SPEC CPU®2017 Integer Speed Result

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Cisco Systems

Cisco UCS C240 M8 (Intel Xeon 6724P 3.6 GHz processor)

$SPECspeed^{®}2017\_int\_base = 15.2$
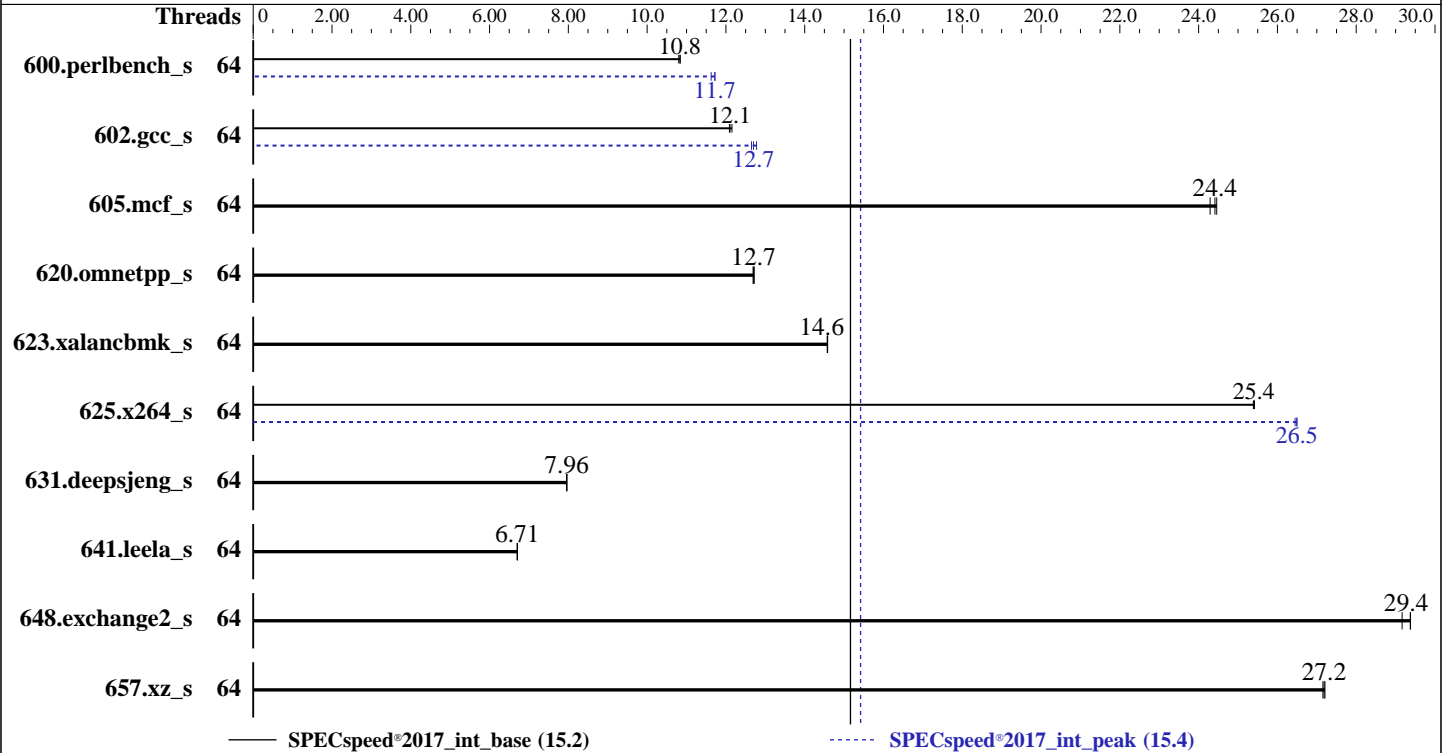
$SPECspeed^{®}2017\_int\_peak = 15.4$

CPU2017 License: 9019

Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: May-2025

Hardware Availability: Feb-2025

Software Availability: Mar-2025

Threads

Benchmark	Threads	Base	Peak
600.perlbench_s	64	10.8	11.7
602.gcc_s	64	12.1	12.7
605.mcf_s	64	24.4	
620.omnetpp_s	64	12.7	
623.xalancbmk_s	64	14.6	
625.x264_s	64	25.4	26.5
631.deepsjeng_s	64	7.96	
641.leela_s	64	6.71	
648.exchange2_s	64	29.4	
657.xz_s	64	27.2	

SPECspeed®2017_int_base (15.2)

SPECspeed®2017_int_peak (15.4)

Hardware

CPU Name: Intel Xeon 6724P

 Max MHz: 4300

 Nominal: 3600

Enabled: 32 cores, 2 chips, 2 threads/core

Orderable: 1,2 chips

Cache L1: 64 KB I + 48 KB D on chip per core

 L2: 2 MB I+D on chip per core

 L3: 72 MB I+D on chip per chip

 Other: None

Memory: 1 TB (16 x 64 GB 2Rx4 PC5-6400B-R)

Storage: 1 x 445 GB SATA SSD

Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise Server 15 SP6
6.4.0-150600.21-default

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 4.3.6a released Mar-2025

File System: xfs

System State: Run level 3 (multi-user)

Base Pointers: 64-bit

Peak Pointers: 64-bit

Other: jemalloc V5.0.1

Power Management: BIOS and OS 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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Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	64	164	10.8	164	10.8	**164**	**10.8**	64	**151**	**11.7**	153	11.6	151	11.7
602.gcc_s	64	**329**	**12.1**	329	12.1	328	12.2	64	**314**	**12.7**	315	12.7	312	12.8
605.mcf_s	64	194	24.3	**193**	**24.4**	193	24.5	64	194	24.3	**193**	**24.4**	193	24.5
620.omnetpp_s	64	**128**	**12.7**	129	12.7	128	12.7	64	**128**	**12.7**	129	12.7	128	12.7
623.xalancbmk_s	64	**97.2**	**14.6**	97.2	14.6	97.2	14.6	64	**97.2**	**14.6**	97.2	14.6	97.2	14.6
625.x264_s	64	**69.4**	**25.4**	69.4	25.4	69.5	25.4	64	66.7	26.4	66.6	26.5	**66.6**	**26.5**
631.deepsjeng_s	64	**180**	**7.96**	180	7.97	180	7.95	64	**180**	**7.96**	180	7.97	180	7.95
641.leela_s	64	**254**	**6.71**	255	6.70	254	6.71	64	**254**	**6.71**	255	6.70	254	6.71
648.exchange2_s	64	100	29.4	101	29.2	**100**	**29.4**	64	100	29.4	101	29.2	**100**	**29.4**
657.xz_s	64	228	27.2	227	27.2	**227**	**27.2**	64	228	27.2	227	27.2	**227**	**27.2**
SPECspeed®2017_int_base =		**15.2**												
SPECspeed®2017_int_peak =		**15.4**												

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

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

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 = "/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 Red Hat Enterprise Linux 8.4
Transparent Huge Pages enabled by default
Prior to runcpu invocation
Filesystem page cache synced and cleared with:
sync; echo 3>        /proc/sys/vm/drop_caches
runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>

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.
```

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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 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 settings:
Hardware prefetcher set to Enabled
Adjacent cache line prefetcher set to Enabled
XPT prefetch set to Auto
LLC prefetch set to Enabled
Enhanced CPU performance set to Auto

 Sysinfo program /home/cpu2017/bin/sysinfo
 Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
 running on c240m8-spec1 Fri May 23 01:24:46 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 254 (254.10+suse.84.ge8d77af424)
 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 c240m8-spec1 6.4.0-150600.21-default #1 SMP PREEMPT_DYNAMIC Thu May 16 11:09:22 UTC 2024 (36c1e09)
   x86_64 x86_64 x86_64 GNU/Linux


 -----------------------------------------------------------
 2. w
   01:24:46 up 13 min,  2 users,  load average: 0.00, 0.15, 0.30
   USER     TTY     FROM            LOGIN@   IDLE   JCPU   PCPU WHAT
```

(Continued on next page)

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Platform Notes (Continued)

```
  root     tty1       -                01:21    5.00s  0.88s  0.00s -bash
  root     pts/0    10.29.148.129      01:23   13.00s  0.02s  0.02s -bash


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


 ------------------------------------------------------------
 4. ulimit -a
   core file size          (blocks, -c) unlimited
   data seg size           (kbytes, -d) unlimited
   scheduling priority             (-e) 0
   file size               (blocks, -f) unlimited
   pending signals                 (-i) 4125079
   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) 4125079
   virtual memory          (kbytes, -v) unlimited
   file locks                      (-x) unlimited


 ------------------------------------------------------------
 5. sysinfo process ancestry
  /usr/lib/systemd/systemd --switched-root --system --deserialize=42
  login -- root
  -bash
  -bash
  runcpu --nobuild -n 3 --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 --nopower --runmode speed --tune base,peak --size refspeed
    intspeed
  runcpu --nobuild --iterations 3 --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 --nopower --runmode speed --tune base,peak --size refspeed
    --nopower --runmode speed --tune base:peak --size refspeed intspeed --nopreenv --note-preenv --logfile
    $SPEC/tmp/CPU2017.292/templogs/preenv.intspeed.292.0.log --lognum 292.0 --from_runcpu 2
  specperl $SPEC/bin/sysinfo
 $SPEC = /home/cpu2017


 ------------------------------------------------------------
 6. /proc/cpuinfo
    model name       : Intel(R) Xeon(R) 6724P
    vendor_id        : GenuineIntel
    cpu family       : 6
    model            : 173
    stepping         : 1
    microcode        : 0x1000380
    bugs             : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
    cpu cores        : 16
    siblings         : 32
    2 physical ids (chips)
    64 processors (hardware threads)
    physical id 0: core ids 0-15
    physical id 1: core ids 0-15
    physical id 0: apicids 0-31
```

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Platform Notes (Continued)

```
    physical id 1: apicids 128-159
  Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
  virtualized systems.  Use the above data carefully.

  -----------------------------------------------------------
7. lscpu

From lscpu from util-linux 2.39.3:
  Architecture:                       x86_64
  CPU op-mode(s):                     32-bit, 64-bit
  Address sizes:                      46 bits physical, 57 bits virtual
  Byte Order:                         Little Endian
  CPU(s):                             64
  On-line CPU(s) list:                0-63
  Vendor ID:                          GenuineIntel
  BIOS Vendor ID:                     Intel(R) Corporation
  Model name:                         Intel(R) Xeon(R) 6724P
  BIOS Model name:                    Intel(R) Xeon(R) 6724P  CPU @ 3.6GHz
  BIOS CPU family:                    179
  CPU family:                         6
  Model:                              173
  Thread(s) per core:                 2
  Core(s) per socket:                 16
  Socket(s):                          2
  Stepping:                           1
  CPU(s) scaling MHz:                 39%
  CPU max MHz:                        4300.0000
  CPU min MHz:                        800.0000
  BogoMIPS:                           7200.00
  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 intel_ppin cdp_l2 ssbd mba ibrs ibpb stibp
                                      ibrs_enhanced fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erms
                                      invpcid rtm 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 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:                          1.5 MiB (32 instances)
  L1i cache:                          2 MiB (32 instances)
  L2 cache:                           64 MiB (32 instances)
  L3 cache:                           144 MiB (2 instances)
  NUMA node(s):                       2
  NUMA node0 CPU(s):                  0-15,32-47
  NUMA node1 CPU(s):                  16-31,48-63
  Vulnerability Gather data sampling: Not affected
  Vulnerability Itlb multihit:        Not affected
  Vulnerability L1tf:                 Not affected
  Vulnerability Mds:                  Not affected
  Vulnerability Meltdown:             Not affected
```

(Continued on next page)

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Platform Notes (Continued)

```
  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


  From lscpu --cache:
      NAME ONE-SIZE ALL-SIZE WAYS TYPE        LEVEL  SETS PHY-LINE COHERENCY-SIZE
      L1d       48K     1.5M   12 Data            1    64        1             64
      L1i       64K       2M   16 Instruction     1    64        1             64
      L2         2M      64M   16 Unified         2  2048        1             64
      L3        72M     144M   16 Unified         3 73728        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: 0-15,32-47
    node 0 size: 515268 MB
    node 0 free: 514305 MB
    node 1 cpus: 16-31,48-63
    node 1 size: 516027 MB
    node 1 free: 515071 MB
    node distances:
    node   0   1
      0:  10  21
      1:  21  10

  ------------------------------------------------------------
  9. /proc/meminfo
    MemTotal:      1056047436 kB

  ------------------------------------------------------------
  10. who -r
    run-level 3 May 23 01:11

  ------------------------------------------------------------
  11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)
    Default Target  Status
    multi-user      running

  ------------------------------------------------------------
  12. Services, from systemctl list-unit-files
    STATE            UNIT FILES
    enabled          YaST2-Firstboot YaST2-Second-Stage apparmor auditd cron display-manager getty@ irqbalance
                     issue-generator kbdsettings klog lvm2-monitor nscd postfix purge-kernels rollback rsyslog
                     sep5 smartd sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6
                     wickedd-nanny
    enabled-runtime  systemd-remount-fs
    disabled         autofs autoyast-initscripts blk-availability boot-sysctl ca-certificates chrony-wait
                     chronyd console-getty cups cups-browsed debug-shell ebtables exchange-bmc-os-info
                     firewalld fsidd gpm grub2-once haveged ipmi ipmievd issue-add-ssh-keys kexec-load lunmask
                     man-db-create multipathd nfs nfs-blkmap rpcbind rpmconfigcheck rsyncd serial-getty@
                     smartd_generate_opts snmpd snmptrapd systemd-boot-check-no-failures systemd-confext
                     systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd tuned
```

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Platform Notes (Continued)

```
                  udisks2 vncserver@
  indirect        systemd-userdbd wickedd


  -------------------------------------------------------------
  13. Linux kernel boot-time arguments, from /proc/cmdline
    BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
    root=UUID=52f44b73-418f-485e-abb1-6b40f358d6a0
    splash=silent
    mitigations=auto
    quiet
    security=apparmor

  -------------------------------------------------------------
  14. cpupower frequency-info
    analyzing CPU 38:
      current policy: frequency should be within 800 MHz and 4.30 GHz.
                      The governor "performance" may decide which speed to use
                      within this range.
    boost state support:
      Supported: yes
      Active: yes

  -------------------------------------------------------------
  15. tuned-adm active
    It seems that tuned daemon is not running, preset profile is not activated.
    Preset profile: latency-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                   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
```

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Platform Notes (Continued)

```
  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 SP6

  ----------------------------------------------------------
20. Disk information
SPEC is set to: /home/cpu2017
   Filesystem      Type  Size  Used Avail Use% Mounted on
   /dev/sdc2       xfs   445G   54G  391G  13% /

  ----------------------------------------------------------
21. /sys/devices/virtual/dmi/id
     Vendor:        Cisco Systems Inc
     Product:       UCSC-C240-M8SX
     Serial:        WZP28449MSW

  ----------------------------------------------------------
22. dmidecode
   Additional information from dmidecode 3.4 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:
       16x 0xCE00 M321R8GA0PB2-CCPEC 64 GB 2 rank 6400


  ----------------------------------------------------------
23. BIOS
(This section combines info from /sys/devices and dmidecode.)
     BIOS Vendor:       Cisco Systems, Inc.
     BIOS Version:      C240M8.4.3.6a.0.0319250402
     BIOS Date:         03/19/2025
     BIOS Revision:     5.35
```

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

Cisco Systems

Cisco UCS C240 M8 (Intel Xeon 6724P 3.6 GHz processor)

SPECspeed®2017_int_base = 15.2

SPECspeed®2017_int_peak = 15.4

CPU2017 License: 9019
Test Sponsor: Cisco Systems
Tested by: Cisco Systems

Test Date: May-2025
Hardware Availability: Feb-2025
Software Availability: Mar-2025

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`

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SPEC CPU®2017 Integer Speed Result

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Cisco Systems

Cisco UCS C240 M8 (Intel Xeon 6724P 3.6 GHz processor)

SPECspeed®2017_int_base = 15.2

SPECspeed®2017_int_peak = 15.4

CPU2017 License: 9019
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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-linux64.2025-06-17.html`
`http://www.spec.org/cpu2017/flags/Cisco-Platform-Settings-V1.2-GNR-revD.html`

You can also download the XML flags sources by saving the following links:
`http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.2025-06-17.xml`
`http://www.spec.org/cpu2017/flags/Cisco-Platform-Settings-V1.2-GNR-revD.xml`

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

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