## SPEC CPU®2017 Floating Point Rate Result

**Hewlett Packard Enterprise**

[Test Sponsor: HPE]

ProLiant DL380 Gen10 Plus

(2.20 GHz, Intel Xeon Platinum 8352S)

**SPECrate®2017_fp_base = 206**

**SPECrate®2017_fp_peak = 217**

<table>
<thead>
<tr>
<th>Test Sponsor: HPE</th>
<th>Hardware Availability: Jun-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tested by: HPE</td>
<td>Software Availability: Dec-2020</td>
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### Hardware

<table>
<thead>
<tr>
<th>Origin</th>
<th>Test Date: Aug-2021</th>
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<tbody>
<tr>
<td>CPU2017 License: 3</td>
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<td>Test Date: Aug-2021</td>
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<td>Software Availability: Dec-2020</td>
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#### Copies

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<td>507.cactusBSSN_r</td>
<td>64</td>
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<tr>
<td>508.namd_r</td>
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<tr>
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<td>538.imagick_r</td>
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<td>544.nab_r</td>
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<td>554.roms_r</td>
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#### Software

<table>
<thead>
<tr>
<th>Origin</th>
<th>Test Date: Aug-2021</th>
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</thead>
<tbody>
<tr>
<td>CPU Name: Intel Xeon Platinum 8352S</td>
<td></td>
</tr>
<tr>
<td>OS: Red Hat Enterprise Linux 8.3 (Ootpa)</td>
<td></td>
</tr>
<tr>
<td>Max MHz: 3400</td>
<td></td>
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<tr>
<td>Kernel 4.18.0-240.el8.x86_64</td>
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<tr>
<td>Nominal: 2200</td>
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<tr>
<td>Compiler: C/C++: Version 2021.1 of Intel oneAPI DPC++/C++</td>
<td></td>
</tr>
<tr>
<td>Orderable: 1, 2 chip(s)</td>
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</tr>
<tr>
<td>Compiler Build 20201113 for Linux;</td>
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</tr>
<tr>
<td>Cache L1: 32 cores, 1 chip, 2 threads/core</td>
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<tr>
<td>Fortran: Version 2021.1 of Intel Fortran Compiler</td>
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<td>L2: 1.25 MB I+D on chip per core</td>
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<td>Classic Build 20201112 for Linux;</td>
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<tr>
<td>L3: 48 MB I+D on chip per chip</td>
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<td>Other: None</td>
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<td>Classic Build 20201112 for Linux;</td>
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<tr>
<td>Memory: 1 TB (16 x 64 GB 2Rx4 PC4-3200AA-R)</td>
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<td>Firmware: HPE BIOS Version U46 v1.50 05/27/2021 released May-2021</td>
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<tr>
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<td>File System: xfs</td>
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<td>Other: None</td>
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(Continued on next page)
SPEC CPU®2017 Floating Point Rate Result

Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL380 Gen10 Plus
(2.20 GHz, Intel Xeon Platinum 8352S)

SPECrate®2017_fp_base = 206
SPECrate®2017_fp_peak = 217

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

Software (Continued)
Power Management: BIOS set to prefer performance at the cost of additional power usage

Results Table

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</table>

SPECrate®2017_fp_base = 206
SPECrate®2017_fp_peak = 217

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

Environment Variables Notes
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/je5.0.1-64"
MALLOC_CONF = "retain:true"
SPEC CPU®2017 Floating Point Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL380 Gen10 Plus
(2.20 GHz, Intel Xeon Platinum 8352S)

| SPECrate®2017_fp_base = 206 |
| SPECrate®2017_fp_peak = 217 |

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

General Notes

Binaries compiled on a system with 1x Intel Core i9-7980XE CPU + 64GB RAM
memory using Red Hat Enterprise Linux 8.1
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.
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

The system ROM used for this result contains Intel microcode version 0xd0002a0 for the Intel Xeon Platinum 8352S processor.

BIOS Configuration:
- Workload Profile set to General Throughput Compute
- Memory Patrol Scrubbing set to Disabled
- Advanced Memory Protection set to Advanced ECC
- Last Level Cache (LLC) Prefetch set to Enabled
- Last Level Cache (LLC) Dead Line Allocation set to Disabled
- Enhanced Processor Performance set to Enabled
- Enhanced Processor Performance Profile set to Aggressive
- Thermal Configuration set to Maximum Cooling
- Workload Profile set to Custom
- DCU Stream Prefetcher set to Disabled
- XPT Remote Prefetcher set to Enabled
- Energy/Performance Bias set to Balanced Performance

Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16acafc64d
running on localhost.localdomain Tue Aug  3 15:33:02 2021

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 8352S CPU @ 2.20GHz
- 64 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)

(Continued on next page)
Hewlett Packard Enterprise
(2.20 GHz, Intel Xeon Platinum 8352S)

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

SPECrater®2017_fp_base = 206
SPECrater®2017_fp_peak = 217

Platform Notes (Continued)

cpu cores : 32
siblings : 64
physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

From lscpu from util-linux 2.32.1:
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian
CPU(s): 64
On-line CPU(s) list: 0-63
Thread(s) per core: 2
Core(s) per socket: 32
Socket(s): 1
NUMA node(s): 2
Vendor ID: GenuineIntel
CPU family: 6
Model: 106
Model name: Intel(R) Xeon(R) Platinum 8352S CPU @ 2.20GHz
Stepping: 6
CPU MHz: 1659.087
BogoMIPS: 4400.00
Virtualization: VT-x
L1d cache: 48K
L1i cache: 32K
L2 cache: 1280K
L3 cache: 49152K
NUMA node0 CPU(s): 0-15,32-47
NUMA node1 CPU(s): 16-31,48-63
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
aperfmperf pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16
xtrr 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 invpcid_single ssbd
mba ibrs ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid ept_ad
fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid cqm rdt_a adx smap avx512ifma
clflushopt clwb intel_pt avx512bw vppc dts avx512vl xsavesOPT xsaveopt xsave xsaves
/proc/cpuinfo cache data

cache size : 49152 KB

From numactl --hardware

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

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(Test Sponsor: HPE)
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CPU2017 License: 3
Test Sponsor: HPE
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Platform Notes (Continued)

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 8 9 10 11 12 13 14 15 32 33 34 35 36 37 38 39 40 41 42 43
        44 45 46 47
node 0 size: 497753 MB
node 0 free: 515148 MB
node 1 cpus: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 48 49 50 51 52 53 54 55 56
        57 58 59 60 61 62 63
node 1 size: 498191 MB
node 1 free: 515250 MB
node distances:
node   0   1
0:  10  20
1:  20  10

From /proc/meminfo
MemTotal:       1056525472 kB
HugePages_Total:       0
Hugepagesize:       2048 kB

/sbin/tuned-adm active
Current active profile: throughput-performance

From /etc/*release* /etc/*version*
  os-release:
    NAME="Red Hat Enterprise Linux"
    VERSION="8.3 (Ootpa)"
    ID="rhel"
    ID_LIKE="fedora"
    VERSION_ID="8.3"
    PLATFORM_ID="platform:el8"
    PRETTY_NAME="Red Hat Enterprise Linux 8.3 (Ootpa)"
    ANSI_COLOR="0;31"
redhat-release: Red Hat Enterprise Linux release 8.3 (Ootpa)
system-release: Red Hat Enterprise Linux release 8.3 (Ootpa)
system-release-cpe: cpe:/o:redhat:enterprise_linux:8.3:ga

uname -a:
    Linux localhost.localdomain 4.18.0-240.el8.x86_64 #1 SMP Wed Sep 23 05:13:10 EDT 2020
    x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:

CVE-2018-12207 (iTLB Multihit): Not affected
CVE-2018-3620 (L1 Terminal Fault): Not affected
Microarchitectural Data Sampling: Not affected
CVE-2017-5754 (Meltdown): Not affected

(Continued on next page)
Hewlett Packard Enterprise
(Test Sponsor: HPE)
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CPU2017 License: 3
Test Sponsor: HPE
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Platform Notes (Continued)

CVE-2018-3639 (Speculative Store Bypass):
Mitigation: Speculative Store Bypass disabled via prctl and seccomp

CVE-2017-5753 (Spectre variant 1):
Mitigation: usercopy/swapgs barriers and __user pointer sanitization

CVE-2017-5715 (Spectre variant 2):
Mitigation: Enhanced IBRS, IBPB: conditional, RSB filling

CVE-2020-0543 (Special Register Buffer Data Sampling): Not affected
CVE-2019-11135 (TSX Asynchronous Abort): Not affected

run-level 3 Aug 3 15:32

SPEC is set to: /home/cpu2017

Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs 297G 104G 194G 35% /home

From /sys/devices/virtual/dmi/id
Vendor:         HPE
Product:        ProLiant DL380 Gen10 Plus
Product Family: ProLiant
Serial:         CN70110BZV

Additional information from dmidecode 3.2 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.

Memory:
16x Micron 36ASF8G72PZ-3G2B2 64 GB 2 rank 3200
16x UNKNOWN NOT AVAILABLE

BIOS:
BIOS Vendor:       HPE
BIOS Version:      U46
BIOS Date:         05/27/2021
BIOS Revision:     1.50
Firmware Revision: 2.50

(End of data from sysinfo program)

Compiler Version Notes
==============================================================================
C | 519.lbm_r(base, peak) 538.imagick_r(base, peak)
| 544.nab_r(base, peak)
------------------------------------------------------------------------------
(Continued on next page)
Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL380 Gen10 Plus
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CPU2017 License: 3
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Compiler Version Notes (Continued)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2021.1 Build 20201113
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

==============================================================================
C++             | 508.namd_r(base, peak) 510.parest_r(base, peak)
==============================================================================

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2021.1 Build 20201113
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

==============================================================================
C++, C          | 511.povray_r(peak)
==============================================================================

Intel(R) C++ Intel(R) 64 Compiler Classic for applications running on
Intel(R) 64, Version 2021.1 Build 20201112_000000
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R)
64, Version 2021.1 Build 20201112_000000
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

==============================================================================
C++, C          | 511.povray_r(base) 526.blender_r(base, peak)
==============================================================================

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2021.1 Build 20201113
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2021.1 Build 20201113
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

==============================================================================
C++, C          | 511.povray_r(peak)
==============================================================================

Intel(R) C++ Intel(R) 64 Compiler Classic for applications running on
Intel(R) 64, Version 2021.1 Build 20201112_000000
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R)
64, Version 2021.1 Build 20201112_000000
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==============================================================================
C++, C

(Continued on next page)
Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL380 Gen10 Plus
(2.20 GHz, Intel Xeon Platinum 8352S)

**SPECrate®2017_fp_base = 206**
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<td>Tested by: HPE</td>
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**Compiler Version Notes (Continued)**

C++, C

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<tr>
<th>511.povray_r(base) 526.blender_r(base, peak)</th>
</tr>
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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2021.1 Build 20201113
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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2021.1 Build 20201113
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

C++, C, Fortran

<table>
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<tr>
<th>507.cactuBSSN_r(base, peak)</th>
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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
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Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on
Intel(R) 64, Version 2021.1 Build 20201112_000000
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Fortran

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

Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on
Intel(R) 64, Version 2021.1 Build 20201112_000000
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Fortran, C

<table>
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<th>521.wrf_r(peak)</th>
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Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on
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Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R) 64,
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Fortran, C

<table>
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<tr>
<th>521.wrf_r(base) 527.cam4_r(base, peak)</th>
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(Continued on next page)
Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL380 Gen10 Plus
(2.20 GHz, Intel Xeon Platinum 8352S)

**SPEC CPU®2017 Floating Point Rate Result**
(Specification and Copyright 2017-2021 Standard Performance Evaluation Corporation)

<table>
<thead>
<tr>
<th>SPECrate®2017_fp_base</th>
<th>SPECrate®2017_fp_peak</th>
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<td>206</td>
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**CPU2017 License:** 3
**Test Sponsor:** HPE
**Test Date:** Aug-2021
**Hardware Availability:** Jun-2021
**Tested by:** HPE
**Software Availability:** Dec-2020

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**Compiler Version Notes (Continued)**

Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000
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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2021.1 Build 20201113
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Fortran, C | 521.wrf_r(peak)

Fortran, C | 521.wrf_r(base) 527.cam4_r(base, peak)

---

**Base Compiler Invocation**

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
ifort icx

Benchmarks using both C and C++:
icpx icx

(Continued on next page)
Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL380 Gen10 Plus
(2.20 GHz, Intel Xeon Platinum 8352S)

 SPECrate®2017_fp_base = 206
 SPECrate®2017_fp_peak = 217

Base Compiler Invocation (Continued)

Benchmarks using Fortran, C, and C++:
icpx icx 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_CASE_FLAG
527.cam4_r: -DSPEC_LP64
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:
-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-mbranches-within-32B-boundaries -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib

C++ benchmarks:
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-mbranches-within-32B-boundaries -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib

Fortran benchmarks:
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ipo -no-prec-div
-qopt-prefetch -ffinite-math-only
-qopt-multiple-gather-scatter-by-shuffles -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto
-mbranches-within-32B-boundaries -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib

(Continued on next page)
Hewlett Packard Enterprise
(Test Sponsor: HPE)
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SPECrater®2017_fp_base = 206
SPECrater®2017_fp_peak = 217

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

Base Optimization Flags (Continued)

Benchmarks using both Fortran and C:
- \texttt{-w \-m64 \-std=c11 \-Wl,\-z,\muldefs \-xCORE-AVX512 \-Ofast \-ffast-math}
- \texttt{-flto \-mfpmath=sse \-funroll-loops \-gopt-mem-layout-trans=4 \-03 \-ipo}
- \texttt{-no-prec-div \-gopt-prefetch \-ffinite-math-only}
- \texttt{-gopt-multiple-gather-scatter-by-shuffles}
- \texttt{-mbranches-within-32B-boundaries \-nostandard-realloc-lhs}
- \texttt{-align array32byte \-auto \-ljemalloc \-L/usr/local/jemalloc64-5.0.1/lib}

Benchmarks using both C and C++:
- \texttt{-w \-m64 \-std=c11 \-Wl,\-z,\muldefs \-xCORE-AVX512 \-Ofast \-ffast-math}
- \texttt{-flto \-mfpmath=sse \-funroll-loops \-gopt-mem-layout-trans=4}
- \texttt{-mbranches-within-32B-boundaries \-ljemalloc}
- \texttt{-L/usr/local/jemalloc64-5.0.1/lib}

Benchmarks using Fortran, C, and C++:
- \texttt{-w \-m64 \-std=c11 \-Wl,\-z,\muldefs \-xCORE-AVX512 \-Ofast \-ffast-math}
- \texttt{-flto \-mfpmath=sse \-funroll-loops \-gopt-mem-layout-trans=4 \-03}
- \texttt{-no-prec-div \-gopt-prefetch \-ffinite-math-only}
- \texttt{-gopt-multiple-gather-scatter-by-shuffles}
- \texttt{-mbranches-within-32B-boundaries \-nostandard-realloc-lhs}
- \texttt{-align array32byte \-auto \-ljemalloc \-L/usr/local/jemalloc64-5.0.1/lib}

Peak Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
521.wrf_r:ifort icc
527.cam4_r:ifort icx

Benchmarks using both C and C++:
(Continued on next page)
### SPEC CPU®2017 Floating Point Rate Result

**Hewlett Packard Enterprise**  
(Test Sponsor: HPE)  
**ProLiant DL380 Gen10 Plus**  
(2.20 GHz, Intel Xeon Platinum 8352S)

<table>
<thead>
<tr>
<th>Test Date:</th>
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</table>

| SPECrate®2017_fp_base = | 206 |
| SPECrate®2017_fp_peak = | 217 |

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

## Peak Compiler Invocation (Continued)

511.povray_r: icpc icc  
526.blender_r: icpx icx

Benchmarks using Fortran, C, and C++:
icpx icx ifort

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

### C benchmarks:

519.lbm_r: basepeak = yes  
538.imagick_r: basepeak = yes  

### C++ benchmarks:

508.namd_r: basepeak = yes  

### Fortran benchmarks:


*(Continued on next page)*
Hewlett Packard Enterprise  
ProLiant DL380 Gen10 Plus  
(2.20 GHz, Intel Xeon Platinum 8352S)

SPECrate\textsuperscript{®}2017\_fp\_base = 206  
SPECrate\textsuperscript{®}2017\_fp\_peak = 217

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

Test Date: Aug-2021  
Hardware Availability: Jun-2021  
Software Availability: Dec-2020

Peak Optimization Flags (Continued)

549.fotonik3d\_r: basepeak = yes

554.roms\_r: Same as 503.bwaves\_r

Benchmarks using both Fortran and C:


527.cam4\_r: basepeak = yes

Benchmarks using both C and C++:

511.povray\_r: \texttt{-prof-gen(pass 1) -prof-use(pass 2) -xCORE-AVX512 -O3 -ipo -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-multiple-gather-scatter-by-shuffles -qopt-mem-layout-trans=4 -mbranches-within-32B-boundaries -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc}

526.blender\_r: basepeak = yes

Benchmarks using Fortran, C, and C++:

507.cactuBSSN\_r: basepeak = yes

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

- \url{http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-V1.0-ICX-revE.html}
- \url{http://www.spec.org/cpu2017/flags/Intel-ic2021-official-linux64_revA.html}

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

- \url{http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-V1.0-ICX-revE.xml}
- \url{http://www.spec.org/cpu2017/flags/Intel-ic2021-official-linux64_revA.xml}

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Tested with SPEC CPU\textsuperscript{®}2017 v1.1.8 on 2021-08-03 06:03:01-0400.  
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