# SPEC CPU®2026 Floating Point Speed Result

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## Hewlett Packard Enterprise

(Test Sponsor: HPE)

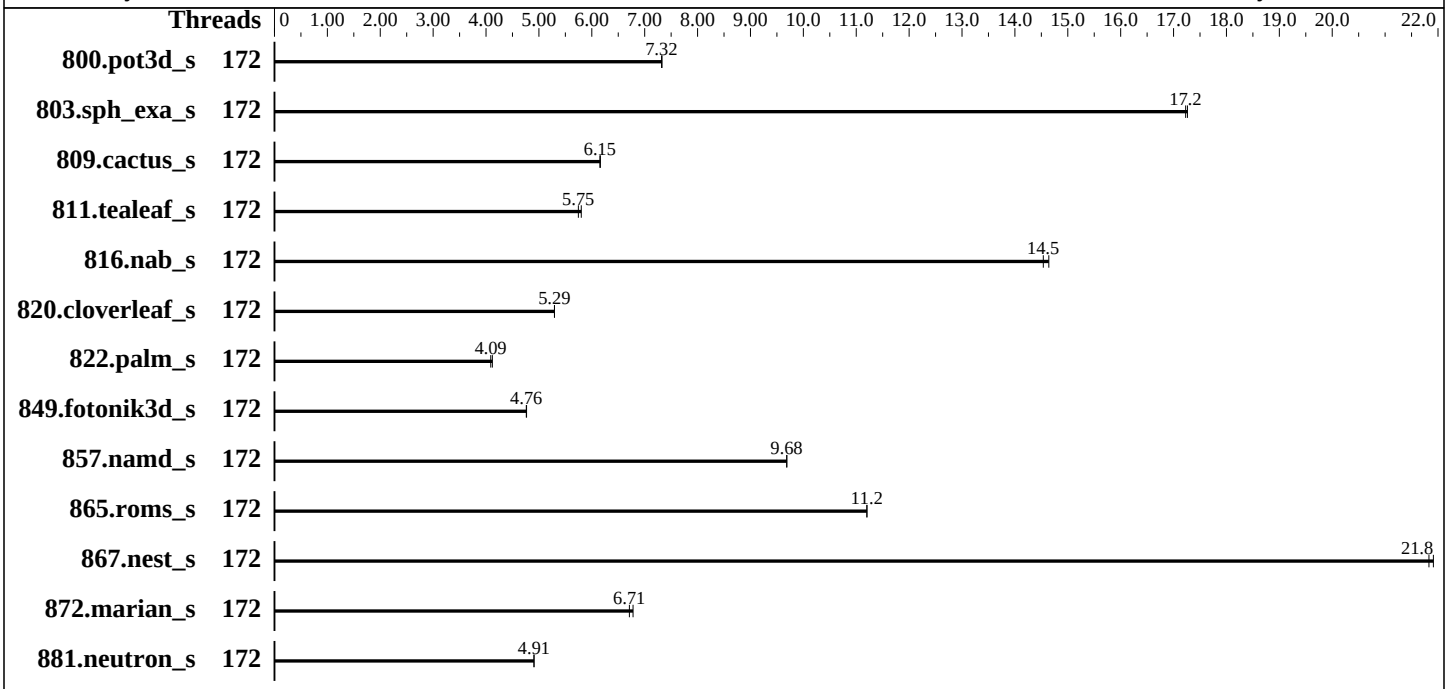
ProLiant Compute DL320 Gen12
(2.00 GHz, Intel Xeon 6787P)

SPECspeed®2026_fp_base = 7.97

SPECspeed®2026_fp_peak = 7.97

**CPU2026 License:** 3
**Test Sponsor:** HPE
**Tested by:** HPE

**Test Date:** Feb-2026
**Hardware Availability:** Mar-2025
**Software Availability:** Jan-2026




## Hardware

| | |
|---|---|
| CPU Name: | Intel Xeon 6787P |
| Max MHz: | 3800 |
| Nominal: | 2000 |
| Enabled: | 86 cores, 1 chip, 2 threads/core |
| Orderable: | 1 Chip |
| Cache L1: | 64 KB I + 48 KB D on chip per core |
| L2: | 2 MB I+D on chip per core |
| L3: | 336 MB I+D on chip per chip |
| Other: | None |
| Memory: | 256 GB (8 x 32 GB 2Rx8 PC5-6400B-R) |
| Storage: | 1 x 1.6 TB NVMe SSD |
| Cooling: | CLC |
| Other: | None |

## Software

| | |
|---|---|
| OS: | Ubuntu 24.04.3 LTS<br>Kernel 6.8.0-90-generic |
| Compiler: | C/C++: Version 2025.3 of Intel oneAPI DPC++/C++ Compiler for Linux;<br>Fortran: Version 2025.3 of Intel Fortran Compiler for Linux |
| Compiler Category: | Vendor |
| Firmware: | HPE BIOS Version v1.60 released Jan-2026 |
| File System: | ext4 |
| System State: | Run level 5 (multi-user, graphical) |
| Base Pointers: | 64-bit |
| Peak Pointers: | 64-bit |
| Other: | jemalloc memory allocator v5.3 |
| Power Management: | BIOS is set to prefer performance at the cost of additional power usage |

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## Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Threads | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Threads | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 800.pot3d_s | 172 | **92.0** | **7.32** | 91.8 | 7.33 | | | 172 | **92.0** | **7.32** | 91.8 | 7.33 | | |
| 803.sph_exa_s | 172 | 71.7 | 17.3 | **71.9** | **17.2** | | | 172 | 71.7 | 17.3 | **71.9** | **17.2** | | |
| 809.cactus_s | 172 | 182 | 6.16 | **182** | **6.15** | | | 172 | 182 | 6.16 | **182** | **6.15** | | |
| 811.tealeaf_s | 172 | **96.9** | **5.75** | 96.0 | 5.80 | | | 172 | **96.9** | **5.75** | 96.0 | 5.80 | | |
| 816.nab_s | 172 | **77.5** | **14.5** | 76.9 | 14.6 | | | 172 | **77.5** | **14.5** | 76.9 | 14.6 | | |
| 820.cloverleaf_s | 172 | 162 | 5.29 | **162** | **5.29** | | | 172 | 162 | 5.29 | **162** | **5.29** | | |
| 822.palm_s | 172 | 298 | 4.12 | **300** | **4.09** | | | 172 | 298 | 4.12 | **300** | **4.09** | | |
| 849.fotonik3d_s | 172 | **139** | **4.76** | 138 | 4.77 | | | 172 | **139** | **4.76** | 138 | 4.77 | | |
| 857.namd_s | 172 | **150** | **9.68** | 150 | 9.69 | | | 172 | **150** | **9.68** | 150 | 9.69 | | |
| 865.roms_s | 172 | 97.3 | 11.2 | **97.3** | **11.2** | | | 172 | 97.3 | 11.2 | **97.3** | **11.2** | | |
| 867.nest_s | 172 | **99.0** | **21.8** | 98.6 | 21.9 | | | 172 | **99.0** | **21.8** | 98.6 | 21.9 | | |
| 872.marian_s | 172 | **161** | **6.71** | 160 | 6.78 | | | 172 | **161** | **6.71** | 160 | 6.78 | | |
| 881.neutron_s | 172 | 166 | 4.91 | **166** | **4.91** | | | 172 | 166 | 4.91 | **166** | **4.91** | | |

**SPECspeed®2026_fp_base = 7.97**

**SPECspeed®2026_fp_peak = 7.97**

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>
```

## Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2017/lib"
MALLOC_CONF = "retain:true"
OMP_STACKSIZE = "192M"
```

## General Notes

```
 Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM
 memory using Red Hat Enterprise Linux 8.4
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)
```

**(Continued on next page)**

## General Notes (Continued)

```
is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (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
```

## 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
Sub-NUMA Clustering (SNC) set to Enabled
Minimum Processor Idle Power Core C-State set to ACPI C3 state
 Workload Profile set to Custom
  Minimum Processor Idle Power Package C-State set to No Package State

 Sysinfo program /home/cpu2017/bin/sysinfo
 Rev: 069f95da7e7f5d81b2ce48a82150e54f
 running on admin1 Tue Feb  3 17:24:34 2026

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

 ------------------------------------------------------------
 Table of contents
 ------------------------------------------------------------
  1. uname -srvm
  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 255 (255.4-1ubuntu8.12)
 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
```

**(Continued on next page)**

## Platform Notes (Continued)

```
 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 -srvm
  Linux 6.8.0-90-generic #91-Ubuntu SMP PREEMPT_DYNAMIC Tue Nov 18 14:14:30 UTC 2025 x86_64

------------------------------------------------------------
2. w
   17:24:34 up 1 day,  7:23,  3 users,  load average: 69.18, 43.87, 35.04
  USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU  WHAT
  admin1            172.16.0.100     07:08   13:59m  0.00s  0.01s sshd: admin1 [priv]
  admin1            172.16.0.100     Mon10   13:59m  0.00s  0.33s sshd: admin1 [priv]
  admin1   tty1     -                Mon10   30:42m  0.06s  0.01s -bash

------------------------------------------------------------
3. Username
  From environment variable $USER:  root
  From the command 'logname':       admin1

------------------------------------------------------------
4. ulimit -a
  time(seconds)        unlimited
  file(blocks)         unlimited
  data(kbytes)         unlimited
  stack(kbytes)        unlimited
  coredump(blocks)     0
  memory(kbytes)       unlimited
  locked memory(kbytes) 32954836
  process              1029519
  nofiles              1024
  vmemory(kbytes)      unlimited
  locks                unlimited
  rtprio               0

------------------------------------------------------------
5. sysinfo process ancestry
 /sbin/init
 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
 sshd: admin1 [priv]
 sshd: admin1@pts/0
 -bash
```

**(Continued on next page)**

## Platform Notes (Continued)

```
  sudo -i
  sudo -i
  -bash
  -bash
  runcpu --nobuild --reportable --action validate --define default-platform-flags -c
    ic2025.3-sapphirerapids-cpu2026-0.902-speed-20260121.cfg --threads 172 --define cores=86 --tune base,peak
     -o all --define smt-on --define drop_caches fpspeed
 runcpu --nobuild --reportable --action validate --define default-platform-flags --configfile
    ic2025.3-sapphirerapids-cpu2026-0.902-speed-20260121.cfg --threads 172 --define cores=86 --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/CPU2026.025/templogs/preenv.fpspeed.025.0.log --lognum 025.0 --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017

------------------------------------------------------------
6. /proc/cpuinfo
     model name      : Intel(R) Xeon(R) 6787P
     vendor_id       : GenuineIntel
     cpu family      : 6
     model           : 173
     stepping        : 1
     microcode       : 0x1000411
     bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi vmscape
     cpu cores       : 86
     siblings        : 172
     1 physical ids (chips)
     172 processors (hardware threads)
     physical id 0: core ids 0-42,64-106
     physical id 0: apicids 0-85,128-213
  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):                               172
  On-line CPU(s) list:                  0-171
  Vendor ID:                            GenuineIntel
  BIOS Vendor ID:                       Intel(R) Corporation
  Model name:                           Intel(R) Xeon(R) 6787P
  BIOS Model name:                      Intel(R) Xeon(R) 6787P  CPU @ 2.0GHz
```

**(Continued on next page)**

## Platform Notes (Continued)

```
BIOS CPU family:                      179
CPU family:                           6
Model:                                173
Thread(s) per core:                   2
Core(s) per socket:                   86
Socket(s):                            1
Stepping:                             1
CPU(s) scaling MHz:                   25%
CPU max MHz:                          3800.0000
CPU min MHz:                          800.0000
BogoMIPS:                             4000.00
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 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 hwp
                                      hwp_act_window hwp_epp hwp_pkg_req 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 ibpb_exit_to_user
Virtualization:                       VT-x
L1d cache:                            4 MiB (86 instances)
L1i cache:                            5.4 MiB (86 instances)
L2 cache:                             172 MiB (86 instances)
L3 cache:                             336 MiB (1 instance)
NUMA node(s):                         1
NUMA node0 CPU(s):                    0-171
Vulnerability Gather data sampling:   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
Vulnerability Reg file data sampling: Not affected
Vulnerability Retbleed:               Not affected
Vulnerability Spec rstack overflow:   Not affected
```

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## Platform Notes (Continued)

```
  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; RSB filling;
                                                    PBRSB-eIBRS Not affected; BHI BHI_DIS_S
   Vulnerability Srbds:                 Not affected
   Vulnerability Tsx async abort:       Not affected
   Vulnerability Vmscape:               Mitigation; IBPB before exit to userspace

From lscpu --cache:
     NAME ONE-SIZE ALL-SIZE WAYS TYPE        LEVEL   SETS PHY-LINE COHERENCY-SIZE
     L1d       48K       4M   12 Data            1     64        1             64
     L1i       64K     5.4M   16 Instruction     1     64        1             64
     L2         2M     172M   16 Unified         2   2048        1             64
     L3       336M     336M   16 Unified         3 344064        1             64

------------------------------------------------------------
8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
  available: 1 nodes (0)
  node 0 cpus: 0-171
  node 0 size: 257459 MB
  node 0 free: 98139 MB
  node distances:
  node   0
    0:  10

------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       263638704 kB

------------------------------------------------------------
10. who -r
  run-level 5 Feb 2 10:01

------------------------------------------------------------
11. Systemd service manager version: systemd 255 (255.4-1ubuntu8.12)
  Default Target  Status
  graphical       running

------------------------------------------------------------
12. Services, from systemctl list-unit-files
  STATE            UNIT FILES
  enabled         ModemManager apparmor apport blk-availability cloud-config cloud-final cloud-init
                  cloud-init-local console-setup cron dmesg e2scrub_reap finalrd getty@ gpu-manager
                    grub-common grub-initrd-fallback keyboard-setup lvm2-monitor multipathd
                  networkd-dispatcher open-iscsi open-vm-tools pollinate rsyslog secureboot-db setvtrgb
                    snapd sysstat systemd-networkd systemd-networkd-wait-online systemd-pstore
```

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## Platform Notes (Continued)

```
                systemd-resolved systemd-timesyncd thermald tuned ua-reboot-cmds ubuntu-advantage udisks2
                    ufw unattended-upgrades vgauth
  enabled-runtime   netplan-ovs-cleanup systemd-fsck-root systemd-remount-fs
  disabled          console-getty debug-shell iscsid nftables rsync serial-getty@ ssh
                  systemd-boot-check-no-failures systemd-confext systemd-network-generator
                systemd-networkd-wait-online@ systemd-pcrlock-file-system systemd-pcrlock-firmware-code
                systemd-pcrlock-firmware-config systemd-pcrlock-machine-id systemd-pcrlock-make-policy
                systemd-pcrlock-secureboot-authority systemd-pcrlock-secureboot-policy systemd-sysext
                    systemd-time-wait-sync upower
  indirect          systemd-sysupdate systemd-sysupdate-reboot uuidd
  masked          cryptdisks cryptdisks-early hwclock multipath-tools-boot screen-cleanup sudo x11-common

------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/boot/vmlinuz-6.8.0-90-generic
  root=UUID=c40cad6c-8173-41fe-9211-3e9f6d2619e9
  ro

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 117:
    current policy: frequency should be within 800 MHz and 3.80 GHz.
                    The governor "performance" may decide which speed to use
                    within this range.
    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: balanced

------------------------------------------------------------
16. sysctl
  kernel.numa_balancing               0
  kernel.randomize_va_space           2
  vm.compaction_proactiveness        20
  vm.dirty_background_bytes           0
  vm.dirty_background_ratio          10
  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
```

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## Platform Notes (Continued)

```
  vm.nr_hugepages                     0
  vm.nr_hugepages_mempolicy           0
  vm.nr_overcommit_hugepages          0
  vm.swappiness                      60
  vm.watermark_boost_factor       15000
  vm.watermark_scale_factor          10
  vm.zone_reclaim_mode                0

------------------------------------------------------------
17. /sys/kernel/mm/transparent_hugepage
  defrag          always defer defer+madvise [madvise] never
  enabled         always [madvise] 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 Ubuntu 24.04.3 LTS

------------------------------------------------------------
20. Disk information
SPEC is set to: /home/cpu2017
  Filesystem     Type  Size  Used Avail Use% Mounted on
  /dev/nvme1n1p2 ext4  1.5T  172G  1.2T  13% /

------------------------------------------------------------
21. /sys/devices/virtual/dmi/id
    Vendor:         HPE
    Product:        HPE ProLiant Compute DL320 Gen12
    Product Family: ProLiant
    Serial:         FLLKN48DYT

------------------------------------------------------------
22. dmidecode
  Additional information from dmidecode 3.5 follows.  WARNING: Use caution when you interpret this section.
  The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately
```

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## Platform Notes (Continued)

```
   determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the
    "DMTF SMBIOS" standard.
    Memory:
      8x Hynix HMCG88AHBRA471N 32 GB 2 rank 6400


 ------------------------------------------------------------
 23. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       HPE
    BIOS Version:      1.60
    BIOS Date:         01/09/2026
    BIOS Revision:     1.60
    Firmware Revision: 1.18
```

## Compiler Version Notes

```
==============================================================================
C       | 811.tealeaf_s(base, peak) 816.nab_s(base, peak) 881.neutron_s(base,
        | peak)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2025.3.0 Build 20251010
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
C++     | 803.sph_exa_s(base, peak) 857.namd_s(base, peak) 867.nest_s(base,
        | peak) 872.marian_s(base, peak)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2025.3.0 Build 20251010
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
C++, C  | 809.cactus_s(base, peak)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2025.3.0 Build 20251010
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
Fortran | 800.pot3d_s(base, peak) 820.cloverleaf_s(base, peak)
        | 822.palm_s(base, peak) 849.fotonik3d_s(base, peak) 865.roms_s(base,
```

**(Continued on next page)**

## Compiler Version Notes (Continued)

```
        | peak)
------------------------------------------------------------------------------
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version
  2025.3.0 Build 20251010
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
```

## Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

Benchmarks using both C and C++:
icpx icx

## Base Portability Flags

800.pot3d_s: -DSPEC_LP64
803.sph_exa_s: -DSPEC_LP64
809.cactus_s: -DSPEC_LP64
811.tealeaf_s: -DSPEC_LP64
816.nab_s: -DSPEC_LP64
820.cloverleaf_s: -DSPEC_LP64
822.palm_s: -DSPEC_LP64
849.fotonik3d_s: -DSPEC_LP64
857.namd_s: -DSPEC_LP64
865.roms_s: -DSPEC_LP64
867.nest_s: -DSPEC_LP64
872.marian_s: -DSPEC_LP64
881.neutron_s: -DSPEC_LP64

## Base Optimization Flags

C benchmarks:
-m64 -std=c18 -Wl,-z,muldefs -xsapphirerapids

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## Base Optimization Flags (Continued)

C benchmarks (continued):
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

C++ benchmarks:

803.sph_exa_s: -m64 -std=c++17 -Wl,-z,muldefs -xsapphirerapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -L/usr/local/jemalloc-5.3.0/lib
-ljemalloc

857.namd_s: Same as 803.sph_exa_s

867.nest_s: Same as 803.sph_exa_s

872.marian_s: -m64 -std=c++17 -Wl,-z,muldefs -xsapphirerapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-pthread -L/usr/local/jemalloc-5.3.0/lib -ljemalloc

Fortran benchmarks:
-m64 -stand f18 -Wl,-z,muldefs -xsapphirerapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -DSPEC_OPENMP -fiopenmp
-nostandard-realloc-lhs -align array32byte -auto
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

Benchmarks using both C and C++:
-m64 -std=c++17 -std=c18 -Wl,-z,muldefs -xsapphirerapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

## Peak Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

**(Continued on next page)**

## Peak Compiler Invocation (Continued)

Fortran benchmarks:
ifx

Benchmarks using both C and C++:
icpx icx

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

811.tealeaf_s: basepeak = yes

816.nab_s: basepeak = yes

881.neutron_s: basepeak = yes

C++ benchmarks:

803.sph_exa_s: basepeak = yes

857.namd_s: basepeak = yes

867.nest_s: basepeak = yes

872.marian_s: basepeak = yes

Fortran benchmarks:

800.pot3d_s: basepeak = yes

820.cloverleaf_s: basepeak = yes

822.palm_s: basepeak = yes

849.fotonik3d_s: basepeak = yes

865.roms_s: basepeak = yes

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## Peak Optimization Flags (Continued)

Benchmarks using both C and C++:

809.cactus_s: `basepeak = yes`

The flags files that were used to format this result can be browsed at
`http://www.spec.org/cpu2026/results/flags/HPE-Platform-Flags-Intel-GNR-rev1.4.html`
`http://www.spec.org/cpu2026/results/flags/Intel-ic2025-official-linux64-cpu2026-0.902.html`

You can also download the XML flags sources by saving the following links:
`http://www.spec.org/cpu2026/results/flags/HPE-Platform-Flags-Intel-GNR-rev1.4.xml`
`http://www.spec.org/cpu2026/results/flags/Intel-ic2025-official-linux64-cpu2026-0.902.xml`


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For questions about this result, please contact the tester. For other inquiries, please contact info@spec.org.


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