SPEC CPU®2026 Integer Speed Result

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Supermicro

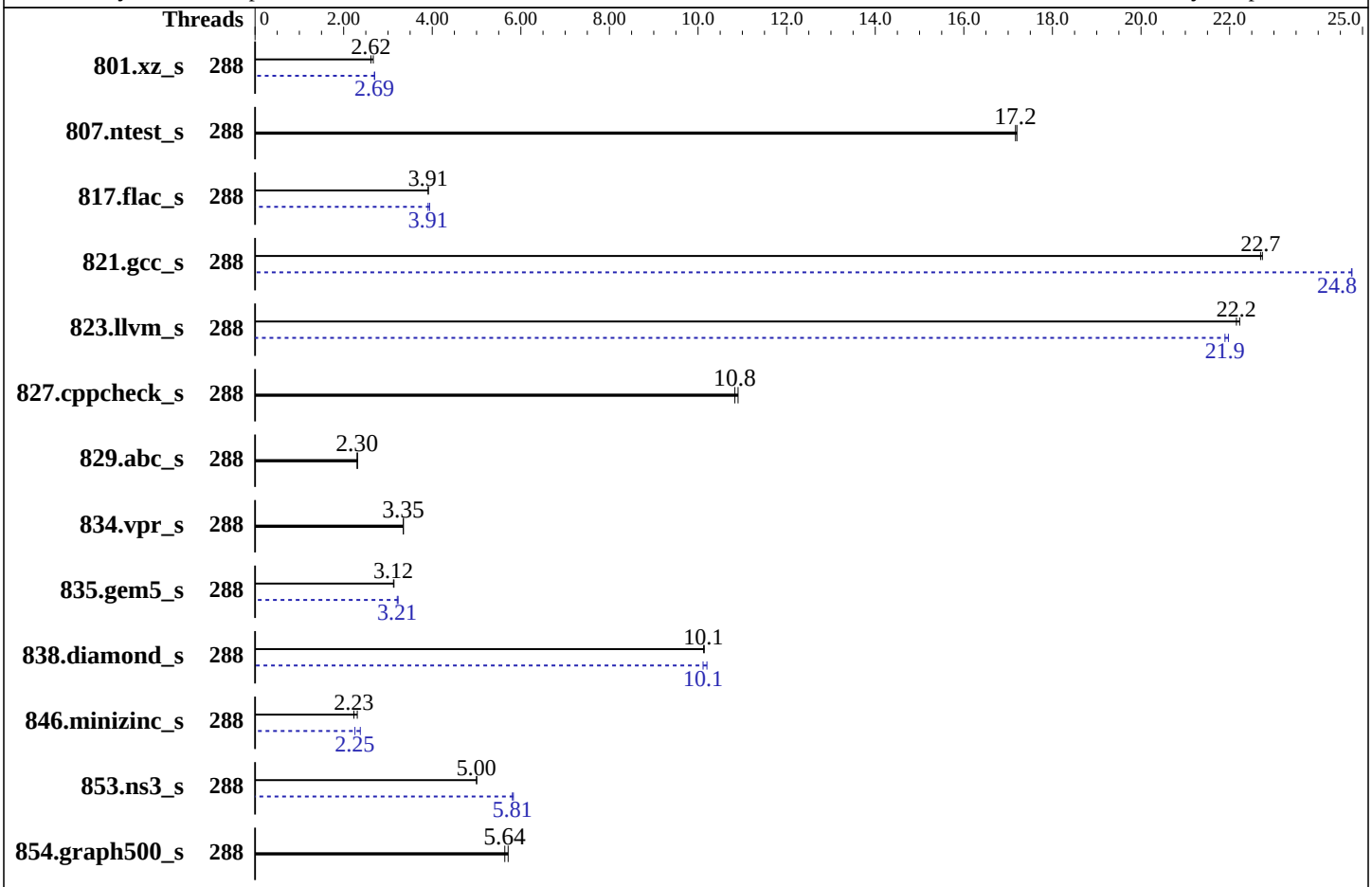
Blade SBI-612BA-1NE34-LCC
(B14SBE-CPU-AP , Intel Xeon 6990E+)

SPECspeed®2026_int_base = 6.05

SPECspeed®2026_int_peak = 6.19

CPU2026 License: 001176
Test Sponsor: Supermicro
Tested by: Supermicro

Test Date: May-2026
Hardware Availability: Jun-2026
Software Availability: Apr-2026



Hardware

CPU Name:	Intel Xeon 6990E+
Max MHz:	3200
Nominal:	2200
Enabled:	288 cores, 1 chip
Orderable:	1 chip
Cache L1:	64 KB I + 32 KB D on chip per core
L2:	288 MB I+D on chip per chip, 4 MB shared / 4 cores
L3:	576 MB I+D on chip per chip
Other:	None
Memory:	1152 GB (12 x 96 GB 2Rx4 PC5-8000B-R)
Storage:	1 x 480 GB NVMe SSD
Cooling:	DLC
Other:	None

Software

OS:	Red Hat Enterprise Linux 9.7 Kernel 5.14.0-611.5.1.el9_7.x86_64
Compiler:	C/C++: Version 2026.0 of Intel oneAPI DPC++/C++ Compiler for Linux; Fortran: Version 2026.0 of Intel Fortran Compiler for Linux
Compiler Category:	Vendor
Firmware:	Version 1.5 released Apr-2026
File System:	xfs
System State:	Run level 3 (multi-user)
Base Pointers:	64-bit
Peak Pointers:	64-bit
Other:	jemalloc memory allocator v5.3.0
Power Management:	BIOS and OS 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
801.xz_s	288	**226**	**2.62**	221	2.67			288	219	2.70	**219**	**2.69**		
807.ntest_s	288	66.3	17.2	**66.4**	**17.2**			288	66.3	17.2	**66.4**	**17.2**		
817.flac_s	288	444	3.91	**445**	**3.91**			288	**445**	**3.91**	441	3.94		
821.gcc_s	288	91.0	22.7	**91.2**	**22.7**			288	**83.6**	**24.8**	83.6	24.8		
823.llvm_s	288	63.5	22.2	**63.7**	**22.2**			288	**64.4**	**21.9**	64.2	22.0		
827.cppcheck_s	288	**103**	**10.8**	103	10.9			288	**103**	**10.8**	103	10.9		
829.abc_s	288	359	2.31	**361**	**2.30**			288	359	2.31	**361**	**2.30**		
834.vpr_s	288	285	3.35	**285**	**3.35**			288	285	3.35	**285**	**3.35**		
835.gem5_s	288	**365**	**3.12**	363	3.14			288	353	3.23	**355**	**3.21**		
838.diamond_s	288	98.7	10.1	**98.9**	**10.1**			288	98.1	10.2	**99.0**	**10.1**		
846.minizinc_s	288	**300**	**2.23**	290	2.31			288	**297**	**2.25**	282	2.38		
853.ns3_s	288	**231**	**5.00**	230	5.00			288	**199**	**5.81**	198	5.83		
854.graph500_s	288	**108**	**5.64**	107	5.71			288	**108**	**5.64**	107	5.71		

SPECspeed®2026_int_base = 6.05

SPECspeed®2026_int_peak = 6.19

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"
```

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 CentOS Stream 9.
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.
```

(Continued on next page)

General Notes (Continued)

```
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 CentOS Stream 9, and the system compiler gcc 11.5.0
 sources available from jemalloc.net or https://github.com/jemalloc/jemalloc/releases
```

Platform Notes

```
BIOS settings:
Workload Profile = HPC
KTI Prefetch = Enable
Stale AtoS = Disable
LLC Dead Line Alloc = Disable

 Sysinfo program /home/cpu2026/bin/sysinfo
 Rev: 779ab21020787073335a329f3a45e2cd
 running on  Sat May  9 06:48:43 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 252 (252-55.el9)
 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 5.14.0-611.5.1.el9_7.x86_64 #1 SMP PREEMPT_DYNAMIC Fri Oct 17 14:16:35 EDT 2025 x86_64

------------------------------------------------------------
2. w
   06:48:43 up 16:14,  1 user,  load average: 32.36, 183.17, 245.87
  USER     TTY        LOGIN@   IDLE   JCPU   PCPU WHAT
  root     tty1      Fri14   13:24m  1.76s  0.00s -bash

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

------------------------------------------------------------
4. ulimit -a
  real-time non-blocking time  (microseconds, -R) unlimited
  core file size              (blocks, -c) 0
  data seg size               (kbytes, -d) unlimited
  scheduling priority                 (-e) 0
  file size                   (blocks, -f) unlimited
  pending signals                     (-i) 4640255
  max locked memory           (kbytes, -l) 64
  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) 4640255
  virtual memory              (kbytes, -v) unlimited
  file locks                          (-x) unlimited

------------------------------------------------------------
5. sysinfo process ancestry
 /usr/lib/systemd/systemd rhgb --switched-root --system --deserialize 31
 login -- root
 -bash
 -bash
 runcpu --nobuild --reportable --action validate --define default-platform-flags -c
   ic2026.0-clearwaterforest-cpu2026-1.0.1-speed-20260429.cfg --threads 288 --define cores=288 --tune
    base,peak -o all --define intspeedaffinity --define smt-on --define drop_caches intspeed
 runcpu --nobuild --reportable --action validate --define default-platform-flags --configfile
   ic2026.0-clearwaterforest-cpu2026-1.0.1-speed-20260429.cfg --threads 288 --define cores=288 --tune
```

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Platform Notes (Continued)

```
   base,peak --output_format all --define intspeedaffinity --define smt-on --define drop_caches --nopower
    --runmode speed --tune base:peak --size refspeed intspeed --nopreenv --note-preenv --logfile
    $SPEC/tmp/CPU2026.003/templogs/preenv.intspeed.003.0.log --lognum 003.0 --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2026

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : Intel(R) Xeon(R) 6990E+
    vendor_id       : GenuineIntel
    cpu family      : 6
    model           : 221
    stepping        : 1
    microcode       : 0x1000120
    bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi spectre_v2_user
    cpu cores       : 288
    siblings        : 288
    1 physical ids (chips)
    288 processors (hardware threads)
    physical id 0: core ids 0-95,128-223,256-351
    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
   ,74,76,78,80,82,84,86,88,90,92,94,96,98,100,102,104,106,108,110,112,114,116,118,120,122,124,126,128,130,1
   32,134,136,138,140,142,144,146,148,150,152,154,156,158,160,162,164,166,168,170,172,174,176,178,180,182,18
   4,186,188,190,256,258,260,262,264,266,268,270,272,274,276,278,280,282,284,286,288,290,292,294,296,298,300
   ,302,304,306,308,310,312,314,316,318,320,322,324,326,328,330,332,334,336,338,340,342,344,346,348,350,352,
   354,356,358,360,362,364,366,368,370,372,374,376,378,380,382,384,386,388,390,392,394,396,398,400,402,404,4
   06,408,410,412,414,416,418,420,422,424,426,428,430,432,434,436,438,440,442,444,446,512,514,516,518,520,52
   2,524,526,528,530,532,534,536,538,540,542,544,546,548,550,552,554,556,558,560,562,564,566,568,570,572,574
   ,576,578,580,582,584,586,588,590,592,594,596,598,600,602,604,606,608,610,612,614,616,618,620,622,624,626,
   628,630,632,634,636,638,640,642,644,646,648,650,652,654,656,658,660,662,664,666,668,670,672,674,676,678,6
    80,682,684,686,688,690,692,694,696,698,700,702
  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 2.37.4:
  Architecture:                         x86_64
  CPU op-mode(s):                       32-bit, 64-bit
  Address sizes:                        52 bits physical, 48 bits virtual
  Byte Order:                           Little Endian
  CPU(s):                               288
  On-line CPU(s) list:                  0-287
  Vendor ID:                            GenuineIntel
  BIOS Vendor ID:                       Intel(R) Corporation
```

(Continued on next page)

Platform Notes (Continued)

```
  Model name:                           Intel(R) Xeon(R) 6990E+
  BIOS Model name:                      Intel(R) Xeon(R) 6990E+
  CPU family:                           6
  Model:                                221
  Thread(s) per core:                   1
  Core(s) per socket:                   288
  Socket(s):                            1
  Stepping:                             1
  BogoMIPS:                             4400.00
  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 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 rdseed adx smap clflushopt clwb
                                        intel_pt sha_ni xsaveopt xsavec xgetbv1 xsaves cqm_llc
                                        cqm_occup_llc cqm_mbm_total cqm_mbm_local split_lock_detect
                                        user_shstk avx_vnni lam wbnoinvd dtherm ida arat pln pts vnmi umip
                                        pku ospke waitpkg gfni vaes vpclmulqdq tme rdpid bus_lock_detect
                                        cldemote movdiri movdir64b enqcmd fsrm md_clear serialize pconfig
                                        arch_lbr ibt flush_l1d arch_capabilities
  Virtualization:                       VT-x
  L1d cache:                            9 MiB (288 instances)
  L1i cache:                            18 MiB (288 instances)
  L2 cache:                             288 MiB (72 instances)
  L3 cache:                             576 MiB (1 instance)
  NUMA node(s):                         3
  NUMA node0 CPU(s):                    0-95
  NUMA node1 CPU(s):                    96-191
  NUMA node2 CPU(s):                    192-287
  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
```

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Platform Notes (Continued)

```
                                       sanitization
  Vulnerability Spectre v2:            Mitigation; Enhanced / Automatic IBRS; IBPB conditional;
                                       PBRSB-eIBRS Not affected; BHI BHI_DIS_S
  Vulnerability Srbds:                 Not affected
  Vulnerability Tsa:                   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       32K       9M    8 Data            1     64        1             64
     L1i       64K      18M    8 Instruction     1    128        1             64
     L2         4M     288M   16 Unified         2   4096        1             64
     L3       576M     576M   16 Unified         3 589824        1             64

------------------------------------------------------------
8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
  available: 3 nodes (0-2)
  node 0 cpus: 0-95
  node 0 size: 386086 MB
  node 0 free: 377195 MB
  node 1 cpus: 96-191
  node 1 size: 387047 MB
  node 1 free: 379056 MB
  node 2 cpus: 192-287
  node 2 size: 386975 MB
  node 2 free: 350421 MB
  node distances:
  node     0    1    2
     0:   10   15   17
     1:   15   10   15
     2:   17   15   10

------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       1187952444 kB

------------------------------------------------------------
10. who -r
  run-level 3 May 8 14:34

------------------------------------------------------------
11. Systemd service manager version: systemd 252 (252-55.el9)
  Default Target  Status
  multi-user      running

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

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Platform Notes (Continued)

```
12. Services, from systemctl list-unit-files
  STATE             UNIT FILES
  enabled           NetworkManager NetworkManager-dispatcher NetworkManager-wait-online atd auditd bluetooth
                    chronyd crond dbus-broker firewalld getty@ insights-client-boot irqbalance iscsi-onboot
                    iscsi-starter kdump libstoragemgmt lvm2-monitor mcelog mdmonitor microcode multipathd
                    nis-domainname nvmefc-boot-connections rhsmcertd rsyslog selinux-autorelabel-mark smartd
                    sshd sssd systemd-boot-update systemd-network-generator systemd-pstore tas tuned udisks2
  enabled-runtime   systemd-remount-fs
  disabled          arp-ethers blk-availability chrony-wait chronyd-restricted cni-dhcp console-getty cpupower
                    debug-shell dnf-system-upgrade iprdump iprinit iprupdate iscsi-init iscsid iscsiuio kpatch
                    kvm_stat ledmon lvm-devices-import man-db-restart-cache-update netavark-dhcp-proxy
                    netavark-firewalld-reload nftables nvmf-autoconnect podman podman-auto-update
                    podman-clean-transient podman-kube@ podman-restart psacct rdisc rhcd rhsm rhsm-facts
                    rpmdb-rebuild selinux-check-proper-disable serial-getty@ sshd-keygen@
                    systemd-boot-check-no-failures systemd-sysext
  indirect          iscsi sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo systemd-sysupdate
                    systemd-sysupdate-reboot

------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=(hd1,gpt2)/vmlinuz-5.14.0-611.5.1.el9_7.x86_64
  root=/dev/mapper/rhel_135--171--45-root
  ro
  crashkernel=1G-2G:192M,2G-64G:256M,64G-:512M
  resume=/dev/mapper/rhel_135--171--45-swap
  rd.lvm.lv=rhel_135-171-45/root
  rd.lvm.lv=rhel_135-171-45/swap
  rhgb
  quiet

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 51:
    Unable to determine current policy
    boost state support:
      Supported: yes
      Active: yes

------------------------------------------------------------
15. tuned-adm active
  Current active profile: throughput-performance

------------------------------------------------------------
16. sysctl
  kernel.numa_balancing               1
  kernel.randomize_va_space           2
  vm.compaction_proactiveness        20
```

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Platform Notes (Continued)

```
  vm.dirty_background_bytes           0
  vm.dirty_background_ratio          10
  vm.dirty_bytes                      0
  vm.dirty_expire_centisecs        3000
  vm.dirty_ratio                     40
  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                      10
  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     Red Hat Enterprise Linux 9.7 (Plow)
  redhat-release Red Hat Enterprise Linux release 9.7 (Plow)
  system-release Red Hat Enterprise Linux release 9.7 (Plow)

------------------------------------------------------------
20. Disk information
SPEC is set to: /home/cpu2026
  Filesystem                      Type  Size  Used Avail Use% Mounted on
  /dev/mapper/rhel_135--171--45-home xfs   344G   31G  314G   9% /home
```

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Platform Notes (Continued)

```
 ------------------------------------------------------------
 21. /sys/devices/virtual/dmi/id
     Vendor:         PM_1768968004
     Product:        PPM_1768968004
     Product Family: SMC B14
     Serial:         PS_1768968004

 ------------------------------------------------------------
 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:
      12x SK Hynix HMCGM4AMBRB970N 96 GB 2 rank 8000


 ------------------------------------------------------------
 23. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       American Megatrends International, LLC.
    BIOS Version:      1.5
    BIOS Date:         04/22/2026
    BIOS Revision:     5.35
```

Compiler Version Notes

```
==============================================================================
C      | 854.graph500_s(base, peak)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
C++    | 807.ntest_s(base, peak) 827.cppcheck_s(base, peak) 853.ns3_s(base,
       | peak)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
C++, C | 801.xz_s(base, peak) 817.flac_s(base, peak) 821.gcc_s(base, peak)
```

(Continued on next page)

Compiler Version Notes (Continued)

```
      | 823.llvm_s(base, peak) 829.abc_s(base, peak) 834.vpr_s(base, peak)
      | 835.gem5_s(base, peak) 838.diamond_s(base, peak)
      | 846.minizinc_s(base, peak)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2026.0.0 Build 20260331
Copyright (C) 1985-2026 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

834.vpr_s: -fno-fast-math

Base Optimization Flags

C benchmarks:
-m64 -std=c18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-xclearwaterforest -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -fno-strict-aliasing -fiopenmp
-DSPEC_OPENMP -L/usr/local/jemalloc-5.3.0/lib -ljemalloc

C++ benchmarks:
-m64 -std=c++17 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-xclearwaterforest -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -pthread -fiopenmp
-DSPEC_OPENMP -L/usr/local/jemalloc-5.3.0/lib -ljemalloc

Benchmarks using both C and C++:
-m64 -std=c++17 -std=c18 -Wl,-z,muldefs
-Wl,-plugin-opt=-inline-threshold=1500 -xclearwaterforest -O3

(Continued on next page)

Base Optimization Flags (Continued)

Benchmarks using both C and C++ (continued):
-ffp-model=fast -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fno-strict-aliasing -fiopenmp -DSPEC_OPENMP
-pthread -L/usr/local/jemalloc-5.3.0/lib -ljemalloc

Peak Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Benchmarks using both C and C++:
icpx icx

Peak Portability Flags

834.vpr_s: -fno-fast-math

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: -m64 -std=c++17 -Wl,-z,muldefs
-Wl,-plugin-opt=-inline-threshold=1500
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-ffp-model=fast -xclearwaterforest(pass 2) -flto
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops
-pthread -fiopenmp -DSPEC_OPENMP
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

(Continued on next page)

Peak Optimization Flags (Continued)

Benchmarks using both C and C++:

801.xz_s: -m64 -std=c++17 -std=c18 -Wl,-z,muldefs
-Wl,-plugin-opt=-inline-threshold=1500
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-ffp-model=fast -xclearwaterforest(pass 2) -flto
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops
-fno-strict-aliasing -fiopenmp -DSPEC_OPENMP -pthread
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

817.flac_s: Same as 801.xz_s

821.gcc_s: -m64 -std=c++17 -std=c18 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-ffp-model=fast -xclearwaterforest(pass 2) -flto
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops
-fno-strict-aliasing -fiopenmp -DSPEC_OPENMP -pthread
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

823.llvm_s: Same as 821.gcc_s

829.abc_s: basepeak = yes

834.vpr_s: basepeak = yes

835.gem5_s: Same as 801.xz_s

838.diamond_s: Same as 801.xz_s

846.minizinc_s: Same as 801.xz_s

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2026/results/flags/Intel-ic2026-official-linux64-v1.1.html
http://www.spec.org/cpu2026/results/flags/Supermicro-Platform-Settings-V1.2-CWF-revC.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2026/results/flags/Intel-ic2026-official-linux64-v1.1.xml
http://www.spec.org/cpu2026/results/flags/Supermicro-Platform-Settings-V1.2-CWF-revC.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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