



SPEC CPU®2026 Floating Point Rate Result

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Cisco Systems

(Test Sponsor: Cisco Systems)

Cisco UCS X410c M8 (Intel Xeon 6788P 2.0 GHz processor)

SPECrate®2026_fp_base = 1100

SPECrate®2026_fp_peak = 1130

CPU2026 License: 9019

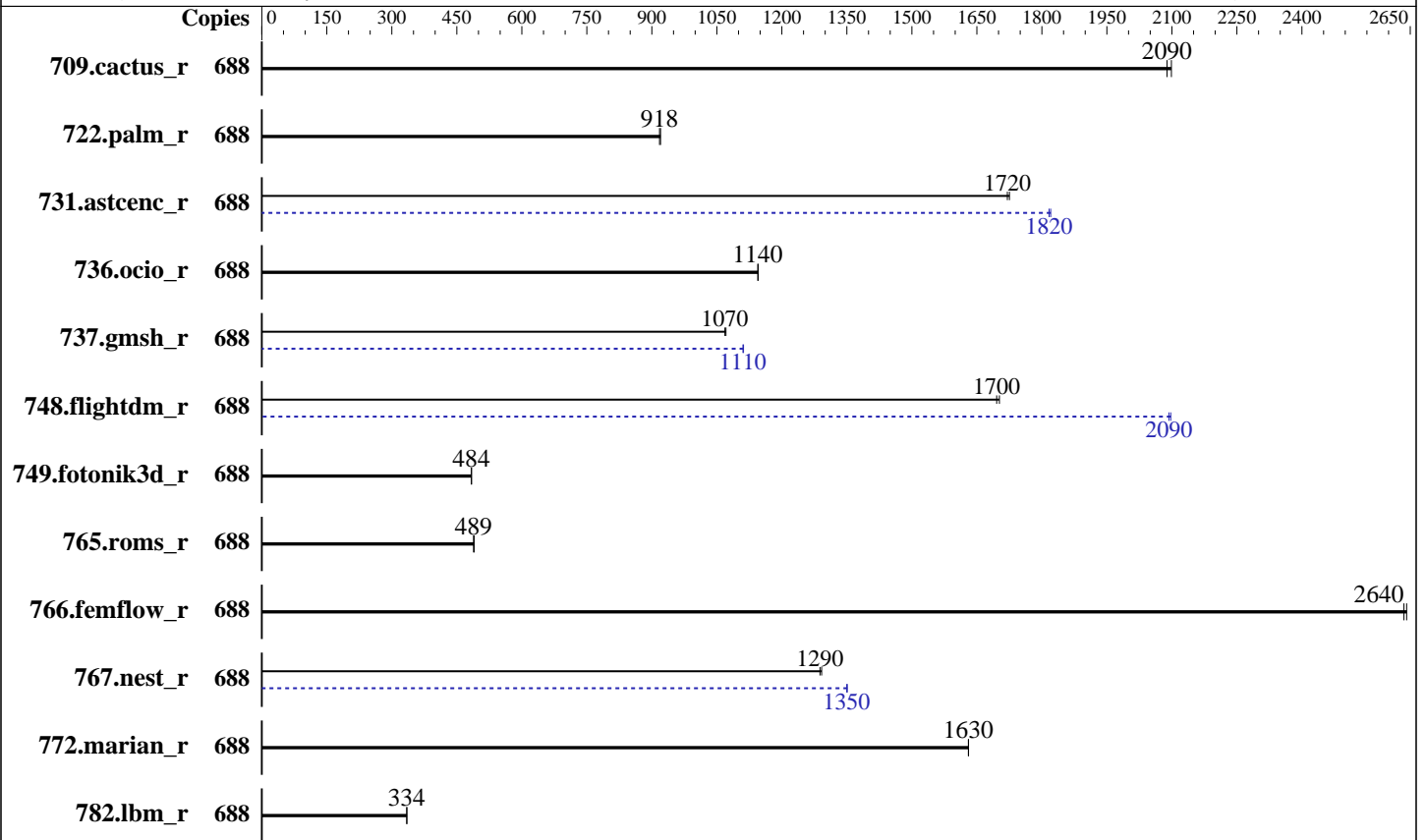
Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Feb-2026

Hardware Availability: Feb-2026

Software Availability: Jan-2026



Hardware

CPU Name: Intel Xeon 6788P
 Max MHz: 3800
 Nominal: 2000
 Enabled: 172 cores, 4 chips, 2 threads/core
 Orderable: 1,2,3,4 chips
 Cache L1: 64 KB I + 48 KB D on chip per core
 L2: 2 MB I+D on chip per core
 L3: 336 MB I+D on chip per chip
 Other: None
 Memory: 2 TB (32 x 64 GB 2Rx4 PC5-6400B-R)
 Storage: 1 x 960 GB NVMe SSD
 Cooling: Air
 Other: None

Software

OS: Red Hat Enterprise Linux 10.0 (Coughlan)
 6.12.0-55.9.1.el10_0.x86_64
 Compiler: C/C++: Version 2025.3 of Intel oneAPI DPC++/C++
 Compiler for Linux;
 Fortran: Version 2025.3 of Intel Fortran
 Compiler for Linux;
 Compiler Category: Vendor
 Firmware: Version 6.0.2.79 released Dec-2025
 File System: xfs
 System State: Run level 3 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 64-bit
 Other: jemalloc memory allocator v5.3
 Power Management: BIOS and OS set to prefer performance at the cost
 of additional power usage



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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
709.cactus_r	688	281	2100	<u>283</u>	<u>2090</u>			688	281	2100	<u>283</u>	<u>2090</u>		
722.palm_r	688	<u>990</u>	<u>918</u>	987	920			688	<u>990</u>	<u>918</u>	987	920		
731.ascenc_r	688	335	1730	<u>336</u>	<u>1720</u>			688	<u>318</u>	<u>1820</u>	317	1820		
736.ocio_r	688	<u>526</u>	<u>1140</u>	526	1150			688	<u>526</u>	<u>1140</u>	526	1150		
737.gmsh_r	688	<u>296</u>	<u>1070</u>	295	1070			688	<u>284</u>	<u>1110</u>	284	1110		
748.flightdm_r	688	<u>291</u>	<u>1700</u>	289	1700			688	235	2100	<u>235</u>	<u>2090</u>		
749.fotonik3d_r	688	<u>1645</u>	<u>484</u>	1643	484			688	<u>1645</u>	<u>484</u>	1643	484		
765.roms_r	688	2212	490	<u>2218</u>	<u>489</u>			688	2212	490	<u>2218</u>	<u>489</u>		
766.femflow_r	688	382	2640	<u>383</u>	<u>2640</u>			688	382	2640	<u>383</u>	<u>2640</u>		
767.nest_r	688	422	1290	<u>424</u>	<u>1290</u>			688	<u>404</u>	<u>1350</u>	404	1350		
772.marian_r	688	666	1630	<u>666</u>	<u>1630</u>			688	666	1630	<u>666</u>	<u>1630</u>		
782.lbm_r	688	<u>1179</u>	<u>334</u>	1177	335			688	<u>1179</u>	<u>334</u>	1177	335		

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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:

LD_LIBRARY_PATH = "/data/cpu2026.902/lib"

MALLOC_CONF = "retain:true"

General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM memory using CentOS Stream 9.

Transparent Huge Pages enabled by default

Prior to runcpu invocation

Filesystem page cache synced and cleared with:

```
sync; echo 3> /proc/sys/vm/drop_caches
```

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General Notes (Continued)

```

runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>
jemalloc, a general purpose malloc implementation
built with the CentOS Stream 9, and the system compiler gcc 11.5.0
sources available from jemalloc.net or https://github.com/jemalloc/jemalloc/releases

```

Platform Notes

BIOS Settings:

```

Sub NUMA clustering set to Enabled
Hardware prefetcher set to Enabled
Adjacent cache line prefetcher set to Disabled
LLC Prefetch set to Enabled
XPT Prefetch set to Disabled
Enhanced CPU Performance set to Auto

```

```

Sysinfo program /data/cpu2026.902/bin/sysinfo
Rev: 069f95da7e7f5d81b2ce48a82150e54f
running on rhel10m2 Mon Feb  2 17:58:41 2026

```

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

----- Table of contents -----

1. uname -srvm
2. w
3. Username
4. ulimit -a
5. sysinfo process ancestry
6. /proc/cpuinfo
7. lscpu
8. numactl --hardware
9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemd 257 (257-9.el10_0.1-g8cd5633)
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

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Platform Notes (Continued)

```
21. /sys/devices/virtual/dmi/id
22. dmidecode
23. BIOS
```

```
-----
1. uname -srvm
Linux 6.12.0-55.9.1.el10_0.x86_64 #1 SMP PREEMPT_DYNAMIC Tue Mar 25 09:14:09 EDT 2025 x86_64
```

```
-----
2. w
17:58:41 up 6:11, 2 users, load average: 257.26, 546.56, 607.16
USER      TTY      LOGIN@   IDLE   JCPU   PCPU   WHAT
root                11:48   6:11m  0.00s  0.01s  sshd-session: root [priv]
root                11:48   6:11m  0.00s  0.39s  /usr/lib/systemd/systemd --user
```

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

```
-----
4. ulimit -a
real-time non-blocking time (microseconds, -R) unlimited
core file size              (blocks, -c) unlimited
data seg size                (kbytes, -d) unlimited
scheduling priority         (-e) 0
file size                    (blocks, -f) unlimited
pending signals              (-i) 8251819
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) 8251819
virtual memory               (kbytes, -v) unlimited
file locks                   (-x) unlimited
```

```
-----
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize=51 rhgb
sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
sshd-session: root [priv]
sshd-session: root@pts/0
-bash
```

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Platform Notes (Continued)

```

/bin/sh ./runrate.2026.rc2.sh
runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 688 -c
ic2025.3-graniterapids-cpu2026-0.902-rate-20260121.cfg --define smt-on --define cores=344 --define
physicalfirst --define invoke_with_interleave --define drop_caches --tune base,peak -o all fprate
runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 688 --configfile
ic2025.3-graniterapids-cpu2026-0.902-rate-20260121.cfg --define smt-on --define cores=344 --define
physicalfirst --define invoke_with_interleave --define drop_caches --tune base,peak --output_format all
--nopower --runmode rate --tune base:peak --size refrate fprate --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2026.004/templogs/preenv.fprate.004.0.log --lognum 004.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /data/cpu2026.902

```

6. /proc/cpuinfo

```

model name      : Intel(R) Xeon(R) 6788P
vendor_id       : GenuineIntel
cpu family      : 6
model           : 173
stepping        : 1
microcode       : 0x1000405
bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
cpu cores       : 86
siblings        : 172
4 physical ids (chips)
688 processors (hardware threads)
physical id 0:  core ids 0-42,64-106
physical id 1:  core ids 0-42,64-106
physical id 2:  core ids 0-42,64-106
physical id 3:  core ids 0-42,64-106
physical id 0:  apicids 0-85,128-213
physical id 1:  apicids 256-341,384-469
physical id 2:  apicids 512-597,640-725
physical id 3:  apicids 768-853,896-981

```

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 2.40.2:

```

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):            688
On-line CPU(s) list: 0-687
Vendor ID:         GenuineIntel

```

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Platform Notes (Continued)

```

BIOS Vendor ID: Intel(R) Corporation
Model name: Intel(R) Xeon(R) 6788P
BIOS Model name: Intel(R) Xeon(R) 6788P CPU @ 2.0GHz
BIOS CPU family: 179
CPU family: 6
Model: 173
Thread(s) per core: 2
Core(s) per socket: 86
Socket(s): 4
Stepping: 1
CPU(s) scaling MHz: 22%
CPU max MHz: 3800.0000
CPU min MHz: 800.0000
BogoMIPS: 4000.00
Flags: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat
pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx
pdpelgb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good
nopl xtopology nonstop_tsc cpuid aperfperf tsc_known_freq pni
pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16
xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt
tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm
3dnowprefetch cpuid_fault epb cat_l3 cat_l2 cdp_l3 intel_ppin cdp_l2
ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow flexpriority ept
vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms invpcid cqm
rdt_a 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 vnni avx512vbmi
umip pku ospke waitpkg avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni
avx512_bitalg 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_lld
arch_capabilities

Virtualization: VT-x
L1d cache: 16.1 MiB (344 instances)
L1i cache: 21.5 MiB (344 instances)
L2 cache: 688 MiB (344 instances)
L3 cache: 1.3 GiB (4 instances)
NUMA node(s): 8
NUMA node0 CPU(s): 0-42,344-386
NUMA node1 CPU(s): 43-85,387-429
NUMA node2 CPU(s): 86-128,430-472
NUMA node3 CPU(s): 129-171,473-515
NUMA node4 CPU(s): 172-214,516-558
NUMA node5 CPU(s): 215-257,559-601
NUMA node6 CPU(s): 258-300,602-644

```

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Platform Notes (Continued)

NUMA node7 CPU(s): 301-343,645-687

Vulnerability Gather data sampling: Not affected

Vulnerability Itlb multihit: Not affected

Vulnerability Lltf: Not affected

Vulnerability Mds: Not affected

Vulnerability Meltdown: Not affected

Vulnerability Mmio stale data: Not affected

Vulnerability Reg file data sampling: Not affected

Vulnerability Retbleed: Not affected

Vulnerability Spec rstack overflow: Not affected

Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl

Vulnerability Spectre v1: Mitigation; usercopy/swapgs barriers and __user pointer sanitization

Vulnerability Spectre v2: Mitigation; Enhanced / Automatic IBRS; IBPB conditional; RSB filling; 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	16.1M	12	Data	1	64	1	64
L1i	64K	21.5M	16	Instruction	1	64	1	64
L2	2M	688M	16	Unified	2	2048	1	64
L3	336M	1.3G	16	Unified	3	344064	1	64

8. numactl --hardware

NOTE: a numactl 'node' might or might not correspond to a physical chip.

```

available: 8 nodes (0-7)
node 0 cpus: 0-42,344-386
node 0 size: 257167 MB
node 0 free: 236162 MB
node 1 cpus: 43-85,387-429
node 1 size: 257977 MB
node 1 free: 237474 MB
node 2 cpus: 86-128,430-472
node 2 size: 258025 MB
node 2 free: 237479 MB
node 3 cpus: 129-171,473-515
node 3 size: 258025 MB
node 3 free: 237300 MB
node 4 cpus: 172-214,516-558
node 4 size: 258025 MB
node 4 free: 237552 MB
node 5 cpus: 215-257,559-601
node 5 size: 258025 MB
node 5 free: 237549 MB
node 6 cpus: 258-300,602-644

```

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Platform Notes (Continued)

```
node 6 size: 258025 MB
node 6 free: 237619 MB
node 7 cpus: 301-343,645-687
node 7 size: 257989 MB
node 7 free: 237645 MB
```

node distances:

```
node    0    1    2    3    4    5    6    7
0:     10   12   21   21   21   21   21   21
1:     12   10   21   21   21   21   21   21
2:     21   21   10   12   21   21   21   21
3:     21   21   12   10   21   21   21   21
4:     21   21   21   21   10   12   21   21
5:     21   21   21   21   12   10   21   21
6:     21   21   21   21   21   21   10   12
7:     21   21   21   21   21   21   12   10
```

9. /proc/meminfo

MemTotal: 2112780592 kB

10. who -r

run-level 3 Feb 2 11:48 last=5

11. Systemd service manager version: systemd 257 (257-9.el10_0.1-g8cd5633)

```
Default Target Status
graphical        running
```

12. Services, from systemctl list-unit-files

```
STATE          UNIT FILES
enabled        ModemManager NetworkManager NetworkManager-dispatcher NetworkManager-wait-online
accounts-daemon atd audit-rules auditd avahi-daemon bluetooth chronyd crond cups
dbus-broker fips-crypto-policy-overlay gdm getty@ gnome-remote-desktop
insights-client-boot ipmi irqbalance iscsi-onboot iscsi-starter kdump libstoragemgmt
lm_sensors lvm2-monitor mcelog mdmonitor multipathd nvme-fc-boot-connections pmie
qemu-guest-agent rhsmcertd rpcbind rsyslog rtkit-daemon selinux-autorelabel-mark sep5
smartd sshd sssd switcheroo-control sysstat systemd-confext systemd-network-generator
systemd-pstore systemd-sysextd tuned tuned-ppd udisks2 upower vgauthd vmtoolsd
enabled-runtime systemd-remount-fs
disabled      arp-ethers autofsd blk-availability brltty canberra-system-bootup canberra-system-shutdown
canberra-system-shutdown-reboot chrony-wait chronyd-restricted console-getty cups-browsed
cxl-monitor dbus-daemon debug-shell dhcpcd dhcpcd@ dnf-system-upgrade dnsmasq fancontrol
fcoe firewalld fsidd gnome-headless-session@ gnome-remote-desktop-configuration
grafana-server gssproxy hwloc-dump-hwdata hypervfscopyd ipsec iscsi-init iscsid iscsiui
kpatch kvm_stat ledmon lldpad low-memory-monitor lvm-devices-import
```

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Platform Notes (Continued)

```

man-db-restart-cache-update microcode netavark-dhcp-proxy netavark-firewalld-reload
nfs-blkmap nfs-server nftables nis-domainname nvme-autoconnect pesign pmcd pmfind
pmie_farm pmlogger pmlogger_farm pmproxy postfix powertop psacct ras-mc-ctl rasdaemon rhsm
rhsm-facts rpmdb-migrate rpmdb-rebuild rrdcached selinux-check-proper-disable
serial-getty@ snmpd snmptrapd speech-dispatcherd ssh-host-keys-migration sshd-keygen@
systemd-boot-check-no-failures systemd-boot-update systemd-pcrlock-file-system
systemd-pcrlock-firmware-code systemd-pcrlock-firmware-config systemd-pcrlock-machine-id
systemd-pcrlock-make-policy systemd-pcrlock-secureboot-authority
systemd-pcrlock-secureboot-policy systemd-udev-load-credentials target targetclid tmux@
tog-pegasus trace-cmd wpa_supplicant wsdd yggdrasil yggdrasil@
indirect iscsi pcsd spice-vdagentd sshd@ sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh
sssd-sudo systemd-sysupdate systemd-sysupdate-reboot systemd-userdbd

```

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

```

BOOT_IMAGE=/boot/vmlinuz-6.12.0-55.9.1.el10_0.x86_64
root=UUID=d9aed970-6a0b-476c-8b56-d8dbad15987a
ro
rhgb
quiet
LANG=en_US.UTF-8
selinux=0

```

14. cpupower frequency-info

```

analyzing CPU 201:
  current policy: frequency should be within 800 MHz and 3.80 GHz.
                  The governor "performance" may decide which speed to use
                  within this range.

  boost state support:
    Supported: yes
    Active: yes

```

15. tuned-adm active

Current active profile: throughput-performance

16. sysctl

```

kernel.numa_balancing          1
kernel.randomize_va_space      2
vm.compaction_proactiveness     20
vm.dirty_background_bytes      0
vm.dirty_background_ratio      10
vm.dirty_bytes                  0
vm.dirty_expire_centisecs      3000
vm.dirty_ratio                  40

```

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Platform Notes (Continued)

```

vm.dirty_writeback_centisecs      500
vm.dirtytime_expire_seconds      43200
vm.extfrag_threshold              500
vm.min_unmapped_ratio             1
vm.nr_hugepages                   0
vm.nr_hugepages_mempolicy         0
vm.nr_overcommit_hugepages        0
vm.swappiness                     10
vm.watermark_boost_factor         15000
vm.watermark_scale_factor         10
vm.zone_reclaim_mode              0

```

```

-----
17. /sys/kernel/mm/transparent_hugepage
defrag          always defer defer+madvice [madvice] never
enabled         [always] madvice never
hpage_pmd_size 2097152
shmem_enabled   always within_size advise [never] deny force

```

```

-----
18. /sys/kernel/mm/transparent_hugepage/khugepaged
alloc_sleep_millisecs  60000
defrag                  1
max_ptes_none          511
max_ptes_shared        256
max_ptes_swap          64
pages_to_scan          4096
scan_sleep_millisecs   10000

```

```

-----
19. OS release
From /etc/*-release /etc/*-version
os-release      Red Hat Enterprise Linux 10.0 (Coughlan)
redhat-release  Red Hat Enterprise Linux release 10.0 (Coughlan)
system-release  Red Hat Enterprise Linux release 10.0 (Coughlan)

```

```

-----
20. Disk information
SPEC is set to: /data/cpu2026.902
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/nvme0n1p2  xfs   893G  517G  377G  58% /data

```

```

-----
21. /sys/devices/virtual/dmi/id
Vendor:          Cisco Systems Inc
Product:         UCSX-410C-M8
Serial:          FVH2920P07M

```

(Continued on next page)



SPEC CPU®2026 Floating Point Rate Result

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Cisco Systems
(Test Sponsor: Cisco Systems)
Cisco UCS X410c M8 (Intel Xeon 6788P 2.0 GHz processor)

SPECrate®2026_fp_base = 1100
SPECrate®2026_fp_peak = 1130

CPU2026 License: 9019
Test Sponsor: Cisco Systems
Tested by: Cisco Systems

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

Platform Notes (Continued)

22. dmidecode

Additional information from dmidecode 3.6 follows. **WARNING:** Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.

Memory:

32x 0x2C00 MTC40F2046S1RC64BD2 UXCC 64 GB 2 rank 6400

23. BIOS

(This section combines info from /sys/devices and dmidecode.)

BIOS Vendor: Cisco Systems, Inc.
BIOS Version: X410M8.6.0.2.79.1202251035
BIOS Date: 12/02/2025
BIOS Revision: 5.35

Compiler Version Notes

C | 782.lbm_r(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2025.3.0 Build 20251010
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.

C++ | 731.astcenc_r(base, peak) 736.ocio_r(base, peak)
| 748.flightdm_r(base, peak) 766.femflow_r(base, peak)
| 767.nest_r(base, peak) 772.marian_r(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2025.3.0 Build 20251010
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.

C++, C | 709.cactus_r(base, peak) 737.gmsh_r(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2025.3.0 Build 20251010
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(Continued on next page)



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Compiler Version Notes (Continued)

```

=====
Fortran | 722.palm_r(base, peak) 749.fotonik3d_r(base, peak) 765.roms_r(base,
| peak)
=====

```

```

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version
2025.3.0 Build 20251010
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
=====

```

Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

Benchmarks using both C and C++:

icpx icx

Base Portability Flags

```

709.cactus_r: -DSPEC_LP64
722.palm_r: -DSPEC_LP64
731.ascenc_r: -DSPEC_LP64
736.ocio_r: -DSPEC_LP64
737.gmsh_r: -DSPEC_LP64 -fno-associative-math
748.flightdm_r: -DSPEC_LP64
749.fotonik3d_r: -DSPEC_LP64
765.roms_r: -DSPEC_LP64
766.femflow_r: -DSPEC_LP64
767.nest_r: -DSPEC_LP64
772.marian_r: -DSPEC_LP64
782.lbm_r: -DSPEC_LP64

```



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Software Availability: Jan-2026

Base Optimization Flags

C benchmarks:

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

C++ benchmarks:

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

Fortran benchmarks:

```
-m64 -stand f18 -Wl,-z,muldefs -xgraniterapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -nostandard-realloc-lhs
-align array32byte -auto -L/usr/local/jemalloc-5.3.0/lib -ljemalloc
```

Benchmarks using both C and C++:

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

Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

Benchmarks using both C and C++:

icpx icx

Peak Portability Flags

Same as Base Portability Flags



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CPU2026 License: 9019

Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Feb-2026

Hardware Availability: Feb-2026

Software Availability: Jan-2026

Peak Optimization Flags

C benchmarks:

782.lbm_r: basepeak = yes

C++ benchmarks:

```
731.astcenc_r: -m64 -std=c++17 -Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xHost(pass 1)
-ffp-model=fast -xgraniterapids(pass 2) -flto
-mprefer-vector-width=512 -qopt-mem-layout-trans=4 -O3
-mfpmath=sse -funroll-loops
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc
```

736.ocio_r: basepeak = yes

748.flightdm_r: Same as 731.astcenc_r

766.femflow_r: basepeak = yes

767.nest_r: Same as 731.astcenc_r

772.marian_r: basepeak = yes

Fortran benchmarks:

722.palm_r: basepeak = yes

749.fotonik3d_r: basepeak = yes

765.roms_r: basepeak = yes

Benchmarks using both C and C++:

709.cactus_r: basepeak = yes

```
737.gmsh_r: -m64 -std=c++17 -std=c18 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xHost(pass 1)
-ffp-model=fast -xgraniterapids(pass 2) -flto
-mprefer-vector-width=512 -qopt-mem-layout-trans=4 -O3
-mfpmath=sse -funroll-loops
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc
```



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

<http://www.spec.org/cpu2026/results/flags/Intel-ic2025-official-linux64-cpu2026-0.902.html>

<http://www.spec.org/cpu2026/results/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/cpu2026/results/flags/Intel-ic2025-official-linux64-cpu2026-0.902.xml>

<http://www.spec.org/cpu2026/results/flags/Cisco-Platform-Settings-V1.2-GNR-revE.xml>

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Tested with SPEC CPU®2026 v0.902.0 on 2026-02-02 20:58:40-0500.

Report generated on 2026-05-11 16:37:49 by CPU2026 PDF formatter (unknown).

Originally published on 2026-05-05.