



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant Compute DL580 Gen12**

(4.00 Ghz, Intel Xeon 6714P)

**SPECspeed®2017\_fp\_base = 218**

**SPECspeed®2017\_fp\_peak = 218**

**CPU2017 License:** 3

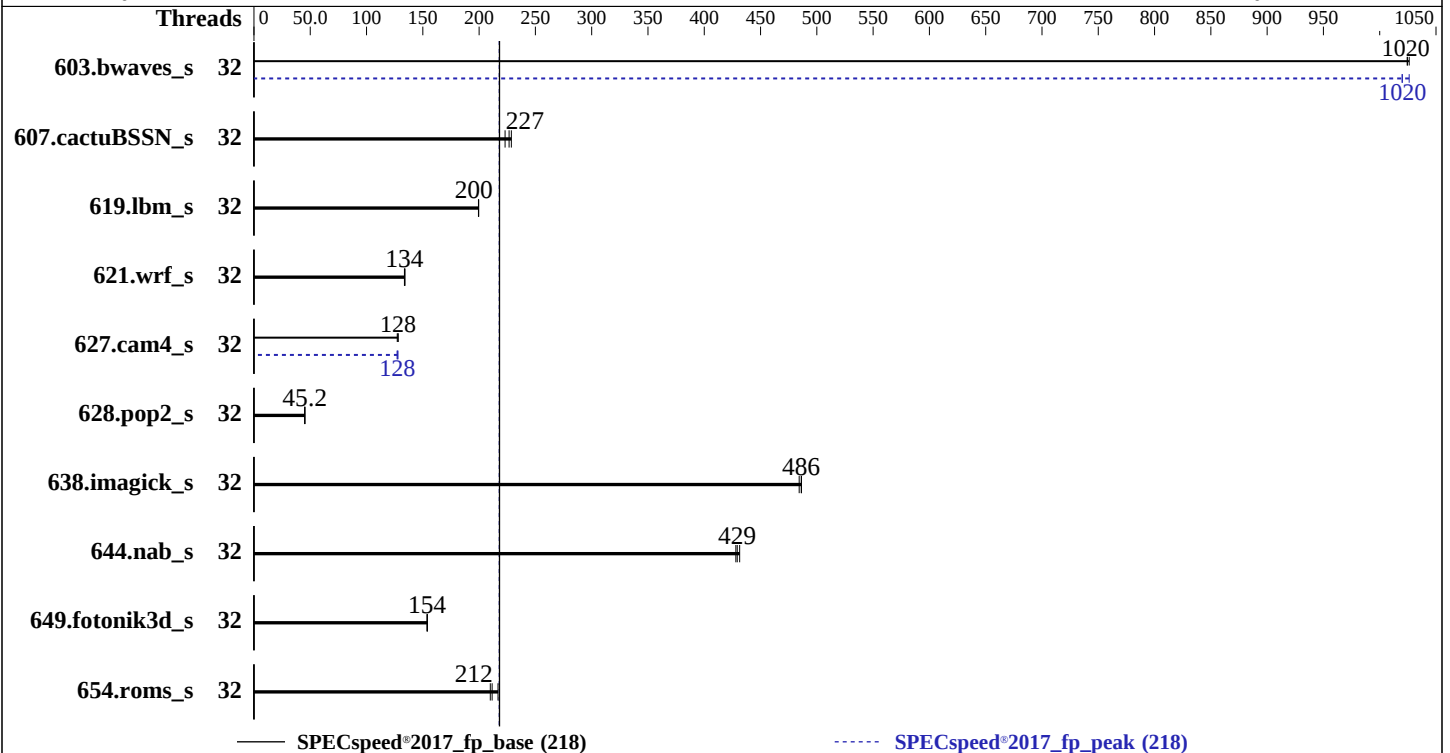
**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Sep-2025

**Hardware Availability:** Jul-2025

**Software Availability:** Jul-2025



## Hardware

CPU Name: Intel Xeon 6714P  
Max MHz: 4300  
Nominal: 4000  
Enabled: 32 cores, 4 chips, 2 threads/core  
Orderable: 1,2,4 Chips  
Cache L1: 64 KB I + 48 KB D on chip per core  
L2: 2 MB I+D on chip per core  
L3: 48 MB I+D on chip per chip  
Other: None  
Memory: 2 TB (32 x 64 GB 2Rx4 PC5-6400B-R)  
Storage: 1 x 1.8 TB NVMe SSD  
Other: CPU Cooling: Air

## Software

OS: SUSE Linux Enterprise Server 15 SP6  
Kernel 6.4.0-150600.23.60-default  
Compiler: C/C++: Version 2024.1 of Intel oneAPI DPC++/C++ Compiler for Linux;  
Fortran: Version 2024.1 of Intel Fortran Compiler for Linux;  
Parallel: Yes  
Firmware: HPE BIOS Version v1.43 07/09/2025 released Jul-2025  
File System: btrfs  
System State: Run level 3 (multi-user)  
Base Pointers: 64-bit  
Peak Pointers: 64-bit  
Other: jemalloc memory allocator V5.0.1  
Power Management: BIOS to prefer performance at the cost of additional power usage



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant Compute DL580 Gen12

(4.00 Ghz, Intel Xeon 6714P)

SPECspeed®2017\_fp\_base = 218

SPECspeed®2017\_fp\_peak = 218

CPU2017 License: 3

Test Sponsor: HPE

Tested by: HPE

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jul-2025

## Results Table

| Benchmark       | Base    |             |            |             |             |             |             | Peak    |             |             |             |             |             |            |
|-----------------|---------|-------------|------------|-------------|-------------|-------------|-------------|---------|-------------|-------------|-------------|-------------|-------------|------------|
|                 | Threads | Seconds     | Ratio      | Seconds     | Ratio       | Seconds     | Ratio       | Threads | Seconds     | Ratio       | Seconds     | Ratio       | Seconds     | Ratio      |
| 603.bwaves_s    | 32      | 57.5        | 1030       | 57.6        | 1020        | <u>57.6</u> | <u>1020</u> | 32      | <u>57.8</u> | <u>1020</u> | 57.8        | 1020        | 57.5        | 1030       |
| 607.cactuBSSN_s | 32      | 74.7        | 223        | <u>73.6</u> | <u>227</u>  | 72.9        | 229         | 32      | 74.7        | 223         | <u>73.6</u> | <u>227</u>  | 72.9        | 229        |
| 619.lbm_s       | 32      | 26.2        | 200        | 26.3        | 199         | <u>26.2</u> | <u>200</u>  | 32      | 26.2        | 200         | 26.3        | 199         | <u>26.2</u> | <u>200</u> |
| 621.wrf_s       | 32      | 98.6        | 134        | <u>98.8</u> | <u>134</u>  | 99.0        | 134         | 32      | 98.6        | 134         | <u>98.8</u> | <u>134</u>  | 99.0        | 134        |
| 627.cam4_s      | 32      | <u>69.3</u> | <u>128</u> | 69.6        | 127         | 69.2        | 128         | 32      | 69.3        | 128         | 69.7        | 127         | <u>69.4</u> | <u>128</u> |
| 628.pop2_s      | 32      | 263         | 45.1       | <u>263</u>  | <u>45.2</u> | 262         | 45.2        | 32      | 263         | 45.1        | <u>263</u>  | <u>45.2</u> | 262         | 45.2       |
| 638.imagick_s   | 32      | 29.7        | 486        | 29.8        | 484         | <u>29.7</u> | <u>486</u>  | 32      | 29.7        | 486         | 29.8        | 484         | <u>29.7</u> | <u>486</u> |
| 644.nab_s       | 32      | 40.8        | 428        | <u>40.7</u> | <u>429</u>  | 40.5        | 431         | 32      | 40.8        | 428         | <u>40.7</u> | <u>429</u>  | 40.5        | 431        |
| 649.fotonik3d_s | 32      | <u>59.2</u> | <u>154</u> | 59.2        | 154         | 59.3        | 154         | 32      | <u>59.2</u> | <u>154</u>  | 59.2        | 154         | 59.3        | 154        |
| 654.roms_s      | 32      | <u>74.4</u> | <u>212</u> | 72.6        | 217         | 75.0        | 210         | 32      | <u>74.4</u> | <u>212</u>  | 72.6        | 217         | 75.0        | 210        |

SPECspeed®2017\_fp\_base = 218

SPECspeed®2017\_fp\_peak = 218

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"  
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>  
tuned-adm profile was stopped using "systemctl stop tuned"

## Environment Variables Notes

Environment variables set by runcpu before the start of the run:  
KMP\_AFFINITY = "granularity=fine,compact,1,0"  
LD\_LIBRARY\_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/je5.0.1-64"  
MALLOCONF = "retain:true"  
OMP\_STACKSIZE = "192M"

## General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM  
memory using Redhat Enterprise Linux 8.0  
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.  
jemalloc, a general purpose malloc implementation  
built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5  
sources available from jemalloc.net or <https://github.com/jemalloc/jemalloc/releases>



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant Compute DL580 Gen12**

**(4.00 Ghz, Intel Xeon 6714P)**

**SPECspeed®2017\_fp\_base = 218**

**SPECspeed®2017\_fp\_peak = 218**

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Sep-2025

**Hardware Availability:** Jul-2025

**Software Availability:** Jul-2025

## Platform Notes

BIOS Configurations : Parameters are selected in the order shown below

Workload Profile set to General Peak Frequency Compute

Enhanced Processor Performance Profile set to Aggressive

Thermal Configuration set to Maximum Cooling

Memory Patrol Scrubbing set to Disabled

Last Level Cache (LLC) Prefetch set to Enabled

XPT Prefetch set to Disabled

Intel UPI Prefetch set to Disabled

Workload Profile set to Custom

Collaborative Power Control set to Enabled

Sysinfo program /home/cpu2017/bin/sysinfo

Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197

running on localhost Wed Sep 3 14:45:00 2025

SUT (System Under Test) info as seen by some common utilities.

### Table of contents

1. uname -a
2. w
3. Username
4. ulimit -a
5. sysinfo process ancestry
6. /proc/cpuinfo
7. lscpu
8. numactl --hardware
9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemd 254 (254.27+suse.167.g130293e510)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. tuned-adm active
16. sysctl
17. /sys/kernel/mm/transparent\_hugepage
18. /sys/kernel/mm/transparent\_hugepage/khugepaged
19. OS release
20. Disk information
21. /sys/devices/virtual/dmi/id
22. dmidecode
23. BIOS

```
1. uname -a
Linux localhost 6.4.0-150600.23.60-default #1 SMP PREEMPT_DYNAMIC Tue Jul 1 14:43:49 UTC 2025 (6f98261)
x86_64 x86_64 x86_64 GNU/Linux
```

```
2. w
14:45:00 up 3:24, 2 users, load average: 4.22, 4.66, 2.97
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
benchmark pts/8 :pts/6:S.0 11:32 3:09m 0.71s 0.01s sudo su
```

```
3. Username
From environment variable $USER: root
From the command 'logname': benchmark
```

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant Compute DL580 Gen12**

**(4.00 Ghz, Intel Xeon 6714P)**

**SPECspeed®2017\_fp\_base = 218**

**SPECspeed®2017\_fp\_peak = 218**

**CPU2017 License: 3**

**Test Sponsor: HPE**

**Tested by: HPE**

**Test Date: Sep-2025**

**Hardware Availability: Jul-2025**

**Software Availability: Jul-2025**

## Platform Notes (Continued)

```
-----
4. ulimit -a
core file size          (blocks, -c) 0
data seg size           (kbytes, -d) unlimited
scheduling priority     (-e) 0
file size               (blocks, -f) unlimited
pending signals         (-i) 8255477
max locked memory       (kbytes, -l) 8192
max memory size         (kbytes, -m) unlimited
open files              (-n) 1024
pipe size               (512 bytes, -p) 8
POSIX message queues    (bytes, -q) 819200
real-time priority      (-r) 0
stack size              (kbytes, -s) unlimited
cpu time                (seconds, -t) unlimited
max user processes      (-u) 8255477
virtual memory          (kbytes, -v) unlimited
file locks              (-x) unlimited
-----
```

```
-----
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize=42
SCREEN -S spec
/bin/bash
sudo su
sudo su
su
bash
bash
runcpu --nobuild --action validate --define default-platform-flags -c 6714P-avx512-speed-20240308.cfg
--define cores=32 --tune base,peak -o all --define smt-on --define drop_caches fpspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
6714P-avx512-speed-20240308.cfg --define cores=32 --tune base,peak --output_format all --define smt-on
--define drop_caches --nopower --runmode speed --tune base:peak --size refspeed fpspeed --nopreenv
--note-preenv --logfile $SPEC/tmp/CPU2017.002/templogs/preenv.fpspeed.002.0.log --lognum 002.0
--from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017
-----
```

```
-----
6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) 6714P
vendor_id      : GenuineIntel
cpu family     : 6
model          : 173
stepping       : 1
microcode      : 0x10003c2
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
cpu cores      : 8
siblings       : 16
4 physical ids (chips)
64 processors (hardware threads)
physical id 0: core ids 0-7
physical id 1: core ids 0-7
physical id 2: core ids 0-7
physical id 3: core ids 0-7
physical id 0: apicids 0-15
physical id 1: apicids 128-143
physical id 2: apicids 256-271
-----
```

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant Compute DL580 Gen12**

**(4.00 Ghz, Intel Xeon 6714P)**

**SPECspeed®2017\_fp\_base = 218**

**SPECspeed®2017\_fp\_peak = 218**

**CPU2017 License: 3**

**Test Sponsor: HPE**

**Tested by: HPE**

**Test Date: Sep-2025**

**Hardware Availability: Jul-2025**

**Software Availability: Jul-2025**

## Platform Notes (Continued)

physical id 3: apicids 384-399

Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for virtualized systems. Use the above data carefully.

### 7. lscpu

From lscpu from util-linux 2.39.3:

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Architecture:                            | x86_64                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| CPU op-mode(s):                          | 32-bit, 64-bit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Address sizes:                           | 46 bits physical, 57 bits virtual                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Byte Order:                              | Little Endian                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| CPU(s):                                  | 64                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| On-line CPU(s) list:                     | 0-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Vendor ID:                               | GenuineIntel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Model name:                              | Intel(R) Xeon(R) 6714P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| CPU family:                              | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Model:                                   | 173                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Thread(s) per core:                      | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Core(s) per socket:                      | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Socket(s):                               | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Stepping:                                | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| BogoMIPS:                                | 8000.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 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 aperfmperf tsc_known_freq 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 tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault epb cat_l3 cat_l2 cdp_l3 intel_ppin cdp_l2 ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms invpcid cqm rdt_a avx512f avx512dq rdseed adx smap avx512ifma clflushopt clwb intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local split_lock_detect user_shstk avx_vnni avx512_bf16 wbnoinvd dtherm ida arat pln pts vnmi avx512vbmi umip pku ospke waitpkg avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq la57 rdpid bus_lock_detect cldemote movdiri movdir64b enqcmd fsrm md_clear serialize tsxldtrk pconfig arch_lbr ibt amx_bf16 avx512_fp16 amx_tile amx_int8 flush_l1d arch_capabilities |
| Virtualization:                          | VT-x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| L1d cache:                               | 1.5 MiB (32 instances)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| L1i cache:                               | 2 MiB (32 instances)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| L2 cache:                                | 64 MiB (32 instances)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| L3 cache:                                | 192 MiB (4 instances)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| NUMA node(s):                            | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| NUMA node0 CPU(s):                       | 0-7,32-39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| NUMA node1 CPU(s):                       | 8-15,40-47                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| NUMA node2 CPU(s):                       | 16-23,48-55                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| NUMA node3 CPU(s):                       | 24-31,56-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Vulnerability Gather data sampling:      | Not affected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Vulnerability Indirect target selection: | Not affected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Vulnerability Itlb multihit:             | Not affected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Vulnerability L1tf:                      | Not affected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Vulnerability Mds:                       | Not affected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Vulnerability Meltdown:                  | Not affected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Vulnerability Mmio stale data:           | Not affected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant Compute DL580 Gen12**

**(4.00 Ghz, Intel Xeon 6714P)**

**SPECspeed®2017\_fp\_base = 218**

**SPECspeed®2017\_fp\_peak = 218**

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Sep-2025

**Hardware Availability:** Jul-2025

**Software Availability:** Jul-2025

## Platform Notes (Continued)

Vulnerability Reg file data sampling: Not affected  
Vulnerability Retbleed: Not affected  
Vulnerability Spec rstack overflow: Not affected  
Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl  
Vulnerability Spectre v1: Mitigation; usercopy/swapgs barriers and \_\_user pointer sanitization  
Vulnerability Spectre v2: Mitigation; Enhanced / Automatic IBRS; IBPB conditional; PBRSE-eIBRS Not affected; BHI BHI\_DIS\_S  
Vulnerability Srbds: Not affected  
Vulnerability Tsx async abort: Not affected

From lscpu --cache:

| NAME | ONE-SIZE | ALL-SIZE | WAYS | TYPE        | LEVEL | SETS  | PHY-LINE | COHERENCY-SIZE |
|------|----------|----------|------|-------------|-------|-------|----------|----------------|
| L1d  | 48K      | 1.5M     | 12   | Data        | 1     | 64    | 1        | 64             |
| L1i  | 64K      | 2M       | 16   | Instruction | 1     | 64    | 1        | 64             |
| L2   | 2M       | 64M      | 16   | Unified     | 2     | 2048  | 1        | 64             |
| L3   | 48M      | 192M     | 16   | Unified     | 3     | 49152 | 1        | 64             |

8. numactl --hardware

NOTE: a numactl 'node' might or might not correspond to a physical chip.

```
available: 4 nodes (0-3)
node 0 cpus: 0-7,32-39
node 0 size: 515691 MB
node 0 free: 514484 MB
node 1 cpus: 8-15,40-47
node 1 size: 516091 MB
node 1 free: 512332 MB
node 2 cpus: 16-23,48-55
node 2 size: 516091 MB
node 2 free: 511025 MB
node 3 cpus: 24-31,56-63
node 3 size: 516028 MB
node 3 free: 512665 MB
node distances:
node  0  1  2  3
 0:  10  21  21  21
 1:  21  10  21  21
 2:  21  21  10  21
 3:  21  21  21  10
```

9. /proc/meminfo

MemTotal: 2113435884 kB

10. who -r

run-level 3 Sep 3 11:32 last=5

11. Systemd service manager version: systemd 254 (254.27+suse.167.g130293e510)

Default Target Status  
graphical running

12. Services, from systemctl list-unit-files

| STATE   | UNIT FILES                                                                                                                                                                                                                                                               |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| enabled | ModemManager YaST2-Firstboot YaST2-Second-Stage apparmor appstream-sync-cache auditd bluetooth chronyd cron display-manager getty@ irqbalance iscsi issue-generator kbdsettings klog lvm2-monitor nsd nvme-fc-boot-connections nvme-fc-autoconnect postfix purge-kernels |

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant Compute DL580 Gen12**

**(4.00 Ghz, Intel Xeon 6714P)**

**SPECspeed®2017\_fp\_base = 218**

**SPECspeed®2017\_fp\_peak = 218**

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Sep-2025

**Hardware Availability:** Jul-2025

**Software Availability:** Jul-2025

## Platform Notes (Continued)

enabled-runtime disabled rollback rsyslog smartd sshd systemd-pstore virtqemud wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny wpa\_supplicant  
systemd-remount-fs NetworkManager NetworkManager-dispatcher NetworkManager-wait-online accounts-daemon autofs  
autoyast-initscripts blk-availability bluetooth-mesh boot-sysctl ca-certificates chrony-wait console-getty cups cups-browsed debug-shell dmraid-activation dnsmasq ebttables  
exchange-bmc-os-info firewalld fsidd gpm grub2-once haveged hwloc-dump-hwdata ipmi ipmievdevd iscsi-init iscsid issue-add-ssh-keys kexec-load ksm kvm\_stat libvirt-guests lunmask  
man-db-create multipathd nfs nfs-blkmap nfs-server nfsserver nmb openvpn@ ostree-remount rpcbind rpmconfigcheck rsyncd rtkit-daemon serial-getty@ smartd\_generate\_opts smb snmpd  
snmptrapd speech-dispatcherd systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-nspawn@ systemd-sysext systemd-time-wait-sync  
systemd-timesyncd tcstd tuned udisks2 update-system-flatpaks upower virtinterfaced virtlockd virtlogd virtnetworkd virtnodevdev virtnwfilterd virtsecret virtstoraged  
vncserver@ wpa\_supplicant@  
indirect pcsd saned@ systemd-userdbd tftpd wickedd

### 13. Linux kernel boot-time arguments, from /proc/cmdline

BOOT\_IMAGE=/boot/vmlinuz-6.4.0-150600.23.60-default  
root=UUID=31ddc59e-f5ed-47da-8154-f16fa2fc98b8  
splash=silent  
mitigations=auto  
quiet  
security=apparmor

### 14. cpupower frequency-info

analyzing CPU 5:  
Unable to determine current policy  
boost state support:  
Supported: yes  
Active: yes

### 15. tuned-adm active

It seems that tuned daemon is not running, preset profile is not activated.  
Preset profile: virtual-host

### 16. sysctl

|                              |       |
|------------------------------|-------|
| kernel.numa_balancing        | 0     |
| kernel.randomize_va_space    | 2     |
| vm.compaction_proactiveness  | 20    |
| vm.dirty_background_bytes    | 0     |
| vm.dirty_background_ratio    | 40    |
| vm.dirty_bytes               | 0     |
| vm.dirty_expire_centisecs    | 3000  |
| vm.dirty_ratio               | 20    |
| vm.dirty_writeback_centisecs | 500   |
| vm.dirtytime_expire_seconds  | 43200 |
| vm.extfrag_threshold         | 500   |
| vm.min_unmapped_ratio        | 1     |
| vm.nr_hugepages              | 0     |
| vm.nr_hugepages_mempolicy    | 0     |
| vm.nr_overcommit_hugepages   | 0     |
| vm.swappiness                | 1     |
| vm.watermark_boost_factor    | 15000 |
| vm.watermark_scale_factor    | 10    |
| vm.zone_reclaim_mode         | 1     |

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant Compute DL580 Gen12**

**(4.00 Ghz, Intel Xeon 6714P)**

**SPECspeed®2017\_fp\_base = 218**

**SPECspeed®2017\_fp\_peak = 218**

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Sep-2025

**Hardware Availability:** Jul-2025

**Software Availability:** Jul-2025

## Platform Notes (Continued)

-----  
17. /sys/kernel/mm/transparent\_hugepage  
defrag always defer defer+madvice [madvice] never  
enabled [always] madvice never  
hpage\_pmd\_size 2097152  
shmem\_enabled always within\_size advise [never] deny force

-----  
18. /sys/kernel/mm/transparent\_hugepage/khugepaged  
alloc\_sleep\_millisecs 60000  
defrag 1  
max\_ptes\_none 511  
max\_ptes\_shared 256  
max\_ptes\_swap 64  
pages\_to\_scan 4096  
scan\_sleep\_millisecs 10000

-----  
19. OS release  
From /etc/\*-release /etc/\*-version  
os-release SUSE Linux Enterprise Server 15 SP6

-----  
20. Disk information  
SPEC is set to: /home/cpu2017  
Filesystem Type Size Used Avail Use% Mounted on  
/dev/nvme1n1p3 btrfs 1.8T 314G 1.5T 18% /home

-----  
21. /sys/devices/virtual/dmi/id  
Vendor: HPE  
Product: HPE ProLiant Compute DL580 Gen12  
Product Family: ProLiant  
Serial: SANJACSCM

-----  
22. dmidecode  
Additional information from dmidecode 3.6 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:  
4x Hynix HMC94AHB8A480N 64 GB 2 rank 6400  
5x Micron MTC40F2046S1RC64BD2 MWFF 64 GB 2 rank 6400  
23x Micron MTC40F2046S1RC64BD2 QSFF 64 GB 2 rank 6400

-----  
23. BIOS  
(This section combines info from /sys/devices and dmidecode.)  
BIOS Vendor: HPE  
BIOS Version: 1.43  
BIOS Date: 07/09/2025  
BIOS Revision: 1.43  
Firmware Revision: 1.17



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant Compute DL580 Gen12**

**(4.00 Ghz, Intel Xeon 6714P)**

**SPECspeed®2017\_fp\_base = 218**

**SPECspeed®2017\_fp\_peak = 218**

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Sep-2025

**Hardware Availability:** Jul-2025

**Software Availability:** Jul-2025

## Compiler Version Notes

=====  
C | 619.lbm\_s(base, peak) 638.imagick\_s(base, peak) 644.nab\_s(base, peak)  
=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
=====

=====  
C++, C, Fortran | 607.cactuBSSN\_s(base, peak)  
=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
=====

=====  
Fortran | 603.bwaves\_s(base, peak) 649.fotonik3d\_s(base, peak) 654.roms\_s(base, peak)  
=====

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
=====

=====  
Fortran, C | 621.wrf\_s(base, peak) 627.cam4\_s(base, peak) 628.pop2\_s(base, peak)  
=====

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
=====

## Base Compiler Invocation

C benchmarks:

icx

Fortran benchmarks:

ifx

Benchmarks using both Fortran and C:

ifx icx

Benchmarks using Fortran, C, and C++:

icpx icx ifx



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

ProLiant Compute DL580 Gen12

(4.00 Ghz, Intel Xeon 6714P)

**SPECspeed®2017\_fp\_base = 218**

**SPECspeed®2017\_fp\_peak = 218**

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Sep-2025

**Hardware Availability:** Jul-2025

**Software Availability:** Jul-2025

## 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:

-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math  
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp  
-DSPEC\_OPENMP -Wno-implicit-int -L/usr/local/jemalloc64-5.0.1/lib  
-ljemalloc

Fortran benchmarks:

-w -m64 -Wl,-z,muldefs -DSPEC\_OPENMP -xCORE-AVX512 -Ofast  
-ffast-math -flto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -fiopenmp -nostandard-realloc-lhs  
-align array32byte -auto -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Benchmarks using both Fortran and C:

-w -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math  
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp  
-DSPEC\_OPENMP -Wno-implicit-int -nostandard-realloc-lhs  
-align array32byte -auto -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Benchmarks using Fortran, C, and C++:

-w -std=c++14 -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX512 -Ofast  
-ffast-math -flto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC\_OPENMP -Wno-implicit-int  
-nostandard-realloc-lhs -align array32byte -auto  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant Compute DL580 Gen12**

**(4.00 Ghz, Intel Xeon 6714P)**

**SPECspeed®2017\_fp\_base = 218**

**SPECspeed®2017\_fp\_peak = 218**

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Sep-2025

**Hardware Availability:** Jul-2025

**Software Availability:** Jul-2025

## Peak Compiler Invocation

C benchmarks:

icx

Fortran benchmarks:

ifx

Benchmarks using both Fortran and C:

ifx icx

Benchmarks using Fortran, C, and C++:

icpx icx ifx

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

619.lbm\_s: basepeak = yes

638.imagick\_s: basepeak = yes

644.nab\_s: basepeak = yes

Fortran benchmarks:

603.bwaves\_s: -w -m64 -wl, -z, muldefs -DSPEC\_OPENMP -xCORE-AVX512  
-Ofast -ffast-math -flto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -fiopenmp -nostandard-realloc-lhs  
-align array32byte -auto -L/usr/local/jemalloc64-5.0.1/lib  
-ljemalloc

649.fotonik3d\_s: basepeak = yes

654.roms\_s: basepeak = yes

Benchmarks using both Fortran and C:

621.wrf\_s: basepeak = yes

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant Compute DL580 Gen12**

**(4.00 Ghz, Intel Xeon 6714P)**

**SPECspeed®2017\_fp\_base = 218**

**SPECspeed®2017\_fp\_peak = 218**

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Sep-2025

**Hardware Availability:** Jul-2025

**Software Availability:** Jul-2025

## Peak Optimization Flags (Continued)

```
627.cam4_s: -w -m64 -std=c11 -Wl, -z,muldefs -xCORE-AVX512 -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-Wno-implicit-int -nostandard-realloc-lhs
-align array32byte -auto -L/usr/local/jemalloc64-5.0.1/lib
-ljemalloc
```

628.pop2\_s: basepeak = yes

Benchmarks using Fortran, C, and C++:

607.cactuBSSN\_s: basepeak = yes

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

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.html>

<http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-GNR-rev1.3.html>

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

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.xml>

<http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-GNR-rev1.3.xml>

SPEC CPU and SPECspeed 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](mailto:info@spec.org).

Tested with SPEC CPU®2017 v1.1.9 on 2025-09-03 15:45:00-0400.

Report generated on 2025-11-05 12:05:44 by CPU2017 PDF formatter v6716.

Originally published on 2025-11-04.