SPEC CPU®2026 Integer Speed Result

Copyright 2026 Standard Performance Evaluation Corporation

Hewlett Packard Enterprise

(Test Sponsor: HPE)

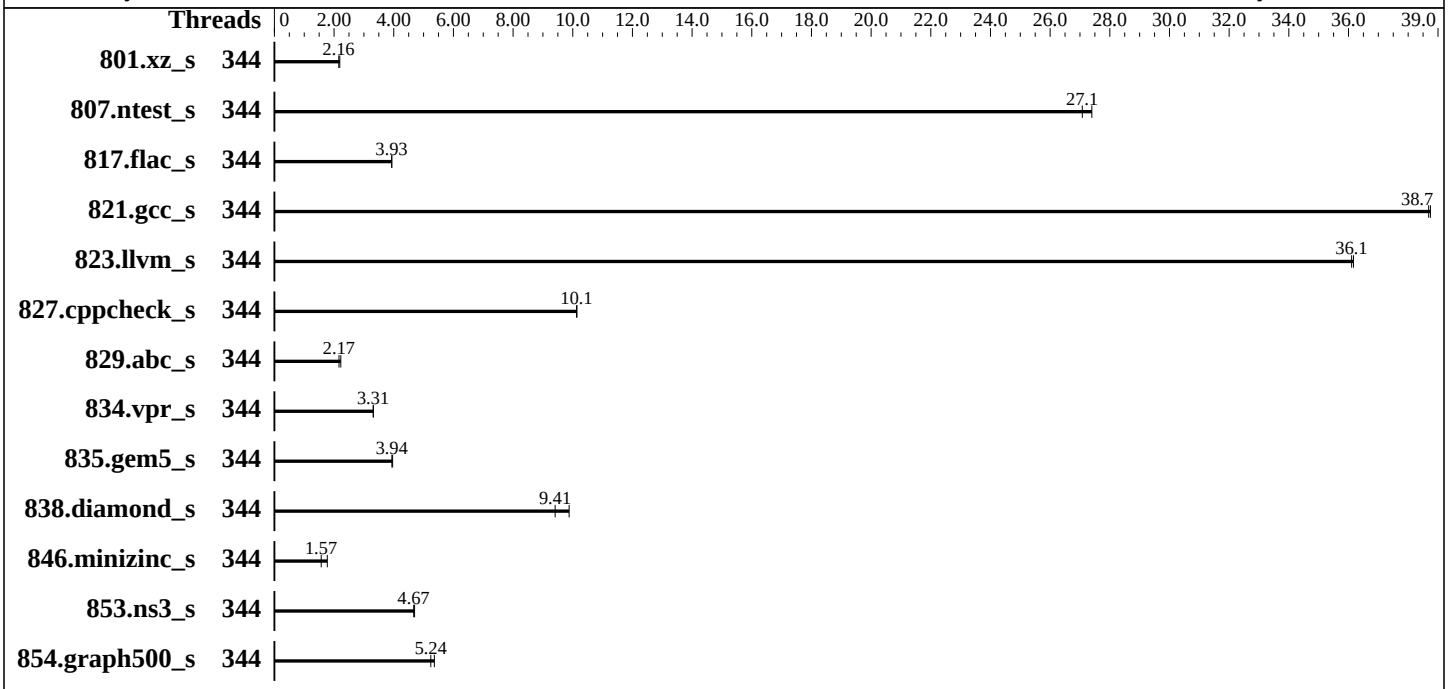
ProLiant Compute DL580 Gen12
(2.00 Ghz, Intel Xeon 6788P)

SPECspeed®2026_int_base = 6.45

SPECspeed®2026_int_peak = 6.45

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

Test Date: Feb-2026
Hardware Availability: Jul-2025
Software Availability: Jan-2026



Hardware

CPU Name:	Intel Xeon 6788P
Max MHz:	3800
Nominal:	2000
Enabled:	344 cores, 4 chips
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:	336 MB I+D on chip per chip
Other:	None
Memory:	2 TB (32 x 64 GB 2Rx4 PC5-6400B-R)
Storage:	1 x 1.6 TB NVMe SSD
Cooling:	Air
Other:	None

Software

OS:	Ubuntu 24.04.3 LTS Kernel 6.8.0-94-generic
Compiler:	C/C++: Version 2025.3 of Intel oneAPI DPC++/C++ Compiler for Linux; 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

SPEC CPU®2026 Integer Speed Result

Copyright 2026 Standard Performance Evaluation Corporation

Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant Compute DL580 Gen12
(2.00 Ghz, Intel Xeon 6788P)

SPECspeed®2026_int_base = 6.45

SPECspeed®2026_int_peak = 6.45

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

Test Date: Feb-2026
Hardware Availability: Jul-2025
Software Availability: Jan-2026

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
801.xz_s	344	**274**	**2.16**	270	2.19			344	**274**	**2.16**	270	2.19		
807.ntest_s	344	**42.1**	**27.1**	41.6	27.4			344	**42.1**	**27.1**	41.6	27.4		
817.flac_s	344	441	3.93	**442**	**3.93**			344	441	3.93	**442**	**3.93**		
821.gcc_s	344	**53.5**	**38.7**	53.4	38.7			344	**53.5**	**38.7**	53.4	38.7		
823.llvm_s	344	39.0	36.2	**39.1**	**36.1**			344	39.0	36.2	**39.1**	**36.1**		
827.cppcheck_s	344	**110**	**10.1**	110	10.1			344	**110**	**10.1**	110	10.1		
829.abc_s	344	**384**	**2.17**	373	2.23			344	**384**	**2.17**	373	2.23		
834.vpr_s	344	**288**	**3.31**	288	3.32			344	**288**	**3.31**	288	3.32		
835.gem5_s	344	**289**	**3.94**	287	3.96			344	**289**	**3.94**	287	3.96		
838.diamond_s	344	**106**	**9.41**	101	9.88			344	**106**	**9.41**	101	9.88		
846.minizinc_s	344	**427**	**1.57**	378	1.77			344	**427**	**1.57**	378	1.77		
853.ns3_s	344	**247**	**4.67**	245	4.70			344	**247**	**4.67**	245	4.70		
854.graph500_s	344	**117**	**5.24**	114	5.36			344	**117**	**5.24**	114	5.36		

SPECspeed®2026_int_base = 6.45

SPECspeed®2026_int_peak = 6.45

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2026/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)
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
XPT Prefetch set to Disabled
Intel UPI Prefetch set to Disabled
Intel Hyper-Threading set to Disabled
 Workload Profile set to Custom
  Collaborative Power Control set to Enabled

 Sysinfo program /home/cpu2026/bin/sysinfo
 Rev: 069f95da7e7f5d81b2ce48a82150e54f
 running on admin1 Sat Feb  7 11:29:32 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
 18. /sys/kernel/mm/transparent_hugepage/khugepaged
 19. OS release
 20. Disk information
 21. /sys/devices/virtual/dmi/id
 22. dmidecode
 23. BIOS
 ------------------------------------------------------------

 ------------------------------------------------------------
```

(Continued on next page)

Platform Notes (Continued)

```
1. uname -srvm
  Linux 6.8.0-94-generic #96-Ubuntu SMP PREEMPT_DYNAMIC Fri Jan  9 20:36:55 UTC 2026 x86_64

------------------------------------------------------------
2. w
   11:29:32 up  4:22,  3 users,  load average: 144.43, 209.99, 236.88
  USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU  WHAT
  admin1            172.16.0.100     07:16    4:21m  0.00s  0.01s sshd: admin1 [priv]
  admin1            172.16.0.100     07:13    4:21m  0.00s  0.02s sshd: admin1 [priv]
  admin1   tty1     -                07:10    4:19m  0.03s  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) 264157384
  process              8254598
  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
 sudo -i
 sudo -i
 -bash
 -bash
 -bash
 runcpu --nobuild --reportable --action validate --define default-platform-flags -c
   ic2025.3-graniterapids-cpu2026-0.902-speed-20260121.cfg --threads 344 --define cores=344 --tune base -n 2
   -o all --define intspeedaffinity --define drop_caches intspeed
 runcpu --nobuild --reportable --action validate --define default-platform-flags --configfile
```

(Continued on next page)

Platform Notes (Continued)

```
   ic2025.3-graniterapids-cpu2026-0.902-speed-20260121.cfg --threads 344 --define cores=344 --tune base
   --iterations 2 --output_format all --define intspeedaffinity --define drop_caches --nopower --runmode
    speed --tune base --size refspeed intspeed --nopreenv --note-preenv --logfile
    $SPEC/tmp/CPU2026.026/templogs/preenv.intspeed.026.0.log --lognum 026.0 --from_runcpu 2
  specperl $SPEC/bin/sysinfo
 $SPEC = /home/cpu2026

------------------------------------------------------------
 6. /proc/cpuinfo
     model name      : Intel(R) Xeon(R) 6788P
     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        : 86
     4 physical ids (chips)
     344 processors (hardware threads)
     physical id 0: core ids 0-42,64-106
     physical id 1: core ids 0-42,64-106
     physical id 2: core ids 0-42,64-106
     physical id 3: core ids 0-42,64-106
     physical id 0: apicids
    0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,64,66,68,70,72
    ,74,76,78,80,82,84,128,130,132,134,136,138,140,142,144,146,148,150,152,154,156,158,160,162,164,166,168,17
     0,172,174,176,178,180,182,184,186,188,190,192,194,196,198,200,202,204,206,208,210,212
     physical id 1: apicids
    256,258,260,262,264,266,268,270,272,274,276,278,280,282,284,286,288,290,292,294,296,298,300,302,304,306,3
    08,310,312,314,316,318,320,322,324,326,328,330,332,334,336,338,340,384,386,388,390,392,394,396,398,400,40
    2,404,406,408,410,412,414,416,418,420,422,424,426,428,430,432,434,436,438,440,442,444,446,448,450,452,454
     ,456,458,460,462,464,466,468
     physical id 2: apicids
    512,514,516,518,520,522,524,526,528,530,532,534,536,538,540,542,544,546,548,550,552,554,556,558,560,562,5
    64,566,568,570,572,574,576,578,580,582,584,586,588,590,592,594,596,640,642,644,646,648,650,652,654,656,65
    8,660,662,664,666,668,670,672,674,676,678,680,682,684,686,688,690,692,694,696,698,700,702,704,706,708,710
     ,712,714,716,718,720,722,724
     physical id 3: apicids
    768,770,772,774,776,778,780,782,784,786,788,790,792,794,796,798,800,802,804,806,808,810,812,814,816,818,8
    20,822,824,826,828,830,832,834,836,838,840,842,844,846,848,850,852,896,898,900,902,904,906,908,910,912,91
    4,916,918,920,922,924,926,928,930,932,934,936,938,940,942,944,946,948,950,952,954,956,958,960,962,964,966
     ,968,970,972,974,976,978,980
  Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
   virtualized systems.  Use the above data carefully.

------------------------------------------------------------
```

(Continued on next page)

Platform Notes (Continued)

```
 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):                               344
   On-line CPU(s) list:                  0-343
   Vendor ID:                            GenuineIntel
   BIOS Vendor ID:                       Intel(R) Corporation
   Model name:                           Intel(R) Xeon(R) 6788P
   BIOS Model name:                      Intel(R) Xeon(R) 6788P  CPU @ 2.0GHz
   BIOS CPU family:                      179
   CPU family:                           6
   Model:                                173
   Thread(s) per core:                   1
   Core(s) per socket:                   86
   Socket(s):                            4
   Stepping:                             1
   CPU(s) scaling MHz:                   22%
   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:                            16.1 MiB (344 instances)
   L1i cache:                            21.5 MiB (344 instances)
```

(Continued on next page)

Platform Notes (Continued)

```
   L2 cache:                             688 MiB (344 instances)
   L3 cache:                             1.3 GiB (4 instances)
   NUMA node(s):                         4
   NUMA node0 CPU(s):                    0-85
   NUMA node1 CPU(s):                    86-171
   NUMA node2 CPU(s):                    172-257
   NUMA node3 CPU(s):                    258-343
   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
   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    16.1M   12 Data            1     64        1             64
      L1i       64K    21.5M   16 Instruction     1     64        1             64
      L2         2M     688M   16 Unified         2   2048        1             64
      L3       336M     1.3G   16 Unified         3 344064        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: 0-85
   node 0 size: 515546 MB
   node 0 free: 473637 MB
   node 1 cpus: 86-171
   node 1 size: 516066 MB
   node 1 free: 513225 MB
   node 2 cpus: 172-257
   node 2 size: 516066 MB
   node 2 free: 513171 MB
   node 3 cpus: 258-343
   node 3 size: 516049 MB
   node 3 free: 510877 MB
```

(Continued on next page)

Platform Notes (Continued)

```
  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:       2113259076 kB

------------------------------------------------------------
10. who -r
  run-level 5 Feb 7 07:08

------------------------------------------------------------
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
                   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-6.8.0-94-generic
  root=UUID=1167c2a9-3418-41e4-8aa6-434d83833b85
  ro

------------------------------------------------------------
```

(Continued on next page)

Platform Notes (Continued)

```
14. cpupower frequency-info
  analyzing CPU 200:
    current policy: frequency should be within 800 MHz and 3.80 GHz.
                    The governor "powersave" may decide which speed to use
                    within this range.
    boost state support:
      Supported: yes
      Active: yes

------------------------------------------------------------
15. tuned-adm active
  Current active profile: balanced

------------------------------------------------------------
16. sysctl
  kernel.numa_balancing               1
  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
```

(Continued on next page)

Platform Notes (Continued)

```
  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/cpu2026
  Filesystem     Type  Size  Used Avail Use% Mounted on
  /dev/nvme0n1p2 ext4  1.5T  295G  1.1T  22% /

------------------------------------------------------------
21. /sys/devices/virtual/dmi/id
    Vendor:          HPE
    Product:         HPE ProLiant Compute DL580 Gen12
    Product Family: ProLiant
    Serial:          7CED2FP013

------------------------------------------------------------
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
  determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the
  "DMTF SMBIOS" standard.
  Memory:
    31x Hynix HMCG94AHBRA480N 64 GB 2 rank 6400
    1x Hynix HMCG94AHBRA487N 64 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: 1.19
```

Compiler Version Notes

```
==============================================================================
C      | 854.graph500_s(base)
------------------------------------------------------------------------------
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++    | 807.ntest_s(base) 827.cppcheck_s(base) 853.ns3_s(base)
------------------------------------------------------------------------------
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 | 801.xz_s(base) 817.flac_s(base) 821.gcc_s(base) 823.llvm_s(base)
       | 829.abc_s(base) 834.vpr_s(base) 835.gem5_s(base) 838.diamond_s(base)
       | 846.minizinc_s(base)
------------------------------------------------------------------------------
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.
------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Benchmarks using both C and C++:
icpx icx

Base Portability Flags

801.xz_s: -DSPEC_LP64
807.ntest_s: -DSPEC_LP64
817.flac_s: -DSPEC_LP64
821.gcc_s: -DSPEC_LP64

(Continued on next page)

Base Portability Flags (Continued)

823.llvm_s: -DSPEC_LP64
827.cppcheck_s: -DSPEC_LP64
829.abc_s: -DSPEC_LP64
834.vpr_s: -DSPEC_LP64
835.gem5_s: -DSPEC_LP64
838.diamond_s: -DSPEC_LP64
846.minizinc_s: -DSPEC_LP64
853.ns3_s: -DSPEC_LP64
854.graph500_s: -DSPEC_LP64

Base Optimization Flags

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

807.ntest_s: -m64 -std=c++17 -Wl,-z,muldefs -xgraniterapids
-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

827.cppcheck_s: -m64 -std=c++17 -Wl,-z,muldefs -xgraniterapids
-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

853.ns3_s: -m64 -std=c++17 -Wl,-z,muldefs -xgraniterapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

Benchmarks using both C and C++:

801.xz_s: -m64 -std=c++17 -std=c18 -Wl,-z,muldefs -xgraniterapids
-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

(Continued on next page)

Base Optimization Flags (Continued)

817.flac_s: Same as 801.xz_s

821.gcc_s: -m64 -std=c++17 -std=c18 -Wl,-z,muldefs -xgraniterapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

823.llvm_s: Same as 801.xz_s

829.abc_s: Same as 821.gcc_s

834.vpr_s: Same as 821.gcc_s

835.gem5_s: Same as 801.xz_s

838.diamond_s: Same as 801.xz_s

846.minizinc_s: Same as 801.xz_s

Peak Optimization Flags

C benchmarks:

854.graph500_s: basepeak = yes

C++ benchmarks:

807.ntest_s: basepeak = yes

827.cppcheck_s: basepeak = yes

853.ns3_s: basepeak = yes

Benchmarks using both C and C++:

801.xz_s: basepeak = yes

817.flac_s: basepeak = yes

821.gcc_s: basepeak = yes

823.llvm_s: basepeak = yes

(Continued on next page)

Peak Optimization Flags (Continued)

829.abc_s: `basepeak = yes`

834.vpr_s: `basepeak = yes`

835.gem5_s: `basepeak = yes`

838.diamond_s: `basepeak = yes`

846.minizinc_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`

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.

Tested with SPEC CPU®2026 v0.902.0 on 2026-02-07 06:29:31-0500.
Report generated on 2026-05-04 23:33:09 by CPU2026 PS formatter (86729d3b).
Originally published on 2026-05-05.