



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS X210c M8 (Intel Xeon 6760P 2.20 GHz processor)

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

CPU2017 License: 9019

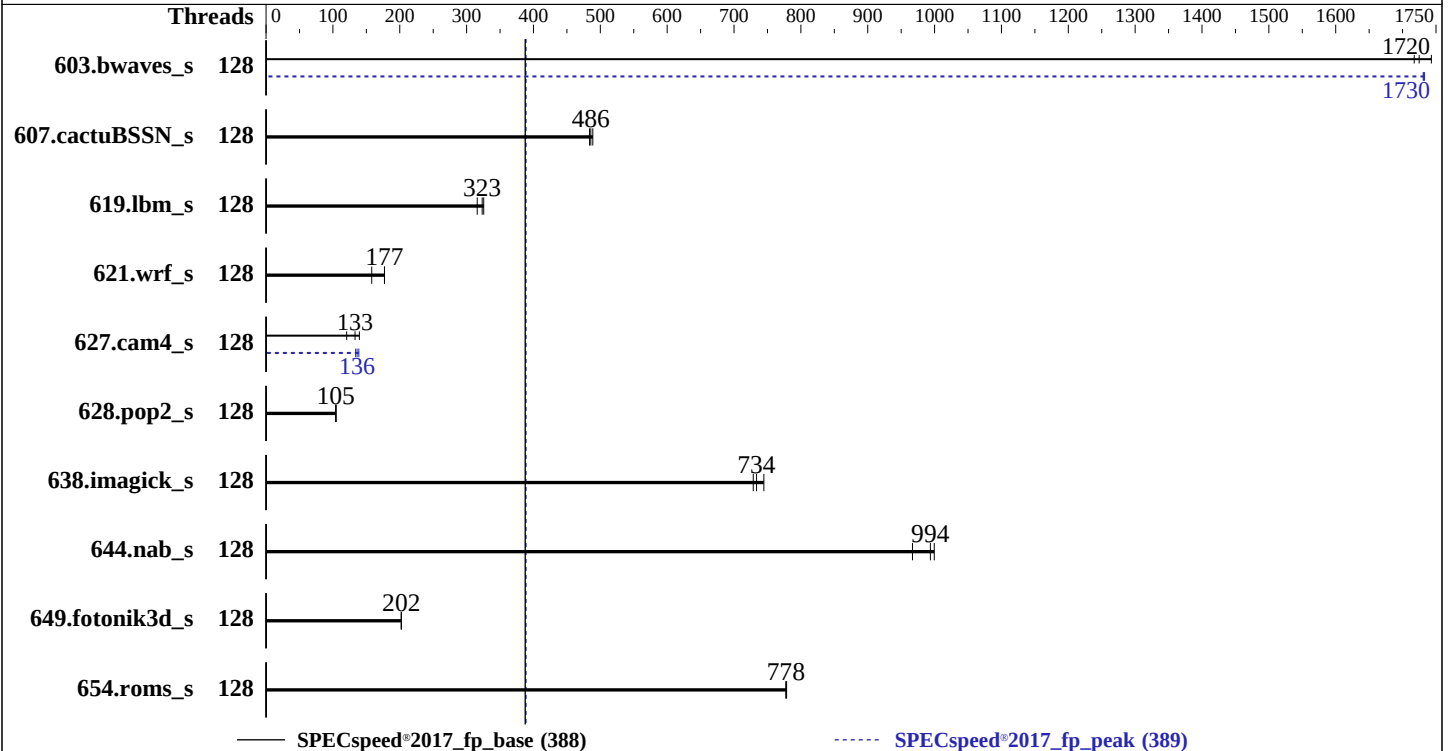
Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Sep-2025

Hardware Availability: Feb-2025

Software Availability: Jun-2024



### Hardware

CPU Name: Intel Xeon 6760P  
Max MHz: 3800  
Nominal: 2200  
Enabled: 128 cores, 2 chips  
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: 320 MB I+D on chip per chip  
Other: None  
Memory: 1 TB (16 x 64 GB 2Rx4 PC5-6400B-R)  
Storage: 1 x 960 GB 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 6.0.1a released Jul-2025  
File System: btrfs  
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



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS X210c M8 (Intel Xeon 6760P 2.20 GHz processor)

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

CPU2017 License: 9019

Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Sep-2025

Hardware Availability: Feb-2025

Software Availability: Jun-2024

## Results Table

| Benchmark       | Base    |             |            |             |             |             |            | Peak    |             |            |             |             |             |            |
|-----------------|---------|-------------|------------|-------------|-------------|-------------|------------|---------|-------------|------------|-------------|-------------|-------------|------------|
|                 | Threads | Seconds     | Ratio      | Seconds     | Ratio       | Seconds     | Ratio      | Threads | Seconds     | Ratio      | Seconds     | Ratio       | Seconds     | Ratio      |
| 603.bwaves_s    | 128     | 34.4        | 1720       | <u>34.2</u> | <u>1720</u> | 33.8        | 1740       | 128     | 34.0        | 1730       | <u>34.1</u> | <u>1730</u> | 34.1        | 1730       |
| 607.cactuBSSN_s | 128     | 34.1        | 489        | 34.5        | 484         | <u>34.3</u> | <u>486</u> | 128     | 34.1        | 489        | 34.5        | 484         | <u>34.3</u> | <u>486</u> |
| 619.lbm_s       | 128     | 16.1        | 326        | 16.6        | 316         | <u>16.2</u> | <u>323</u> | 128     | 16.1        | 326        | 16.6        | 316         | <u>16.2</u> | <u>323</u> |
| 621.wrf_s       | 128     | 74.6        | 177        | 83.7        | 158         | <u>74.7</u> | <u>177</u> | 128     | 74.6        | 177        | 83.7        | 158         | <u>74.7</u> | <u>177</u> |
| 627.cam4_s      | 128     | 73.5        | 121        | 63.5        | 140         | <u>66.6</u> | <u>133</u> | 128     | 66.1        | 134        | 63.9        | 139         | <u>65.1</u> | <u>136</u> |
| 628.pop2_s      | 128     | 114         | 104        | 114         | 105         | <u>114</u>  | <u>105</u> | 128     | 114         | 104        | 114         | 105         | <u>114</u>  | <u>105</u> |
| 638.imagick_s   | 128     | <u>19.7</u> | <u>734</u> | 19.8        | 729         | 19.4        | 745        | 128     | <u>19.7</u> | <u>734</u> | 19.8        | 729         | 19.4        | 745        |
| 644.nab_s       | 128     | 18.1        | 967        | 17.5        | 1000        | <u>17.6</u> | <u>994</u> | 128     | 18.1        | 967        | 17.5        | 1000        | <u>17.6</u> | <u>994</u> |
| 649.fotonik3d_s | 128     | <u>45.0</u> | <u>202</u> | 45.1        | 202         | 45.0        | 203        | 128     | <u>45.0</u> | <u>202</u> | 45.1        | 202         | 45.0        | 203        |
| 654.roms_s      | 128     | <u>20.2</u> | <u>778</u> | 20.2        | 778         | 20.2        | 779        | 128     | <u>20.2</u> | <u>778</u> | 20.2        | 778         | 20.2        | 779        |

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

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,compact"

LD\_LIBRARY\_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/je5.0.1-64"

MALLOC\_CONF = "retain:true"

OMP\_STACKSIZE = "192M"

## General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM

memory using Redhat Enterprise Linux 8.0

Transparent Huge Pages enabled by default

Prior to runcpu invocation

Filesystem page cache synced and cleared with:

sync; echo 3> /proc/sys/vm/drop\_caches

NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1) is mitigated in the system as tested and documented.

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2) is mitigated in the system as tested and documented.

jemalloc, a general purpose malloc implementation

built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5

sources available from jemalloc.net or <https://github.com/jemalloc/jemalloc/releases>



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS X210c M8 (Intel Xeon 6760P 2.20 GHz processor)

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

**CPU2017 License:** 9019

**Test Sponsor:** Cisco Systems

**Tested by:** Cisco Systems

**Test Date:** Sep-2025

**Hardware Availability:** Feb-2025

**Software Availability:** Jun-2024

## Platform Notes

### BIOS settings:

Sub NUMA clustering set to Disabled  
Hardware prefetcher set to Enabled  
Adjacent cache line prefetcher set to Disabled  
XPT prefetch set to Auto  
LLC prefetch set to Enabled  
Enhanced CPU performance set to Auto  
Hyper-Threading set to Disabled

Sysinfo program /home/cpu2017/bin/sysinfo  
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197  
running on X210M8-SPEC Thu Sep 18 01:56:31 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. Failed units, from systemctl list-units --state=failed
13. Services, from systemctl list-unit-files
14. Linux kernel boot-time arguments, from /proc/cmdline
15. cpupower frequency-info
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 X210M8-SPEC 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  
01:56:31 up 1 min, 2 users, load average: 4.30, 2.08, 0.78  
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT  
root tty1 - 01:56 7.00s 1.50s 0.18s -bash

3. Username  
From environment variable \$USER: root

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS X210c M8 (Intel Xeon 6760P 2.20 GHz processor)

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

CPU2017 License: 9019

Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Sep-2025

Hardware Availability: Feb-2025

Software Availability: Jun-2024

## Platform Notes (Continued)

```
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) 4123808
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) 4123808
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 --define default-platform-flags -c ic2024.1-lin-sapphirerapids-speed-20240308.cfg --define cores=128
--tune all -o all --define drop_caches fpspeed
runcpu --define default-platform-flags --configfile ic2024.1-lin-sapphirerapids-speed-20240308.cfg --define
cores=128 --tune all --output_format all --define drop_caches --nopower --runmode speed --tune base:peak
--size refspped fpspeed --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2017.062/templogs/preenv.fpspeed.062.0.log --lognum 062.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017
```

```
-----
6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) 6760P
vendor_id      : GenuineIntel
cpu family     : 6
model          : 173
stepping       : 1
microcode      : 0x10003c2
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
cpu cores      : 64
siblings       : 64
2 physical ids (chips)
128 processors (hardware threads)
physical id 0: core ids 0-31,64-95
physical id 1: core ids 0-31,64-95
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, 128, 130, 132, 13
4, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186
, 188, 190
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, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 42
4, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446
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)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS X210c M8 (Intel Xeon 6760P 2.20 GHz processor)

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

CPU2017 License: 9019

Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Sep-2025

Hardware Availability: Feb-2025

Software Availability: Jun-2024

## 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):                               | 128                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| On-line CPU(s) list:                  | 0-127                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Vendor ID:                            | GenuineIntel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| BIOS Vendor ID:                       | Intel(R) Corporation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Model name:                           | Intel(R) Xeon(R) 6760P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| BIOS Model name:                      | Intel(R) Xeon(R) 6760P CPU @ 2.2GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| BIOS CPU family:                      | 179                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| CPU family:                           | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Model:                                | 173                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Thread(s) per core:                   | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Core(s) per socket:                   | 64                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Socket(s):                            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Stepping:                             | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| CPU(s) scaling MHz:                   | 21%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| CPU max MHz:                          | 3800.0000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| CPU min MHz:                          | 800.0000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 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 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 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:                            | 6 MiB (128 instances)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| L1i cache:                            | 8 MiB (128 instances)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| L2 cache:                             | 256 MiB (128 instances)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| L3 cache:                             | 640 MiB (2 instances)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| NUMA node(s):                         | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NUMA node0 CPU(s):                    | 0-31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| NUMA node1 CPU(s):                    | 32-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| NUMA node2 CPU(s):                    | 64-95                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| NUMA node3 CPU(s):                    | 96-127                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS X210c M8 (Intel Xeon 6760P 2.20 GHz processor)

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

CPU2017 License: 9019

Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Sep-2025

Hardware Availability: Feb-2025

Software Availability: Jun-2024

## Platform Notes (Continued)

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; PBRSE-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      | 6M       | 12   | Data        | 1     | 64     | 1        | 64             |
| L1i  | 64K      | 8M       | 16   | Instruction | 1     | 64     | 1        | 64             |
| L2   | 2M       | 256M     | 16   | Unified     | 2     | 2048   | 1        | 64             |
| L3   | 320M     | 640M     | 16   | Unified     | 3     | 327680 | 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: 0-31  
node 0 size: 257304 MB  
node 0 free: 256659 MB  
node 1 cpus: 32-63  
node 1 size: 258000 MB  
node 1 free: 257398 MB  
node 2 cpus: 64-95  
node 2 size: 258039 MB  
node 2 free: 257465 MB  
node 3 cpus: 96-127  
node 3 size: 257633 MB  
node 3 free: 257127 MB  
node distances:  
node 0 1 2 3  
0: 10 12 21 21  
1: 12 10 21 21  
2: 21 21 10 12  
3: 21 21 12 10

9. /proc/meminfo

MemTotal: 1055721892 kB

10. who -r

run-level 3 Sep 18 01:55

11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)

Default Target Status  
multi-user degraded

12. Failed units, from systemctl list-units --state=failed

| UNIT              | LOAD   | ACTIVE | SUB    | DESCRIPTION                  |
|-------------------|--------|--------|--------|------------------------------|
| * postfix.service | loaded | failed | failed | Postfix Mail Transport Agent |

13. Services, from systemctl list-unit-files

| STATE   | UNIT FILES                                                                                |
|---------|-------------------------------------------------------------------------------------------|
| enabled | YaST2-Firstboot YaST2-Second-Stage apparmor auditd cron display-manager getty@ irqbalance |

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS X210c M8 (Intel Xeon 6760P 2.20 GHz processor)

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

CPU2017 License: 9019

Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Sep-2025

Hardware Availability: Feb-2025

Software Availability: Jun-2024

### Platform Notes (Continued)

enabled-runtime  
disabled

issue-generator kbdsettings kdump kdump-early kdump-notify klog lvm2-monitor nscd  
nvme-fc-boot-connections nvme-fc-autoconnect postfix purge-kernels rollback rsyslog smartd  
sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny  
systemd-remount-fs

autofs autostart-initscripts blk-availability boot-sysctl ca-certificates chrony-wait  
chronyd console-getty cups cups-browsed debug-shell ebttables exchange-bmc-os-info  
firewalld fsidd gpm grub2-once haveged ipmi ipmievdev 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  
vncserver@

indirect  
systemd-userdbd wickedd

#### 14. Linux kernel boot-time arguments, from /proc/cmdline

```
BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default  
root=UUID=601b83fb-dbbc-483c-b5e6-60a9c5104a01  
splash=silent  
mitigations=auto  
quiet  
security=apparmor  
crashkernel=363M,high  
crashkernel=72M,low
```

#### 15. cpupower frequency-info

```
analyzing CPU 73:  
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
```

#### 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                   1  
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+madvice madvice never  
enabled     [always] madvice never
```

(Continued on next page)





# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS X210c M8 (Intel Xeon 6760P 2.20 GHz processor)

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

CPU2017 License: 9019

Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Sep-2025

Hardware Availability: Feb-2025

Software Availability: Jun-2024

## Platform Notes (Continued)

hpage\_pmd\_size 2097152  
shmem\_enabled always within\_size advise [never] deny force

-----  
18. /sys/kernel/mm/transparent\_hugepage/khugepaged  
alloc\_sleep\_millisecs 60000  
defrag 1  
max\_ptes\_none 511  
max\_ptes\_shared 256  
max\_ptes\_swap 64  
pages\_to\_scan 4096  
scan\_sleep\_millisecs 10000  
-----

-----  
19. OS release  
From /etc/\*-release /etc/\*-version  
os-release SUSE Linux Enterprise Server 15 SP6  
-----

-----  
20. Disk information  
SPEC is set to: /home/cpu2017  
Filesystem Type Size Used Avail Use% Mounted on  
/dev/nvme0n1p2 btrfs 371G 13G 354G 4% /home  
-----

-----  
21. /sys/devices/virtual/dmi/id  
Vendor: Cisco Systems Inc  
Product: UCSX-210C-M8  
Serial: FCH2842725Z  
-----

-----  
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:  
2x 0xCE00 M321R8GA0PB2-CCPEC 64 GB 2 rank 6400  
7x 0xCE00 M321R8GA0PB2-CCPKC 64 GB 2 rank 6400  
7x 0xCE00 M321R8GA0PB2-CCPPC 64 GB 2 rank 6400  
-----

-----  
23. BIOS  
(This section combines info from /sys/devices and dmidecode.)  
BIOS Vendor: Cisco Systems, Inc.  
BIOS Version: X210M8.6.0.1a.3.0718251042  
BIOS Date: 07/18/2025  
BIOS Revision: 5.35  
-----

## Compiler Version Notes

=====

|   |                                                                       |
|---|-----------------------------------------------------------------------|
| C | 619.lbm_s(base, peak) 638.imagick_s(base, peak) 644.nab_s(base, peak) |
|---|-----------------------------------------------------------------------|

-----

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
-----

(Continued on next page)





# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS X210c M8 (Intel Xeon 6760P 2.20 GHz processor)

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

CPU2017 License: 9019

Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Sep-2025

Hardware Availability: Feb-2025

Software Availability: Jun-2024

## Compiler Version Notes (Continued)

=====  
C++, C, Fortran | 607.cactuBSSN\_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.  
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.  
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.  
-----

=====  
Fortran | 603.bwaves\_s(base, peak) 649.fotonik3d\_s(base, peak) 654.roms\_s(base, peak)

-----  
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
-----

=====  
Fortran, C | 621.wrf\_s(base, peak) 627.cam4\_s(base, peak) 628.pop2\_s(base, peak)

-----  
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
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.  
-----

## Base Compiler Invocation

C benchmarks:

icx

Fortran benchmarks:

ifx

Benchmarks using both Fortran and C:

ifx icx

Benchmarks using Fortran, C, and C++:

icpx icx ifx

## Base Portability Flags

603.bwaves\_s: -DSPEC\_LP64

607.cactuBSSN\_s: -DSPEC\_LP64

619.lbm\_s: -DSPEC\_LP64

621.wrf\_s: -DSPEC\_LP64 -DSPEC\_CASE\_FLAG -convert big\_endian

627.cam4\_s: -DSPEC\_LP64 -DSPEC\_CASE\_FLAG

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS X210c M8 (Intel Xeon 6760P 2.20 GHz processor)

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

CPU2017 License: 9019

Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Sep-2025

Hardware Availability: Feb-2025

Software Availability: Jun-2024

## Base Portability Flags (Continued)

628.pop2\_s: -DSPEC\_LP64 -DSPEC\_CASE\_FLAG -convert big\_endian  
-assume byterecl  
638.imagick\_s: -DSPEC\_LP64  
644.nab\_s: -DSPEC\_LP64  
649.fotonik3d\_s: -DSPEC\_LP64  
654.roms\_s: -DSPEC\_LP64

## Base Optimization Flags

C benchmarks:

-w -std=c11 -m64 -Wl,-z,muldefs -xsapfirerapids -Ofast -ffast-math  
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp  
-DSPEC\_OPENMP -Wno-implicit-int -mprefer-vector-width=512  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Fortran benchmarks:

-w -m64 -Wl,-z,muldefs -DSPEC\_OPENMP -xsapfirerapids -Ofast  
-ffast-math -flto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -fiopenmp -nostandard-realloc-lhs  
-align array32byte -auto -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Benchmarks using both Fortran and C:

-w -m64 -std=c11 -Wl,-z,muldefs -xsapfirerapids -Ofast -ffast-math  
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp  
-DSPEC\_OPENMP -Wno-implicit-int -mprefer-vector-width=512  
-nostandard-realloc-lhs -align array32byte -auto  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Benchmarks using Fortran, C, and C++:

-w -std=c++14 -m64 -std=c11 -Wl,-z,muldefs -xsapfirerapids -Ofast  
-ffast-math -flto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC\_OPENMP -Wno-implicit-int  
-mprefer-vector-width=512 -nostandard-realloc-lhs -align array32byte  
-auto -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

## Peak Compiler Invocation

C benchmarks:

icx

Fortran benchmarks:

ifx

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS X210c M8 (Intel Xeon 6760P 2.20 GHz processor)

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

CPU2017 License: 9019

Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Sep-2025

Hardware Availability: Feb-2025

Software Availability: Jun-2024

## Peak Compiler Invocation (Continued)

Benchmarks using both Fortran and C:

ifx icx

Benchmarks using Fortran, C, and C++:

icpx icx ifx

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

619.lbm\_s: basepeak = yes

638.imagick\_s: basepeak = yes

644.nab\_s: basepeak = yes

Fortran benchmarks:

603.bwaves\_s: -w -m64 -WL,-z,muldefs -DSPEC\_OPENMP -xsapphirerapids  
-Ofast -ffast-math -flto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -fiopenmp -nostandard-realloc-lhs  
-align array32byte -auto -L/usr/local/jemalloc64-5.0.1/lib  
-ljemalloc

649.fotonik3d\_s: basepeak = yes

654.roms\_s: basepeak = yes

Benchmarks using both Fortran and C:

621.wrf\_s: basepeak = yes

627.cam4\_s: -w -m64 -std=c11 -WL,-z,muldefs -xsapphirerapids -Ofast  
-ffast-math -flto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC\_OPENMP  
-Wno-implicit-int -mprefer-vector-width=512

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS X210c M8 (Intel Xeon 6760P 2.20 GHz processor)

SPECspeed®2017\_fp\_base = 388

SPECspeed®2017\_fp\_peak = 389

**CPU2017 License:** 9019

**Test Sponsor:** Cisco Systems

**Tested by:** Cisco Systems

**Test Date:** Sep-2025

**Hardware Availability:** Feb-2025

**Software Availability:** Jun-2024

## Peak Optimization Flags (Continued)

627.cam4\_s (continued):

-nostandard-realloc-lhs -align array32byte -auto  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

628.pop2\_s: basepeak = yes

Benchmarks using Fortran, C, and C++:

607.cactuBSSN\_s: basepeak = yes

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.html>

<http://www.spec.org/cpu2017/flags/Cisco-Platform-Settings-V1.2-GNR-revE.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/Cisco-Platform-Settings-V1.2-GNR-revE.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](mailto:info@spec.org).

Tested with SPEC CPU®2017 v1.1.9 on 2025-09-18 01:56:30-0400.

Report generated on 2025-10-07 16:40:05 by CPU2017 PDF formatter v6716.

Originally published on 2025-10-07.