 11 12 13 16 17 18 19 20 21 25 26 27 28 29

From lscpu:
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian
CPU(s): 96
On-line CPU(s) list: 0-95
Thread(s) per core: 2
Core(s) per socket: 24
Socket(s): 2
NUMA node(s): 4

(Continued on next page)
Platform Notes (Continued)

Vendor ID: GenuineIntel
CPU family: 6
Model: 85
Model name: Intel(R) Xeon(R) Platinum 8260L CPU @ 2.40GHz
Stepping: 6
CPU MHz: 2400.000
BogoMIPS: 4800.00
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 1024K
L3 cache: 36608K
NUMA node0 CPU(s): 0-11,48-59
NUMA node1 CPU(s): 12-23,60-71
NUMA node2 CPU(s): 24-35,72-83
NUMA node3 CPU(s): 36-47,84-95
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 arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid
aperfmpref tsc_known_freq pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3
sdbg fma cx16 xtrm pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt
tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault
epb cat_l3 cdp_l3 invpcid_single intel_pinning fpxprec epsx mmse est tm2 ssse3
sdbg fma cx16 xtrm pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt
tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault
epb cat_l3 cdp_l3 invpcid_single intel_pinning fpxprec epsx mmse est tm2 ssse3
sdbg fma cx16 xtrm pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt

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

available: 4 nodes (0-3)
node 0 cpus: 0 1 2 3 4 5 6 7 8 9 10 11 14 15 16 17 18 19 20 21 22 23 60 61 62 63 64 65 66 67 68 69 70 71
node 0 size: 96277 MB
node 0 free: 95945 MB
node 1 cpus: 12 13 14 15 16 17 18 19 20 21 22 23 60 61 62 63 64 65 66 67 68 69 70 71
node 1 size: 96763 MB
node 1 free: 96398 MB
node 2 cpus: 24 25 26 27 28 29 30 31 32 33 34 35 72 73 74 75 76 77 78 79 80 81 82 83
node 2 size: 96734 MB
node 2 free: 96586 MB
node 3 cpus: 36 37 38 39 40 41 42 43 44 45 46 47 84 85 86 87 88 89 90 91 92 93 94 95
node 3 size: 96564 MB
node 3 free: 96413 MB
node distances:
Hewlett Packard Enterprise  
(Test Sponsor: HPE)  
ProLiant DL380 Gen10  
(2.40 GHz, Intel Xeon Platinum 8260L)  

SPECrade®2017_fp_base = 251  
SPECrade®2017_fp_peak = Not Run

CPU2017 License: 3  
Test Sponsor: HPE  
Tested by: HPE

Platform Notes (Continued)

```plaintext
node 0  1  2  3
0: 10  21  31  31
1: 21  10  31  31
2: 31  31  10  21
3: 31  31  21  10
```

From /proc/meminfo
MemTotal: 395612632 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*
os-release:
NAME="SLES"
VERSION="15"
VERSION_ID="15"
PRETTY_NAME="SUSE Linux Enterprise Server 15"
ID="sles"
ID_LIKE="suse"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:15"

uname -a:
Linux linux-9mbf 4.12.14-23-default #1 SMP Tue May 29 21:04:44 UTC 2018 (cd0437b)
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: Indirect Branch Restricted Speculation, IBPB, IBRS_FW

run-level 3 May 29 07:18

SPEC is set to: /home/cpu2017_fprate
Filesystem Type Size Used Avail Use% Mounted on
/dev/sdb4 xfs 436G 336G 101G 77% /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 HPE U30 04/18/2019
Memory:
24x UNKNOWN NOT AVAILABLE 16 GB 2 rank 2933

(Continued on next page)
Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL380 Gen10
(2.40 GHz, Intel Xeon Platinum 8260L)

CPU2017 License: 3
Test Sponsor: HPE
Tested by: HPE

SPECrater®2017_fp_base = 251
SPECrater®2017_fp_peak = Not Run

Platform Notes (Continued)

(End of data from sysinfo program)

Compiler Version Notes

==============================================================================
C               | 519.lbm_r(base) 538.imagick_r(base) 544.nab_r(base)
==============================================================================
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
    Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

==============================================================================
C++             | 508.namd_r(base) 510.parest_r(base)
==============================================================================
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
    Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

==============================================================================
C++, C          | 511.povray_r(base) 526.blender_r(base)
==============================================================================
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
    Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
    Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

==============================================================================
C++, C, Fortran | 507.cactuBSSN_r(base)
==============================================================================
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
    Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
    Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R) 64,
    Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

(Continued on next page)
**SPEC CPU®2017 Floating Point Rate Result**

**Hewlett Packard Enterprise**  
(*Test Sponsor: HPE*)  
**ProLiant DL380 Gen10**  
(2.40 GHz, Intel Xeon Platinum 8260L)  
**SPECrate®2017_fp_base = 251**  
**SPECrate®2017_fp_peak = Not Run**

<table>
<thead>
<tr>
<th>CPU2017 License: 3</th>
<th>Test Date: May-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tested by: HPE</td>
<td>Hardware Availability: Apr-2019</td>
</tr>
</tbody>
</table>

**Compiler Version Notes (Continued)**

<table>
<thead>
<tr>
<th>Fortran</th>
<th>503.bwaves_r(base) 549.fotonik3d_r(base) 554.roms_r(base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel(R) Fortran</td>
<td>Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.0.117 Build 20180804</td>
</tr>
<tr>
<td>Copyright (C) 1985-2018 Intel Corporation. All rights reserved.</td>
<td></td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Fortran, C</th>
<th>521.wrf_r(base) 527.cam4_r(base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel(R) Fortran</td>
<td>Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.0.117 Build 20180804</td>
</tr>
<tr>
<td>Copyright (C) 1985-2018 Intel Corporation. All rights reserved.</td>
<td></td>
</tr>
</tbody>
</table>

### 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.cactusBSSN_r: -DSPEC_LP64  
508.namd_r: -DSPEC_LP64

(Continued on next page)
SPEC CPU®2017 Floating Point Rate Result

Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL380 Gen10
(2.40 GHz, Intel Xeon Platinum 8260L)

SPECrate®2017_fp_base = 251
SPECrate®2017_fp_peak = Not Run

<table>
<thead>
<tr>
<th>CPU2017 License: 3</th>
<th>Test Date: May-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: HPE</td>
<td>Hardware Availability: Apr-2019</td>
</tr>
<tr>
<td>Tested by: HPE</td>
<td>Software Availability: Nov-2018</td>
</tr>
</tbody>
</table>

 Base Portability Flags (Continued)

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=3

C++ benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=3

Fortran benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=3 -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=3 -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=3

Benchmarks using Fortran, C, and C++:
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=3 -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/HPE-Platform-Flags-Intel-V1.2-CLX-revB.html
Hewlett Packard Enterprise  
(Test Sponsor: HPE)  
ProLiant DL380 Gen10  
(2.40 GHz, Intel Xeon Platinum 8260L)  

<table>
<thead>
<tr>
<th>SPECrate®2017_fp_base = 251</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate®2017_fp_peak = Not Run</td>
</tr>
</tbody>
</table>

CPU2017 License: 3  
Test Sponsor: HPE  
Tested by: HPE  

Test Date: May-2019  
Hardware Availability: Apr-2019  
Software Availability: Nov-2018

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

http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-V1.2-CLX-revB.xml

SPEC CPU and SPECrate are registered trademarks 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 CPU®2017 v1.0.5 on 2019-05-29 07:19:48-0400.  