# SPEC CPU®2026 Floating Point Rate Result

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## Lenovo Global Technology

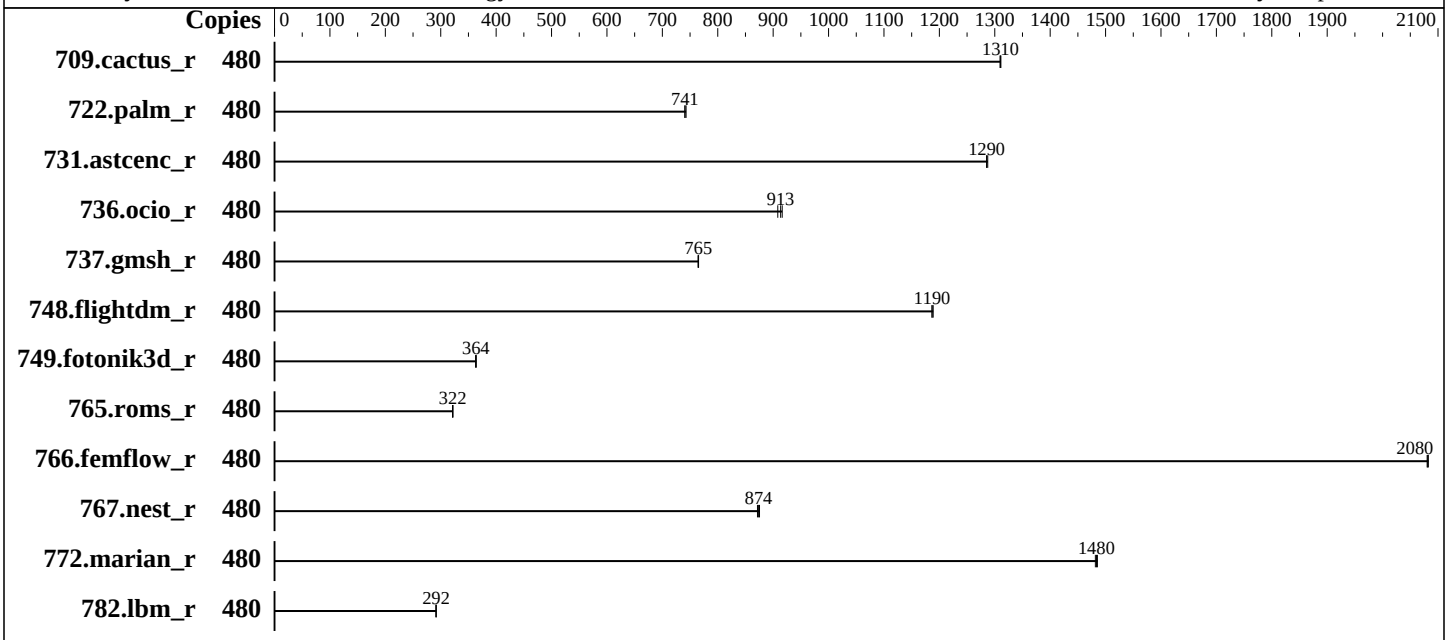
ThinkSystem SR850 V3
(1.90 GHz,Intel Xeon Platinum 8490H)

SPECrate®2026_fp_base = 822

SPECrate®2026_fp_peak = Not Run

**CPU2026 License:** 9017
**Test Sponsor:** Lenovo Global Technology
**Tested by:** Lenovo Global Technology

**Test Date:** May-2026
**Hardware Availability:** Jun-2023
**Software Availability:** Apr-2026




### Hardware

| | |
|---|---|
| CPU Name: | Intel Xeon Platinum 8490H |
| Max MHz: | 3500 |
| Nominal: | 1900 |
| Enabled: | 240 cores, 4 chips, 2 threads/core |
| Orderable: | 2,4 chips |
| Cache L1: | 32 KB I + 48 KB D on chip per core |
| L2: | 2 MB I+D on chip per core |
| L3: | 112.5 MB I+D on chip per chip |
| Other: | None |
| Memory: | 1 TB (32 x 32 GB 2Rx8 PC5-4800B-R) |
| Storage: | 1 x 960 GB M.2 NVME SSD |
| Cooling: | Air |
| Other: | None |

### Software

| | |
|---|---|
| OS: | Red Hat Enterprise Linux 9.6 (Plow)<br>Kernel 5.14.0-570.12.1.el9_6.x86_64 |
| Compiler: | C/C++: Version 2026.0 of Intel oneAPI DPC++/C++ Compiler for Linux;<br>Fortran: Version 2026.0 of Intel Fortran Compiler for Linux |
| Compiler Category: | Vendor |
| Firmware: | Lenovo BIOS Version RSE127G 8.50 released May-2026 |
| File System: | xfs |
| System State: | Run level 3 (multi-user) |
| Base Pointers: | 64-bit |
| Peak Pointers: | Not Applicable |
| Other: | tcmalloc memory allocator v2.18.1 |
| Power Management: | BIOS and OS set to prefer performance at the cost of additional power usage |

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## Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 709.cactus_r | 480 | 315 | 1310 | 314 | 1310 | **314** | **1310** | | | | | | | |
| 722.palm_r | 480 | 855 | 741 | **855** | **741** | 853 | 743 | | | | | | | |
| 731.astcenc_r | 480 | 313 | 1290 | **314** | **1290** | 314 | 1290 | | | | | | | |
| 736.ocio_r | 480 | 458 | 916 | 462 | 908 | **460** | **913** | | | | | | | |
| 737.gmsh_r | 480 | **288** | **765** | 288 | 765 | 288 | 764 | | | | | | | |
| 748.flightdm_r | 480 | 289 | 1190 | 290 | 1190 | **290** | **1190** | | | | | | | |
| 749.fotonik3d_r | 480 | 1529 | 363 | **1526** | **364** | 1525 | 364 | | | | | | | |
| 765.roms_r | 480 | **2350** | **322** | 2353 | 321 | 2348 | 322 | | | | | | | |
| 766.femflow_r | 480 | 338 | 2080 | **338** | **2080** | 338 | 2080 | | | | | | | |
| 767.nest_r | 480 | 435 | 875 | **436** | **874** | 437 | 872 | | | | | | | |
| 772.marian_r | 480 | 512 | 1480 | **511** | **1480** | 510 | 1490 | | | | | | | |
| 782.lbm_r | 480 | 944 | 291 | 943 | 292 | **943** | **292** | | | | | | | |

**SPECrate®2026_fp_base = 822**

**SPECrate®2026_fp_peak = Not Run**

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 = "/home/cpu2026-1.0.1-ic2026.0-rate/lib"
```

## 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
runcpu command invoked through numactl i.e.:
```

**(Continued on next page)**

## General Notes (Continued)

```
 numactl --interleave=all runcpu <etc>
NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)
is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1)
is mitigated in the system as tested and documented.
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.
 tcmalloc, a fast, multithreaded malloc implementation
 built with the CentOS Stream 9, and the system compiler gcc 11.5.0
 sources available from github.com/gperftools/gperftools
```

## Platform Notes

```
BIOS configuration:
Choose Operating Mode set to Maximum Performance and then set it to Custom Mode
SNC set to SNC4
Misc set to Option4
DCU Streamer Prefetcher set to Disabled

 Sysinfo program /home/cpu2026-1.0.1-ic2026.0-rate/bin/sysinfo
 Rev: 779ab21020787073335a329f3a45e2cd
 running on localhost Thu May 28 17:56:28 2026

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

 ------------------------------------------------------------
 Table of contents
 ------------------------------------------------------------
  1. uname -srvm
  2. w
  3. Username
  4. ulimit -a
  5. sysinfo process ancestry
  6. /proc/cpuinfo
  7. lscpu
  8. numactl --hardware
  9. /proc/meminfo
 10. who -r
 11. Systemd service manager version: systemd 252 (252-51.el9)
 12. Services, from systemctl list-unit-files
 13. Linux kernel boot-time arguments, from /proc/cmdline
 14. cpupower frequency-info
 15. sysctl
 16. /sys/kernel/mm/transparent_hugepage
 17. /sys/kernel/mm/transparent_hugepage/khugepaged
 18. OS release
```

**(Continued on next page)**

## Platform Notes (Continued)

```
 19. Disk information
 20. /sys/devices/virtual/dmi/id
 21. dmidecode
 22. BIOS
 ------------------------------------------------------------

 ------------------------------------------------------------
 1. uname -srvm
   Linux 5.14.0-570.12.1.el9_6.x86_64 #1 SMP PREEMPT_DYNAMIC Fri Apr 4 10:41:31 EDT 2025 x86_64

 ------------------------------------------------------------
 2. w
    17:56:28 up 3 min,  0 users,  load average: 0.15, 0.08, 0.03
   USER     TTY        LOGIN@   IDLE   JCPU   PCPU WHAT

 ------------------------------------------------------------
 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) 4126188
   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) 4126188
   virtual memory              (kbytes, -v) unlimited
   file locks                          (-x) unlimited

 ------------------------------------------------------------
 5. sysinfo process ancestry
  /usr/lib/systemd/systemd --switched-root --system --deserialize 31
  sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
  sshd: root [priv]
  sshd: root@notty
  /bin/bash ./02.remote_local_SPECcpu_1.02.sh
  sh Run503-compliant-ic2026.0-lin-sapphirerapids-ratefp-base-smt-on-20260429_revB.sh
```

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## Platform Notes (Continued)

```
 runcpu --nobuild --iterations=3 --reportable --action validate --define default-platform-flags --copies 480
   -c ic2026.0-sapphirerapids-cpu2026-1.0.1-rate-20260429_revB.cfg --define smt-on --define cores=240
   --define physicalfirst --define invoke_with_interleave --define drop_caches --tune base -o all fprate
 runcpu --nobuild --iterations 3 --reportable --action validate --define default-platform-flags --copies 480
   --configfile ic2026.0-sapphirerapids-cpu2026-1.0.1-rate-20260429_revB.cfg --define smt-on --define
   cores=240 --define physicalfirst --define invoke_with_interleave --define drop_caches --tune base
   --output_format all --nopower --runmode rate --tune base --size refrate fprate --nopreenv --note-preenv
   --logfile $SPEC/tmp/CPU2026.005/templogs/preenv.fprate.005.0.log --lognum 005.0 --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2026-1.0.1-ic2026.0-rate

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : Intel(R) Xeon(R) Platinum 8490H
    vendor_id       : GenuineIntel
    cpu family      : 6
    model           : 143
    stepping        : 8
    microcode       : 0x2b000661
    bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrs_pbrsb bhi
    cpu cores       : 60
    siblings        : 120
    4 physical ids (chips)
    480 processors (hardware threads)
    physical id 0: core ids 0-59
    physical id 1: core ids 0-59
    physical id 2: core ids 0-59
    physical id 3: core ids 0-59
    physical id 0: apicids 0-119
    physical id 1: apicids 128-247
    physical id 2: apicids 256-375
    physical id 3: apicids 384-503
  Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
   virtualized systems.  Use the above data carefully.

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

From lscpu from util-linux 2.37.4:
  Architecture:                         x86_64
  CPU op-mode(s):                       32-bit, 64-bit
  Address sizes:                        46 bits physical, 57 bits virtual
  Byte Order:                           Little Endian
  CPU(s):                               480
  On-line CPU(s) list:                  0-479
  Vendor ID:                            GenuineIntel
  BIOS Vendor ID:                       Intel(R) Corporation
```

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## Platform Notes (Continued)

```
  Model name:                      Intel(R) Xeon(R) Platinum 8490H
  BIOS Model name:                 Intel(R) Xeon(R) Platinum 8490H
  CPU family:                      6
  Model:                           143
  Thread(s) per core:              2
  Core(s) per socket:              60
  Socket(s):                       4
  Stepping:                        8
  CPU(s) scaling MHz:              99%
  CPU max MHz:                     3500.0000
  CPU min MHz:                     800.0000
  BogoMIPS:                        3800.00
  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 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 avx_vnni
                                   avx512_bf16 wbnoinvd dtherm ida arat pln pts vnmi 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
  Virtualization:                  VT-x
  L1d cache:                       11.3 MiB (240 instances)
  L1i cache:                       7.5 MiB (240 instances)
  L2 cache:                        480 MiB (240 instances)
  L3 cache:                        450 MiB (4 instances)
  NUMA node(s):                    16
  NUMA node0 CPU(s):               0-14,240-254
  NUMA node1 CPU(s):               15-29,255-269
  NUMA node2 CPU(s):               30-44,270-284
  NUMA node3 CPU(s):               45-59,285-299
  NUMA node4 CPU(s):               60-74,300-314
  NUMA node5 CPU(s):               75-89,315-329
  NUMA node6 CPU(s):               90-104,330-344
  NUMA node7 CPU(s):               105-119,345-359
  NUMA node8 CPU(s):               120-134,360-374
  NUMA node9 CPU(s):               135-149,375-389
```

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## Platform Notes (Continued)

```
  NUMA node10 CPU(s):                   150-164,390-404
  NUMA node11 CPU(s):                   165-179,405-419
  NUMA node12 CPU(s):                   180-194,420-434
  NUMA node13 CPU(s):                   195-209,435-449
  NUMA node14 CPU(s):                   210-224,450-464
  NUMA node15 CPU(s):                   225-239,465-479
  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
  Vulnerability Spec rstack overflow:   Not affected
  Vulnerability Spec store bypass:      Mitigation; Speculative Store Bypass disabled via prctl
  Vulnerability Spectre v1:             Mitigation; usercopy/swapgs barriers and __user pointer sanitization
  Vulnerability Spectre v2:             Mitigation; Enhanced / Automatic IBRS; IBPB conditional; RSB filling;
                                        PBRSB-eIBRS SW sequence; 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    11.3M   12 Data            1     64        1             64
     L1i       32K     7.5M    8 Instruction     1     64        1             64
     L2         2M     480M   16 Unified         2   2048        1             64
     L3     112.5M     450M   15 Unified         3 122880        1             64

------------------------------------------------------------
8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
  available: 16 nodes (0-15)
  node 0 cpus: 0-14,240-254
  node 0 size: 64102 MB
  node 0 free: 63498 MB
  node 1 cpus: 15-29,255-269
  node 1 size: 64504 MB
  node 1 free: 64026 MB
  node 2 cpus: 30-44,270-284
  node 2 size: 64504 MB
  node 2 free: 64030 MB
  node 3 cpus: 45-59,285-299
  node 3 size: 64504 MB
  node 3 free: 64047 MB
  node 4 cpus: 60-74,300-314
  node 4 size: 64504 MB
```

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## Platform Notes (Continued)

```
node 4 free: 64035 MB
node 5 cpus: 75-89,315-329
node 5 size: 64504 MB
node 5 free: 64009 MB
node 6 cpus: 90-104,330-344
node 6 size: 64504 MB
node 6 free: 63962 MB
node 7 cpus: 105-119,345-359
node 7 size: 64504 MB
node 7 free: 64015 MB
node 8 cpus: 120-134,360-374
node 8 size: 64504 MB
node 8 free: 64045 MB
node 9 cpus: 135-149,375-389
node 9 size: 64458 MB
node 9 free: 63909 MB
node 10 cpus: 150-164,390-404
node 10 size: 64504 MB
node 10 free: 64011 MB
node 11 cpus: 165-179,405-419
node 11 size: 64504 MB
node 11 free: 64006 MB
node 12 cpus: 180-194,420-434
node 12 size: 64504 MB
node 12 free: 63812 MB
node 13 cpus: 195-209,435-449
node 13 size: 64504 MB
node 13 free: 64042 MB
node 14 cpus: 210-224,450-464
node 14 size: 64504 MB
node 14 free: 63989 MB
node 15 cpus: 225-239,465-479
node 15 size: 64477 MB
node 15 free: 63837 MB
node distances:
node     0    1    2    3    4    5    6    7    8    9   10   11   12   13   14   15
   0:   10   12   12   12   21   21   21   21   21   21   21   21   21   21   21   21
   1:   12   10   12   12   21   21   21   21   21   21   21   21   21   21   21   21
   2:   12   12   10   12   21   21   21   21   21   21   21   21   21   21   21   21
   3:   12   12   12   10   21   21   21   21   21   21   21   21   21   21   21   21
   4:   21   21   21   21   10   12   12   12   21   21   21   21   21   21   21   21
   5:   21   21   21   21   12   10   12   12   21   21   21   21   21   21   21   21
   6:   21   21   21   21   12   12   10   12   21   21   21   21   21   21   21   21
   7:   21   21   21   21   12   12   12   10   21   21   21   21   21   21   21   21
   8:   21   21   21   21   21   21   21   21   10   12   12   12   21   21   21   21
   9:   21   21   21   21   21   21   21   21   12   10   12   12   21   21   21   21
  10:   21   21   21   21   21   21   21   21   12   12   10   12   21   21   21   21
```

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## Platform Notes (Continued)

```
     11:   21   21   21   21   21   21   21   21   12   12   12   10   21   21   21   21
     12:   21   21   21   21   21   21   21   21   21   21   21   21   10   12   12   12
     13:   21   21   21   21   21   21   21   21   21   21   21   21   12   10   12   12
     14:   21   21   21   21   21   21   21   21   21   21   21   21   12   12   10   12
     15:   21   21   21   21   21   21   21   21   21   21   21   21   12   12   12   10

------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       1056352088 kB

------------------------------------------------------------
10. who -r
  run-level 3 May 28 17:53

------------------------------------------------------------
11. Systemd service manager version: systemd 252 (252-51.el9)
  Default Target  Status
  multi-user      running

------------------------------------------------------------
12. Services, from systemctl list-unit-files
  STATE            UNIT FILES
  enabled          NetworkManager NetworkManager-dispatcher NetworkManager-wait-online auditd crond
                   dbus-broker firewalld getty@ insights-client-boot irqbalance kdump low-memory-monitor
                   lvm2-monitor mdmonitor microcode nis-domainname nvmefc-boot-connections rhsmcertd rsyslog
                   rtkit-daemon selinux-autorelabel-mark sshd sssd systemd-boot-update
                   systemd-network-generator systemd-pstore udisks2 upower
  enabled-runtime  systemd-remount-fs
  disabled         blk-availability canberra-system-bootup canberra-system-shutdown
                   canberra-system-shutdown-reboot console-getty cpupower debug-shell dnf-system-upgrade
                   kvm_stat lvm-devices-import man-db-restart-cache-update nftables nvmf-autoconnect pesign
                   rdisc rhcd rhsm rhsm-facts rpmdb-rebuild selinux-check-proper-disable serial-getty@
                   sshd-keygen@ systemd-boot-check-no-failures systemd-sysext
  indirect         sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo systemd-sysupdate
                   systemd-sysupdate-reboot

------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=(hd3,gpt2)/vmlinuz-5.14.0-570.12.1.el9_6.x86_64
  root=/dev/mapper/rhel-root
  ro
  resume=/dev/mapper/rhel-swap
  rd.lvm.lv=rhel/root
  rd.lvm.lv=rhel/swap

------------------------------------------------------------
14. cpupower frequency-info
```

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## Platform Notes (Continued)

```
  analyzing CPU 341:
    current policy: frequency should be within 800 MHz and 3.50 GHz.
                    The governor "performance" may decide which speed to use
                    within this range.
    boost state support:
      Supported: yes
      Active: yes

------------------------------------------------------------
15. sysctl
  kernel.numa_balancing               1
  kernel.randomize_va_space           2
  vm.compaction_proactiveness        20
  vm.dirty_background_bytes           0
  vm.dirty_background_ratio          10
  vm.dirty_bytes                      0
  vm.dirty_expire_centisecs        3000
  vm.dirty_ratio                     20
  vm.dirty_writeback_centisecs      500
  vm.dirtytime_expire_seconds     43200
  vm.extfrag_threshold              500
  vm.min_unmapped_ratio               1
  vm.nr_hugepages                     0
  vm.nr_hugepages_mempolicy           0
  vm.nr_overcommit_hugepages          0
  vm.swappiness                      60
  vm.watermark_boost_factor       15000
  vm.watermark_scale_factor          10
  vm.zone_reclaim_mode                0

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

------------------------------------------------------------
17. /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
```

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## Platform Notes (Continued)

```
------------------------------------------------------------
18. OS release
  From /etc/*-release /etc/*-version
  os-release     Red Hat Enterprise Linux 9.6 (Plow)
  redhat-release Red Hat Enterprise Linux release 9.6 (Plow)
  system-release Red Hat Enterprise Linux release 9.6 (Plow)

------------------------------------------------------------
19. Disk information
SPEC is set to: /home/cpu2026-1.0.1-ic2026.0-rate
  Filesystem            Type  Size  Used Avail Use% Mounted on
  /dev/mapper/rhel-home xfs   819G   67G  752G   9% /home

------------------------------------------------------------
20. /sys/devices/virtual/dmi/id
    Vendor:         Lenovo
    Product:        ThinkSystem SR850 V3
    Product Family: ThinkSystem
    Serial:         None

------------------------------------------------------------
21. 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 SK Hynix HMCG88AEBRA168N 32 GB 2 rank 4800


------------------------------------------------------------
22. BIOS
(This section combines info from /sys/devices and dmidecode.)
   BIOS Vendor:       Lenovo
   BIOS Version:      RSE127G-8.50
   BIOS Date:         05/15/2026
   BIOS Revision:     8.50
   Firmware Revision: 8.10
```

## Compiler Version Notes

```
==============================================================================
C       | 782.lbm_r(base)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2026.0.0 Build 20260331
```

**(Continued on next page)**

## Compiler Version Notes (Continued)

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==============================================================================
C++      | 731.astcenc_r(base) 736.ocio_r(base) 748.flightdm_r(base)
         | 766.femflow_r(base) 767.nest_r(base) 772.marian_r(base)
------------------------------------------------------------------------------
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==============================================================================
C++, C   | 709.cactus_r(base) 737.gmsh_r(base)
------------------------------------------------------------------------------
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==============================================================================
Fortran | 722.palm_r(base) 749.fotonik3d_r(base) 765.roms_r(base)
------------------------------------------------------------------------------
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version
  2026.0.0 Build 20260331
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------------------------------------------------------------------------------
```

## Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

Benchmarks using both C and C++:
icpx icx

## Base Portability Flags

737.gmsh_r: `-fno-associative-math`

## Base Optimization Flags

C benchmarks:
`-m64 -std=c18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500 -xsapphirerapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal`

C++ benchmarks:
`-m64 -std=c++17 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500 -xsapphirerapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal`

Fortran benchmarks:
`-m64 -stand f18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500 -xsapphirerapids -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/tcmalloc-2.18.1/lib -ltcmalloc_minimal`

Benchmarks using both C and C++:
`-m64 -std=c++17 -std=c18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500 -xsapphirerapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal`

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2026/results/flags/Lenovo-Platform-SPECcpu2026-Flags-V1.2-Eaglestream-AD.html
http://www.spec.org/cpu2026/results/flags/Intel-ic2026-official-linux64-v1.1.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2026/results/flags/Lenovo-Platform-SPECcpu2026-Flags-V1.2-Eaglestream-AD.xml
http://www.spec.org/cpu2026/results/flags/Intel-ic2026-official-linux64-v1.1.xml

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


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