SPEC CPU®2017 Integer Speed Result

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Dell Inc.

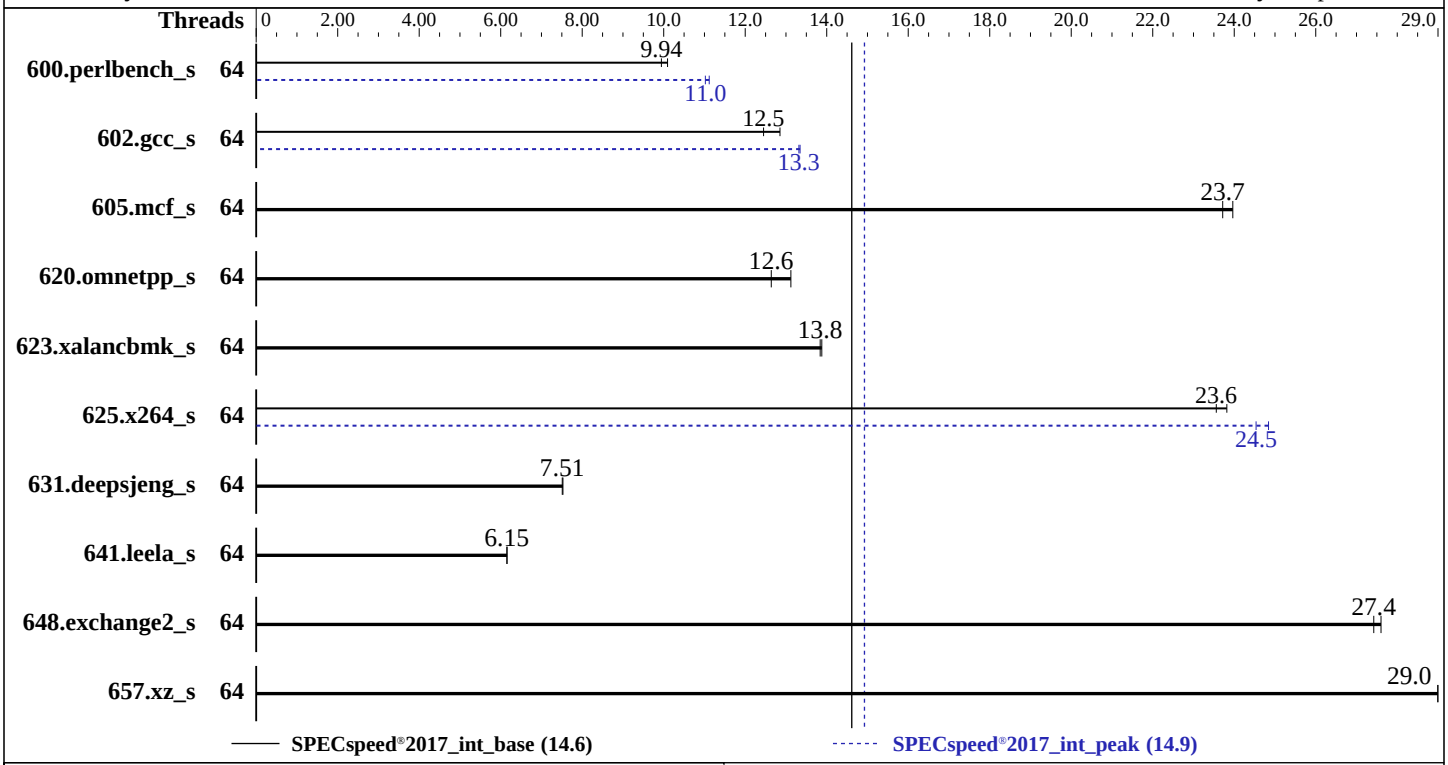
PowerEdge XE9680L (Intel Xeon Platinum 8562Y+)

SPECspeed®2017_int_base = 14.6

SPECspeed®2017_int_peak = 14.9

CPU2017 License: 6573
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Test Date: Aug-2025
Hardware Availability: Jul-2025
Software Availability: Apr-2024



Hardware

CPU Name:	Intel Xeon Platinum 8562Y+
Max MHz:	4100
Nominal:	2800
Enabled:	64 cores, 2 chips
Orderable:	1,2 chips
Cache L1:	32 KB I + 48 KB D on chip per core
L2:	2 MB I+D on chip per core
L3:	60 MB I+D on chip per chip
Other:	None
Memory:	1 TB (16 x 64 GB 2Rx4 PC5-5600B-R)
Storage:	60 GB on tmpfs
Other:	CPU Cooling: DLC

Software

OS:	Red Hat Enterprise Linux 9.4 (Plow) 5.14.0-427.13.1.el9_4.x86_64
Compiler:	C/C++: Version 2024.1 of Intel oneAPI DPC++/C++ Compiler for Linux; Fortran: Version 2024.1 of Intel Fortran Compiler for Linux;
Parallel:	Yes
Firmware:	Version 2.7.5 released Jul-2025
File System:	tmpfs
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 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
600.perlbench_s	64	**179**	**9.94**	176	10.1			64	160	11.1	**161**	**11.0**		
602.gcc_s	64	**320**	**12.5**	310	12.9			64	298	13.3	**299**	**13.3**		
605.mcf_s	64	**199**	**23.7**	197	24.0			64	**199**	**23.7**	197	24.0		
620.omnetpp_s	64	**129**	**12.6**	124	13.1			64	**129**	**12.6**	124	13.1		
623.xalancbmk_s	64	**102**	**13.8**	102	13.9			64	**102**	**13.8**	102	13.9		
625.x264_s	64	**74.9**	**23.6**	74.1	23.8			64	71.0	24.8	**71.9**	**24.5**		
631.deepsjeng_s	64	**191**	**7.51**	190	7.53			64	**191**	**7.51**	190	7.53		
641.leela_s	64	277	6.16	**277**	**6.15**			64	277	6.16	**277**	**6.15**		
648.exchange2_s	64	**107**	**27.4**	107	27.6			64	**107**	**27.4**	107	27.6		
657.xz_s	64	**213**	**29.0**	213	29.0			64	**213**	**29.0**	213	29.0		

SPECspeed®2017_int_base = 14.6

SPECspeed®2017_int_peak = 14.9

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:
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH =
     "/mnt/ramdisk/cpu2017-1.1.9-ic2024.1/lib/intel64:/mnt/ramdisk/cpu2017-1.1.9-ic2024.1/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
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

Benchmark run from a 60 GB ramdisk created with the cmd: "mount -t tmpfs -o size=60G tmpfs /mnt/ramdisk"
```

Platform Notes

```
BIOS Settings:
          Logical Processor : Disabled
     DCU Streamer Prefetcher : Enabled
```

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Platform Notes (Continued)

```
           Sub NUMA Cluster : Disabled
 UMA Based Clustering Status : Quadrant
               LLC Prefetch : Enabled
        Dead Line LLC Alloc : Enabled
        Memory Patrol Scrub : Standard

Sysinfo program /mnt/ramdisk/cpu2017-1.1.9-ic2024.1/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on 1234567-XE9680L Thu Aug 21 06:00:13 2025

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

------------------------------------------------------------
Table of contents
------------------------------------------------------------
 1. uname -a
 2. w
 3. Username
 4. ulimit -a
 5. sysinfo process ancestry
 6. /proc/cpuinfo
 7. lscpu
 8. numactl --hardware
 9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemd 252 (252-32.el9_4)
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 1234567-XE9680L 5.14.0-427.13.1.el9_4.x86_64 #1 SMP PREEMPT_DYNAMIC Wed Apr 10 10:29:16 EDT 2024
  x86_64 x86_64 x86_64 GNU/Linux

------------------------------------------------------------
2. w
   06:00:13 up 6 min,  1 user,  load average: 0.14, 0.03, 0.01
  USER     TTY        LOGIN@   IDLE   JCPU   PCPU WHAT
  root     tty1      05:55   37.00s  0.77s  0.00s /bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh
  speed --define DL-VERS=6.3a --output_format html,pdf,txt

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

------------------------------------------------------------
4. ulimit -a
  real-time non-blocking time  (microseconds, -R) unlimited
  core file size              (blocks, -c) 0
```

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Platform Notes (Continued)

```
   data seg size               (kbytes, -d) unlimited
   scheduling priority                 (-e) 0
   file size                   (blocks, -f) unlimited
   pending signals                     (-i) 4126151
   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) 4126151
   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
 /bin/bash /home/DellFiles/bin/DELL_speed.sh
 /bin/bash /home/DellFiles/bin/dell-run-main.sh speed
 /bin/bash /home/DellFiles/bin/dell-run-main.sh speed
 /bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh speed --define DL-VERS=6.3a --output_format
   html,pdf,txt
 /bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh speed --define DL-VERS=6.3a --output_format
   html,pdf,txt
 runcpu --nobuild --action validate --define default-platform-flags -c
   ic2024.1-lin-sapphirerapids-speed-20240308.cfg --define cores=64 --tune base,peak -o all --define
   intspeedaffinity --define drop_caches --iterations 2 --define DL-VERS=6.3a --output_format html,pdf,txt
   intspeed
 runcpu --nobuild --action validate --define default-platform-flags --configfile
   ic2024.1-lin-sapphirerapids-speed-20240308.cfg --define cores=64 --tune base,peak --output_format all
   --define intspeedaffinity --define drop_caches --iterations 2 --define DL-VERS=6.3a --output_format
   html,pdf,txt --nopower --runmode speed --tune base:peak --size refspeed intspeed --nopreenv --note-preenv
   --logfile $SPEC/tmp/CPU2017.001/templogs/preenv.intspeed.001.0.log --lognum 001.0 --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /mnt/ramdisk/cpu2017-1.1.9-ic2024.1

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : INTEL(R) XEON(R) PLATINUM 8562Y+
    vendor_id       : GenuineIntel
    cpu family      : 6
    model           : 207
    stepping        : 2
    microcode       : 0x210002b3
    bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrs_pbrsb
    cpu cores       : 32
    siblings        : 32
    2 physical ids (chips)
    64 processors (hardware threads)
    physical id 0: core ids 0-31
    physical id 1: core ids 0-31
    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
    physical id 1: apicids
    128,130,132,134,136,138,140,142,144,146,148,150,152,154,156,158,160,162,164,166,168,170,172,174,176,178,1
    80,182,184,186,188,190
```

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Platform Notes (Continued)

```
  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:                        46 bits physical, 57 bits virtual
  Byte Order:                           Little Endian
  CPU(s):                               64
  On-line CPU(s) list:                  0-63
  Vendor ID:                            GenuineIntel
  BIOS Vendor ID:                       Intel
  Model name:                           INTEL(R) XEON(R) PLATINUM 8562Y+
  BIOS Model name:                      INTEL(R) XEON(R) PLATINUM 8562Y+
  CPU family:                           6
  Model:                                207
  Thread(s) per core:                   1
  Core(s) per socket:                   32
  Socket(s):                            2
  Stepping:                             2
  BogoMIPS:                             5600.00
  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 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 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 avx_vnni avx512_bf16
                                        wbnoinvd dtherm ida arat pln pts hfi 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
  L1d cache:                            3 MiB (64 instances)
  L1i cache:                            2 MiB (64 instances)
  L2 cache:                             128 MiB (64 instances)
  L3 cache:                             120 MiB (2 instances)
  NUMA node(s):                         2
  NUMA node0 CPU(s):                    0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,5
                                        0,52,54,56,58,60,62
  NUMA node1 CPU(s):                    1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,5
                                        1,53,55,57,59,61,63
  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 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
```

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Platform Notes (Continued)

```
  Vulnerability Spectre v2:           Mitigation; Enhanced / Automatic IBRS, IBPB conditional, RSB filling,
                                      PBRSB-eIBRS SW sequence
  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       3M   12 Data            1    64        1             64
     L1i       32K       2M    8 Instruction     1    64        1             64
     L2         2M     128M   16 Unified         2  2048        1             64
     L3        60M     120M   15 Unified         3 65536        1             64

------------------------------------------------------------
8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
  available: 2 nodes (0-1)
  node 0 cpus: 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
  node 0 size: 515540 MB
  node 0 free: 504063 MB
  node 1 cpus: 1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,51,53,55,57,59,61,63
  node 1 size: 516040 MB
  node 1 free: 515063 MB
  node distances:
  node   0   1
    0:  10  21
    1:  21  10

------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       1056338556 kB

------------------------------------------------------------
10. who -r
  run-level 3 Aug 21 05:54

------------------------------------------------------------
11. Systemd service manager version: systemd 252 (252-32.el9_4)
  Default Target  Status
  multi-user      running

------------------------------------------------------------
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 low-memory-monitor lvm2-monitor mcelog mdmonitor
                   microcode multipathd nis-domainname nvmefc-boot-connections rhsmcertd rsyslog rtkit-daemon
                   selinux-autorelabel-mark smartd sshd sssd systemd-boot-update systemd-network-generator
                   tuned udisks2 upower
  enabled-runtime  systemd-remount-fs
  disabled         arp-ethers blk-availability canberra-system-bootup canberra-system-shutdown
                   canberra-system-shutdown-reboot chrony-wait chronyd-restricted console-getty cpupower
                   debug-shell dnf-system-upgrade hwloc-dump-hwdata iprdump iprinit iprupdate ipsec
                   iscsi-init iscsid iscsiuio kpatch kvm_stat ledmon man-db-restart-cache-update nftables
                   nvmf-autoconnect pesign psacct rdisc rhcd rhsm rhsm-facts rpmdb-rebuild
                   selinux-check-proper-disable serial-getty@ sshd-keygen@ systemd-boot-check-no-failures
                   systemd-pstore systemd-sysext
  indirect         iscsi sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo systemd-sysupdate
                   systemd-sysupdate-reboot
```

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Platform Notes (Continued)

```
------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=(hd2,gpt2)/vmlinuz-5.14.0-427.13.1.el9_4.x86_64
  root=/dev/mapper/rhel-root
  ro
  resume=/dev/mapper/rhel-swap
  rd.lvm.lv=rhel/root
  rd.lvm.lv=rhel/swap
  rhgb
  quiet

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 3:
    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
  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
```

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Platform Notes (Continued)

```
  scan_sleep_millisecs    10000

------------------------------------------------------------
19. OS release
  From /etc/*-release /etc/*-version
  os-release     Red Hat Enterprise Linux 9.4 (Plow)
  redhat-release Red Hat Enterprise Linux release 9.4 (Plow)
  system-release Red Hat Enterprise Linux release 9.4 (Plow)

------------------------------------------------------------
20. Disk information
SPEC is set to: /mnt/ramdisk/cpu2017-1.1.9-ic2024.1
  Filesystem     Type   Size  Used Avail Use% Mounted on
  tmpfs          tmpfs   60G  5.0G   56G   9% /mnt/ramdisk

------------------------------------------------------------
21. /sys/devices/virtual/dmi/id
    Vendor:         Dell Inc.
    Product:        PowerEdge XE9680L
    Product Family: PowerEdge
    Serial:         1234567

------------------------------------------------------------
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:
    4x 00CE063200CE M321R8GA0EB0-CWMKH 64 GB 2 rank 5600
    12x 00CE069D00CE M321R8GA0EB0-CWMXJ 64 GB 2 rank 5600


------------------------------------------------------------
23. BIOS
(This section combines info from /sys/devices and dmidecode.)
   BIOS Vendor:       Dell Inc.
   BIOS Version:      2.7.5
   BIOS Date:         07/31/2025
   BIOS Revision:     2.7
```

Compiler Version Notes

```
==============================================================================================================
C       | 600.perlbench_s(base, peak) 602.gcc_s(base, peak) 605.mcf_s(base, peak) 625.x264_s(base, peak)
        | 657.xz_s(base, peak)
--------------------------------------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
--------------------------------------------------------------------------------------------------------------

==============================================================================================================
C++     | 620.omnetpp_s(base, peak) 623.xalancbmk_s(base, peak) 631.deepsjeng_s(base, peak)
        | 641.leela_s(base, peak)
--------------------------------------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
--------------------------------------------------------------------------------------------------------------
```

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Compiler Version Notes (Continued)

```
==============================================================================================================
Fortran | 648.exchange2_s(base, peak)
--------------------------------------------------------------------------------------------------------------
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
--------------------------------------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

Base Portability Flags

600.perlbench_s: -DSPEC_LP64 -DSPEC_LINUX_X64
602.gcc_s: -DSPEC_LP64
605.mcf_s: -DSPEC_LP64
620.omnetpp_s: -DSPEC_LP64
623.xalancbmk_s: -DSPEC_LP64 -DSPEC_LINUX
625.x264_s: -DSPEC_LP64
631.deepsjeng_s: -DSPEC_LP64
641.leela_s: -DSPEC_LP64
648.exchange2_s: -DSPEC_LP64
657.xz_s: -DSPEC_LP64

Base Optimization Flags

C benchmarks:
-w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
-DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

C++ benchmarks:
-w -std=c++14 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

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Base Optimization Flags (Continued)

Fortran benchmarks:
-w -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Peak Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

600.perlbench_s: -w -m64 -std=c11 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -fno-strict-overflow
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

602.gcc_s: -w -m64 -std=c11 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib
-ljemalloc

(Continued on next page)

Peak Optimization Flags (Continued)

605.mcf_s: `basepeak = yes`

625.x264_s: `-w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP -fno-alias -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc`

657.xz_s: `basepeak = yes`

C++ benchmarks:

620.omnetpp_s: `basepeak = yes`

623.xalancbmk_s: `basepeak = yes`

631.deepsjeng_s: `basepeak = yes`

641.leela_s: `basepeak = yes`

Fortran benchmarks:

648.exchange2_s: `basepeak = yes`

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.html
http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.17x.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.xml
http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.17x.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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