SPEC CPU®2017 Floating Point Speed Result

Hewlett Packard Enterprise
(Test Sponsor: HPE)

ProLiant Compute DL110 Gen12
(2.5 GHz, Intel Xeon 6716P-B)

$SPECspeed®2017\_fp\_base = 211$

$SPECspeed®2017\_fp\_peak = 211$

CPU2017 License: 3

Test Sponsor: HPE

Tested by: HPE

Test Date: Feb-2026

Hardware Availability: Mar-2026

Software Availability: Oct-2025

Threads

Benchmark	Threads	Result
603.bwaves_s	80	416 / 416
607.cactuBSSN_s	80	256
619.lbm_s	80	118
621.wrf_s	80	233
627.cam4_s	80	168 / 169
628.pop2_s	80	96.6
638.imagick_s	80	525
644.nab_s	80	459
649.fotonik3d_s	80	80.9
654.roms_s	80	188

Scale: 0 30.0 60.0 90.0 120 150 180 210 240 270 300 330 360 390 420 450 480 530

—— SPECspeed®2017_fp_base (211)   ----- SPECspeed®2017_fp_peak (211)

Hardware

CPU Name: Intel Xeon 6716P-B
Max MHz: 3500
Nominal: 2500
Enabled: 40 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: 160 MB I+D on chip per chip
Other: None
Memory: 128 GB (4 x 32 GB 2Rx8 PC5-6400B-R)
Storage: 1 x 480 GB NVMe SSD
Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise Server 15 SP7
   Kernel 6.4.0-150700.53.6-default
Compiler: C/C++: Version 2025.2 of Intel oneAPI DPC++/C++
   Compiler for Linux;
   Fortran: Version 2025.2 of Intel Fortran Compiler
   for Linux;
Parallel: Yes
Firmware: HPE BIOS Version v1.30 02/06/2026
   released Feb-2026
File System: xfs
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 is set to prefer performance at the
   cost of additional power usage

Standard Performance Evaluation Corporation (info@spec.org)   https://www.spec.org/

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Hewlett Packard Enterprise
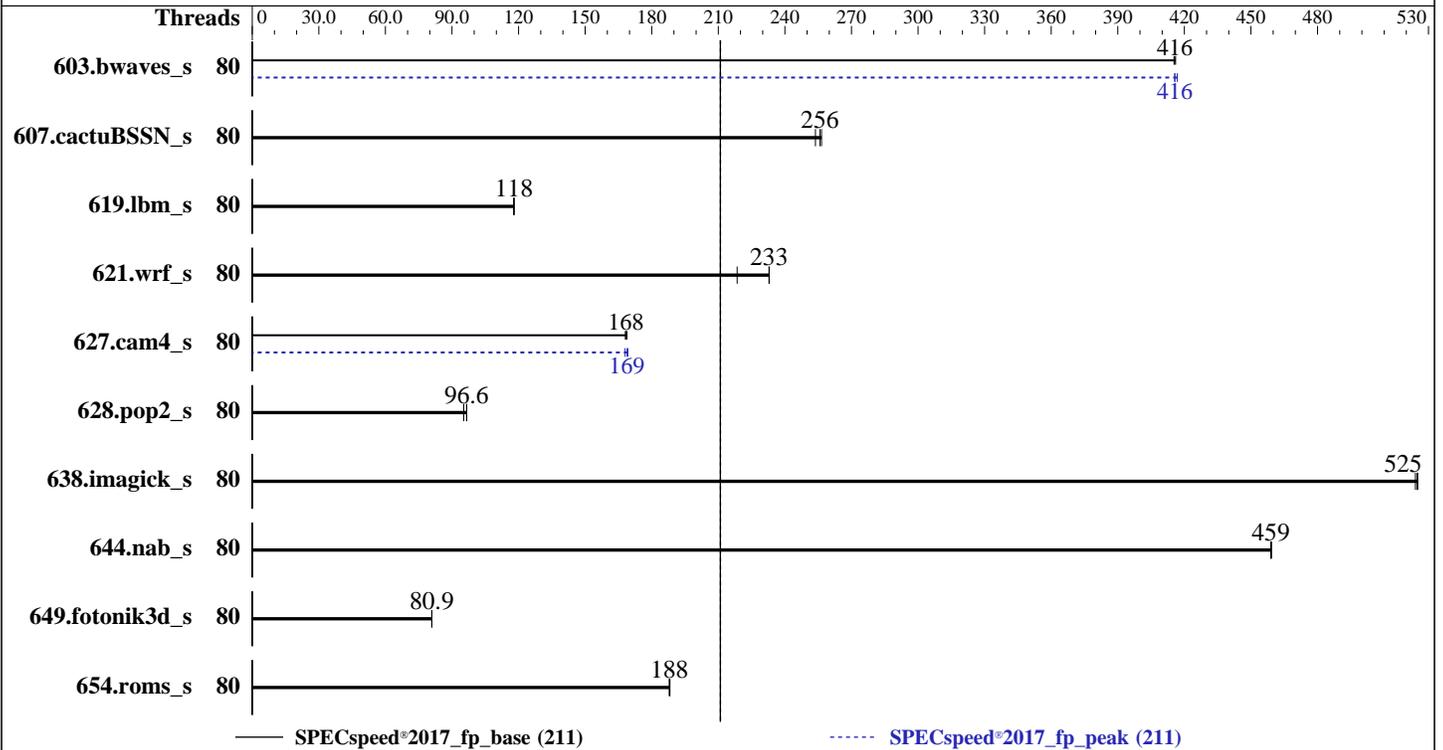(Test Sponsor: HPE)

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CPU2017 License: 3	**Test Date:** Feb-2026
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Results Table

Benchmark	Base						Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
603.bwaves_s	80	142	416	142	415	**142**	**416**	80	**142**	**416**	142	417	142	416
607.cactuBSSN_s	80	**65.2**	**256**	65.7	254	65.0	257	80	**65.2**	**256**	65.7	254	65.0	257
619.lbm_s	80	44.4	118	**44.4**	**118**	44.5	118	80	44.4	118	**44.4**	**118**	44.5	118
621.wrf_s	80	60.5	218	56.8	233	**56.8**	**233**	80	60.5	218	56.8	233	**56.8**	**233**
627.cam4_s	80	52.5	169	**52.6**	**168**	52.7	168	80	52.8	168	**52.5**	**169**	52.4	169
628.pop2_s	80	**123**	**96.6**	125	95.3	123	96.6	80	**123**	**96.6**	125	95.3	123	96.6
638.imagick_s	80	**27.5**	**525**	27.5	524	27.5	525	80	**27.5**	**525**	27.5	524	27.5	525
644.nab_s	80	38.1	459	38.0	459	**38.1**	**459**	80	38.1	459	38.0	459	**38.1**	**459**
649.fotonik3d_s	80	113	80.9	113	80.9	**113**	**80.9**	80	113	80.9	113	80.9	**113**	**80.9**
654.roms_s	80	**83.7**	**188**	83.7	188	83.8	188	80	**83.7**	**188**	83.7	188	83.8	188
SPECspeed®2017_fp_base =	**211**												
SPECspeed®2017_fp_peak =	**211**												

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"
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"
LD_LIBRARY_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/je5.0.1-64"
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 Redhat Enterprise Linux 8.0
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
```
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
```

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Platform Notes

```
BIOS Configurations : Parameters are selected in the order shown below
Workload Profile set to General Peak Frequency Compute
Thermal Configuration set to Maximum Cooling
XPT Prefetcher set to Disabled
 Workload Profile set to Custom
 Uncore Frequency Scaling set to Auto


 Sysinfo program /home/cpu2017/bin/sysinfo
 Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
 running on localhost Thu Feb 19 10:20:58 2026


 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 6.4.0-150700.53.6-default #1 SMP PREEMPT_DYNAMIC Tue Jul  1 14:54:47 UTC 2025 (8ab7501)
   x86_64 x86_64 x86_64 GNU/Linux


 ------------------------------------------------------------
 2. w
    10:20:58 up 2 min,  2 users,  load average: 0.10, 0.11, 0.05
   USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
   root     pts/0    172.16.0.100     10:20    2.00s  0.82s  0.00s -bash


 ------------------------------------------------------------
 3. Username
   From environment variable $USER:  root


 ------------------------------------------------------------
 4. ulimit -a
   core file size          (blocks, -c) unlimited
   data seg size           (kbytes, -d) unlimited
```

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Platform Notes (Continued)

```
   scheduling priority          (-e) 0
   file size           (blocks, -f) unlimited
   pending signals              (-i) 514120
   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) 514120
   virtual memory      (kbytes, -v) unlimited
   file locks                   (-x) unlimited


   ------------------------------------------------------------
5. sysinfo process ancestry
 /usr/lib/systemd/systemd --switched-root --system --deserialize=42
 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
 sshd: root [priv]
 sshd: root@pts/0
 -bash
 -bash
 runcpu --nobuild --action validate --define default-platform-flags --iterations=3 --reportable -c
   ic2025.2-linux64-graniterapids-speed-20250605.cfg --define cores=80 --tune base,peak -o all --define
   drop_caches fpspeed
 runcpu --nobuild --action validate --define default-platform-flags --iterations 3 --reportable --configfile
   ic2025.2-linux64-graniterapids-speed-20250605.cfg --define cores=80 --tune base,peak --output_format all
   --define drop_caches --nopower --runmode speed --tune base:peak --size refspeed fpspeed --nopreenv
   --note-preenv --logfile $SPEC/tmp/CPU2017.001/templogs/preenv.fpspeed.001.0.log --lognum 001.0
   --from_runcpu 2
 specperl $SPEC/bin/sysinfo
 $SPEC = /home/cpu2017


   ------------------------------------------------------------
6. /proc/cpuinfo
   model name        : INTEL(R) XEON(R) 6716P-B
   vendor_id         : GenuineIntel
   cpu family        : 6
   model             : 174
   stepping          : 1
   microcode         : 0x1000303
   bugs              : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
   cpu cores         : 40
   siblings          : 80
   1 physical ids (chips)
   80 processors (hardware threads)
   physical id 0: core ids 0-39
   physical id 0: apicids 0-79
  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 2.40.4:
  Architecture:                  x86_64
  CPU op-mode(s):                32-bit, 64-bit
  Address sizes:                 46 bits physical, 57 bits virtual
  Byte Order:                    Little Endian
```

(Continued on next page)

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Platform Notes (Continued)

```
    CPU(s):                               80
    On-line CPU(s) list:                  0-79
    Vendor ID:                            GenuineIntel
    Model name:                           INTEL(R) XEON(R) 6716P-B
    CPU family:                           6
    Model:                                174
    Thread(s) per core:                   2
    Core(s) per socket:                   40
    Socket(s):                            1
    Stepping:                             1
    BogoMIPS:                             5000.00
    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 hfi 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:                            1.9 MiB (40 instances)
    L1i cache:                            2.5 MiB (40 instances)
    L2 cache:                             80 MiB (40 instances)
    L3 cache:                             160 MiB (1 instance)
    NUMA node(s):                         1
    NUMA node0 CPU(s):                    0-79
    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
    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;
                                          PBRSB-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     1.9M   12 Data            1     64        1             64
      L1i       64K     2.5M   16 Instruction     1     64        1             64
```

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Tested by:	HPE	**Software Availability:**	Oct-2025

Platform Notes (Continued)

```
      L2          2M      80M   16 Unified        2    2048       1          64
      L3        160M     160M   16 Unified        3 163840       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: 0-79
   node 0 size: 128559 MB
   node 0 free: 127403 MB
   node distances:
   node   0
     0:  10


    ------------------------------------------------------------
 9. /proc/meminfo
   MemTotal:       131645280 kB


    ------------------------------------------------------------
 10. who -r
   run-level 3 Feb 19 10:19


    ------------------------------------------------------------
 11. Systemd service manager version: systemd 254 (254.27+suse.167.g130293e510)
   Default Target  Status
   multi-user      running


    ------------------------------------------------------------
 12. Services, from systemctl list-unit-files
   STATE              UNIT FILES
   enabled            ModemManager YaST2-Firstboot YaST2-Second-Stage apparmor appstream-sync-cache auditd
                      bluetooth cron display-manager getty@ irqbalance issue-generator kbdsettings klog
                      lvm2-monitor nscd nvmefc-boot-connections nvmf-autoconnect postfix purge-kernels rollback
                      rsyslog smartd sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6
                      wickedd-nanny wpa_supplicant
   enabled-runtime    systemd-remount-fs
   disabled           NetworkManager NetworkManager-dispatcher NetworkManager-wait-online accounts-daemon autofs
                      autoyast-initscripts blk-availability bluetooth-mesh boot-sysctl ca-certificates
                      chrony-wait chronyd console-getty cups cups-browsed debug-shell dnsmasq ebtables
                      exchange-bmc-os-info firewalld fsidd gnome-remote-desktop gpm grub2-once haveged
                      hwloc-dump-hwdata ipmi ipmievd issue-add-ssh-keys kexec-load lunmask man-db-create
                      multipathd nfs nfs-blkmap nmb openvpn@ ostree-remount ostree-state-overlay@ rpcbind
                      rpmconfigcheck rsyncd rtkit-daemon samba-bgqd serial-getty@ smartd_generate_opts smb snmpd
                      snmptrapd speech-dispatcherd systemd-boot-check-no-failures systemd-confext
                      systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd tuned
                      udisks2 update-system-flatpaks upower vncserver@ wpa_supplicant@
   indirect           pcscd saned@ systemd-userdbd wickedd

    ------------------------------------------------------------
 13. Linux kernel boot-time arguments, from /proc/cmdline
   BOOT_IMAGE=/boot/vmlinuz-6.4.0-150700.53.6-default
   root=UUID=563a5997-f618-409a-b9da-708ebf9380bf
   splash=silent
   resume=/dev/disk/by-uuid/806664b4-7524-42f9-9c0d-29c410d35025
   mitigations=auto
   quiet
   security=apparmor

    ------------------------------------------------------------
 14. cpupower frequency-info
```

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Platform Notes (Continued)

```
   analyzing CPU 25:
     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          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
     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 SUSE Linux Enterprise Server 15 SP7


   --------------------------------------------------------------
   20. Disk information
   SPEC is set to: /home/cpu2017
     Filesystem      Type  Size  Used Avail Use% Mounted on
     /dev/nvme1n1p3 xfs    219G   98G  121G  45% /home
```

(Continued on next page)

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Platform Notes (Continued)

```
       ----------------------------------------------------------------
       21. /sys/devices/virtual/dmi/id
           Vendor:          HPE
           Product:         HPE ProLiant Compute DL110 Gen12
           Product Family:  ProLiant
           Serial:          PZALUX2LMLB00P


       ----------------------------------------------------------------
       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 HMCG88AHBRA471N 32 GB 2 rank 6400


       ----------------------------------------------------------------
       23. BIOS
       (This section combines info from /sys/devices and dmidecode.)
           BIOS Vendor:       HPE
           BIOS Version:      1.30
           BIOS Date:         02/06/2026
           BIOS Revision:     1.30
           Firmware Revision: 1.20
```

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 2025.2.0 Build 20250605
Copyright (C) 1985-2025 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 2025.2.0 Build 20250605
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
Copyright (C) 1985-2025 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 2025.2.0 Build 20250605
Copyright (C) 1985-2025 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 2025.2.0 Build 20250605
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
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CPU2017 License: 3
Test Sponsor: HPE
Tested by: HPE

Test Date: Feb-2026
Hardware Availability: Mar-2026
Software Availability: Oct-2025

Compiler Version Notes (Continued)

```
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
Copyright (C) 1985-2025 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`

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 -xgraniterapids -Ofast -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
-DSPEC_OPENMP -Wno-implicit-int -mprefer-vector-width=512
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Fortran benchmarks:
```
-w -m64 -Wl,-z,muldefs -DSPEC_OPENMP -xgraniterapids -Ofast
```

(Continued on next page)

SPEC CPU®2017 Floating Point Speed Result

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Hewlett Packard Enterprise
(Test Sponsor: HPE)

$SPECspeed^{®}2017\_fp\_base = 211$

ProLiant Compute DL110 Gen12
(2.5 GHz, Intel Xeon 6716P-B)

$SPECspeed^{®}2017\_fp\_peak = 211$

CPU2017 License: 3		**Test Date:**	Feb-2026
Test Sponsor:	HPE	**Hardware Availability:**	Mar-2026
Tested by:	HPE	**Software Availability:**	Oct-2025

Base Optimization Flags (Continued)

Fortran benchmarks (continued):
```
-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 -xgraniterapids -Ofast -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
-DSPEC_OPENMP -Wno-implicit-int -mprefer-vector-width=512
-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 -xgraniterapids -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP -Wno-implicit-int
-mprefer-vector-width=512 -nostandard-realloc-lhs -align array32byte
-auto -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

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
```

Hewlett Packard Enterprise
(Test Sponsor: HPE)

ProLiant Compute DL110 Gen12
(2.5 GHz, Intel Xeon 6716P-B)

$SPECspeed®2017\_fp\_base = 211$

$SPECspeed®2017\_fp\_peak = 211$

CPU2017 License:	3	**Test Date:**	Feb-2026
Test Sponsor:	HPE	**Hardware Availability:**	Mar-2026
Tested by:	HPE	**Software Availability:**	Oct-2025

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 -xgraniterapids
-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

627.cam4_s: -w -m64 -std=c11 -Wl,-z,muldefs -xgraniterapids -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-Wno-implicit-int -mprefer-vector-width=512
-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/HPE-Platform-Flags-Intel-GNR-D-rev1.1.html
  http://www.spec.org/cpu2017/flags/Intel-ic2025-official-linux64.html

You can also download the XML flags sources by saving the following links:
  http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-GNR-D-rev1.1.xml
  http://www.spec.org/cpu2017/flags/Intel-ic2025-official-linux64.xml

SPEC CPU®2017 Floating Point Speed Result

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Hewlett Packard Enterprise
(Test Sponsor: HPE)

ProLiant Compute DL110 Gen12
(2.5 GHz, Intel Xeon 6716P-B)

$SPECspeed®2017\_fp\_base = 211$

$SPECspeed®2017\_fp\_peak = 211$

CPU2017 License:	3	**Test Date:**	Feb-2026
Test Sponsor:	HPE	**Hardware Availability:**	Mar-2026
Tested by:	HPE	**Software Availability:**	Oct-2025

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

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